

The background of the image is a vibrant cosmic scene. It features a dense field of blue and green nebulae and star clusters. Two large, dark, circular shapes, possibly representing celestial bodies or portals, are positioned on the left and right sides of the frame. The overall color palette is dominated by deep blues and bright greens, creating a sense of depth and energy.

4th MEDITERRANEAN INTERDISCIPLINARY FORUM ON SOCIAL SCIENCES AND HUMANITIES, MIFS 2016

*16-18 May 2016,
Barcelona, Spain*

PROCEEDINGS

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Yeter Aytül Dağlı Ekmekçi

Investigation Of Athletes Organizational Citizenship Behavior

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Abstract

The aim of this study was to examine the organizational citizenship behavior of active licensed athletes. Organizational citizenship includes altruism, conscientiousness, courtesy, sportsmanship and civic virtue as it was examined in five sections. These dimensions contribute to individual and organizational performance. 422 athletes participated in the study. The mean age of participants was found as 23,3. 265 men, 157 women participated to study. Consisting of 19 substances adapted into Turkish by H.Nejat BASIM "Organizational Citizenship Behavior Scale" was applied to the athletes. The reliability coefficient of the questionnaire (Cronbach's alpha) was calculated as .85. Research statistics measured by mean, percentage and standard deviation. Independed t test and ANOVA analysis carried to testing group variances. Athletes' organizational citizenship behavior mean level was generally high. This situation shows that the students who has organizational citizenship attitude which is defined as individual behavior based on volunteering has high organizational dependency in terms of themselves and their organizations and they are in condition that they consider the organization and its worker in the unwritten rules.

Keywords: Organizational citizenship, sport, university, athlete

Introduction

Dennis Organ is generally considered the father of OCB. Organ expanded upon Katz's (1964) original work. Organ (1988) defines OCB as "individual behavior that is discretionary, not directly or explicitly recognized by the formal reward system, and that in the aggregate promotes the effective functioning of the organization" (Wikipedia, 2016, Özdevecioğlu, 2003). If behaviors that includes volunteering in all kind of

attitudes and if others including managers accepted as positive manner then this behaviors can be organizational citizenship behavior.

According to Lievens and Anseel (2004) organizational citizenship behavior is volunteering based on the principles of personal behaviors that help to improve organizational aims with contributing social and psychological environment of the organization.

OCB is individual behaviors that desired by organization and contributes organizational efficiency (Organ, 1997). Van Dyne et al. (1995) addressed the following issues: (a) the muddled state of overlap among several constructs of extra-role behavior (ERB): OCB, prosocial organizational behavior (POB), principled organizational dissent (POD), and whistle-blowing (WB); (b) the case for the utility of the larger construct, ERB; and (c) the plausible sets of antecedents and consequences of redefined categories of ERB. Dennis Organ defined OCB as "individual behavior that is discretionary, not directly or explicitly recognized by be formal reward system, and that in the aggregate promotes the effective functioning of the organization" (Organ, 1988).

According to Kaskel (2000), helping to friends and colleagues at job, make some suggestions to improve process of work, be sensitive for coming to job on time, effective and efficient at work some examples of OCB behaviors. Also Kelloway (2000) defined OCB as, to help friends who doesn't come to work, to be volunteer to do something an important for organization doesn't even part of work definition. To help people socialize who is new at job. (Sezgin, 2005).

Workers in an organization, if they feel their self as much as a part of organization, even see organization part of their body, they could feel involve themselves and stay in organization. Therefore they make a heart whole effort to common work (Aydın, 1993).

OCB is represents the individual activities that improve the functioning of the organization. Protection to organization from undesirable behavior, to accept the proposals, talent development, and actively involving common issues such as setting up a network is linked to the overall performance of the business and organizational citizenship. In addition, the organization also contributes to the creation of social capital (Gök, 2007).

Graham (1991), tried to explain in table 1, who studied on OCB and terms and criteria. There are some criteria to define OCB. This table explains all the studies about OCB till 1990. After that time many studies carried on OCB (MacKanzie, 1991, 1993, 2000,) but Organ and his colleagues did most of the studies of OCB.

Table I. Overview of Previous OCB Studies

Study	Criteria used to define OCB			Categories or indices of OCB: Number in parentheses indicates more than one scale in category				
	Extra-role	No formal reward	Organizationally functional	Single scale	Inter-personal helping	Obedience	Loyalty	Participation
Bateman & Organ (1983)	x		x	x				
Smith, Organ, & Near (1983)	x		x		x	x		
Scholl & McKenna (1983)	x			x				
Motowidlo (1984) ^d					x			
Brief & Motowidlo (1986) ^b	x		x					
Miceli (1986) ^c				x				
Motowidlo, Packard & Manning (1986)	x				x	x		
O'Reilly & Chatman, #1 (1986)		x	x	x				
O'Reilly & Chatman, #2 (1986)	x		x	x				
Williams, Podsakoff, & Cooper (1986)	x		x			x(2)		
Graham (1986a) ^d					x	x	x	x
Motowidlo, Brief, Atieh, & Ashworth (1987)			x		x			
Puffer (1987)	x		x	x				
Scholl, Cooper, & McKenna (1987)	x			x				
Organ (1988)	x	x	x		x(2)	x	x	x
Organ & Konofsky (1989)	x		x		x	x		
Organ (1990)	x		x		x	x		

Organ (1988) classifies OCBs into five categories: altruism, conscientiousness, sportsmanship, courtesy, and civic virtue. This classifies generally excepted from other researchers. Definition of this categories by Organ; altruism is a discretionary behavior that helps other persons with respect to organizationally relevant tasks or problems. Conscientiousness is a discretionary behavior that employees carry out well beyond the minimum required level. Sportsmanship consists of actions that employee refrain from complaining, doing petty grievances, railing against real or imagined slights, and making federal cases out of small potatoes (Organ, 1988, p. 11). Courtesy consists of actions that help prevent work-related problems with others or such actions as “touching base” with those parties whose Works would be affected by one’s decisions or commitments (MacKenzie et al., 1998, p. 89; Organ, 1988, p. 12). Civic virtue reflects behaviors, in which an employee responsibly engages, that show concern for the organization and employee initiative in recommending how the organization can improve its operations (Netemeyer et al., 1997). However, according to Organ (1988), courtesy is not easily distinguishable from altruism. The distinction between the two behaviors can be made when one distinguishes between coming to the aid of someone who already has a problem and helping someone prevent a problem from occurring.

OCB aims to improve performance and efficiency by establishing effective coordination, to improve workers ability and skill and avoid no desirable behavior which is avert healthy operation of organization (Basim, 2014).

Method

The aim of this study was examine active licensed athletes' OCB. Survey method was used to gather data and OCB Inventory form used which adapted to Turkish by Basım (2014). Cronbach Alpha reliability score was $\alpha = .85$. Independed t test and ANOVA analysis was carried to testing group variances. Tukey test were used to explain group differences.

Inventory form which is developed by Basım (2014) for university student OCB includes 19 questions. Some demographic questions also asked for information. Six Likert type multi selection scale were used to see OCB situation. Participants asked to give number to each question as follows; "every time=6", "Mostly=5", "Often=4", "sometimes="=3", "rarely=2", "never=1"

Findings

422 athletes participated in the study. The average age of participants was found as 23,3. 265 men, 157 women participated to study. Participants are students' athlete who studying at faculty of sport sciences, department of training education, P.E. teacher, recreation and sport management.

Table 2. Mean value of organizational citizenship behavior dimensions

OCB	X	S.D.
Altruism	4.14	1.30
Conscientiousness	3.97	1.28
Courtesy	4.58	1.25
Sportsmanship	4.15	1.30
Civic virtue	4.12	1.27

As we see from table 2, courtesy is close to mostly done behavior by athletes. Athletes' were careful for other athletes, very kind to other athletes and sportsmen to team mates. In sport psychology team work need this kind of behaviors and most of the company use that kind of team work synergy to motivate their workers?

OCB	Gender	N	X	S.D.	T	P
Altruism	Female	157	4.15	0.94	.164	.870
	Male	265	4.15	0.95		
Conscientiousness	Female	157	4.06	1.02	1.334	.183
	Male	265	3.91	0.99		
Courtesy	Female	157	4.58	1.08	.055	.956
	Male	265	4.58	1.00		
Sportsmanship	Female	157	4.12	0.97	.460	.646
	Male	265	4.17	0.95		
Civic virtue	Female	157	4.18	0.97	.711	.478
	Male	265	4.10	1.01		

Table 3. Mean and t-test of OCB according to gender

According to t-test and mean values there were no significant differences between man and woman.

Table 4. Analysis of t-test according to sub-dimensions

K/M _u	Altruism	Courtesy	Sportsmanship	Conscientiousness	Civic virtue
Gender	,726	,709	,451	,600	,286
Marital status	,161	,840	,218	,200	,688
Income	,312	,119	,071	,100	,638
Age	,260	,002	,362	,049	,490

According to t-test score in table 4, there were no significant differences between gender, marital status, income and age. But only age scores differences between 21-25 and 26-30 courtesy and conscientiousness were significant. That means younger athletes were more courteous and conscientious than older athletes. ($p < 0.05$)

Testing of Hypothesis

Hypothesis 1: Students have no difference of opinion on the OCB according to gender.

Table 5. T test results of OCB according to gender variable

	N	X	S.D.	T	P
Gender	422	1.57	0.495	55.17	.00

There were no significant differences according to gender variable ($p < 0.05$). Therefore hypothesis 1 was accepted. Gender differences in sport faculty is not similar to other faculties. Students are doing many practical courses together or spend more time man and woman together in school. School time sharing is not only theoretical course also in practical or in some events which they involve as volunteer affecting their team work ability and ideas too. So we might say that idea of students about OCB not related with gender.

Hypothesis 2: Students have no difference of opinion on the OCB according to their departments.

Table 6. Anova test result of OCB according to department variable

	N	X	S.S	T	P
Department	422	2.63	1.21	37.54	.594

There were significant differences according to department variable ($p > 0.05$). Results of the variance analyze of OCB according to department at table 7.

There were significant differences founded on OCB sub-dimensions of sportsmanship and conscientiousness according to departments ($p > 0.05$). When we explain this differences by test of Tukey, department of sport

management students' opinion about sportsmanship and conscientiousness were more positive than other students of departments.

Not like gender, departmental idea on OCB is different. When we look for the departmental curriculum, there are too many different subjects in programs. Sport management departments have more management and organizational behavior subjects than other departments. That might be one of the major reason for results.

Table 7. Variance analysis of OCB according to department variable

Sub-dimension of OCB	Department	N	X	S.S	F	P
Altruisms	P.E.	108	4.16	0.78	5.380	.001
	Training	109	3.84	0.96		
	Recreation	95	3.95	1.09		
	Sport Management	110	4.39	0.93		
Conscientiousness	P.E.	108	3.94	0.78	.894	.445
	Training	109	3.82	1.06		
	Recreation	95	3.98	1.17		
	Sport Management	110	4.08	1.03		
Sportsmanship	P.E.	108	4.09	0.84	2.478	.061
	Training	109	3.93	1.07		
	Recreation	95	4.12	0.99		
	Sport Management	110	4.32	0.90		
Courtesy	P.E.	108	4.62	0.97	3.85	.01
	Training	109	4.25	1.15		
	Recreation	95	4.47	1.11		
	Sport Management	110	4.79	0.93		
Civic virtue	P.E.	108	4.04	0.87	2.65	.049
	Training	109	3.99	1.10		
	Recreation	95	4.00	1.03		
	Sport Management	110	4.35	0.96		

Hypothesis 3: Students have no difference of opinion on the OCB according to their grade

Table 8. Anova test result of OCB according to grade variable

	N	X	S.S	T	P
Grade	422	2.71	1.09	42.98	.654

There were significant differences according to department variable ($p > 0.05$). Results of the variance analyze of OCB according to grade at table 9.

Table 9. Variance analysis of OCB according to grade variable

Sub-dimension of OCB	Grade	N	X	S.S	F	P
Altruisms	1st	94	4.21	0.95	2.45	.043
	2nd	107	4.00	1.08		
	3th	111	4.00	0.89		
	4th	110	4.33	0.86		
Conscientiousness	1st	94	4.16	1.02	1.94	.123
	2nd	107	3.85	1.15		
	3th	111	4.09	1.00		
	4th	110	3.97	0.84		
Sportsmanship	1st	94	4.23	0.92	2.47	.062
	2nd	107	3.94	0.98		
	3th	111	4.10	0.89		
	4th	110	4.31	0.94		
Courtesy	1st	94	4.58	1.11	1.666	.174
	2nd	107	4.37	1.15		
	3th	111	4.63	0.96		
	4th	110	4.71	0.93		
Civic virtue	1st	94	4.18	0.92	3.38	.019
	2nd	107	3.96	1.06		
	3th	111	3.97	1.03		
	4th	110	4.37	0.89		

There were significant differences founded on OCB sub-dimensions of sportsmanship, courtesy and conscientiousness according to grade ($p>0.05$). When we explain this differences by test of Tukey, department of sport management students' opinion about sportsmanship, courtesy and conscientiousness were more positive than other students of departments. 4th grade students' opinion of OCB more positive than other grades students.

Conclusion

The purpose of our research was to understand student athletes OCB if there were any difference according to gender, department or grade in faculty of sport sciences. We found that there were no significant difference according to gender. But some significant difference according to department and grade. Özdevecioğlu (2003) found significant difference according to age of students. In his research students opinion on OCB was different. OCB level was decreasing when they get older. That means age is related to OCB. In our research we found that opposite, younger students' OCB was lower than older students. Also we can say that OCB related to age. The reason of this result might be about students' education on sport. Sport is a discipline and faculty of sport courses includes some organizational behavior and organizational psychology subjects that might be effective their opinion about OCB. Other reason for this result is athletes student improve their

extra-role in their team as a team member. Being a team is very important and that includes some extra role like sportsmanship or altruism. Also sport philosophy includes fair play, respect, team work and more related with OCB.

OCB is generally related with fair play and some extra team work effort in organization. Sport teams and athletes has this kind of feeling that OCB which is Organ's study and explanations. More over Podzakof et al (2009), mentioned workers turnover, and they found that turnover of workers was related with OCB. In sport teams' older athletes has high level of OCB. That means OCB level and efficient is who works more in their organization.

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Could Partipative Decision Making Be Solution For Organizational Silence Problem?

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Abstract

Whereas participative decision making is considered as sharing decision making process with subordinates, organizational silence is unwillingness of employees to share their thoughts, interests and affections about organizational issues or problems and keeping them unexposed. The present study aims to explore the relationship between participative decision making and acquiescent silence, defensive silence and prosocial silence. Established hypotheses along the purpose of the present study were tested by means of correlation and regression analyses. Based on the analysis results, it was determined that participation in decision making process has negative influence on organizational silence, acquiescent silence and defensive silence.

Keywords: Participative decision making, Organizational Silence, acquiescent silence, defensive silence, prosocial silence

Introduction

In parallel to progressive globalization, which removes the geographical borders in the 21st century, organizations have faced with cruel and intensive competition which has not been encountered before. In order to maintain their existence under these circumstances, they attempted to make amendments in their management structures; and significance of employees in management and manufacturing processes as “human beings” has increased. New approaches introduced by the new century necessitated managers to adopt new organizational structures. In this regard, managers are required to create innovative opportunities for their employees, to enhance knowledge, skill and talents of their employees through new management methods and to take advantage of them in order to ensure their organizations to cope with dynamic and competitive conditions. Employees, who are seen as factors effective on organizational performance, source of change, innovation and creativity in organization, encounter taking over additional

authorities, strengthening and being included in decision making processes in organizations owing to new management approaches. Recently developed open-door policies which have been put in prominence by organizations, suggestion-complaints systems, organizational sharing meetings including members from all departments and ranks are indeed environments in which employees could find opportunity to share their opinions clearly and to speak out their words.

Making effective and accurate decision is vitally important for organizations. Decision makers need relevant information to make an effective and accurate decision. Under conditions of our contemporary world, effective decisions are not only expected from managers. Persons who are directly in the relevant subject are expected to participate in decision making process to ensure that different point of views and rational decisions are taken. Participative decision making is preferred by management to hand an opportunity over to their subordinates to participate in decision making process. Similarly, it can be defined as “making joint decision” and “sharing authority of making decision between management and subordinates”. However, relevant studies indicate that participant decision making phenomenon addressed prominently and frequently in the literature is not considered in the professional life sufficiently as it was expected.

Indeed, employees today usually do not share their professional subjects with their managers and coworkers on purpose; they prefer silence. In this case, if employees part of mechanisms requiring participative decision making prefer silence instead of sharing their area of expertise, decision, as an output of this process, can only be considered given by the ones who are holding authority rather than by the ones skilled and expert. In other words, decision made during daily meetings would be consequence of authority instead of common mind. Remaining silent in such a decision making environment could result in false or mistaken decisions. While dominance of silence in decision making process results in internal conflict and alienation among individuals, and in organizational insecurity feeling and serious performance loss in companies within medium and long term. It is necessary take precautions against organizational silence a serious threat to development of organizations.

Conceptual framework

Decision and Participative Decision Making Concept

According to the definition prescribed by the Turkish Language Association, decision is “final judgment about a job or issue, made following a thinking process” (www.tdk.gov.tr). Decision refers several meanings such as judgment reached through thinking and reasoning, continuance, calmness, persistence, and optimal. In the simplest extent, decision is making selection

or preference among current alternatives. On the other hand, in terms of management, decision is considered as preference or choice of manager in any issue. Decision making is starting point of all activities in an organization (Onaran, 1975: 6). Decision of manager is remedy or solution that is adopted and presented after thinking on a subject. If so, decision making is equivalence of making selection between good or bad and right or wrong (Koçel, 2005: 76). Since decision making process is vitally important for organizational functions, while some philosophers consider decision making as heart of management, some claim that it is the key of management or that management is consisted solely of decision making. In this regard, it is possible draw a general conclusion such that the most distinctive characteristic of a manager in an organization is his effectiveness in decision making process (Ertük, 2012: 237). As a mobilization and steering element in organizations, decision making constitutes focal point of organizational action (İraz, 2004: 414).

Decision making activity is undeniable reality of organizational life. As globalization intensifies, industries experience pressures to manufacture high-quality product or service, to utilize from advanced technology in their products and services to survive. Work force highly educated and who are capable of behaving flexible is necessary (Howcroft and Wilson, 2003: 6). In order to establish and maintain this work force, certain mechanisms in organization in which they can prove themselves and express their decisions loudly are required. Participative decision making activity in which employees could participate in decision making process is one of such mechanisms in organizations

Participative decision making concept originated from Y-theory exhibited in X-Y theory of McGregor. According to Y-theory, employees are usually in pursuit of showing good performance in their jobs, if managers receive contribution of employees regarding the works in organization, it is considered that employees would be committed to their organizations at higher levels (Elele and Fields, 2010: 369). Participative decision making is taking a joint action by employees at similar or different authority levels within hierarchical structure of organization for (Bakan and Büyükbeşe, 2008: 33). According to Knoop (1991), participative decision making is carrying maintaining decision making process together with other employees of an organization in order to reach organizational purposes. Another definition describes participative decision making as inclusion of employees in decision process which determine both futures of employees and organization such as determination of policies and targets of their institution (Childs, 1991: 14). According to Cornell (1998), modern organizations are required include their employees into decision making process to maintain their flexibility against irrational expansion of globalization and technology

(Ladd and Marshall, 2004: 646). Participative decision making is direct or indirect voices of employees in decisions given an organization (Cotton et al., 1988: 15). According to Greengard (1993), participative decision making, which offers employees opportunities to make significant changes in their work, is one of the tools employed by large-scale companies to accomplish change. In order to obtain positive results from efforts associated with participative decision making, it is important to determine timing, procedure and level of participation of subordinates into decision making process (Parnell and Crandall, 2000: 524).

Organizational Silence Concept and Its Varieties

Silence concept which has been referred in various disciplines such as sociology, anthropology, philosophy and linguistics, and on which various studies have been conducted, have been considered as a subject that needs attention because it has not been thought in studies conducted until recently that it does not refer any meaning but the ones such as approval/acceptance, immobility or lack of sound. Nevertheless, recent studies have revealed that silence concept could indeed have different meanings such that it could be sort of communication. Essentially, silence is a concept hard to comprehend, which contains many feeling, sentiment and action (Pinder and Harlos, 2001: 362). Core point of silence is that employees retain their opinion, view and thoughts at their own discrete. Silence is status of remaining silent; but although this situation is considered as remaining closed to communication, this indeed represents a way of communication. Silence usually commences at the point where someone fails to take a chance to face with challenge and thus prefers remaining speechless (Perlow and Williams, 2003: 4).

Johannesen (1974), the author who described the silence concept at organizational level first, stated that “silence is withholding information by employees from others” (Tangirala and Ramanujam, 2009: 213). In addition, Johannesen stresses that although silence is quite common in organizations and its existence is recognized, it is an important subject for further studies because it is related with unexposed and unrevealed sections of human behavior (Fletcher and Watson, 2007: 157).

In the literature on management, there are two prominent studies which put organizational silence concept in today’s definition. In one of these studies, Morrison and Milliken (2000) describe organizational silence as dangerous obstacle before change and development and as a collective phenomenon which blocks developing a pluralist organization. Additionally, pluralist organization is described as an organization in which values and opinions of employees differs and in which its members are allowed to exhibit their different views and opinions. Furthermore, Morrison and Miliken associate employees’ silence attitude with two essential beliefs: the

first is that it is not worth to display effort against the organizational problems; and the second is that expressing opinions and views regarding a problem could result in dangerous consequences (Morrison and Milliken, 2000: 707). Milliken et al. (2003), in their study conducted on 40 fulltime workers from various sectors, employees are not alone regarding retention of what they know, even it was determined that there are issues among group members, waiting for resolution in some circumstances, and although these issues are known among employees, they do not submit the issue to the management. These results confirm the view of Morrison and Milliken (2000) which indicates silence as a collective behavior in organizations (Milliken et al., 2003: 1469). Similarly, Henriksen and Dayton claim that if majority of employees prefer to remain silent about problems experienced within an organization, silence turns into a collective behavior and this is to be called as organizational silence (2006: 1540).

The second significant study in the literature on organizational silence was conducted by Pinder and Harlos (2001); and oriented on silence as a reaction exhibited against unjust practices. The authors described silence as on-purpose retaining of their thoughts, affections and cognitive considerations about organizational conditions, personal expressions by individuals who are aware that they could be influent on change or fixing (Pinder and Harlos, 2001: 334). In further studies, Van Dyne et al. (2003) described organizational silence as keeping opinions and displeasures regarding work under suppress or not to expose by employees on purpose. Bowen and Blackmon (2003) described as opposite of making sound; and as failure of employees in expressing their opinions regarding organizational matters freely. Slade (2008) described organizational silence as a common behavior of employees in retaining their opinions and thoughts when they encountered issues at their organizations (Slade, 2008: 50). Organizational silence is hiding opinions, views and suggestions by employees consciously about any subject needed to be resolved. If employees have nothing to say about an issue, or if they find the subject unnecessary to make a comment about it, then, silence of employees cannot be assessed as organizational silence. In this regard, it would be mistaken to assess silence of employees about relevant subject as organizational silence because silence is a conscious act (Tangirala and Ramanujam, 2008: 39; Durak, 2012:45). Van Dyne et al. (2003) stated that the circumstance in which employees are not knowledgeable about a subject or when they have no opinion about it, this situation should not be confused with organizational silence (Van Dyne et al., 2003: 1361).

In the present study, organizational silence varieties were the ones developed by Van Dyne et al. and commonly used in the literature. Based on

this classification, organizational silence varieties are acquiescent silence, defensive silence and prosocial silence.

Acquiescent Silence

Acquiescent silence is abstaining from sharing knowledge, feeling and opinion about current status because of dispensation of individuals. These individuals are indeed irrelevant to the current status. They accept the prevailing circumstances and they are not inclined to speak, participate or spend effort to change current status. For instance, if employees are of the opinion that it is pointless and unnecessary to express his opinions and suggestions deliberately and to make a difference in the organization, they may not express their opinions. In his case, employees acquiesce to the current situation; refuse to talk about the situation; and spend no effort to change the situation. In other words, the circumstance in which employees think that their opinion will not be taken into consideration or it will not make any difference could be regarded as they are personally incompetent; their behaviors and opinions are shaped parallel to the organizational decisions and create norms; employees' acquiescence of those could be considered their irrelevant and submissive silent behaviors and attitudes (Dyne et al., 2003, p.1366). Employees mostly think that remaining silent could protect their relationships and allow them to perform their job better (Perlow and Williams, 2003: 3-4). Employees exhibiting acquiescent silence behavior are not aware of existence of alternative options to alter these conditions since they acquiesce in conditions in their organization as is. Therefore, this type of silence has passive characteristic (Pinder and Harlos, 2001: 349).

Defensive Silence

Morrison and Miliken (2000) emphasized that one of the key factors which pushes individuals in organization to remain silent is sense of fear. Consistently, defensive silence mentioned in study of Pinder and Harlos (2001) is considered as making decision not to speak because employees are afraid of consequences of their word spoken to express their knowledge, opinion and thoughts. In the light of these, Dyne et al. described defensive silence as an action to protect themselves from threats associated with expressing their knowledge, opinion and thoughts because of their fears (Dyne et al., 2003:1367). Employees have essentially two purposes within an organization: one of them is to gain an income sufficient to survival of themselves and their families; the other is to have social capital by taking a certain position in professional life. Thus, employees could prefer to remain silent to protect their personal position at the organization by accomplishing these purposes (Gephart et al., 2009:7). Acquiescent silence behavior

observed in organizations refers deeper meaning with respect to defensive silence. While in defensive silence, voluntariness and consciousness are prevalent in leaving silent status, in acquiescent silence, there is no such situation or it is quite low. Whereas current status is preferred consciously in defensive silence, employees get used to current status in acquiescent silence. Defensive silence is aware of current alternatives and therefore there is higher stress level; on the other hand, employees have no such an effort in acquiescent silence. Therefore, their stress level is much lower. Since employees are aware of alternatives in defensive silence, they are more eager to talk; but, such an intention is quite low in acquiescent silence. While tendency of employees to quit the organization is higher in defensive silence, tendency of employees who exhibit acquiescent silence behavior to quit their job is rather low.

Prosocial Silence

As prosocial silence behavior which was introduced to the silence literature by Dyne et al. (2003), the authors mentioned that prosocial silence behavior was developed based on organizational citizenship behavior. Prosocial silence is described as that retention of opinion, thought and knowledge of employees about a subject for the sake of their organization and their coworkers by relying on principles of establishing cooperation and for benefit of their coworkers. Korsgaard et al. (1997) claimed that this type of silence, as the same with organizational citizenship behavior, is focal point of others and it is conscious and proactive behavior. Its common point with defensive silence is that employees are aware of available alternatives and they are not able to say what they know and think on purpose. The difference between prosocial silence and defensive silence is based on motivations in their backgrounds. Whereas in prosocial silence, the motivation behind behavior of remaining silent is that it was for benefit of others, in defensive silence, employees are afraid of adverse consequences of their actions and thus, they prefer silence (Dyne et al., 2003: 1368).

There are some positive consequences with prosocial silence. Employees protect confidential information concerning organization against third party individuals (Rafferty and Restubog, 2011: 272). The most distinctive dimension of prosocial silence from others is courage dimension. Hiding information necessitates courage. Regarding this silence type, it is essential not to share what they know for the sake of organization or others (Esfani et al., 2013: 415). In some other occasions, when employees do not share what they know to protect their co-workers, they might damage their organizations (Brief and Motowidlo, 1986: 716).

Research

Purpose and Scope of Research

Morrison and Milliken, who introduced organizational silence as a collective subject, addressed two organizational factors which develop silence: organizational structures, policies, managerial applications and behaviors. If organizations adopt central decision making processes, and if there is no mechanism or channels through which employees could share their opinions and interests, employees prefer to remain silent within organization based on the thought that they are not respected in their organization and their opinions will not be tolerated. In an organization, if decision making is only discretion of management, allowing employees to participate in organizational decision making process and listening to their words are not common practices. In these types of organizations, decision maker departments do not pay much attention to opinions brought by their employees or regard them irrelevant. Thus, employees assume that their opinions are useless and they prefer not to speak out their words (Morrison and Milliken, 2000: 713). In their studies, Park and Keil (2009), based on findings reported by Morrison and Milliken, tested whether organizational structure and policies such as existence of central decision making processes and lack of feedback mechanisms for senior management affect silence atmosphere, or not. In the end, researchers reported that these types of practices are effective on organizational atmosphere. Additionally, they advised managers to minimize centralization in their decision making processes, sharing decision making authority with other departments instead of top management, to share authority with employees if management wants to reduce silence atmosphere in their organizations (Park and Keil, 2009: 911-912). Participative decision is considered as inclusion of employees in decision making processes. In this case, participation in decisions reduces centralization in decision making; and from this point, it could be possible to reach a conclusion that participation in decisions could reduce organizational silence. Individuals want to get involved in their professional and private lives and to have a voice in them. Expressing opinions and being part of decision making process allow employees to feel that their opinions are respected and regarded. In counter circumstances, employees feel worthless and silence atmosphere is started to be flourished in their organization (Rodriguez, 2005: 1). Structural and social mechanisms in organization and subjects concerning organizations encourage employees to speak out what they know about their organization. Additionally, employees who participate formally in decision making and feedback mechanisms would be inclined to share their opinions, thoughts and interests in more open and participative organization atmosphere (Huang et al., 2005: 460).

In study of Huang et al., conducted on 421 divisions of a multinational company across 24 countries, it was investigated that whether practices encouraging participation of employees increase organizational silence, or not. In this scope, researchers defined two voice mechanisms encouraging participation in decisions to reduce organizational silence. These mechanisms are the structures in which employees are included formally in decisions and participant atmosphere perceived by employees in their organizations. As a result of their researches, authors concluded that establishment of mechanisms in which employees working in countries with short strength-distance are included in decisions formally could reduce organizational silence more with respect to the countries with longer strength distance. Another finding was that in countries with longer strength distance, organizational silence level is higher; and it is necessary to provide mechanism which includes employees in decision process and higher participative atmosphere in order to reduce organizational silence (Huang et al., 2005: 475-476). That is, whereas establishment of mechanisms in which employees could participate in decision making process to reduce organizational silence in countries with low strength distance; besides the mechanisms formally established in higher strength distance, existence of participative atmosphere across organization is necessary as well. In another study which considers the relationship between participation and silence, Shojoie et al. (2011) describe organizational silence as an inefficient organizational process which consumes resources and efforts. Moreover, it was stated that low participation levels of employees concerning the organizational subjects and their preference to remain silent were type of organizational silence, the claimed that organizational silence would arise when organizational participation cannot be ensured (Bagheri et al., 2012: 50). Based on all these studies, the purpose of the present study is to investigate the relationship between participating decisions and organizational silence varieties in the light of following hypothesis.

Hypotheses concerning the relationship between participative decision making and organizational silence types:

H₁: Participative decision making has negative influence on acquiescent organizational silence.

H₂: Participative decision making has negative influence on defensive organizational silence.

H₃: Participative decision making has negative influence on prosocial organizational silence.

Method

Universe of the study is consisted of companies from Denizli City, which are ranked on the largest 500 Turkish companies list published by the Istanbul Chamber of Industry.

For the sampling group, Denizli companies ranked in the 500 companies list of the Istanbul Chamber of Industry published in the official internet page were determined. Accordingly, twelve companies were determined in the published list (www.iso.org.tr). Denizli companies ranked on the ISO 500 list were in metal, copper processing, textile, cable manufacturing, packaging, food and cement sectors. Research sampling is composed of white-collar employees who work for aforesaid companies. In order to conduct the study, mentioned companies were requested permission; and six of them granted permission for survey. Totally, 673 white-collar employees were distributed survey forms; finally, 213 survey forms were returned to researchers and 202 of them were found adequate for further evaluation. When it is considered that return rates from selected samples were in the range of 20% to 40% in applied studies (Öğüt, 2003: 293), a return rate of 30.1% obtained in our study can be considered as acceptable rate.

A quantitative approach was adopted for the study. Two separate scales were employed for data collection purpose. Whereas as the scale developed by Kahnweiler and Thompson (2000) for participating in decision process was employed, 12 expressions measuring status of this scale with respect to participative decision making were added into the research survey. 15 expressions of the organizational silence scale developed by Dyne, Ang and Botero (2003), which measure organizational silence dimensions, were added into the research survey.

Findings

Results of the reliability analysis conducted to measure internal reliability of the scale were summarized in Table 1. It was found that reliability level of 12-item participative decision making scale was 92.8% ($\alpha=.928$). Regarding the 15-item scale employed in the research for organizational silence types, a value of the acquiescent silence, defensive silence and prosocial silence dimensions were found respectively as 0.799, 0.885 and 0.808. To be able to consider a scale as a reliable tool, minimum acceptable alpha coefficient is 0.7 (Altunışık et al., 2012: 125-126). Since all alpha coefficients estimated for scales and sub-dimensions used in the study were greater than 0.7, it was possible to conclude that employed scales were reliable and appropriate for analysis.

Table 1: Reliability Analysis Results

Dimensions	N. of Items	Cronbach's Alpha (α)
Participative decision making	12	.928
Acquiescent Silence	5	.799
Defensive Silence	5	.885
Prosocial Silence	5	.808

Since scales were adapted from English, a factor analysis was conducted to measure validity. In order to determine whether obtained data was appropriate for factor analysis, KMO (Kaiser-Meyer-Olkin) and Bartlett tests were conducted. KMO values of scale were greater than 0.5; and Bartlett test results were found significant. No any item was determined, necessary to be excluded from the survey. Factor coefficients of all items were greater than threshold value of 0.40.

Participative decision making levels of respondent employees and descriptive analysis results of their answers given to the expressions prepared to measure organizational silence types, standard deviation, and correlations among variables were exhibited in Table 2. It was observed that respondent employees displayed dominantly “medium level” participation to the expressions regarding the participative decision making status at workplace. Thus, it was possible to conclude that respondent employees agreed with decisions but their agreement was at medium level. It was observed that except prosocial silence, respondent employees exhibited “low” level of participation to the expressions regarding the organizational silence behavior. Accordingly, it is possible to conclude that employees exhibited low level of acquiescent silence (\bar{x} =2.10) and defensive silence (\bar{x} =1.91) behaviors; on the other hand, they exhibited high level of prosocial silence (\bar{x} =4.36) behavior. In the organizations where the present research was conducted, it was possible to conclude that employees preferred remaining silent to protect their organization and their co-workers at the times when things in the company came to a point which could harm them, instead of preferring silence just because they believed that exposing what they know could not make any change on results or because of protecting themselves. In studies conducted by Eroglu et al. by means of the same scales on employees in textile industry in Isparta City, average scores of acquiescent organizational silence, defensive organizational silence and prosocial organizational silence were respectively found as 2.01, 1.87 and 4.25.

Table 2: Mean, Standard Deviation and Correlation Values of Collected Data

	Mean (\bar{x})	S.D.	1	2	2a
1. Participative decision making	3.29	1.192			
2. Organizational Silence	2.84	.956	-.317**		
2a. Acquiescent Silence	2.10	1.080	-.307**	.936**	
2b. Defensive Silence	1.91	.980	-.486**	.925**	.733**
2c. Prosocial Silence	4.36	.827	.108**		

** Correlation is significant at 0.01 level.

The relationship indicated in hypotheses was tested by means of correlation; and it was attempted to reveal whether the relationships were statistically significant. First, correlation analysis was conducted to expose general structure of the relationship; then, regression analysis was conducted to expose direction and degree of this relationship. Hypothesis tests were investigated individually as below.

Concerning the first hypothesis of the study (H_1), it was observed that participative decision making status in organizations was negatively effective on acquiescent organizational silence. In order to test this hypothesis, a linear regression analysis was conducted such that whereas participative decision making status was taken as independent variable; acquiescent organizational silence was taken as dependent variable. Analysis results were exhibited on Table 3.

Table 3. Results Of The Regression Analysis Concerning The Relationship Between Participating In Decisions And Acquiescent Organizational Silence.

VARIABLE	Regression Coefficient	Standard Error	Standardized Reg. Coefficient (Beta)	t	p
Constant	3.151	0.205	-	15.402	.000
Participation in Decisions	-0.273	0.060	-0.307	-4.556	.000
Correlation Coefficient (R)= -0.307 $R^2= 0.094$ F= 20.760 p = 0.000					

According to the table above, a negative significant correlation ($B=-.273$) was determined between participative decision and acquiescent silence ($p<0.05$). In other words, one unit increase in participative decision score would result in 0.273 units decrease in acquiescent organizational silence behavior. According to the determined variance value ($R^2= 0.094$), it can be inferred that participative decision could explain 9.4% of acquiescent organizational silence behavior. Thus, H_1 hypothesis of this study was accepted.

In the H_2 hypothesis, it was assumed that there was a negative correlation between participative decision making status in organizations and

defensive organizational silence. In the test process of this hypothesis, participative decision making status was considered as independent variable, and defensive organizational silence was considered as dependent variable for linear regression analysis. Analysis results were summarized in Table 4.

Table 4. Results of the Regression Analysis Concerning The Relationship Between Participating in Decisions and Defensive Organizational Silence.

VARIABLE	Regression Coefficient	Standard Error	Standardized Reg. Coefficient (Beta)	t	p
Constant	3.270	.182	-	17.968	.000
Participation into Decisions	-.418	.053	-.486	-7.860	.000
Correlation Coefficient R= 0.486 F= 61.786			R ² = 0.236 p = 0.000		

According to the table above, participative decision has negative significant effect (B=-.418) on defensive organizational silence ($p < 0.05$). In other words, one unit increase in participative decision score would result in 0.418 units of decrease in defensive organizational silence behavior. According to determined variance value ($R^2 = 0.236$), participative decision could explain 23.6% of defensive organizational silence behavior. Thus, H₂ hypothesis of this study was accepted.

In the H₃ hypothesis, it was assumed that participative decision making status in organizations has negative effect on prosocial organizational silence. In the test process of this hypothesis, participative decision making status was considered as independent variable, and prosocial organizational silence was considered as dependent variable for linear regression analysis. Analysis results were summarized in Table 5.

Table 5. Results of the Regression Analysis Concerning The Relationship Between Participating in Decisions and Prosocial Organizational Silence

VARIABLE	Regression Coefficient	Standard Error	Standardized Reg. Coefficient (Beta)	t	p
Constant	4.102	.171	-	23.952	0.000
Participation in Decisions	.077	.050	.108	1.540	.125
Correlation Coefficient R= 0.108 F= 2.371			R ² = 0.012 p = 0.125		

According to table above, the relationship between participative decision and prosocial organizational silence was not significant since $p > 0.05$ ($p = 0.125$). Thus, H₃ hypothesis was rejected.

Conclusion

The present study was based on two concepts. Whereas one of them is “participative decision making”, the other is “organizational silence”. Decision making can be described as cognitive, bodily and affection process concerning preferring the most appropriate option among multiple choices. Decision making activity also considered as center of management is undeniable truth of life in organizations. Parallel to the globalizing world, it is necessary for organizations to gain competitive advantage and maintaining this against its competitors and to acquire success.

Another concept taken into consideration in the present study was organizational silence. As organizational silence is considered as an obstacle before organizations to cope with issues and hinder their progress; and described as retention and hiding on purpose what they know about organizational subjects and problems consciously. An organization in which its employees do not feel free to speak up their opinions would eventually be destitute of creative opinions and resolutions; and its survival would be jeopardized. Therefore, it is important for organizations to share knowledge, opinion and thoughts which would develop organizational functions under this difficult and tough competition environment. According to the findings of the present study, it was observed among employees of companies in sampling group that that was “medium level” silence behavior.

In the research section of the study, “organizational silence” classification introduced by Dyne et al. (2003) was taken as foundation. Within framework of this classification, organizational silence was investigated under three dimensions; namely, acquiescent, defensive and prosocial. As the first dimension of organizational silence, “acquiescent silence” is described as that employees’ reluctance to share their knowledge, opinion and views about the relevant situation since they believe that they could not make any difference in current status. The second one, “defensive silence”, is described as employees decide not to express their opinions or views since they are afraid of their potential consequences. The third dimension, “prosocial silence” is described as by relying on establishing cooperation and considering benefits of other co-workers in the organization, employees refrain from expressing their opinion, views and knowledge about certain organizational issue. Furthermore, in the societies in which mass culture and post modernism are common, majority of employees could lack of sufficient knowledge, skill and personal characteristics because they are incompetent subject to human resources malpractices which do not consider merit and qualification of personnel across organizations in its promotion system. Again, in societies in which hypocrisy is common practice, employees could prefer to remain silent not to undergo certain commitment to have flexibility when they encounter various circumstances. According to

study results, acquiescent silence and defensive silence dimensions were seen in organizations at “low level”. High level of “prosocial silence” dimension in organization caused that mean score of silence behavior increased to “medium level”. Although no any study was observed in the literature, which investigates the relationship between participative decision making and organizational silence directly. In the results of available studies, it is mentioned that it is necessary to establish mechanisms through which employees could speak up their words and to conduct managerial arrangements enabling them to share authority in organization so as to break silence wall or to reduce silence in organization. The present study aims to make a contribution into the relevant literature by taking both concepts into consideration.

According to hypothesis test results, negative significant correlation was determined between participative decision making and both acquiescent silence and defensive silence. As employees are included in decision making processes in organizations, their tendency to prefer silence behavior subject to renouncing and fear would reduce. Accordingly, as employees participate in decisions and their authority in organizational decisions made, they would think they are responsible for consequences of organizational decisions and thus they would observe that their opinions would make a difference. Furthermore, it is reported in the literature that as participation of employees into organizational decisions increases, their confidence in organization increases; their self-confidence levels increases and they consider themselves more valuable in the eye of organization. Based on these results, it is possible to claim that employees who have confidence in their organization and who witness that they are valuable members of organization would not be afraid to share their affection and opinions, namely, speaking up their own words. In other words, as inclusion of employees in organizational decisions increases, motivations underneath of acquiescent silence behavior and defensive silence behavior, believing that expressing their opinion could not make any difference and that fearing from consequences of expressing their opinions, would be weakened; and finally organizational silence would be replaced with organizational soundness. In the present study, H_1 and H_2 hypotheses were accepted. However, since it was determined that there was no significant relationship between participative decision and prosocial silence based on result of conducted analyses, H_3 hypothesis was rejected.

Finally, commercial success of companies ranked in 500 Company Index of the Istanbul Chamber of Industry and their contribution into economies of Turkey and Denizli City is undeniable fact. According to the present study, it was determined that companies are required to pay attention to level of organizational silence and necessary precautions are to be taken to reduce this across organizations because they could jeopardize success of

aforsaid companies on the long term. Furthermore, in the light of obtained findings, companies' success in transformation from organizational silence into organizational soundness with respect to participative decisions, is important in terms of sustainability of organizational success. Companies' corporate performance could be enhanced by establishing more active and functioning system within their organizations which include their employees into these processes. It is believed that the present study would contribute into the relevant literature in this respect.

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Validity Of A Paranoid Thoughts Due To Social Violence Scale In Juarez Mexico

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Abstract

Paranoid thoughts related to social violence have been reported by people living in the city of Juarez, Mexico, due to the increase in social violence because of the war between drug cartels and the Mexican government. The Paranoid Thoughts Scale was developed to measure these thoughts and the present study analyzed the reliability and validity of the scale. The sample consisted of 173 participants with a mean age of 33.31 ($s = 15.12$) years, 65.7% females and 34.3% males. The exploratory factor analysis indicated a one factor scale with factor loadings ranging from 0.41 to 0.80 and an internal reliability of $\alpha = 0.85$. The concurrent validity was analyzed by correlating the Paranoid Thoughts Scale with scales measuring anxiety (STAI and AMAS-C), stress (Stress Profile) and depression (PHQ-9). All of the correlations were statistically significant and ranged from $r = 0.21$ to $r = 0.36$. The Paranoid Thoughts Scale is a valid scale that can be used to measure paranoid thoughts due to violence in people from Mexico.

Keywords: Mental health, social violence, drug war

Introduction

When Mexican president Felipe Calderón declared the war against drug trafficking in 2006, the violence in Mexico escalated to very high levels in several places across the country. Juarez, located in the north border of Mexico, was the most affected city in the country becoming intensely violent due to the fight among organized crime groups (e.g. drug cartels), and armed forces from the Mexican government. The main fight was between the Juarez drug cartel and the Sinaloa drug cartel fighting to take control over the city since Juarez is one of the most important places used to enter drugs into the United States. At the end, around 2010, the Sinaloa cartel won bringing an end the era of the Juarez cartel control. The estimates of murders that

occurred in Juarez are the following: According to the attorney general of the Mexican State of Chihuahua, in 2008 there were 1,587 executions (Rodríguez, 2011), in 2009 there were 2,643 executions (Rodríguez, 2011), in 2010 there were 3,103 executions (Rodríguez, 2011) and in 2011 there were 1956 executions (Observatory of Citizen Security and Coexistence, 2011) for a total of 9,289 murders during the most violent years in Juarez.

In 2009, there was a very high increase in violence in Juarez where one of every three dead people in all of the country were executed in Juarez (Ibarz, 2009). By 2010, Juarez was 757% above the national mean in homicides (Milenio, 2010). In 2008, there were 101 homicides per 100,000 people and by 2010 there were 191 homicides per 100,000 people making Juarez the most violent city in the world with rates higher than San Pedro Sula, El Salvador, Caracas, Guatemala, Cali and even Baghdad (Milenio, 2010). The homicide rate from 2010 was higher than the homicide rate in Medellin, Colombia, in 1991 when the drug cartel of Pablo Escobar was fighting against the Cali drug cartel, where the homicide rate was 139 homicides per 100,000 people (Milenio, 2010). The kidnapping rate in 2009 was 100 cases per one million people, which was six times higher than Venezuela in 2008, when it was the country with the most kidnaps for that year (Society and Technology, 2010). As a consequence of this situation of social violence in the city, there were around 10,000 children left orphaned and approximately 40,000 family members that were affected directly (Blancas, 2010).

The hardest part during this violent time in Juarez was the unpredictability of the violent acts. Before this time, there was violence in Juarez but it was predictable, which means that there were certain dangerous places that you should not visit during specific times, especially at night. After 2008, executions occurred at any time during the day, they occurred at any place like supermarkets or churches, and they happened with a lot of witnesses around. Even though most executions were targeted to people involved in drug dealing, people that were not involved had to worry about extortions, kidnaps, carjackings and housejackings. This situation brought several psychological consequences as the result of living directly or indirectly around all of the violence. One of those consequences was the report of specific thoughts that people started to experience, like feelings of being followed or being watched over to be extorted or kidnapped.

People in Juarez reported symptoms of depression, anxiety and posttraumatic stress disorder (PTSD; Quiñones, Esparza, & Carrillo, 2013). The paranoid thoughts were a symptom related to PTSD, because according to the Diagnostic and Statistical Manual of Mental Disorders (5th ed.; American Psychiatric Association, 2013), PTSD can be characterized by being indirectly exposed by knowing that a close friend or relative was

exposed to trauma (Criterion A), and by having negative alterations in cognitions like “I can’t trust anyone” (Criterion D). In previous research studies related to violence in Juarez, our research team identified thoughts like “When I am walking I feel that I am being followed” or “When someone calls me on the telephone, I feel it is to extort me” that were present in a many people even if they had not experienced violence directly, so we named them paranoid thoughts. Even though the violence in Juarez was very high, most of the people did not experience the violence directly. Most people that reported the feeling of being followed were not followed or most people that reported being afraid of answering the telephone because of extortions were not extorted, so for this reason they were named paranoid thoughts. The presence of these thoughts were related to people experiencing symptoms of anxiety or depression since people reported that the thoughts made them feel insecure.

Lozano et al. (2011) developed the Paranoid Thoughts Scale based on reports by people in focal groups. They created the scale with eight items that reflected eight paranoid thoughts reported by participants (see table 1), but its psychometric properties were not analyzed. The scale was used to analyze its relationship with watching television news and found no significant correlation (Lozano et al, 2011).

This study analyzed the reliability and validity of the scale. The first step was to analyze the factor structure of the items of the scale with an exploratory factor analysis. The second step was to analyze the internal reliability of the scale and finally the last step was to analyze the concurrent validity of the scale. Since there are no similar scales, the convergent validity could not be analyzed, and for this reason the concurrent validity was analyzed with the correlation of the Paranoid Thoughts Scale with scales of anxiety, stress and depression.

Method

Participants

The scales were administered to 173 participants recruited from several areas in Juarez in October of 2011. Participants were 65.7% females and 34.3% males, with a mean age of 33.31 ($s = 15.12$) years. The marital status of the sample was: 52.8% single, 34.7% married, 4.3% living with a romantic partner, 4.3% divorced, and 1.8% widowed.

MacCallum, Widaman, Zhang, and Hong (1999) analyzed the optimal sample sizes to get an appropriate power in factor analysis. MacCallum et al. criticize the use of traditional rules of thumb to calculate sample sizes for a factor analysis, by using the ratio of items to participants. MacCallum et al. (1999, p. 97) state that “If results show a relatively small number of factors and moderate to high communalities, then the investigator

can be confident that obtained factors represent a close match to population factors, even with moderate to small sample sizes.” The sample for the factor analysis of this study consisted of 173 participants, which according to the information presented by MacCallum et al. (1999), were sufficient since most communalities are moderate to high and there was only one factor in the scale structure.

Instruments

Paranoid Thoughts Scale (PTS; Lozano et al., 2011). The scale consists of eight paranoid thoughts related to social violence (see table 1) with Likert-type response options that include never, sometimes, often, and always. The items of the scale were written in Spanish and the internal reliability of the scale in this study was $\alpha = 0.85$.

State-Trait Anxiety Inventory (STAI; Spielberg, Gorsuch, Lushene, Vagg, & Jacobs, 1983). This is a 40 item scale with a Likert-type response format with four options (from not at all to very much so) and is composed of two factors: state anxiety and trait anxiety. This inventory was translated to Spanish and validated in Mexico by Díaz-Guerreo and Spielberger (1975). The internal reliability for the state factor is $\alpha = 0.81$ and for the trait factor is $\alpha = 0.75$ in Mexican samples (Arias-Galicia, 1990).

Adult Manifest Anxiety Scale – Adult version (AMAS-A; Reynolds, Richmond, & Lowe, 2007). This scale was translated to Spanish and validated in a Mexican sample. The scale has 36 items with a Yes–No response format and is composed of four factors: worry/oversensitivity, social concerns and stress, physiological anxiety, and a lie validity factor. The internal reliability of the four factors and total score ranged from $\alpha = 0.71$ to $\alpha = 0.91$ (Reynolds, Richmond, & Lowe, 2007).

Patient Health Questionnaire (PHQ-9; Spitzer et al., 1994). This scale is the depression module of the PRIME-MD and it consists of nine items which scores each of the nine DSM-IV criteria with a Likert-type response scale with four options that range from not at all to nearly every day. The internal reliability of this questionnaire has ranged from $\alpha = 0.86$ to $\alpha = 0.89$ (Kroenke, Spitzer, & Williams, 2001).

Stress Profile (Nowack, 2002). The stress scale from the profile was used for this study and it consists of six items with a Likert-type response scale with 5 options (from never to always) that measures six different types of stress: health, work, financial, family, social, and environment. The scale was translated and validated with samples from Mexico (Nowack, 2002).

Procedure

Participants were recruited by a group of undergraduate psychology students that were sent to different areas in Juarez with different levels of

socioeconomic status. Participants were asked to participate and then they were given a consent form that explained the study, their rights, and they had an opportunity to ask questions. Participants were given the scales previously described and at the end they got a more thorough explanation of the study.

The data was captured in IBM SPSS Statistic computer program. To analyze the factor structure of the PTS, an exploratory factor analysis was performed with the eight items. The internal reliability of the scale was analyzed with Cronbach's alpha and the concurrent validity of the scale was analyzed with Pearson product-moment correlations between the PTS and the scales of anxiety, stress and depression.

Results

Exploratory Factor Analysis and Internal Reliability

An exploratory factor analysis was performed with the 8 items and with a sample size of 173 participants. Only one factor had an Eigenvalue greater than 1, and for this reason one factor was extracted using the generalized least squares method. The factor explained 50% of the variance and the item loadings range from 0.41 to 0.80 (see table 1). The result of the internal reliability analysis of the factor was $\alpha = 0.85$.

Table 1 *Scale items with factor loadings and communalities*

Item	Factor loading	Communality (h ²)	Mean (SD)
1. Cuando voy caminando o manejando siento que me van siguiendo. (When I am walking or driving I feel that I am being followed)	0.73	0.61	0.86 (0.75)
2. Cuando me llaman por teléfono siento que es para extorsionarme. (When someone calls me on the telephone, I feel it is to extort me)	0.58	0.44	0.74 (0.75)
3. Cuando oigo cualquier ruido fuerte pienso que es un balazo. (When I hear any loud noise I think it is a gunshot)	0.66	0.50	1.30 (0.95)
4. Siento que están vigilándome a mí o a mi familia. (I feel that someone is watching over me or my family)	0.80	0.73	0.68 (0.83)
5. Cuando algún desconocido se me acerca en la calle o lugar público lo primero que pienso es que me hará daño. (When a stranger comes up to me on the street or a public place, the first thing I think is that he/she will hurt me)	0.74	0.63	1.35 (0.86)
6. Siento que mis amigos podrían traicionarme. (I feel that my friends might betray me)	0.42	0.27	0.53 (0.67)
7. Cuando proporcione datos personales siento temor a que me puedan extorsionar. (When I provide personal information, I feel that I can be extorted)	0.70	0.55	1.51 (0.95)
8. Cuando veo personas con carros de modelo reciente siento que puede ocurrir algún hecho violento. (When I see people with recent-model cars, I feel that a violent act can occur)	0.62	0.55	1.43 (0.96)

Concurrent Validity

The concurrent validity of the scale was analyzed by correlating the score of the PTS and the scores of the scales of anxiety (STAI and AMAS-A), stress (Stress Profile) and depression (PHQ-9). All of the correlations were statistically significant (see table 2) and ranged from $r = 0.21$ (trait anxiety) to $r = 0.36$ (physiological anxiety).

Table 2 *Correlation between the Paranoid Thoughts Scale and the rest of the scales*

Other Scales	Paranoid Thoughts Scale Total Score
State Anxiety (STAI)	0.29**
Trait Anxiety (STAI)	0.21*
General Anxiety (AMAS-A)	0.33**
Worry/Oversensitivity (AMAS-A)	0.21**
Social Concerns and Stress (AMAS-A)	0.27**
Physiological Anxiety (AMAS-A)	0.36**
Stress (Stress Profile)	0.33**
Depression (PHQ-9)	0.35**

Note. * $p < .05$. ** $p < .01$

The frequencies of the responses of the PTS were calculated (see table 3) and in all of the items many people reported at least the option of sometimes.

Table 3 *Frequencies of responses for each item of the PTS*

Item	Response Options			
	Never	Sometimes	Often	Always
1. When I am walking or driving I feel that I am being followed.	32.0%	54.4%	9.5%	4.1%
2. When someone calls me on the telephone, I feel it is to extort me.	42.0%	44.4%	11.2%	2.4%
3. When I hear any loud noise I think it is a gunshot.	20.2%	43.5%	22.6%	13.7%
4. I feel that someone is watching over me or my family.	52.1%	31.4%	13.0%	3.6%
5. When a stranger comes up to me on the street or a public place, the first thing I think is that he/she will hurt me.	11.8%	55.0%	19.5%	13.6%
6. I feel that my friends might betray me.	56.8%	34.3%	8.3%	0.6%
7. When I provide personal information, I feel that I can be extorted.	11.9%	45.8%	22.0%	20.2%
8. When I see people with recent-model cars, I feel that a violent act can occur.	16.7%	40.5%	25.6%	17.3%

Discussion and Conclusion

The study validated the Paranoid Thoughts Scale in a Mexican population. The sample was obtained in Juarez, being the most violent city of the world in 2010, from different areas of the city. Even though the sample

was not selected randomly, participants were recruited from places with different levels of socioeconomic status. The analysis indicated a one factor solution were all of the items loaded into that factor and the internal consistency of the scale was good ($\alpha = 0.85$). This scale measures a psychological phenomenon, observed by researchers residing in Juarez, that was believed to be related to other mental health scales. The scale correlated with depression with $r = 0.35$, with stress $r = 0.33$ and with general anxiety $r = 0.33$. The concurrent validity was also acceptable for this scale.

The sample was obtained in 2011, a violent year that had a significant decrease in violence compared to the previous year, but a sample that had lived almost 4 years of violence. The results shown in table 3 indicate how for most of the items, except for items four and six, more than half of the sample reported at least having paranoid thoughts “sometimes”, and for items five (“When a stranger comes up to me on the street or a public place, the first thing I think is that he/she will hurt me”) and seven (“When I provide personal information, I feel that I can be extorted”) more than 88% reported having the thoughts at least “sometimes”. The thoughts with the highest rate of people answering “always”, around 20%, were items seven (“When I provide personal information, I feel that I can be extorted”) and eight (“When I see people with recent-model cars, I feel that a violent act can occur”). Results from this scale could help mental health providers to identify paranoid thoughts related to social violence and focus on those thoughts to eradicate them from people to help them have a better mental health.

As far as we researched this topic in several databases, this study proposes a new construct characteristic of people that live in places that experience social violence that has not been measured like it is measured with the PTS. The next step will be to validate this scale in other places in Mexico and other Spanish speaking countries. Also the scale should be translated to English using the translation-back translation method to study the scale in English speaking countries. Also, it is important to study the relationship of this scale with other psychological constructs to place the PTS in a wider nomological network (Cronbach & Meehl, 1955).

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Work-Family Conflict And Burnout In Turkish Banking Industry¹

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Abstract

Work-family conflict and burnout which have based upon organizational expectations, are discussed as management issues with regards to conduce toward adverse outcomes for individuals, organizations and even for the whole society. As a result of work overload, long and irregular working hours, pressures about performance, job insecurity which is a consequence of financial risk factors as banking industry is associated with other industries, experiencing work-family conflict and burnout may seem possible for employees working in the banking industry. Thus, the banking industry is determined as the research area. In order to make the research more specific, pronouncements of industrial unions have been investigated, and then, researcher asked to bankers, who resign or retired, as if they had problems or vocational issues related with management and organization. Information achieved by literature review and the data collected from both retired and resigned employees have shown that problems of bankers are related with antecedents of work-family conflict and burnout. After that, data was collected from 307 bankers with quantitative research method. Analyses show that both work-family conflict and burnout experienced by bankers are at the average level and the positive correlation between work-family conflict and burnout has been found.

Keywords: Work-family conflict, burnout, banking industry

Introduction

In recent years, with rapidly increasing competition between organizations is also reflected in the employees' qualifications. Therefore, employees have to improve themselves constantly for their responsibilities and obligations of the working life. In such a working environment,

¹ This study was generated from master thesis named as "Relationships Between Work-Family Conflict And Burnout: A Research In Banking Industry".

individuals referred to devote themselves to business, have difficulties to establish the work and family balance. Uncertain working hours or overtime, psychological pressures towards employees for more loyalty and commitment to their organizations, increase of managers' domination, performance and productivity pressure, job insecurity and such unfavourable working conditions make work-family balance more difficult.

The main reasons of studying work-family conflict in different disciplines are cultural changes and converted social structure. Especially the changes of family structure from traditional extended family to modern nuclear family lead to increase individuals' responsibility for family life. The tension between work and family increases because of increased participation of women in working life, drawing away from parents who support the domestic family affairs, the difficulty of living in urban areas; while bosses have expectations of efficiency and effectiveness in business, family members have expectations more involvement and fondness.

In modern life, people have two main focus in their lives, one is work and the other is family. All expectations of those areas are important for individuals but when people have to give priority to expectations of work, they possibly live work-family conflict because of deferring family matters. As in all role ambiguity, inconsonance and conflict between different roles is the reason of potential tension. Tensions arising from interactions between work and family roles leads to dissipation and exhaustion. As a result of the interaction of many variables, particularly tension in family and working life; physical, emotional and mental energy losses are observed and it is named as "burnout".

Burnout caused by work-family conflict is evaluated as a major management problem and it causes individual, organizational and even social issues. In today's market economy practices, "customer focus" understanding of the banking and finance industry comes at the beginning of the most intense industries. That's why, people work in those industries, are more likely to experience work-family conflict and burnout.

Literature Review And Theoretical Background

Work-Family Conflict

As more women actively take part in work life, the number of double-income families has increasing day by day. This causes some changes between work and family roles and it is difficult for individuals to balance work and family roles and the fulfilment of necessary responsibilities. The failure of balancing the roles between work and family firstly causes role conflict (Çarıkçı and Çelikkol, 2009).

Work-family conflict is firstly evaluated by Kahn et al. in 1964 and they gave the concept in the literature. Kahn et al. (1964) appraised work-

family conflict as bidirectional and one-dimensional and they defined it as the emergence of two or more roles simultaneously which is quite difficult to adapt to the other one. Afterwards, Holahan and Gilbert (1979); Bohlen and Viveros Long (1981) evaluated work-family conflict as not only the effect of work on family or family on work but also the framework of work-parent conflict and work-spouse conflict (Ford et al., 2007). Greenhaus and Beutell (1985), based on the study of Kahn et al., defined work-family conflict as a kind of role conflict. According to them, work-family conflict is the pressure of incompatible roles of work and family domains on individuals. Grandey and Cropanzano (1999) defined work-family conflict as a loss of resources in the fulfilment process of work and family roles. Those resources are not only physical resources such as time and money but also include individuals' emotions and energy.

Some unfavourable outcomes of work-family conflict are job dissatisfaction, intention to leave, physical and emotional exhaustion, depression, burnout and all of them are based on the theory of scarce resources (Tsai, 2008). The theory implies that individuals tend to access the resources and keep them in their hands; in case of a loss of resources or a failure to obtain expected resources will lead individuals to be stressed. Individuals stress because they lost their resources when the fulfilment of the requirements of work and family responsibilities. The emergence of a conflict between the roles in the use of resources may lead to a further increase in this stress (Grandey and Cropanzano, 1999).

When individuals spend more time or energy for one of work or family matters, or he has more commitment to one of them, the other one is neglected and some responsibilities cannot be fulfilled properly. In this case, depending on the neglected side, people may experience work-family conflict or family-work conflict. So if individuals' responsibilities in their working lives prevent to satisfy family necessities, they experience work-family conflict but if individuals' responsibilities in their family lives prevent to meet their responsibilities at work, they experience family-work conflict (Giray and Ergin, 2006).

Dimensions of work-family conflict

The basis of conflict is expressed with three dimensions in the work-family conflict literature. As many studies discussed, these are; time-based conflict, strain-based conflict and behaviour-based conflict (Elloy and Smith, 2004).

Time-based conflict: This type of conflict occurs when the time for one role is too much and it blocks the time for another one (Turgut, 2011). The first reason of time-based conflict caused by the work is weekly working hours (Greenhaus and Beutell, 1985). As it is known that spending so much

time at work prohibits to allocate time for family life and it is also clear that having indeterminate working hours, namely the employee doesn't know his working hours and the days off, is one of the reasons of work-family conflict (Staines and Pleck, 1984). Besides, the studies based on this issue have proved that shift workers have more family problems compared to workers in standard working hours. Shift workers have difficulties in keeping up with daily routines and social activities of their families. Employees' one of the most crucial family problems is having not enough time to spend with their children especially who work until late (Finn, 1981). Barnes-Farrell et al. (2008) stated that employees who have to work in Sundays and whose working hours has been changed usually have some difficulties to meet family demands and so they experience work-family conflict intensively.

Besides the long and non-standardized working hours, inflexible working hours is one of the reasons of time-based work-family conflict, too. Individual control and flexibility over working hours of individuals would decrease work-family conflict is described by Herman and Gyllstrom's study. With respect to this study, academic staff who has longer but flexible working hours experience less work-family conflict compared to administrative staff who work shorter in standardized working hours (Herman and Gyllstrom, 1977). Nevertheless, recent studies on this subject clarify that inflexible working hours may be never-ending working hours. Employees may face with demands from their job in any time and any extent under the name 'inflexibility'. By all means, this make it difficult for employees to distinguish work and non-work life and it can be a source of conflict (Schieman et al., 2009).

Time-based conflict arising from family issues are related with demographics such as gender, marital status, the number and age of children. Being married women with children means more family responsibilities and so they have to allow more time for their families. That is the reason why they may face with more work-family conflict (Greenhaus and Beutell, 1985). Having a working spouse is another source of work-family conflict. Studies revealed that especially men, whose wives working in professional jobs or managerial positions experience more work-family conflict. If one of the spouses who are responsible together for the family, devotes or has to devote himself/herself to work, the other one has to take family responsibilities on her/his own and this makes it difficult to fulfil the responsibilities related to work (Greenhaus and Kopelman, 1981).

Strain-based conflict: As the other dimension of work-family conflict, strain-based conflict emerges if there is fatigue, tiredness, trouble and tension because of completing things to do in a sphere and this prevents the fulfilment of another necessities (Turgut, 2011). Grzywacz et al. (2007)

adverted that the physical and emotional exhaustion experienced in the workplace prevent the fulfilment of roles at home. For instance, employees working in noisy environment or feeling the pressure from managers to complete the works cannot leave that strain at work and reflect it to their spouses and children negatively.

Strain-based conflict is also associated with dispersion of stress which experienced in a scope and reflects to others. Psychological, physical or behavioural forces that weaken the employees are stated as sources of stress (Thomas and Ganster, 1995). In this context, strain-based conflict reasons arising from work are job insecurity, the lack of authorisation, severe working conditions and the ability of accession to employees all the time through modern technology (Schenewark, 2008).

Strain-based conflict reason arising from family is the lack of support that could reduce the conflict. A spouse can reduce the conflict by sharing the responsibility of family affairs and supporting him in stressful situations. In case of career intension of spouses are so different from each other, they may have difficulties to understand each other's responsibilities and this raises the possibility of conflict. Otherwise, if spouses cannot have a consensus on family responsibilities, they will probably experience strain-based work-family conflict (Greenhaus and Beutell, 1985).

Behaviour-Based Conflict: Some behaviours that is appropriate and efficient in a scope of life may be inappropriate and ineffective for another extent (Schultz, 2009). When individuals have difficulties in meeting discordant behavioural demands and cannot changed their behaviour in transition from work life to family life, it is possible to face with behaviour-based conflict (Greenhaus and Beutell, 1985; Edwards and Rothbard, 2000). If an individual's role behaviours in his working life effect or inhibit role behaviours in his family life, he will experience behaviour-based work-family conflict; but if this effect or inhibition is from family to work, behaviour-based family-work conflict will experienced (Behson, 2002).

The effect and reflection of role behaviours in a field of life to another's is clarified with spill over theory. The theory explains even though there is not any conflicting demands, there may be some interactions between roles (Edwards and Rothbard, 2000). Individuals' inability to adapt their attitudes and behaviours immediately when switching between roles explained in spill over theory and positive or negative effects are in question (Kossek and Ozeki, 1998). As an example, an individual who is in a stressful period in his family life and reflects it in his behaviours in working life and cannot work effectively is a negative spill over effect; an individual who is happy with his family and reflects it to his working life and works more effective is a positive spill over effect (Bragger et al., 2005).

As previous studies predicted that time-based and strain-based work-family conflict can be decreased by social and organizational policies. However, behaviour-based conflict is related with self management and individual solutions are needed. As it is believed to be rational and emotionless in work life but emotional and warm in family life as usual; reducing behaviour-based conflict is related with individual ability to behave appropriately in right place and right time rather than administrative practices (Turgut, 2011).

Burnout

Burnout, a problem observed frequently in today's working life began to be treated as a social problem in 1970s for the first time. Burnout was firstly described as an "occupational hazard" by Freudenberger (Maslach and Goldberg, 1998). Freudenberger (1974: 159) defines burnout as *"to fail, wear out, or become exhausted by making excessive demands on energy, strength, or resources."* and then he adds *"it is a state of mental and physical exhaustion caused by one's professional life"*.

According to Cherniss (1980), burnout is a negative conversion process of employees' attitudes and behaviours as a response to work-related stress. Edelwich and Brodsky (1980) defines burnout as a process of losing employees' energy, purpose and ideals as a result of working conditions in the service sector. Pines and Aronson (1988: 9) do not limit burnout to be in a particular sector and they define it by referring to the physical effects on individuals: *"Burnout is a state of physical, emotional and mental exhaustion caused in highly motivated workers by disenchantment and continuous struggle with situations that are emotionally demanding."*

The most commonly used definition of burnout is made by Christina Maslach, who is known with her studies about the subject. According to Maslach (2003: 2), *"burnout is a syndrome of emotional exhaustion, depersonalization, and reduced personal accomplishment that can occur among individuals who do 'people work' of some kind."* Burnout is a response to the emotional strain of dealing extensively with other human beings, particularly when they are troubled or having problems. That's why, it is considered as a type of job stress. Despite the fact that it has some of the same destructive effects as other stress responses, what is unique about burnout is that the stress arises from the social interaction. In another saying, burnout is a chronic affective response pattern to stressful work conditions that features high levels of interpersonal contact (Cordes and Dougherty, 1993).

Dimensions of burnout

Burnout is composed of three dimensions as a process: emotional exhaustion, depersonalization, and reduced personal accomplishment (Maslach and Jackson, 1981). Although each dimension is a part of process, it can be observed simultaneously in the arising of burnout.

Emotional Exhaustion: Emotional exhaustion is the first and the key dimension of burnout. The fundamental factor that cause individuals to feel emotionally exhausted is excessive psychological and emotional demands (Deckard et al., 1994). Emotional exhaustion may coexist with feelings of frustration and tension as workers realize they cannot continue to give of themselves or be as responsible for clients as they have been in the past (Cordes and Dougherty, 1993). The major sources of emotional exhaustion are work overload and personal conflict at work. People feel drained and used up and also they lack enough energy to face another day or another person in need (Maslach and Goldberg, 1998).

Depersonalization: Depersonalization reflects interpersonal aspect of burnout. It refers to a negative, callous, or excessively detached response to other people who interact because of work (Maslach et al., 2001). Lee and Ashforth (1990) argued that depersonalization constitutes one form of defensive behaviour, defined as reactive and protective actions intended to avoid an unwanted demand or reduce a perceived threat. Thus, depersonalization is associated with psychological strain and with escape as a method of coping. It is a protection against further emotional drain up to a certain level. However, if the degree of emotional distance is high, depersonalization will lead to callousness and cynicism (Deckard et al., 1994).

Reduced Personal Accomplishment: The dimension of reduced personal accomplishment represents the self-evaluation dimension of burnout. It refers to feelings of incompetence and a lack of achievement and productivity at work (Maslach et al., 2001). This lowered sense of self-efficacy has been linked to depression and an inability to cope with the demands of the job. Also, this make sense about inability to establish a good communication and interaction with other people and this may result in a self-imposed verdict of failure (Maslach and Goldberg, 1998). In some cases, reduced personal accomplishment emerges either exhaustion, depersonalization, or a combination of the two. The reason of this is the difference between causes of emotional exhaustion, depersonalization and reduced personal accomplishment. Whereas work overload and social conflicts lead to emotional exhaustion and depersonalization, the lack of significant opportunities about the work leads to reduced personal accomplishment (Maslach et al., 2001).

The Scope And Aim Of Research

Work-family conflict and burnout caused by organizational demands are management problems as both of them end up with individual, organizational and even social problems. The reason of choosing banking industry for the field research is the prediction of work-family conflict and burnout could extremely be seen in banking industry because of work overload, excessive working hours, performance pressures, job insecurity caused by the financial risks arising from being associated with many other industries, etc. In order to make the subject more specific, firstly, declarations of the unions which established for bank employees were examined and then employees' opinions were obtained who left or retired from the related industry. They were asked if there were problems or other issues in terms of management and organization.

Declarations of Bank-Sen and Bass-Sen unions which were established in order to support the employees in the bank and insurance industry were examined in the industrial research. In those declarations, some issues were clarified such as excessive working hours (50-60 hours per week), overtime and working requirements at the weekends, violating the upper bound of overtime (270 hours per year), unpayment of overtime, difficulties when using annual leave, collective redundancy and so on (www.banksen.org.tr; www.bass-sen.org.tr). In addition to literature review, employees who worked in banking industry and then left or retired were asked if they had problems or issues when they were working to gain objective data and to evaluate the first predictions. In this context, five people stated in writing their problems and issues they experienced in working life. According to those statements, injustice about salaries is widespread in banking industry. This situation was stated as: *"Employees' salaries are different from each other even if they stand side by side and do the same work. Salaries depend on the branch size, not on the workload. For example, there may be differences of branch managers' salaries close to 2,5-3 times."* Employees could be promoted or stepped down depending on the success of the branch they worked in. That means there is not any guarantee of positions. It is also so common for managers to fire some of the less productive employees to retrench in the times of economic fluctuations or reduction of interest.

The most important things are productivity, performance and achieving the goals in banking industry. The goals are offered to employees quarterly which are quite difficult to achieve. Meetings are organized at the end of each quarter and if employees did not achieve the goals, it would be possible to hear that they did not deserve their salaries and even about designation, assignment to another unit which has more difficult working conditions or the termination of contract. Some goals are offered daily,

weekly or monthly such as credit, funding, savings, pension insurance, debt securities and employees are monitored continuously to realize them. In the monitoring process, employees are visited by the headquarters or instructions are given by email or telephone. It is believed that such bringing employees to account and imposing stress to a degree keep employees alive but limits are passed and things overdone. Moreover, finishing the work earlier does not mean to leave earlier as it is a negative perception in the organizations. In here, 'early' means at least having reached the end of the eight-hour working time and the time that branches already closed. That's why, they have to work overtime everyday and so they cannot take time for their families as they complained.

Bank employees are under the stress constantly in a risky environment in which they have to be careful all the time to make appropriate credit legislation, make the right transactions at the right account, accurate collection of money and so on. And they know that any mistake may cause termination of their employment. Young bank employees do not think to retire from the banking industry. Instead, they plan to quit after some time when they have the right to take compensation. Nevertheless, some of them cannot tolerate and resign in just 6 months or in a year after. It is also stressed that bank employees often face with some illnesses that caused by stress like anxiety and other psychological disorders, diabetes, hypertension or hypotension, cholesterol, triglycerides and heart diseases.

Statements of bank employees and the previous research results are in the same direction. The correlation between work-family conflict and excessive working hours was expressed in many studies (Greenhaus and Beutell, 1985; Gutek et al., 1991; Adams and Jex, 1999; Elloy and Smith, 2004). The lack of specific daily working hours and working at the weekends also lead to increase work-family conflict (Staines and Pleck, 1984). Job insecurity, unauthorization and being accessible via various communication channels in any time cause physical and emotional exhaustion and also restrict the time for families (Schenewark, 2008). Similarly, workload and monotony (Freudenberger, 1974), lack of financial and social rewards (Cordes and Dougherty, 1993, Maslach et al., 2001) and work-related stress factors (Frone et al., 1992) give rise to burnout. Especially in the service sector, emotional exhaustion may be experienced intensely as face to face communication with clients is a requirement (Cordes and Dougherty, 1993). Leiter and Maslach (1999) point out that lack of control over work, lack of participate in decision making, organizational injustice and value conflicts cause depersonalization and reduced personal accomplishment. With respect to previous studies and information gained from bank employees, we started to study with this assumptions: Employees experience work-family conflict,

emotional exhaustion, depersonalization and reduced personal accomplishment in the banking industry.

Research Model And Hypotheses

In parallel with the increasing competition in the free market economy, organizations increase their expectations of the human resources they have. Employees have to take so much time for their works as they consistently canalized for improving themselves for work and being productive all the time. Employees have difficulties in balancing work and family lives as the time passed by working and work-related stress factors affect the non-business life. They face with conflicting expectations simultaneously, so they affected psychologically by those conflict and they express it with a variety of emotional responses (Jawahar et al., 2007).

As a chronic response to stressors at work, burnout and work-family conflict relationship has been the subject of previous international studies. Lee and Ashforth (1996) conclude that role conflict is related with emotional exhaustion ($r = .53$), depersonalization ($r = .37$) and reduced personal accomplishment ($r = .21$) with their meta-analysis. Ádám et al. (2008) indicate the relationship between work-family conflict and burnout have based on the scarcity of resources theory. Theory states that limited time and energy prevent individuals to meet all demands at the same time. Despite of limited resources, dealing with the expectations of both work and families at the same time results as conflict, strain and burnout. One of the most recent researches on the subject mentions the scattering effect of conflict and burnout and uses the expression of "work-family burnout" (Livingston, 2014).

Based on those studies, hypotheses are defined as follows and the proposed model of the research is stated at Figure 1.

H_{1a}: There is a positive correlation between work-family conflict and emotional exhaustion.

H_{1b}: There is a positive correlation between work-family conflict and depersonalization.

H_{1c}: There is a negative correlation between work-family conflict and personal accomplishment.

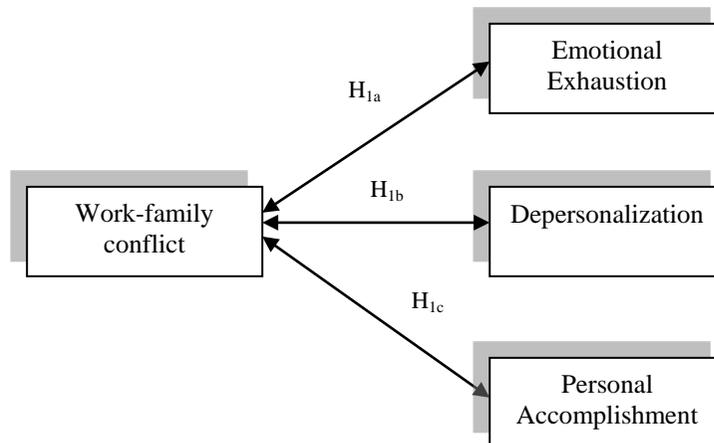


Figure 1. Proposed Research Model

Research Sample

This research was conducted in a city of Turkey, named Denizli and aimed to analyze bank employees. According to the data of The Banks Association of Turkey, number of branches operate in Denizli is 159 and number of bank employees is 1951 (www.tbb.org.tr). Convenience sampling method has been used in order to reach more employees and achieve a sufficient sample size. Branches has been chosen randomly and most of the questionnaires delivered by hand and some of employees preferred to respond via e-mail. We have reached 450 bank employees by these methods yet some of them could not response because of workload and lack of time. With a total of 313 questionnaires were obtained about 70% return rate and 6 of them was elected because of uncompleted answers. Consequently, 307 questionnaires were endorsed to analyze. As Saunders et al. (2009) stated in condition of 95% confidence interval and 5% margin of error, at least 300 respondents needed to represent the population. That is to say, we reached sufficient sample size in this research to generalize the results.

Research Findings

In order for testing the main hypotheses (H_{1a}, H_{1b}, H_{1c}) which state the correlation between work-family conflict and burnout dimensions, spearman correlation analysis has been used. The results of analysis are as seen in Table 1. As there is a significant (p=,000) and positive (r=,658) correlation between work-family conflict and emotional exhaustion, H_{1a} has been supported. In the same vein, there is a significant (p=,000) and positive (r=,415) correlation between work-family conflict and depersonalization, H_{1b} has also been supported. And the last hypotheses, H_{1c} has been supported too because of the significant (p=,000) and negative (r=-,267) correlation between work-family conflict and personal accomplishment. These results

are in accordance with previous studies that evaluated work-family conflict and burnout dimensions (Peeters et al., 2005; Haar, 2006; Ádám et al., 2008; Cinamon and Rich, 2010; Langballe et al., 2011).

		Work-Family Conflict	Emotional Exhaustion	Depersonalization	Personal Accomplishment
Work-Family Conflict	Correlation Coefficient (r)	1,000	,658**	,415**	-,267**
	Significance (p)	.	,000	,000	,000
	N	307	307	307	307
Emotional Exhaustion	Correlation Coefficient (r)	,658**	1,000	,607**	-,343**
	Significance (p)	,000	.	,000	,000
	N	307	307	307	307
Depersonalization	Correlation Coefficient (r)	,415**	,607**	1,000	-,352**
	Significance (p)	,000	,000	.	,000
	N	307	307	307	307
Personal Accomplishment	Correlation Coefficient (r)	-,267**	-,343**	-,352**	1,000
	Significance (p)	,000	,000	,000	.
	N	307	307	307	307

**Correlation is significant at the 0.01 level.

Table 1. Spearman Correlation Analysis

If we investigate the dimensional correlations, we would also see significant ($p=,000$) and positive ($r=,607$) correlation between emotional exhaustion and depersonalization; and significant ($p=,000$) but negative ($r=-,343$; $-,352$) correlations between emotional exhaustion-depersonalization and personal accomplishment. Thereby the other researchers used Maslach Burnout Inventory demonstrated similar results (Lee and Ashforth, 1996; Diestel and Schmidt, 2010), these are expected results and both validity and clarity of the scale is approved once more.

Conclusion And Recommendations

The correlation between work-family conflict and burnout dimensions has been measured and evaluated in this study. Before the quantitative research, some qualitative data has been obtained from old bank employees who retired or left from the job. It was clear that they had crucial problems like long working hours, workload, indefinite and exceeding the legal limit of overtime, performance pressures, inadequate salary and unfair labour practices. Besides, employees stated that when they did not get expected rewards or promotions, their personal accomplishment was blowing

up. They also mentioned they experienced psychological and physical diseases because of excessive working hours and workload. That's why, employee turnover rates are so high in banking industry. As all of those issues are evaluated as antecedents of work-family conflict and burnout in the literature, this research started with the assumption that there could be high incidence of work-family conflict and burnout in banking industry.

In this study, hypotheses which was formed to investigate the correlation between work-family conflict and burnout were supported with quantitative research results. The direction of correlations was positive between work-family conflict and emotional exhaustion-depersonalization; and negative between work-family conflict and personal accomplishment as expected. Thus, proposed research model has been recognized.

The recommendations developed in line with the results of the study, are assessed with individual, organizational and governmental level. First of all, employed individuals have to take responsibility of both family and work simultaneously. At this point, adoption of new behaviours that are appropriate to the nature of the nuclear family are needed to avoid from work-family conflict and burnout. Although nuclear family structure is adopted apparently in countries like ours, essentially traditional extended families' role behaviours are continued which include patriarchal features. This place a strain on married and employed women as they undertake both housework, childcare and responsibilities of their work. The solution is simple but the adoption of behaviours may take so many time and effort. That adoption include the share of family responsibilities with other members of the family. The members of extended family may help or someone from outside of the family can be employed for housework and childcare.

Secondly, organizations should not be ignore families of employees to retain work-family conflict and burnout. It is possible to support employees by the following ways; organizing social events for employees which they can join with their families, regarding permission requests of employees in the time of family needs or in special days as considerable, avoiding from the restriction of legal permissions like maternity leave, marriage leave and so on. These practices will make it easier for employees to fulfil their family responsibilities and concentrate on their work.

It is hard to make any recommendation about indefinite and long working hours, workload, performance pressure, etc. as they are all nature of banking industry. However, some practices may reduce conflict and organizational burnout such as being fair about rewards and promotions, supporting educational activities that motivate employees for success, getting in contact with employees, giving attainable performance goals in accordance with economic conditions, empowerment of employees by letting

them to participate in decision making process and so on. Another recommendation for organizations is about time saving. Organizations can support employees to reduce the time on road when their arrival or departure by a shuttle bus or support to live in close places. By this way, employees can take more time for their family lives.

Alongside of individual and organizational practices, work-family conflict and burnout can be reduced by macro practices executed by government. For instance, the government can open day care centers to solve the childcare problem of working parents or the government can foster the organizations to open such places for their employees' children. Another precaution is about controlling of industrial law enforcement whether the organizations obey the rules about annual leaves, maximum working hour limit, paying overtime wage, etc. This should be done for saving the rights of employees. The government can also make contribution to reduce conflict and burnout by various family friendly policies. Those policies help employees to take more time for their families and include; intensive working weeks, flexible working hours, allowance to leave for families, telecommuting or working in home office.

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An Evaluation Of The Relationship Between Budget Deficits And External Debt: The Case Of Turkey And Spain

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Abstract

Budget deficit is an important economic problem subject that is emerging in today's world, especially in many developed and developing national economies. Within this scope, as domestic resources are inadequate in the developing or underdeveloped national economies, these countries have to use several financing means in order to maintain economic growth and development. One of the most important one of these means is external debts. In this regard, external borrowing is an indispensable financial resource for today's countries. In addition, financial integration movements accelerates many countries around the world who seek borrowing more easily. Hence, this leads to the creation of higher debt stock. At this point, the purpose of this study is to evaluate the relationship between budget deficits and external borrowing. In addition, it also aims to analyze the current data of Turkey and Spain economies.

Keywords: Budget Deficits, External Debts, Debt Stock, Turkey, Spain

Introduction

External debt is quite an important financial resource for many national economies around the world. In this context, external debts have been taken recently in order to reduce saving and external exchange gaps, close the budget deficits, and maintain the economic growth and development. When external debts taken due to inadequate domestic resources are used effectively, they will increase savings, investments, and employment opportunities. Also, they may speed up the economic growth and development process as well. However, the ineffective and the unproductive use of external debts results to several problems in the economy. As a result, external borrowing will become a current issue again in order to repay these debts.

In a national economy, budget deficits have been indispensable because of inadequate public revenues and increasing expenses. Thus, this is

the result of increasing the duties and functions of the public sector. In today's world, an important reason for budget deficits is the informal economy which has been increasing day by day and the governments which remain incapable in preventing such situation. Most especially in underdeveloped and developing countries, efforts of the governments to accelerate economic development and to industrialize the economy have been an important effect on debt increment. In this context, the continuous increase in debt has started to bring along the higher budget deficits.

However, if public revenues and entities of debtor nations are not enough to repay the external debts, countries in question may encounter debt crises. As for a discontinuing external debt stock, it might be a serious obstacle for the development and growth of a country. For this reason, countries should implement effective and productive debt management policies. Therefore, in political decision making period, it is essential to effectively and productively use external debts which have been transferred to the economy through external borrowing.

Budget deficits and borrowing relation

The concept of budget deficit is one of the most encountered situations in the developed and developing countries. This concept generally states that public expenses are more than public revenues. It has been tried in financing the budget deficits emerging in many countries around the world in recent years by means of seeking several methods. Of course, borrowing is the most used method of them. Increasing budget deficits in a national economy brings along the higher borrowing and it hinders the maintaining of the financial maintainability of the economy.

Financial maintainability is defined as the rate of public sector borrowing requirement to GDP in a national economy, rate of noninterest surplus to GDP in that country, and the rate of public debt stock to GDP which are stable or constant. In other words, the abovementioned three criteria which takes place together, in that each of those three is stable or constant, is the basic condition for financial maintainability (Croce & Ramon, 2003:5).

Therefore, lack of financial maintainability in a national economy and cyclical fluctuations in the economy are basic determinant factors in the formation of budget deficits. In addition, the most important items that increase the budget deficits are social safety and health expenses. In these countries, incurring expenses without considering the social and political balances increases the budget deficits. The increase in public expenses increase significantly as the tools and materials for defense are under development continuously, and when its costs are quite high (Akdoğan, 2009:81). In addition, differences in economic development between the

countries, administrative structuring, and social and political differences have an influence on budget deficits as well. Therefore, the state allocates much more resource to these fields due to structural problems (Akalin, 1993:210).

Within this scope, the borrowing reasons/factors of developing and underdeveloped countries are as follows (İnce, 2001:14):

- Capital stock is not at a significant level across the country.
- Big financing opportunities are required for industrialization and development.
- Industrial structure has been founded as external – dependent.
- Scientific and technologic innovations are monopolized by developed countries.
- Continuous public deficits and budgetary equilibrium cannot be maintained.
- Expenses of defense are at high levels.
- Natural resources and raw material are not enough.
- Chronic deficits of balance of payments are continuous.
- Refunding in order to pay the liabilities due.
- External exchange reserves are not at a significant level.

Today, in many countries, public revenues remain quite incapable to meet public expenses. Due to such reasons, the state applies for different financing resources which can be alternative to public ordinary revenues. In this regard, the state can apply for these methods in financing the budget deficits: domestic borrowing, external borrowing, monetization, using the external exchange reserves of central bank, privatization incomes, and short-term speculative capital flows (Fischer & Easterly, 1990:127).

Subsequently, it has been determined which and how the abovementioned public financing resources will be used according to the current economic policies in that country. In this context, if a wrong policy application is chosen, solidary negative effects and inescapable macroeconomic imbalances will be inevitable. As a result of this, public financing will become much more important.

Within this scope, the reason a country needs to borrow is described by financial reasons, economic reasons, and other reasons. Firstly, in considering the financial reasons, these include budget deficits, deficits in the balance of payments, and financing for big project or investments. Secondly, considering the economic reasons, they include the achievement of full employment in the economy and influencing the decisions of economic departments of the country in a positive manner. Finally, considering the other reasons, they are described as: financing for expenses of defense conducted across the country, financing for extraordinary expenses, and

refunding in order to repay the debts of the previous periods (Saatçi, 2007:95).

Effects of budget deficits on external debts

Borrowing that is quite important in terms of all the countries around the world, in order to maintain the economic growth and development, is described as an obligation which takes place depending on fund borrowing or the purchase of goods and services on credit. External debts have an important place among the external financing resources. In general, external debts are defined as loans borrowed by domestic established persons and institutions from the external persons and institutions in different ways (Evgin, 1996:15).

External debts can also be defined as transfer flows which are obtained generally from external resources. They have an increasing effect on national income during the period of borrowing, and a decreasing effect during the repayment period that appears as a result of international affairs (İnce, 1996:86). In the studies conducted by the World Bank and OECD, they stated that (WB&OECD, 1988:19): “*Gross external debt is the sum of obligations arising from the agreement and requirement to repay the capital with or without interest, or the interest with or without capital for the debts which should be repaid by residents in a country to non-residents in this country, which they have borrowed and haven’t repaid yet.*”

External debts are financing resources which are mostly applied by developing countries than the developed countries. They are used in facilitating economic growth and development purposes in these countries. Particularly in the developing national economies, principal external borrowing reasons include lack of national resources, public deficits at high levels, lack of domestic savings, and deficits in the balance of payments etc.

The basic reason why the external borrowing has become an obligation in terms of public sector is the difficulties experienced when the public expenses are financed by ordinary resources. In this regard, while external debts that have been used generally in development and growth of national economies were a source of income estimated to use only in extraordinary periods in the past, they have become an ordinary source of income today.

Subsequently, while external debts usually provide an additional resource to economy in a national economy, it results in an extra resource outflow from the country when interest and capital payments are made. In other words, in the repayment period of the debt, debtor countries have to decrease their investments, consumption, or both of them in proportion to debt servicing.

In a national economy, public deficits bring along certain important macroeconomic problems. However, the basic reason for this depends on how public deficits are financed. In this context, while closing public deficits through coining causes inflation in an economy. Also, closing them through domestic borrowing results to increase in the interest rates, credit crunch, and the exclusion of investments and consumption.

In this direction, it is possible to close the public deficits by different financing types according to the economic status. However, it is possible to mention a powerful relation between budget deficits and external borrowing in the economies whose national capital markets and domestic borrowing opportunities are limited. In this context, as a result of closing the public deficits through external borrowing in a national economy, it is stated that current account deficits will increase in this economy. Thus, in certain cases, crises might take place in balance of payments and external debt stocks (Easterly & Hebbel, 1993: 213).

Furthermore, as high budget deficits took place in a country in an easy way, it has an increasing effect on external debts. The increase in external debt stocks may cause negative effects on the general level of prices, employment, posterity, income distribution, and economic growth. External debts are an important resource for developing countries in terms of economic growth, financing of the investments, and importation. In recent years, however, negative effects have emerged as the rates of external debt which have reached high levels in these countries. Unsustainable levels of public debts causes negative results of external exchange crises, devaluation and credit erosion of the country, etc. (Pradhan, 2009: 2-3).

Within this scope, external debt maintainability problem gained importance across the world during the 1980's. As a result, those years are defined as "*years of external debt crises*" depending on external debt crises which many industrialized countries experienced in general (Yılcı & Özcan, 2008:91). Due to different reasons, countries are not able to repay the debts. In general, countries are not able to pay the debts because of three basic reasons in the literature. These reasons are: *Liquidity deficiency, Debt bankruptcy, and Being unwilling to pay the debts* (Önel, 2003: 2).

In most developed and developing countries, weak capital markets and limited opportunities of domestic borrowing result in meeting the budget deficits through external borrowing. As for the financing of budget deficits through external borrowing, it causes increment in external debt stock. In addition, increments in the external debt stock will result in the reformation of budget deficits. As seen herein, external debts emerge as both the reason and the result of the budget deficits (Arıcan, 2005: 93).

Budget deficits in turkey and spain - external debt issue

In general, external debts in a national economy make contribution to close the external commerce deficits and to remove the imbalances in the balances of payments. In this regard, external debts are effective in ensuring economic stability. These factors, however, may vary by conditions of external debt. Also, these conditions include the interest rate of the external debt, term structure, project and technology dependence, and so on (Eker & Meriç, 2000:248). In this context, while external debts create positive effect in a country during the period of borrowing, it causes negative effects during the period of repayment.

In many countries around the world, some basic problems of the economy include inadequate domestic savings and capital stock, high increments in the public expenses, external trade deficits requiring consistency, and requirement of external exchange at every period. These problems have increased the external debt usage of the countries. As a result, it has caused an increase in the total stock of external debt. High rates of external borrowing occur during the period of crisis. However, the countries in question leave the counties in a difficult situation during the period of repayment. This is because the external exchange resources were inadequate. As a result of such reasons, external debts reached an unsustainable point.

Along with globalization movements that are speeding up in today's world, countries have reached an outward-oriented structure. In this regard, an economic problem experienced by any country across the world would begin to affect any other country closely. In recent periods, borrowing crises experienced particularly in European Union countries have caused an increase in the studies conducted on these countries. Therefore, the purpose of this study is to evaluate the relation between budget deficits and external debt in terms of Turkey and Spain economies. Within this scope, we will analyze the total budget deficits and the total external borrowing of the national economies in question by means of the following tables.

Table 1. Basic Macroeconomic Indications in Turkey and Spain

Spain						
	Economic Growth (%GDP)	Current Account Balance (%GDP)	Export / Import (%GDP)	Investment (Annual variation in %)	Exports (Annual variation in %)	Imports (Annual variation in %)
2010	-2,5	-4,2	77,8	-4,9	9,4	6,9
2011	-0,6	-3,8	81,8	-6,3	7,4	-0,8
2012	-2,1	-3,6	88,2	-8,1	1,2	-6,3
2013	-1,2	-4,0	93,5	-3,8	4,3	-0,5
2014	1,4	-4,6	95,6	3,4	4,2	7,6
Turkey						
2010	9,2	-6,2	61,4	30,5	10,3	31,8

2011	8,8	-9,7	56,0	18,0	17,7	31,2
2012	2,1	-6,2	64,5	-2,7	13,7	-1,7
2013	4,2	-7,9	60,3	4,4	-0,1	6,5
2014	2,9	-5,7	65,1	-1,3	4,4	-3,6

Source: World Bank; Economic Indicators & IMF: World Economic Outlook Database

Table 1 above illustrates the annual several macroeconomic data of the Turkey and Spain economies. Within this scope, if we consider this data in terms of either country first, economic growth in Spain economy was -1,2 in 2013 and 1,4 in 2014. Thus, this rate was 4,2 and 2,9 for Turkey's economy. Then, if we consider the current account balance, while this rate in Spain was -4 in 2013 and 4,6 in 2014, this rate was 7,9 and 5,7 in Turkey. From the table, if we consider the rate of exports meeting imports, while this rate in Spain was around 95% in 2014, it was around 65% in Turkey. In addition to this, for the countries in question, it is possible to see annual exchange values of export, import, and investments in percent through the above table. Also, it can be seen as illustrated on graphics, various comparative rates of Turkey and Spain economies, in the Appendix.

Table 2. Budget Deficits and External Debt Indications in Turkey and Spain

Spain		
	Budget Balance (%GDP)	External Debt (%GDP)
2010	-9,4	61,5
2011	-9,4	69,3
2012	-10,3	86,1
2013	-6,8	92,6
2014	-5,8	97,6
Turkey		
	Budget Balance (%GDP)	External Debt (%GDP)
2010	-3,6	40,1
2011	-1,4	39,4
2012	-2,1	43,1
2013	-1,2	47,3
2014	-1,3	50,3

Source: World Bank; Economic Indicators & IMF; World Economic Outlook Database

In Turkey and Spain economies, budget deficits occurs because there is an ineffective tax system and public revenues which are incapable to meet the public expenses. In these national economies especially, budget deficits reached too high levels as a result of the experience of the global crisis in 2009. As for governments in these countries, they preferred to use domestic and external borrowing rather than an effective tax policy system to finance the budget deficits which were increasing very rapidly within a short time. Eventually, in parallel to the external debt stocks that are increasing rapidly, external debt services have also increased. Also, important pressures on the budget have become a current issue.

In economics literature, there are several studies demonstrating that debt crises takes place generally in countries whose external debt term structure is short. Thus, weak macroeconomic structure in these countries requires short-term borrowing. Furthermore, reaching the global capital markets has become easier through financial integration movements. As such, it has resulted in borrowing at high levels and in transferring these debts to the unproductive public expenses. As for short-term external debts at high levels, they render the countries weaker against the external shocks.

Conclusion

In recent years, of course a political stability is required to control the high budget deficits and decrease the external debt stocks in many countries across the world. As for increasing the tax rates which is the most common method to close the budget deficits, it will not be a permanent and effective solution. However, policymakers generally cut down the public expenses and try to close the budget deficits to some extent. As an effective way, it requires imposing legal and constitutional restrictions to public deficits and public debts in order to ensure that budget deficits and external debts are not above a certain level.

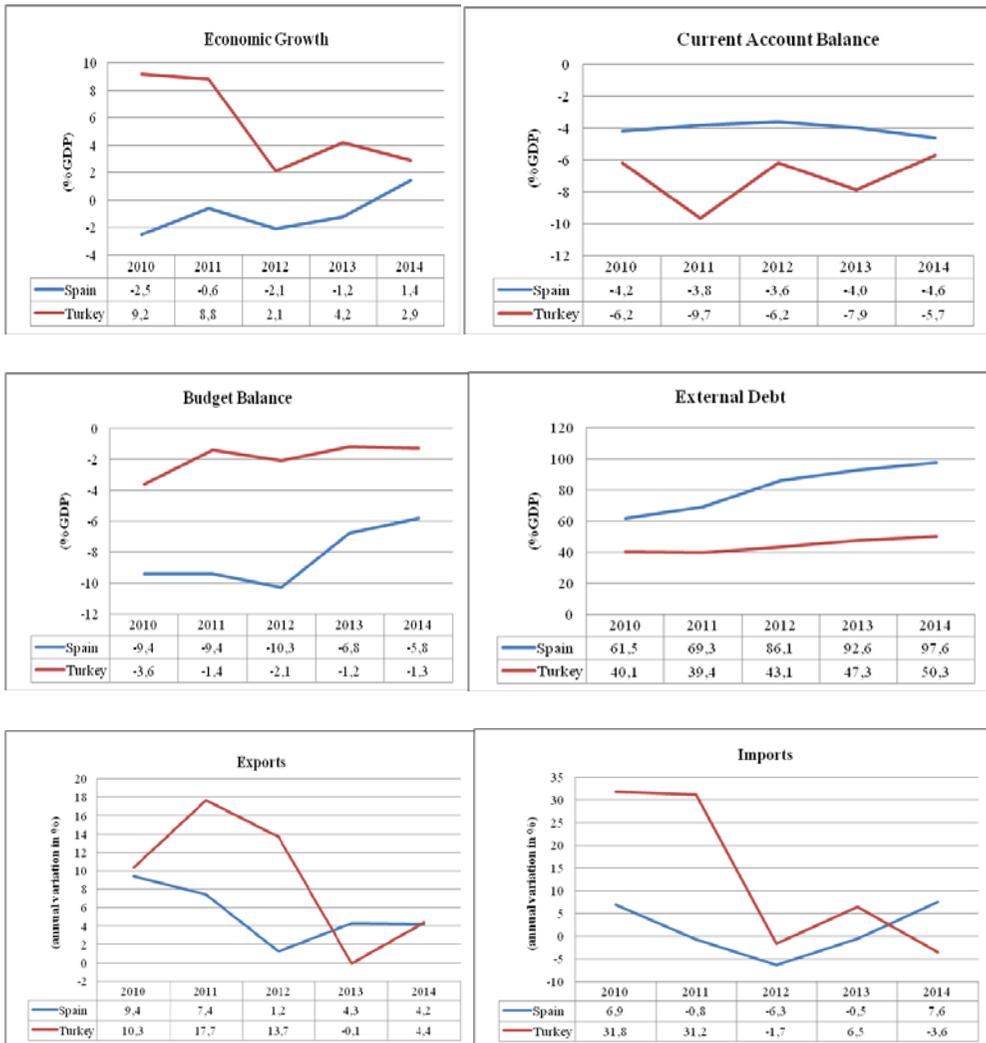
In an economy, when debt interests cannot be paid by budget incomes and are paid through refunding, it indicates that the country is at a debt bottleneck. In other words, it is possible to indicate that debt bottleneck is the continuous debt that is increasing in itself. In general, debt interests are met by budget incomes. However, when the interest load reaches high levels, it will be inevitable to apply the refunding in order to make interest payments. Such a situation results in a continuous increase in debt stock and then debt bottlenecks or debt crises.

However, in order to remove debt bottlenecks, budget incomes requires reduction to a level at which budget incomes can be covered. To be able to realize this, it is required to increase the revenues or decrease the expenses. In addition, provided there is a surplus in the budget, debt stock should be reduced in the long term. On the other hand, pressure of interests on the budget should be decreased. Today, certain regulation is required to be made in order to decrease the public deficits particularly in the developing countries. These regulations can entail the fact that it is required to increase the tax incomes so that public incomes have parallels with public expenses. In order to increase the tax incomes, it is required and important at this point to decrease tax rates, expand the tax base, and prevent the informal economy.

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Appendix



Calculation Of Economic Well-Being Using Nonparametric Approach

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Abstract

The aim of this paper is to present the analysis of measurement of economic well-being by the index of economic well-being for selected OECD countries. The report also outlines trends in the four domains of economic well-being that create the index. The domains are consumption, wealth, economic equality, and economic security.

Furthermore, the paper offers an analysis of the sensitivity of our results to the choice of weights assigned by means of data envelopment analysis (DEA) model to these four domains and a description of the performance of the index of economic well-being compared to GDP per capita through the most recent recession that caused declines in both, real GDP per capita and the index of economic well-being.

Keywords: Economic well-being, IEWB, quality of life, DEA model

Introduction

In the current period, is very commonly pointed out that in a globalized economy the indicator of GDP respectively GDP per capita is not sufficient for measuring well-being of individuals and there is a need to define new measurement that will remove its shortcomings. Although the creators of the national accounts may protest that indicator of gross domestic product measures the aggregate money value of economic output and this indicator has never been intended for use as a full measure of economic well-being, but it is often being used so. In our opinion, generated alternative indicators can be divided into two groups, depending upon whether the indicators have been created to govern or to complement values of GDP or the indicators are designed to replace the GDP.

In this paper we focus on the index of economic well-being (IEWB). In 1998, the Centre for the Study of Living Standards (CSLS) released the first empirical estimates for Canada of the Index of Economic Well-being

(Osberg and Sharpe, 1998), a composite index based on a conceptual framework for measuring economic well-being developed by Osberg (1985).

The index attempts to construct better measures of effective consumption and social accumulation. It combines different approaches which include the current prosperity that is based on consumption, sustainable accumulation, and social issues (reduction in inequalities and protection against social risks). Environmental issues are addressed by the cost of CO₂ emissions per capita and inequality is measured by the Gini index and a level of poverty.

Finally, four key social risks are identified, including unemployment, risk of disease, poverty, single parents and pensioner poverty. The costs are estimated as the probability that the individuals are currently in the state of financial emergency and there is a need for compensation by the social system e.g. risk of unemployment is assessed by multiplying the level of unemployment and average income of unemployed from the social system.

The framework of the IEWB is based on two main ideas. First, economic well-being has multiple dimensions and an index should reflect that fact by aggregating measures of the various domains of economic well-being. Second, an index of economic well-being should facilitate public policy discussion by aggregating across the domains of economic well-being in a way that respects the diversity of individual values. Individuals differ (and have a moral right to differ) in the relative weights they assign to different dimensions of economic welfare, and an index should be useful to all individuals irrespective of those value differences (Osberg, Sharpe, 2011).

While focusing on the economic aspects of well-being we do not undervalue the importance of non-economic issues. Same as the authors of the IEWB, we are inspired by the idea that a better measurement of a better standard of living is needed if economic and social trends are to be combined into an index with larger ambitions.

The hypothesis is that indices of well-being can help policy makers to come to reasonable answers about social choices if information is presented in a way that highlights the objective trends in major dimensions of well-being and thereby helps policy makers to come to summative judgments but also respects potential differences in values (Osberg, Sharpe, 2009).

Methodology and data

For assessing the economic well-being we used data from the World Bank, UNSD Statistical Databases, and Databases of European Commission as well as data from Statistical Office of the Slovak republic. The assumption is based on the fact that current prosperity is based on consumption, sustainable accumulation, and social topics. Weights are assigned based on the Center for the Study of Living Standards – CSLS: per capita

consumption (0.4), the stock of wealth (0.1), equality (0.25), and economic security (0.25). Although these weights reflected observed aggregate proportions for consumption and savings, the authors were criticized for a bias against sustainability because of the low weight for the stocks of wealth. Therefore we also offer a sensitivity analysis of our results to the choice of weights allocated through DEA model and we describe the performance of the economic well-being compared to GDP per capita.

DEA method allows evaluating the effectiveness of individual producer within the given group of data. DEA method is in comparison with statistical and other methods relatively new non-parametric method, which is one of the possible approaches for evaluating the efficiency and productivity of homogeneous production units. DEA model allows an individual assessment of the effectiveness of individual production units with respect to the entire set of units, which belongs among its greatest advantages.

In addition to the allocation of units on effective and ineffective scale, we are able to identify the source of inefficiency for the ineffective organizational units and also identify the way in which the unit could reach efficient scale.

For purposes of calculating optimal weights is sufficient to use the modification of the basic model proposed by A. Charnes, W.W. Cooper, E. Rhodes (1978), named in accordance with the authors' names CCR. The idea is based on the evaluation of the efficiency as a proportion as of virtual aggregate output and virtual aggregate inputs. Adhere to the used terminology we assess the effectiveness of j individual decision-making units (DMU) transforming m inputs to n outputs. Each DMU (indicated by an index of 0) addresses optimization problems with a focus on outputs:

$$\min z_0(\mathbf{u}, \mathbf{v}) = \frac{\sum_{i=1}^m x_{i0} v_i}{\sum_{r=1}^s y_{r0} u_r} \text{ with restrictions}$$

$$\frac{\sum_{i=1}^m x_{ij} v_i}{\sum_{r=1}^s y_{rj} u_r} \geq 1 \quad (j = 1, 2, \dots, n)$$

$$u_r \geq \varepsilon \quad (r = 1, 2, \dots, s)$$

$$v_i \geq \varepsilon \quad (i = 1,$$

2, ..., m),

where z_0 is the objective function expressing the efficiency of the inverse relationship in terms of inputs and outputs, x_{ij} input i used by j DMU and the element y_{ij} is the i output produced by DMU of j . ε is small positive number Added to the limits in order to identify so-called weak

efficiency. The transfer of the problem to the linear form we achieve by the Charnes-Cooper transformation of variables using substitution:

$$\mu_r = t u_r \quad (r = 1, 2, \dots, s)$$

$$v_i = t v_i \quad (i = 1, 2, \dots, m),$$

$$t = \frac{1}{\sum_{r=1}^s y_{r0} \mu_r}$$

The resulting linear program has the form:

$$\min f_0(\mathbf{v}) = \sum_{i=1}^m x_{i0} v_i$$

with limitations
$$\sum_{i=1}^m x_{ij} v_i - \sum_{r=1}^s y_{rj} \mu_r \geq 0 \quad (j = 1, 2, \dots, n)$$

$$\sum_{r=1}^s y_{rj} \mu_r = 1$$

$$\mu_r \geq \varepsilon \quad (r = 1, 2, \dots, s)$$

$$v_i \geq \varepsilon \quad (i = 1, 2, \dots, m)$$

Standardization of outputs $\sum_{i=1}^m y_{r0} \mu_r = 1$ gives the output orientation

of model.

The interpretation is based on the construction of indicator. Efficient units will be $f_0=1$. Given the limitation is the smallest possible value of effectiveness, ineffective thus define the unit of $f_0>1$.

For the purpose of construction of optimum weights of the IEWB we perceive individual states as independent decision-making unit and the output for the task are the individual sub-indices. For simplicity, the inputs will be put equal to 1. Since the IEWB is indicated in the scale from 0 to 1, it can be recognized as an efficiency index with fixed weights $\mu_r = 1/4$. Comparable index of efficiency we get as the inverse value of the objective function: $\varphi = 1/f_0$, which is also within the range of 0 to 1.

Condition $\sum_{r=1}^s y_{rj} \mu_r = 1$ gives scope for interpreting the results in a

way that testifies about the contribution of each input (sub-indices) to overall efficiency. The sub-indexes weighted by optimal weights $y_{rj} \mu_r$ are in the output of software referred to as Weighted Data. Ratio

$y_{rj}\mu_r / \sum_{r=1}^s y_{rj}\mu_r = y_{rj}\mu_r$ can be interpreted in a way that testifies

about the relative contributions of individual sub-indices to the overall efficiency of composite index. It is evident that countries assess for themselves the 'good' indicators with higher weights.

The basic reason why this issue is important is fact that we measure variables that have in the ground state significantly different units. Otherwise, if we did not set weights, the composite index would focus on variables with high range and small but significant changes in the value will not significantly affected the composite index.

If the variables are aggregated without individual weights, higher explicit weights are with respect to the variables that have a larger extent as their percentage increases.

Our motivation for setting the weights using the method DEA in comparison with weights settled by authors is the fact that the increase in the value of some variables such as the flow of consumption is equivalent to an increase of total well-being, while increases in other variables such as unemployment are equivalent to decline in the overall welfare.

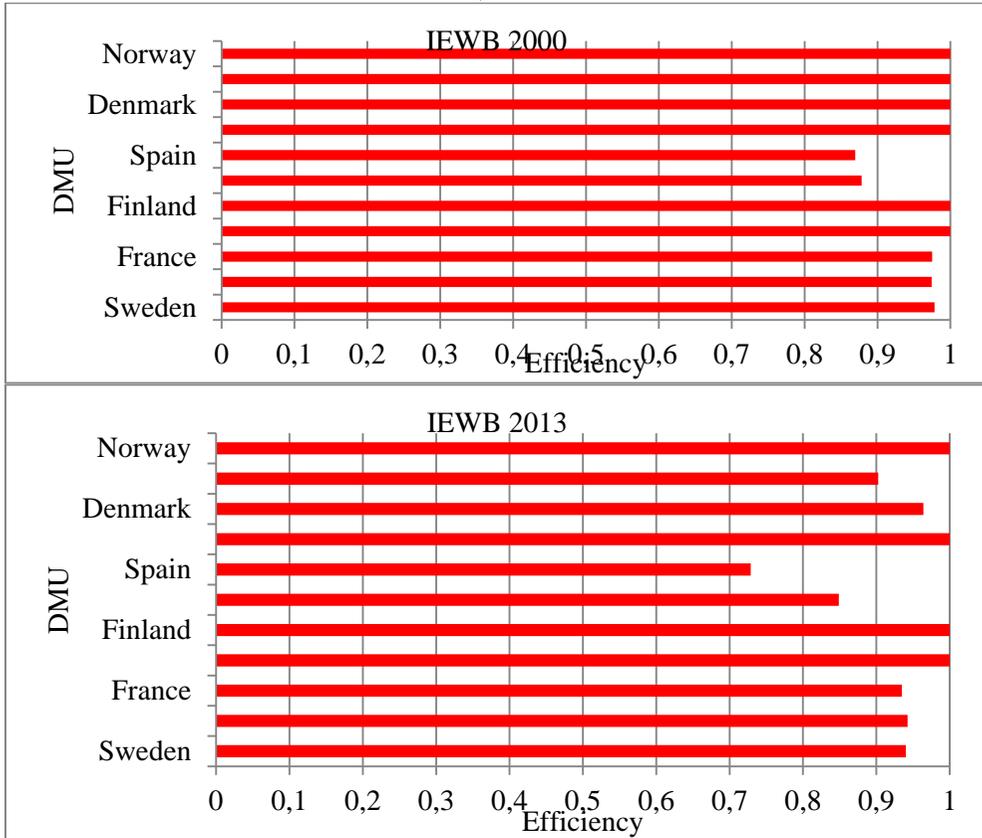
In this case, the variables are standardized in a way that an increase in standardized weights corresponds to an increase in overall well-being.

Results

In this part of paper we explore the sensitivity of our results to the choice of the weights that are assigned to the four domains of well-being. The aim of the analysis is through DEA method to evaluate the sensitivity of our results to the choice of the weights of these four domains, respectively what is the potential for improvement of their achieved level of economic well-being.

Non-parametric approach provides a relative measure that considered the selected set of DMU, which represents 11 countries included in the analysis. Inputs to the model are individual indicators of overall well-being (consumption flows, wealth stocks, inequality measures and economic security). Efficient scale is composed of countries that have managed to fully transform the achieved level of economic well-being to their economic performance. This means that countries located on the border of efficiency (according to Pareto-Koopmans interpretation) can increase their overall economic well-being only by reducing low quality of one of the four indicators of IEWB.

Figure 1: Effectiveness of selected OECD countries based on weights specified using the DEA model, 2000 and 2013



Source: Centre for the Study of Living Standards; own calculation

Efficient scale consists of countries that have managed to transform the achieved quality of their sub-indexes into their overall economic well-being. In 2000 the efficient scale consisted of six countries - Norway, United Kingdom, Finland, Netherlands, Denmark and Germany but in 2013 only four countries has been efficient - Norway, United Kingdom, Finland, Netherlands (Figure 1). We are able to conclude that DEA model identified four effective countries in 2013 and six in 2000 from eleven observed countries. If other countries would want to achieve the level of efficiency frontier they would have to reduce the low quality of other indicators of IEWB. In the case of countries which are below the level of efficiency it is possible to identify the potential for improvement. The potential for improvement is the percentage that is captured in Table 3 for both years.

Table 1: Decomposition of inefficiency of selected OECD countries, 2000 and 2013

2000 Rank	DMU	Well-being Index	Consumption Flows	Wealth Stocks	Inequality Measures	Economic Security
1	Norway	1	0,8890618	0,1109382	0	0
1	Germany	1	0,5167114	0,0983	0,3850049	0
1	Denmark	1	0	0,0922	0,7329203	0,1748837
1	United Kingdom	1	1	0	0	0
1	Netherlands	1	0,9302798	0,0697	0	0
1	Finland	1	0,1525022	0	0,8474978	0
7	Sweden	0,9781696	0	0	0,000895	0,9991049
8	France	0,974991	0,2991838	0	0,3850241	0,3157921
9	Belgium	0,9741954	0,2730929	0	0,3894896	0,3374175
10	Italy	0,8781527	0,5591578	0	0	0,4408422
11	Spain	0,8694694	0,6285728	0	0,0708	0,3006132
2013 Rank	DMU	Well-being Index	Consumption Flows	Wealth Stocks	Inequality Measures	Economic Security
1	Norway	1	0,9623236	0,0377	0	0
1	United Kingdom	1	1	0	0	0
1	Finland	1	0,0147	0	0,9853118	0
1	Netherlands	1	0,5022404	0	0,4977596	0
5	Denmark	0,9641148	0	0	0	1
6	Belgium	0,9426633	0,1520423	0	0,7380753	0,1098824
7	Sweden	0,940089	0	0	0,5638304	0,4361696
8	France	0,9347215	0,1420636	0	0,7466627	0,1112737
9	Germany	0,9026324	0	0	0,5676372	0,4323628
10	Italy	0,8489234	0	0	0	1
11	Spain	0,7288666	0,9839292	0,0161	0	0

Source: Centre for the Study of Living Standards; own calculation

As stated in Table 1, a strong need for improvements in IEWB can be mainly seen in Spain and Italy. Decomposition of inefficiency indicates that despite the differences in the achieved overall economic well-being in the surveyed economies, the potential for enhancement of various areas of IEWB indicators is not relatively equally distributed.

This means that improvements in the overall economic well-being must be understood comprehensively. The achieved well-being is not the result of only one indicator but has to be achieved by improvement in all four areas of well-being. Different values of overall well-being in countries reflect not only the differences in amenities of components of well-being of surveyed countries but also in quality of their economic performance. Based on data from the previous table, we are able to conclude that DEA model

identified four effective countries in 2013 and six in 2000 from eleven observed countries.

As already mentioned before, based on weighted data we are able to interpret which relative contributions of individual sub-indices contribute to the creation of overall well-being. In general, by comparing the relative contributions of the various sub-indices, we can conclude that surveyed countries achieve their efficiency primarily based on consumption flow in 2000 and in 2013 achieved efficiency is result mainly of consumption flows and inequality measures. On the other hand, the economic security participates on the construction of overall well-being with the smallest share. Its share significantly decreased in the creation of overall economic well-being in 2013 compared to 2000, which is also due to a negative average growth rate of this sub-index.

Value judgments regarding the importance of the different domains of economic well-being can matter, but in the alternative scenarios presented here, they have no significant effect on the rankings of countries according to the Index of Economic Well-being. Our main results are fairly robust comparing the overall well-being and the average annual growth of GDP per capita, but the results of these two scenarios of weighting scheme are almost similar. Norway has the highest Index value under both weighting schemes, followed by United Kingdom and Finland, while Spain is always on the bottom. The results for Denmark are particularly sensitive to the weights on economic equality and security relative to those on consumption and wealth (Table 1).

Table 2: The ranking of countries under the three ways of measuring economic well-being

Rank	Average annual growth of GDP per capita	Average annual growth of overall well-being	DEA model
1	Norway	Norway	Norway
2	Germany	United Kingdom	United Kingdom
3	Sweden	Finland	Finland
4	Finland	Belgium	Netherlands
5	Spain	Sweden	Denmark
6	Netherlands	Netherlands	Belgium
7	Denmark	France	Sweden
8	Belgium	Germany	France
9	France	Italy	Germany
10	United Kingdom	Denmark	Italy
11	Italy	Spain	Spain

Source: own calculations

Conclusion

Although economic well-being has increased between 2000 and 2013 in every country under first weighting scheme (with the exception of Spain),

under the second scheme overall well-being has decreased over the given period of time. Across the selected countries of OECD, rising economic well-being was driven by growth in consumption and stocks of wealth. In most of the countries, however, the growth of economic well-being was hindered by declines in economic equality and security. These trends were driven by rising income inequality and increased private expenditures on health care in most countries. An important objective of the Index of Economic Well-being is to make explicit value judgments that underline composite indicators of well-being by making the choice of weights for the four domains as transparent as possible. We tested the sensitivity of our baseline results to two alternative weighting schemes and found out that our key baseline results are not so different in almost all countries. In general, consumption and wealth have increased faster over time than economic equality and security (if the latter two increased at all), so economic well-being grows faster when the consumption and wealth domains are weighted heavily relative to the equality and security domains. In all eleven countries, the Index grew faster over the 2000-2013 period under the first weighting scheme than under the second one (in which equality and security receive the smallest weights among the domains).

Economic well-being has increased in every country over the 2000-2013 period except of Spain. Norway had always the highest level of economic well-being, while Spain always ranked in the bottom position.

The Index of well-being is still in progress, it needs to undergo further modifications for the choice of weights but it still captures more aspects of economic well-being than real GDP does, and therefore is a step ahead in the right direction.

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Internal Debt Issue And Sustainability Of Internal Debts: After 2000 Turkey Sample

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Abstract

Today, borrowing that has become a common problem of almost all countries has a great importance in the developing countries, for example Turkey, rather than developed countries. The reason is while internal debt is considered as provisional public revenue to balance the current economy in the developed countries, it is considered as consistent public revenue such as tax in the developing countries. From this view, internal debt that has increased over the years causes an accumulation called “snowball effect”. Public internal debt at high levels is negatively affected by macro economic factors such like manufacturing, investment, inflation, distribution of income. Uncontrollable increases of the internal debts make sustainability matter of debts a current issue. In the study, it has been analyzed if internal debts were sustainable in Turkey’s economy between the years of 2000 and 2014 by using the method of proportional analysis and it has been concluded that internal debts cannot be sustained especially in crisis periods.

Keywords: Internal Borrowing, Sustainability, Turkey’s Economy

Introduction

Until the beginning of 20th century, justice, defense and safety services were the primary duties attributed to the state. However, needs of the society have been increasing so far; in addition, duties and liabilities undertaken by the state have been increasing evenly. As public expenditures increase continuously along with social needs by force of “Social and Modern State” concept and duties attributed to the state are more and complicated, gained revenues cannot meet the expenditures and as a result public financing deficit can be caused.

Even though it is not welcomed that public sector has a deficit since its expenditures cannot be met by ordinary public revenues, today we encounter this situation as an ordinary situation in both developed and developing countries. Expenditures that cannot be met by the ordinary revenues have directed the public sector to the fund seeking out of ordinary

revenue, internal borrowing that is qualified by classic economists as extraordinary revenue and that replaced by the tax nowadays has become a place of refuge for the public.

In Turkey, as internal borrowing has become a always used resource by financial, economic and political reasons especially since the midst of 1980s and growing amounts of debt have been raising importance of the internal borrowing. From past to present, as internal borrowing that has been a subject of many scientific researches, it is one of the most attractive subjects of public finance. While discussions made on internal debt and its economic effects have continued, increases in internal debt stock experienced especially by the developing countries have made the discussions on sustainability of internal debts a current issue.

Sustainability of debts

Sustainability Term and Definition related to Sustainability of Debts

Even though many definitions have been made related to “sustainability” term in the literature, unfortunately there isn’t any clear definition about the exact meaning of sustainability (Slack and Bird, 2004, p.4). For Geither (2002, p.4), sustainability with the easiest form is a concept involving predictions and also solvency of the country.

In terms of budget deficits, sustainability is the success of the state to manage his financing resources so as to fulfill the current and future expenditure obligations. In other words, sustainability can be defined as the state can carry out his expenditures without causing any injustice between the current and future generations (Intergenerational Report, 2002, p.2). In this context, while political authority carries out the public services in the current period, it should carry out spending policies which will minimize the load on future generations.

The main reason why sustainability occurs in internal borrowing is that the state cannot pay cost of his debts. When the internal debts become unsustainable, the major part of collected taxes will be for capital and payment of interest of the internal debts. In that, the state has used more than the collected tax revenues in capital and payment of interest of the internal debt and supplied the amount that revenues are not enough by means of borrowing again. As well as paying off with debt might decelerate public services and economic growth, it might leave a big load on the future generations (Bal and Özdemir, 2010, p. 88).

In economy literature, under the assumption that the state would continue the current policies in the future, if it is understood that Debt/GDP rate will increase boundlessly, this kind of public debts are called as “unsustainable debts”. What unsustainable debts mean is that the state will absolutely have to reduce his expenditures seriously one day and increase his

revenues in some way (Tüsiad, 1996, p.49). Otherwise, existence of this circumstance will be an abstraction way which will bring the researcher to the result of “non-sustainability of public debts” (Özgen and Karakaya, p.49).

Methods to be used to Measure the Sustainability of Debts

There are two different approaches to be taken into account in sustainability of debts. These are static approach and dynamic approaches. While relations between public revenues and public expenditures are analyzed in static approach, in the dynamic approach relations between rates of growth and budgetary constraints are analyzed (Slack and Bird, 2004, p.4) For Adams, Ferrarini and Park (2010, p.5), static sustainability means the ability of public to finance the debts based on a certain period. As for dynamic sustainability, it means the ability of public to pay debts regarding longer periods.

We can gather methods analyzing the sustainability of public debts under six titles. These are accounting approach, interperiod budgetary constraint approach, sustainability indicators approach, twin deficits method, method of proportional analysis and budgetary constraint equation (Özcan, 2011, p.230&Ulusoy and Cural, 2004, p.4).

Indicators used regarding Sustainability of Debts

In this section, method of proportional analysis that is one of the abovementioned sustainability methods will be practiced for Turkey. In Turkey, discussions on sustainability of debts started after the economic crisis experienced in 2011. In this study, it has been tried to examine the sustainability of internal debts in Turkey’s economy between the years of 2000 and 2014. In literature, method of proportional analysis that is a static method of analysis is generally used to measure sustainability of debts. In the method of proportional analysis, it is benefited from numeric data of previous years and analyses are performed by using rates related to sustainability of debts. It is a matter of debate which rate will bring true results in measuring the sustainability of internal debts. In the study, three indicators have been used in order to measure sustainability of internal debts. These are internal debt stock/GDP rate, primary surplus approach and the relation between reel rates of interest and reel rates of growth.

Internal Debt Stock/GDP

First of the indicators used in determining sustainability of internal debts is the share of internal debt stock into GDP. For Edwards (2002, p.3), if the ratio of public debt stock to national revenue remains stable in a economy in the long term as well, it means debts are sustainable. Therefore,

if ratio of internal debt stock to GDP does not increase in long term, then it will be found adequate for sustainability (Roubini, 2001, p.7). The most important point to be taken into consideration here is the borrowing level of public. In that, in any two countries which have 50% and 100% of internal debt stock/GDP rate, it is considered that sustainability is ensured as long as level of internal debt / GDP rates is consistent (Edwards, 2002, p.3).

Table 1: Ratio of Internal Debt Stock to GDP (2000-2014)

Years	Internal Debt Stock/GDP	Years	Internal Debt Stock/GDP
2000	21,8	2008	28,9
2001	50,8	2009	34,6
2002	47,7	2010	32,1
2003	46,3	2011	28,4
2004	44,1	2012	27,2
2005	37,7	2013	25,7
2006	33,1	2014	23,7
2007	30,2		

Source: Hazine Müsteşarlığı (<https://www.hazine.gov.tr/tr-TR/Anasayfa>)

In Table 1, when we look at ratio of internal debt stock to GDP between the years of 2000 and 2014 in Turkey, ratio of internal debt stock to GDP was 22% in 2000. Because of financial crisis experienced in 2001, GDP decreased and internal debt stock increased up to 51% because of an increase in rates of interest (TCMB, 2002, P.13). This situation accompanied discussions on sustainability of internal debts with internal borrowing and its economic effects (Koçak, 2009, p.74). For Edwards (2002, p.3), if ratio of internal debt stock to GDP is consistent in long term, then we can say internal debts are sustainable. Therefore, as these rates, in the Table 1, are high in 2001 to 2004 period and aforementioned rates are approximately 47,2%, internal debts are at an unsustainable level.

Ever-growing public deficits, absence of an effective tax policy to close these deficits and crises experienced in the banking sector at the beginning of 2000s can be presented as the reason of increase in internal debt stock in Turkey (Koçak, 2009, p.74). With the effect of the loan provided IMF-assisted Transition to the Strong Economy Program and 18th stand-by agreement, downtrend has been experienced in internal debt stock and internal debt load as from 2002. In the table, it is seen that internal debt stock that is 42,7% in 2002 decreases gradually and descends to 28.9% in 2008. Even though internal debt stock/GDP rate increases up to 35% because of the effects of global economic crisis experienced in 2008, this rate decreases to 24% in 2014 as the effects of crises decreases. We can say that internal debt stock / GDP rate follows a consistent way especially after 2005.

Primary Surplus Approach

Another indicator used in determining sustainability of internal debts is primary surplus. It is indicated that primary surplus term has become the

main topic, at first in 1994, by means of the stand-by agreement carried out with IMF. Government has followed a fiscal policy based on primary surplus indicator since 1994 and the main purpose of primary surplus has been to ensure sustainability of internal debts (Gürdal, 2008, p.420-421).

Primary surplus defined as subtracting total public expenditures from public revenues excluding interest expenditures (Gürdal and Yardımcıoğlu, 2005, p.22); informs us on how much money will remain in budget after the debt interest of budget is paid (Cansız, 2006, p.68). Primary surplus is quite important in terms of efforts of governments in order to achieve the targets they set to stabilize the economy in the countries which have higher budget deficits such like Turkey (Aydın, 2005).

If reel interest exceeds the reel rate of growth in a country where internal debt load is high, then this economy has no other choice but primary surplus. Giving primary surplus is provisional solution. As for permanent solution, it is to close total budget deficit including the interest. It can be realized by means of achieving the primary surplus as high as possible (Eğilmez, 2004).

For Ulusoy and Cural (2006, p.9), sum of ratio of primary surplus to national revenue and reel rates of growth should be higher than reel rates of interest in order to maintain the public debt at the same level in primary surplus approach. According to this circumstance, as reel interest are higher than sum of primary surplus and reel rates of growth during 2001-2004 and 2007-2009 in Table 2, it is a big problem in terms of realizing the internal debt. Therefore, internal debts are at an unsustainable level during this period.

Table 2: Ratio of Primary Surplus to GDP (2000-2014)

Years	Primary Surplus /GDP	Real Growth	Real Interest Rate
2000	4,3	6,8	-10,9
2001	5	-5,7	27,2
2002	3,4	6,2	13,1
2003	4	5,3	16
2004	4,7	9,4	14,5
2005	5,8	8,4	6,3
2006	5,4	6,9	7,2
2007	4,2	4,7	9,1
2008	3,5	0,7	8,1
2009	0	-4,8	6,6
2010	0,7	9,2	0
2011	1,9	8,8	2,8
2012	1,3	2,1	0
2013	2	4,2	0,9
2014	1,6	2,9	0,9

Source: HM (<https://www.hazine.gov.tr/tr-TR/Anasayfa>), World Bank, DPT: Economic and Social Indicators

In Table 2, when we analyze the rates of primary surplus took place between the years of 2000 and 2014 in Turkey, it is seen that non-interest budget has a surplus continuously from 2000 to 2009. However, along with the economic crises experienced in 2001, even though real growth is low and real rates of interest are high in this period and thus it creates a problem for sustainability of borrowing, it is seen that non-interest public budget has a surplus.

In 2001, within the macroeconomic program practiced to provide sustainability of internal debts, it has been decided to increase primary surplus that is the main purpose, to take measures to increase the revenue and provide the spending discipline in order to ensure a sustainable structure for public financing and to restructure the banking system (TCMB, 2001, p.7). We can hence say that the applied program has left a positive impression on non-interest public budget. According to Table 2, primary surplus that has been 4,3% in 2000 increases up to 5% in 2001. Primary surplus that has decreased to 3,3% in 2002 has increased up to 4% in 2003 and then increased up to 5,8% in 2005.

An increasing of primary surplus above 5% means that financial discipline is maintained in budget. Besides, net internal borrowing has been affected in reducing manner as primary surplus has been at higher levels as from 2000. This decrease is affected by the increase in national revenue and improvement in borrowing conditions along with high primary surplus. As from 2006, ratio of primary surplus to GDP has tended to decrease and decreased to 0% in 2009 by the effect of 2008 crisis. Primary surplus has increased again in 2010 and has been 1,6% in 2014.

Even though ratio of primary surplus to GDP is an important indicator to measure sustainability of internal borrowing, it is not a measure which will ensure to reach correct results singly. Therefore, it is required to evaluate real rates of interest and real rates of growth together with non-interest budgetary balance for sustainability of internal borrowing.

Relation between Real Internal Debt Interest Rates and Real Growth in Turkey

Another indicator used in measuring sustainability of internal debts is to compare real internal debt interest rates with real rates of growth. Real rates of growth should be above the real rates of interest so that internal debt is sustainable (Ulusoy and Cural, 2006, p.12).

When real interest is equal to real rate of growth or is higher than real rate of growth, this rate will decrease over the time and it will possible to turn the debt even if debt stock/GNP has been 100% at the beginning (Önder and Kirmanoğlu, 1994, p.20). However, if real internal debt interest is higher than real rate of growth, then it will be required to borrow again for

financing of interests. If this mechanism becomes chronic, ratio of debt stock to national revenue will increase (Ceyhan, 2004, p.35). For Roubini (2001, p.4); when reel rate of growth is higher than rate of economic growth, ratio of debt stock to national revenue will increase continuously day by day. As long as reel rates of interest doesn't increase more than the growth rate of national revenue, public debt stock may increase boundlessly.

When we analyze the relation between reel internal debt interests and reel growth, we see that these two factors affect each other oppositely. For example, it is seen that there is a decrease in reel rates of growth in periods in which reel internal debt interests increase and there is an increase in reel growth when reel interests decrease. Therefore, rate of increase in internal debt stock is illustrated in Table 3 in order to analyze effect of relation between reel growth and reel internal debt interests on the internal debt stock.

As seen in Table 3, interest rates of reel internal borrowing and reel interest rates between the years of 2000 and 2005 are higher than reel growth. While reel growth is about at 4% within this four-year period, average of reel internal debt interests is 18%. In addition, as seen in Table 3, during this four-year period in which reel growth is lower than reel internal debt interest rates, rate of increase in internal debt stock is higher than 15%. On the other hand, in the period between the years of 2005-2010, especially in 2008 and 2009, reel internal debt interest rates are higher than reel growth. Consequently, excluding 2005, we can say that a risk to sustain the internal debts has been in question in period between the years of 2000-2010, and reel interest is paid above the rate of growth in internal growing in this period.

Table 3: Relation Between Reel Internal Debt Interest Rates and Reel Growth

Years	Real Interest Rate	Real Growth Rate	Internal Debt Growth Rate
2000	-10,9	6,8	59
2001	27,2	-5,7	235,4
2002	13,1	6,2	22,7
2003	16	5,3	29,8
2004	14,5	9,4	15,4
2005	6,3	8,4	9
2006	7,2	6,9	2,7
2007	9,1	4,7	1,5
2008	8,1	0,7	7,6
2009	6,6	-4,8	20
2010	0	9,2	6,9
2011	2,8	8,8	4,5
2012	0	2,1	3,3
2013	0,9	4,2	4,2
2014	0,9	2,9	2,8

Source: HM (<https://www.hazine.gov.tr/tr-TR/Anasayfa>), World Bank, DPT: Economic and Social Indicator

In the countries, rates of interest can be decreased by ensuring price stability in economy and breaking the expectation of inflation. Hence, as a result of the rate of inflation decreased and society's expectation of inflation was broken relatively after 2001, it is seen that interests have decreased in public borrowings (Saraçoğlu, 2002, p.66). As it is seen in Graphic 3, rate of interest starts to decrease after 2001 and is under the reel rate of growth in 2005, 2010, 2011, 2012, 2013 and 2014.

In Table 3, the years in which rate of increase in internal debt stock is at the highest level are the years in which difference between reel growth and reel internal debt interest is at the highest level. For example, in 2010 that is one of the years in which reel internal debt interest is at the highest level, rate of increase in internal debt stock is 235%. Therefore, internal debt stock increases rapidly in the period, between the years of 2000 and 2014, when reel internal debt rates are higher than reel growth. As it is seen, it is not likely to sustain the public debts in long term because reel internal debt interest rates are always higher than reel growth, significant rate of growth cannot be ensured and reel interests cannot be decreased and then public goes round in circles of debt.

Table 4: Results of Domestic Debt Sustainability in Turkey (2000-2014)

Years	2000	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Domestic Debt / GDP		X	X	X	X										
Primary Surplus Approach		X	X	X	X			X	X	X					
Real interest / Real Growth		X	X	X	X		X	X	X	X					

Table 4 illustrates an abstract of results we obtained in the study. According to the results obtained from the factors - internal debt stock/GDP, primary surplus approach and relation between reel interest and reel growth - used in order to measure sustainability of internal debts, the years in which internal debts are unsustainable are illustrated as "X".

Conclusion

Sustainability term is introduced if state cannot pay the cost of borrowing. Non-sustainability of debts means that a large part of tax collected and any other source of income will be allocated to the repayment of debt. Due to this situation, investments and therefore economic growth will decelerate and at the same time, a load will be formed on the future generation. Because of this, sustainability of internal debts has been becoming more important.

In this study, sustainability of internal debts are analyzed in direction of three indicators internal debt stock/GDP, primary surplus approach and relation between reel internal debt interest rates and reel growth)which are generally accepted in the literature between the years of 2000 and 2014 in

Turkey. It is accordingly seen from three indicators that internal debts are unsustainable in 2001, 2002, 2003 and 2004 in Turkey. In addition, it is seen from two of three indicators that internal debts are unsustainable in 2007, 2008 and 2009. In these years (2007, 2008 and 2009), however, concerns on sustainability of internal debts are decreased by the reasons that deviations from threshold values are low, reel rates of interest are continuing to decrease, economic growth is consistent, etc. We must pay attention that the years when debts were unsustainable were the years when Turkey experienced an economic crisis.

It is quite important to increase the primary surplus at the determined level in order to decrease the interest payment of internal debt which increased up to higher levels in order to decrease the internal debt stock and maintain the sustainability of internal debts. The main determinant factor in creating primary surplus is the tax revenues that have an important place in public revenues. In this context, in order that tax revenues can be increased up to the intended level, tax loss and tax evasion should be prevented by tax discipline and tax should expand on base. In addition to this, the main target should be determined as practicing a strict fiscal policy and also having primary surplus in order to ensure sustainability of internal debts under a high load of debt. Using the primary surplus in debt management effectively is quite important in terms of easing the load caused by internal debts in terms of public sector.

Ensuring the fiscal discipline and transparency together with implementation of debt policies consciously in the markets pertaining to public finance and debt management is required to reach a sound economic structure and realize a long term development in the economy. Therefore, the fields that these resources attained through debt is used is of importance. Utilizing these resources in productive and efficient fields that enhances the investment and export will relieve the economy while repaying the debt. Together with this, government debt policy should be sustained by considering transparency in order to pursue its debt cycle. To be able to render the borrowing accountable, Treasury debt management should be monitored by independent audit institutions.

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The Relationship Between Unemployment And Economic Performance Of The Slovak Regions: Does The Disparity Matter?

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Abstract

The Slovak Republic, although it is a relatively young and small state, is a very diverse country. Regional disparities have historical background and persist until nowadays. The most obvious disparities are in the unemployment and the economic performance of regions. On one side, there is more developed west part of the country (the Region of Bratislava is the 6th richest region in the EU) and on the other side, less developed are east (the Region of Prešov) and south regions (the Region of Banská Bystrica). The relationship between unemployment and economic performance, usually measured by the GDP or the GDP growth, is known as Okun's Law. Thus, the GDP or its growth and unemployment are correlated macroeconomic variables. The aim of the paper is to compare the main macroeconomic variables of the GDP growth and the unemployment rate on the regional basis in the Slovak Republic and to verify the validity of the Okun's Law in the Slovak Republic on the regional data. Further on, the estimation of Okun coefficients for overall country most developed and less developed regions is made. The result shows that the disparity between regions is evident in the estimated coefficients.

Keywords: Regional GDP, unemployment, Okun's Law, regional disparities

Introduction

The regional disparities in the Slovak Republic are the most obvious in the unemployment rate and the produced output (regional GDP). There is more developed west part of the country (except for the Region of Košice) and less developed east and south parts of Slovakia. In accordance with the administrative division of the Slovak Republic to 8 regions, the most developed is the Region of Bratislava. To the contrary, the less developed is the Region of Prešov and the Region of Banská Bystrica. In the Region of Banská Bystrica the districts with the highest rate of unemployment are situated, persistently exceeding 30%. Factors that negatively affect the

unemployment, are in particular education of population in regions, underdeveloped infrastructure, the low demand of local companies for workers and insufficient job creation, low level of FDI inflow, as well as low demand of population in regions for goods and services. It is known that the unemployment rate and economic performance, usually measured by the GDP or by its growth, are related macroeconomic variables. This relationship known as Okun's Law is in the interest of many theoretical and empirical papers or research studies. The aim of the paper is to verify the validity of Okun's Law in the Slovak Republic using the regional data on the GDP and the unemployment rate. To achieve this, first part of paper deals with theoretical background of Okun's Law. Second part shows and analyses the economic performance and the unemployment in the Slovak regions and identifies the reasons of lagging some regions behind the others, more developed regions. The next part estimates the Okun coefficients using panel regressions for the Slovak Republic and separately for the most and the less developed regions.. Further on, since the Okun coefficients are estimated, the growth of GDP necessary to reduce the unemployment rate by 1% point is calculated. The last part of the paper concludes and summarizes the results.

The Okun's Law – theoretical view

The following part of the paper briefly characterizes Okun's Law and summarizes the results of the estimation of the Okun coefficients in different papers and research studies.

The relationship between unemployment and economic growth was observed and formally written at the beginning of 60's of the 20th century by Arthur M. Okun. Okun (Okun, 1962) has theoretically described this relationship. Also, the first estimation of relationship was made. The analysis has covered the period 1947 – 1960. He has concluded that 3% growth of output leads to the decline in the cyclical unemployment rate by 1% point. Knotek (Knotek, 2007) has formulated three methods of estimation the Okun coefficient. There is difference, gap and dynamic version of Okun's Law. The paper has analysed the relationship between the unemployment and the produced output in the USA for the period 1948 – 2007 by the use of rolling regressions with 52 quarter data. The purpose of this method was to test the time stability of the estimated Okun coefficient. The stability was not confirmed with the sharp (steep) rise of coefficient in 1984. Similar result is given by Owyang and Sekhposyan (Owyang-Sekhposyan, 2012). They have used quarter data for the USA for the period 1949-2011. By the use of already mentioned three versions of Okun's Law, they have concluded the instability of Okun coefficient, particularly in time of recession. The estimation of Okun coefficient for the USA for period 1959-1998 by the use of regional data was made also by Freeman (Freeman, 2000).

Apergis and Rezitis (Apergis-Rezitis, 2003) have estimated Okun coefficients for Greece regions (8 regions). The dataset captures the period 1960-1997. Estimated coefficients for regions do not substantially differ, except for 2 regions. The important factor of estimation is time variable. Since year 1981, the unemployment in Greece regions is less sensitive to changes in regional GDP as in previous years. Villaverde and Maza (Villaverde-Maza, 2009) have analysed Spanish regions (17 regions) since 1980 until 2004 by the use of gap version of Okun's Law. They have found considerable differences among regions. The main factor affecting the Okun coefficients is the labour productivity. Regions with low growth in productivity have also the low value of coefficients, while regions with higher growth have this value higher, too.

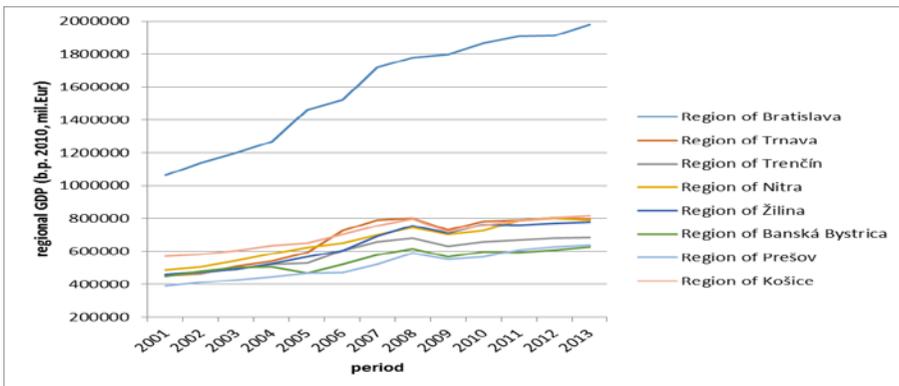
The development of regional GDP and unemployment

Among the Slovak regions, the produced output substantially differs. The most developed Region of Bratislava had at the beginning of analysed period in 2001 GDP more than twice higher as the less developed regions. The growth of production was also the fastest. On the other hand, the less developed regions are the Region of Banská Bystrica and the Region of Prešov, as seen in Graph 1. There are more reasons of lagging behind the regions of south and east Slovakia. The substantial part of industry is concentrated in the west part of the Slovakia with the focus on the automotive and electronic industry. Such concentration creates favourable conditions for existing companies to enlarge the business activities or establishing new companies in industrial relationships, usually as suppliers of craftworks and semi finished products or services. The increase in the FDI inflow into the Slovak Republic was directed mostly to the west and northwest regions. This situation has led to the growth in the production and fall in the unemployment (the growth of employment, too) in these regions. However, it has induced the increase in the regional disparities. The situation in the east (except for the Region of Košice, exactly the city of Košice itself) and the south of the Slovakia is different. There are many factors in these regions that negatively affect the volume (size) of produced output and consequently influence the unemployment. These are underdeveloped infrastructure, low FDI inflow and low demand for goods and services of local inhabitants, that means low consumption. Together with the education of inhabitants (insufficient educational structure of inhabitants in comparison to the requirements of companies), low demand for workers by local firms and low job creation, it causes further disparities in the unemployment rate between the Slovak regions. To consider regional GDP, the Slovak Republic might be divided into two regions – the Region of Bratislava and the rest of the country. These regions do not achieve even the half of the GDP produced

in the Region of Bratislava. Moreover, this ratio is decreasing since 2001 to 2013. It is not surprising that the Region of Bratislava is the 6th richest region among the EU regions.

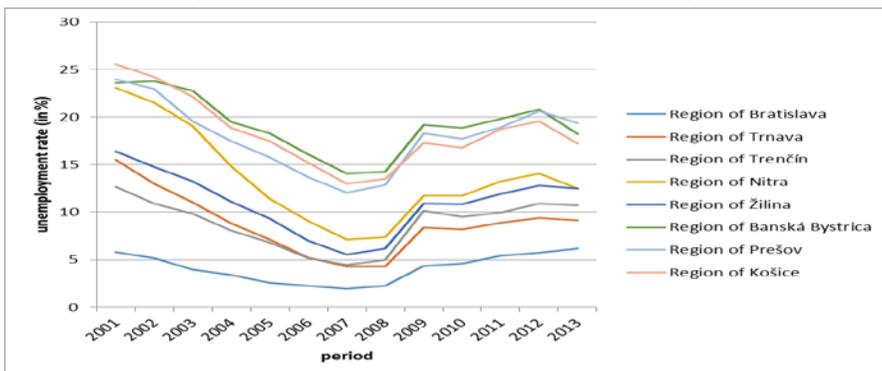
Graph 2 shows the unemployment rate in the Slovak regions in the period 2001 – 2013. The development of the unemployment rate and GDP (Graph 1) in regions implies the negative relationship of these variables. The lowest unemployment rate, far below the Slovak average, has the Region of Bratislava. To the contrary, the Region of Prešov and the Region of Banská Bystrica have for a long period highest unemployment rates. As seen in Graph 2, the unemployment rate in pre-crisis period has been falling in all regions. This was caused by the growth of GDP. Since the financial crisis has begun, the GDP has decreased. Reversely to the GDP growth, recession has caused the raise in the unemployment in 2008 and even greater increase in 2009. The trend of gradually rising unemployment has followed until 2012 with the slight decrease in the unemployment rate. The development of regional GDP and unemployment rate indirectly confirms the validity of Okun’s Law.

Graph 1: The real GDP of the Slovak regions



Source: The Slovak Statistical Office

Graph 2: The unemployment rate in the Slovak regions



Source: The Slovak Statistical Office

Methodology

To determine the sensitivity of unemployment rate to the economic growth in the condition of the Slovak regions, the knowledge of Okun's Law was applied. In the estimation, data from 8 regions for the period 2001 – 2013 was used. The regional data for the unemployment and regional GDP is available in the Slovak Republic only for this time period. The data for previous years were not collected on the regional level. Moreover, the GDP data is in nominal values. Therefore, the data was adjusted by the GDP deflator and transformed to the GDP growth in the particular regions. Using the “difference” version of Okun's Law (Knotek, 2007), we have estimated Okun coefficients. The data captures all Slovak regions. Data for unemployment rate, but mainly for the GDP, shows the different economic position of the Region of Bratislava. Due to this, we excluded the Region of Bratislava from the analysis and have run regression only with 7 regions. The main goal of the paper is to compare, whether the relationship between unemployment and the economic performance differs among the Slovak regions. Although, the Slovakia is a small country, we have expected lower Okun coefficients in less developed regions of the east and south Slovakia (the Regions of Prešov, Košice and Banská Bystrica) and higher coefficients in more developed west and northwest part of Slovakia (the Regions of Nitra, Trnava, Trenčín and Žilina). In other words, 1% of GDP growth in more developed regions induces higher decline in the unemployment rate. Also, the lower GDP growth is necessary to reduce the unemployment rate by 1% point.

To estimate Okun coefficient, panel data was used. This captures the period 2001 – 2013 and 8 cross-sectional units that represent 8 Slovak regions. With the respect to testing statistics, the OLS regression with pooled data was used. The regression equation is as follows:

$$\Delta UT_{it} = \alpha + \beta g_{it} \quad (1)$$

where: ΔUT is the year to year change in the unemployment rate, g is the GDP growth of particular region, i represents the index of a region, t is time period, α is constant and β represents Okun coefficient.

Results

The results of the estimations of Okun's Law for the Slovak Republic confirm its validity. The variable economic growth (GDP growth) is in all regressions statistically significant at 1% level. Thus, economic growth has positive effect on the reduction of the unemployment. The minus sign of Okun coefficient means that the growth in the output induces the decline in the unemployment rate. However, the size of the descent for regions is different. This is given by the different parameter β , which represents Okun coefficient or the slope of the regression line.

The result of the estimation of Okun's Law that captures all Slovak regions is given in the Table 1. The interpretation of estimation is follows: the 1% GDP growth (g) % implies the decrease in the unemployment rate by 0.21% point. In the case of zero growth, or in the stagnation, unemployment rise by 0.43% point. For that reason, the stagnation is a serious threat for the Slovak economy. There are two reasons of rising unemployment in the stagnation or in the very low growth. The first factor is the labour growth as a result of the growth of the population. If the new workers do not obtain a job, they remain unemployed and the unemployment rate will rise. The second reason is the growth of the productivity. If the productivity rise, but the size of the output remain unchanged, the fewer workers are needed. This is reflected in the rise of unemployment.

Table 1: Result of Okun coefficient estimation (all regions)

Total unemployment [ΔU_{it}]		p – value	
constant	0.432228 (0.210673)	0.0430	**
g_{it}	-0.205589 (0.0313265)	2.86e-09	***
R^2		0.314219	
- pooled OLS F test: p = 0.680627; LM test: p = 0.430495; Hausman test: p = 0.0981266 - 96 observations, 12 time periods and 8 cross-sectional units - dependent variables in square brackets - standard error in parentheses - ***, **, * - statistical significance at 1%, 5%, a 10% level			

Due to the position of the Region of Bratislava in the Slovak economy and its disparity from other regions, we have decided to estimate the Okun coefficient for the Slovak Republic with the exclusion of this region from the analysis. We have assumed that the Okun coefficient will be lower; that means 1% growth induces the lower decline in the unemployment rate in comparison to analysis when the Region of Bratislava is included. This assumption was not confirmed. 1% growth in the output will cause the decline in the unemployment rate by 0.22% point. This is almost the same value as in all regions analysis. Also, the zero growth would lead to 0.38% point rise in the unemployment rate, while it is the 0.42% point in the previous analysis. Although the Region of Bratislava is evidently more developed, the result is very similar.

Table 2: Result of Okun coefficient estimation (without the Region of Bratislava)

Total unemployment [ΔUT_{it}]		p – value	
constant	0.382357 (0.228554)	0.0982	*
g_{it}	-0.218549 (0.0341058)	8.78e-09	***
R^2		0.333670	
- pooled OLS F test: $p = 0.910747$; LM test: $p = 0.181516$; Hausman test: $p = 0.390978$ - 84 observations, 12 time periods and 7 cross-sectional units - dependent variables in square brackets - standard error in parentheses - ***, **, * - statistical significance at 1%, 5%, a 10% level			

Slovakia, although it is a small country, has significant regional disparities. The most developed is the Region of Bratislava. It is following by huge margin by other regions ending with the less developed Region of Prešov with the lowest GDP. The same situation occurs when analysing the unemployment rate. The lowest unemployment rate is in the Region of Bratislava. Taking not into account the Region of Bratislava, the Slovak regions might be divided into two groups by the level of unemployment rate. The first group represents regions in the west and northwest of the Slovakia – the Regions of Nitra, Trnava, Trenčín and Žilina with the unemployment rate higher than in the Region of Bratislava, but lower than other regions. Then, the second group consists of the Regions of Prešov and Košice located in the east part of the Slovakia and the Region of Banská Bystrica located in the middle of south Slovakia. These disparities are the motivation to estimate the Okun coefficient for these two groups of regions. We have expected that the Okun coefficient in the more developed regions is higher than in the less developed regions. This assumption was confirmed, as seen in Table 3 and Table 4. The 1% GDP growth in the more developed regions induces the reduction in the unemployment rate by 0.23% point, while it is only 0.21% point in the less developed regions. The constant is not statistically significant in analysing east and south regions. However, it is significant in the west and northwest regions, but only at 10% level. The interpretation of this result is that if the GDP growth in these regions is zero (stagnation of regions), the unemployment rate is rising by 0.52% point. If the constant would be statistically significant also in less developed regions, this growth would be only 0.21% point. These results confirm the assumption that economic growth has higher impact on the reduction of the unemployment rate in the more developed part of the Slovak Republic. Such situation is not optimal and will lead to the further growth in disparities between the Slovak regions.

Table 3: Result of Okun coefficient estimation (the Regions of Prešov, Košice and Banská Bystrica)

Total unemployment [ΔU_{it}]		p – value	
constant	0.214891 (0.382655)	0.5616	
g_{it}	-0.206351 (0.0615458)	0.0020	***
R^2		0.248474	
- pooled OLS F test: $p = 0.769115$; LM test: $p = 0.30195$; Hausman test: $p = 0.492205$ - 36 observations, 12 time periods and 3 cross-sectional units - dependent variables in square brackets - standard error in parentheses - ***, **, * - statistical significance at 1%, 5%, a 10% level			

Table 4: Result of Okun coefficient estimation (the Regions of Nitra, Trnava, Trenčín and Žilina)

Total unemployment [ΔU_{it}]		p – value	
constant	0.521466 (0.282285)	0.0711	*
g_{it}	-0.229017 (0.0400833)	7.77e-07	***
R^2		0.415089	
- pooled OLS F test: $p = 0.74123$; LM test: $p = 0.329388$; Hausman test: $p = 0.875981$ - 48 observations, 12 time periods and 4 cross-section units - dependent variables in square brackets - standard error in parentheses - ***, **, * - statistical significance at 1%, 5%, a 10% level			

To answer the question whether the disparity matters, the results of Okun coefficient estimation show that in the less developed regions, 1% GDP growth induces the lower decrease of the unemployment rate than in the more developed regions. As a result, a higher GDP growth is necessary in order to lower the unemployment rate by 1% point in these regions. Table 5 shows the GDP growth necessary to reduce the unemployment rate by 1% point in four analysed cases. Calculations were made with the respect of estimations by the inclusion of constant. Even it is not statistically significant in one regression, the same methodology of calculation and the same approach is appropriate. As seen, excluding the Region of Bratislava has almost no effect on calculated GDP growth. The difference in the GDP growth necessary to decrease the unemployment rate by 1% point is very small – only 0.09% point. However, the disparity is seen in considerable difference between the Regions of Prešov, Košice and Banská Bystrica, and Regions of Nitra, Trnava, Trenčín and Žilina. To reduce the unemployment

rate by 1% point in the first regions, the 3.80% GDP growth is necessary, while it is only 2.09% growth in the more developed regions.

Table 5: The growth necessary to reduce the unemployment rate by 1% point

Region	Growth (in %)
All regions	2.76
All regions except for Region of Bratislava	2.83
Regions of Prešov, Košice and Banská Bystrica	3.80
Regions of Nitra, Trnava, Trenčín and Žilina	2.09

Conclusion

The aim of the paper was to estimate the Okun coefficient for the Slovak Republic by the use of regional data. Further, the estimations for two groups of regions were made – the more developed and the less developed regions. Estimated Okun coefficients and calculated GDP growth necessary to reduce the unemployment rate by 1% point have confirmed the disparity between these regions. A higher GDP growth is necessary to decrease the unemployment rate in the Regions of Prešov, Košice and Banská Bystrica, that means the less developed regions. This situation is not optimal and will lead to further increase of the regional disparities. To conclude, the regional disparities affect the relationship between unemployment and economic performance in the particular regions.

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The Dutch Disease: An Overview

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Abstract

The Dutch disease is a negative impact of the increase in foreign income on the economic development that often affects relatively small resource-rich countries. The consequent appreciation of the real exchange rate could harm the export competitiveness of inflows receiving countries and thus lower their growth potential. It could affect the macroeconomic stability, the competitiveness of the export sector and the external sustainability of the countries as it diverts country's resources away from activities that are more contribute to growth in a long run. Paper presents an introduction to the phenomenon of the Dutch disease and the current state of the theoretical and practical aspects of this problem.

Keywords: The Dutch disease, natural resources, booming sector, real exchange rate

Introduction²

“A great fortune in the hands of a fool is a great misfortune”

Natural resources can be as much a curse as a blessing. Sometimes countries with an abundance of non-renewable resources experience stagnant or negative economic development, especially when a country begins to focus on a single industry, such as mining, and ignores other traditional sectors. The Dutch disease, also known as a case of “resource curse” or “paradox of plenty”, is a term that generally refers to the negative consequences of large increases in a country's income. The Dutch disease is the negative impact on an economy of anything that increases inflows of foreign currency into the country, such as the discovery of large natural reserves. The currency inflows lead to currency appreciation, making the country's other products less price competitive on the export market. It also leads to higher levels of cheap imports and can cause deindustrialisation as industries apart from resource exploitation are moved to cheaper locations.

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The phrase “Dutch disease” originates from the Dutch economic crisis in the 1960s following the discovery of North Sea natural gas deposits which increased the wealth of Netherlands, but harmfully influenced other sectors of economy and resulted in negative economic development, especially the decline in manufacturing and farming. First time the term was used in the Economist in 1977. The so-called Dutch disease has damaged the industrial sector of many commodity exporting nations such as Norway, currencies of which are well supported by high oil prices but have uncompetitive manufacturing sectors.

The Dutch disease is not a new phenomenon. The Dutch disease model may describe the flows of treasures into Spain and Portugal in 16th century or Australian gold rush in the 1850s. The first paper regarding this relationship in Australia was written by Meade and Russell (1957). In 1970s the same development as in Norway we can find in Great Britain. Typical example of the Dutch disease is Nauru, whose economy relies almost entirely on phosphate, or Angola and Gabon, where the traditional industries was repressed by oil counting for 97 % of their export. Nowadays, Russia should be worried about losing the value of the Russian rouble along with the 70 % share of oil and gas on its exports. Resource exports account for 78 % in Norway, 61 % in Australia or 39 % in Canada.

The Model

The Dutch disease model was firstly described by W.M. Corden and J.P. Neary in 1982. They assumed a small open economy divided into three sectors – a non-tradable sector determined by domestic demand and supply and two tradable export sectors with internationally given prices, the booming and lagging one. The non-tradable sector represents the domestic supply of services, retail trade or construction. Booming export sector is usually sector exporting natural resources or crops. The lagging sector is the traditional export sector in economy producing usually manufacturing or agricultural products. The model assumes that:

- one factor of production (capital) is not mobile and one factor (labour) is perfectly mobile among all three sectors what equalises the wages,
- all goods are for final consumption,
- trade is balanced,
- commodity and factor prices are not distorted.

The „disease“ starts with large inflows of income (or foreign currency) from the booming sector, for example caused by discovering large natural resource reserves, and on the demand side of the economy the spending effect occurs. The rising income increases the demand for all goods and, depending on the type of exchange rate mechanism, may affect

domestic prices or nominal exchange rate³. In case of fixed exchange rate, the large inflows of foreign currency will increase the money supply and domestic prices. If the exchange rate is flexible, it will appreciate the domestic currency and the nominal exchange rate will increase. In both cases, the country experiences the real exchange rate (the price of traded goods relative to the price of non-traded goods) appreciation and therefore less competitiveness of its traditional exports as they are becoming more expensive for other countries to buy. At the same time, producers of goods for local markets face competition from increasingly cheap imports. As a result the labour and production moves from lagging traditional export sector to the booming export sector (direct deindustrialization) and domestically produced non-traded goods (indirect deindustrialization). This is the resource movement effect and occurs on the supply side of the economy. The increased demand for non-traded goods raises the price of these goods. The prices in the traded good sector are set internationally, so they do not change, but the imports will be cheaper. Manufacturing jobs are moved to the lower-cost countries and imports rises. The result is that non-resource export industries are hurt by the increase in wealth created in resource-based industries. Exchange rate overvaluation damages long-term economic growth and influences a country's macroeconomic stability. Moreover, the traded goods sector is the channel through which an economy gains better performance and productivity from abroad and through the Dutch disease country is losing "the learning-by-doing" spillovers.

The Dutch disease may have also some political consequences for resource exporters. Large inflows of foreign income often result in increasing government and political corruption. Politicians prefer short-term thinking, and investments in non-resource sectors, infrastructure and human capital are reduced. The independent judiciary and free press are threatened. Ross (2001) implemented the model of the political Dutch disease, when the incomes from natural resource exports create high state revenues and help politicians to hold their power. In one case, the government is able to cover the public expenditures and citizens do not have to pay taxes and are satisfied with government without ambition to change it. In other case, the government uses the external revenues for fostering their military power and creating the dictatorship.

The empirical literature has not clearly verified the suggestions of the Dutch disease. The reason for mixed evidence is due to the general difficulty in holding "ceteris paribus" in macroeconomics. There are a lot of difficulties in proving the relationship between increase in country's foreign income and its negative development. An appreciation of the real exchange

³ This occurs only in case the increased incomes are not entirely spent on imports.

rate or decrease in the manufacturing sector can be caused by other factors like changes in domestic or foreign productivity, transformation of the economy or the economic policy of the country. Furthermore, the currency appreciation does not necessarily cause the economic slowdown. However, many empirical studies have confirmed the existence of this phenomenon. Sachs and Warner (1995) showed that in period 1970 – 1990 countries with a high natural resource exports experiences slower growth than did those with few resources. Dolan (2014) experienced that exchange rates of the wealthiest resource exporters, like Norway, Australia, and United Arab Emirates, are more overvalued than poorer resource exporters, like Angola, Venezuela or Russia, measured by the ratio of GDP at market prices to GDP at purchasing power parity. According to Stijns (2003) using the gravity model, a one percent increase in world energy price leads to decrease a net energy exporter's real manufacturing exports by almost half a percent. Similarly, a one percent increase in an energy exporting country's net energy exports decreases the country's real manufacturing exports by 8 percent.

The Causes of the Dutch disease

The Dutch disease is usually associated with a natural resource discovery, but it can be caused by any factor which increases the inflow of the foreign currency. The typical source of the Dutch disease is significant increase in natural resource prices. The boom in mineral commodity prices in the late 2000s affected negatively Chile. The oil prices boom in 1970s influenced the development in many countries producing oil and now they have got a lot of problems with trade balances and state finance following the sharp decrease in oil prices. The rise in coffee prices in the late 1970s in Colombia brought a boom in the coffee sector at the expense of manufacturing and resources were reallocated to the agricultural sector.

Another source of the Dutch disease could be foreign direct investments (FDI) which are usually concentrated to the natural resource industries and may mean the exogenous technological advance (Corden, 1984). FDI may lead in these countries to the development of the dual economy, which has one developed sector, usually owned by foreign investors, and underdeveloped sector owned by domestic owners. The developed sector is usually capital-intensive, while underdeveloped agricultural and manufacturing sectors are labour-intensive. Thus the negative effect of FDI could be harmful for domestic employment. The capable example of the biased growth and the symptoms of the Dutch disease through the FDI to energy sector is Colombia after 2011.

Sometimes the symptoms of the Dutch disease could be related to the foreign aid. Some Asian countries experienced the increased inflation after the post-tsunami recovery assistance in 2004. Among other sources, the

arrival of migrant worker's remittances became the important source of extra finance for developing countries, often exceeding other financial flows. The greatest recipients of the remittances are India, China, Mexico and Philippines.

How to avoid the Dutch disease?

Country can handle the negative consequences of the Dutch disease in several ways depending whether the increase in income is permanent or temporal. If the higher inflows are expected to be permanent, generally it is not considered as a problem. Economy's sectoral transition is only an adaptation to its new conditions and wealth. However, focusing the economy's production on one sector, especially on extraction of natural resources, may create constrains for further technological and human development and long-term economic growth and makes the economy more vulnerable and sensitive on world development of demand and prices. The solution can be the diversification of the production by investing in different sectors. Governments have to increase productivity in other sectors of economy especially through investments into innovations, education and infrastructure that may increase the competitiveness of the lagging sectors. An efficient tool is reallocation of the revenues directly to local authorities in order to reduce poverty. Protection of lagging sectors in the economy can be done also through the instruments of the trade policy as tariffs or subsidies.

If the income shock is temporary, it is necessary to protect other sectors in economy and manage the real exchange rate development and the monetary policy becomes very important. Policymakers have got several possibilities. One of them is to prevent the exchange rate appreciation. That needs foreign exchange interventions which raise the foreign exchange reserves and may lead to inflation and lower interest rates crowding out the investments. The way how to avoid inflation is to increase private and public savings through a budget surplus that reduces the need for foreign inflows, and to raise interest rates.

Another alternative is a sterilisation of the increasing revenues that reduces the spending effect and prevents the sudden strengthening of the local currency. A part of the abundant income could be saved for future spending through special funds. In this case, country also creates some kind of insurance for potential negative development and a stable revenue stream. Such funds we can find in Norway, Australia, Canada, Russia or Kuwait. The main purpose of these sovereign wealth funds is usually stabilization, development investments or pension payments.

Problems associated with the Dutch disease could be settled only with appropriate macroeconomic policies and need transparency in revenue flows, prevention of corruption and application of environmental standards

often with help of external institutions like World Bank or NGOs. The example of good and appropriate dealing with the Dutch disease is Latin America. In these countries were revenues from mineral exports used to increase productivity in the agricultural sector. Their productivity has risen since 1990 more than in East Asia or the United States. A very wise policy of investments we can find in Colombia with sophisticated marketing on the coffee market, in Chile with the creation of a new export industry of fruits and vegetables or in Argentina with an innovative farming and agriculture institute. The greatest progress was seen in Brazil. The country has set itself the objective of becoming the largest producer of agricultural products in the world, while in 1973 it was a net importer of these products. The government has adopted a policy of training of young farmers in the form of overseas internship to brought to the country the latest findings and create a new effective agriculture. And apparently it works. Currently, Brazil is the large exporter of coffee, sugar, orange juice, tobacco products, but also ethanol, beef and chicken meat and takes the second place in exporting soybeans. In Latin America, the internal modernization of enterprises is at a low level. On average, companies are investing in only 0.5 % of its gross revenues into innovations, in comparison to 2 % in the wealthy countries. Therefore, the use of external income from mineral exports for the innovation of sectors is very important.

Conclusion

The transmission mechanism of the Dutch disease explains the relation between foreign inflows and over-valuation of the exchange rate, that puts the pressure on the country's current account and reallocate resources from industry and agriculture (tradable sectors) to services (non-tradable sector) and natural resource industries, and lead to lower competitiveness of a country.

The natural resources can be as much a curse as a blessing. The way in which the curse affects differs from one country to another. Regarding the overvaluation of the currency respectively to the levels of GDP per capita, the greater threat it is for high-income resource exporters. On the other hand, lower-income resource exporters have to deal more with political economy of the dealing with the symptoms of the disease. In these cases, higher income usually does not transform into the better outcome and social conditions for their citizens. For successful dealing with the Dutch disease it is necessary to constitute the democracy and transparent society and establish the suitable channels for stabilization and future development of the economy.

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Performance Evaluation Of Research Assistants By Copras Method

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Abstract

Performance evaluation of research assistant has become an important factor and a strategic decision for universities. However, this decision is generally complex. Many conflicting criteria should be taken into account at the same time. Correct solution of the problem is related to decision maker's multiple criterion evaluation in the light of alternatives. In this study, research assistants' performance evaluation is carried out by COPRAS method. The method of complex proportional assessment (COPRAS) developed by the authors aims at solving this problem. This method assumes direct and proportional dependence of the significance and utility degree of investigated versions on a system of criteria adequately describing the alternatives and on values and weights of the criteria. This study aims to solve performance determination problem of research assistants. A numerical example is given to demonstrate the applicability and effectiveness of the proposed approach. In the end ranking carried out by COPRAS method is given.

Keywords: COPRAS, Multi-criteria decision making, Research Assistant, Performance Evaluation

Introduction

In higher education institutions, enhancing research and teaching performance of faculty members is the essence of quality assurance systems. If an institution expects to improve and achieve its goals, performance must be measured and evaluated. In Turkish higher education system, there are significant problems in the evaluation system in which both purposes (summative and formative) are considered. For these reasons, such kind of things should be carried out:

- All state and foundation universities must adopt and apply the conception of strategic management and planning as a management approach.

- Proficiency fields and sub- proficiency fields with regard to professions of faculty members and performance indicators for each sub- proficiency field must be determined.
- Universities must develop evaluation models appropriate to their particular conditions by preferring more than one teaching performance evaluation method.
- Appropriate data collection tools must be developed for constructed teaching performance evaluation model/ models.

Due to these problems, it's obvious that studies on quality need to the quality and performance evaluation process needs to the performance (Kalaycı, 2009: 625-656).

Academic performance is a value compromised by taking into consideration different criteria. For academic performance to be evaluated, there aren't any method that can be digitized easily, evaluated on a common basis, flexible, easy to use. Academic performance evaluation problem is seen plausible to be modeled for multiple criteria performance evaluation problem due to uncertainty, just subjective evaluated criteria and hierarchic structure of criteria (Kaptanoğlu and Özok, 2006:194).

Multiple-criteria decision making is a field that contains mostly used part of decision theory. Multiple-criteria decision making also includes methods classifying and grouping of alternatives and making selections among alternatives.

Generally as criteria contradict each other, there is no solution that can satisfy all criteria at the same time. Mostly advantage of multiple criteria decision making problems is to evaluate criteria and alternatives at the same time. There are lots of multiple criteria decision making methods in literature such as AHP, TOPSIS, MOORA, ELECTRE, COPRAS and so on.

In our study, COPRAS method is foreseen as multiple criteria decision making method to appraise performance of research assistants.

COPRAS Method

COPRAS method was firstly introduced by Zavadskas and Kaklauskas as a multiple-criteria decision making method (Podvezko, 2011:137). COPRAS method uses stepwise ranking and evaluating procedure of alternatives in terms of significance and utility degree (Zavadskas et al. 2008: 241).

There are some studies about COPRAS method in literature. Some of them are as follows:

Zavadskas (2008) applied COPRAS to select constructor. Banaitiene et al. (2008) used COPRAS to evaluate life cycle of buildings. Yazdani et al. (2011) used COPRAS for risk assessment of construction projects. Zagorskis et al. (2007) analyzed city compactness by COPRAS. Chatterjee

and Chakraborty (2013) used COPRAS to select gear material. Zolfani et al. (2012) applied COPRAS G to determine quality manager. Yazdian et al. (2011) utilized this method for greenhouse locating selection.

The advantages of COPRAS method is lined up (Aksoy et al. 2015: 11):

- Compared with other methods such as AHP and TOPSIS, as it necessitates much less calculation than other methods COPRAS method is very easy to use.
- COPRAS method has the talent of calculating both maximizing and minimizing criteria.
- This method enhances to calculate both qualitative and quantitative criteria.
- The main advantage of COPRAS method compared with other multi criteria decision making methods is to be able to show utility degree. When compared alternatives, it can illustrate which one is better or worse.

COPRAS method consists of 7 stages. The stages of method is as follows (Popovic et al., 2012):

Stage 1. Construction of Decision Matrix

As in all multiple-criteria decision making problems first of all decision matrix is constructed. Decision matrix is as follows:

$$D = \begin{matrix} A_1 \\ A_2 \\ A_3 \\ \cdot \\ A_m \end{matrix} \begin{bmatrix} x_{11} & x_{12} & x_{13} & \cdot & x_{1n} \\ x_{21} & x_{22} & x_{23} & \cdot & x_{2n} \\ x_{31} & x_{32} & x_{33} & \cdot & x_{3n} \\ \cdot & \cdot & \cdot & \cdot & \cdot \\ x_{m1} & x_{m2} & x_{m3} & \cdot & x_{mn} \end{bmatrix} \quad (1)$$

Stage 2. The Normalization of Decision-Making Matrix

In order to transform performances of considered alternatives into comparable dimensionless values, normalization procedure is used. For normalization in COPRAS method the following formula is used:

$$\tilde{x}_{ij} = \frac{x_{ij}}{\sum_{i=1}^m x_{ij}} \quad (2)$$

where x_{ij} is the performance of the i -th alternative with respect to the j -th criterion, \tilde{x}_{ij} is its normalized value, and m is number of alternatives.

Stage 3. Determining of Weighted Normalized Decision-Making Matrix

After forming normalized decision making-matrix, the next stage is to determine weighted normalized decision-making matrix is constructed using following formula:

$$D' = d_{ij} = x_{ij}^* \cdot w_j \quad (3)$$

Stage 4. Calculation of Maximizing and Minimizing Index for Each Alternative

In this phase each alternative is categorized as maximizing and minimizing index by formula (4) and (5):

$$S_{i+} = \sum_{j=1}^k d_{ij} \quad j=1,2,\dots,k \text{ maximizing index} \quad (4)$$

$$S_{i-} = \sum_{j=k+1}^n d_{ij} \quad j=k+1, k+2,\dots,n \text{ minimizing index} \quad (5)$$

Stage 5. Calculation of the relative weight of each alternative

The relative weight Q_i of i -th alternative is calculated as follows:

$$Q_i = S_{+i} + \frac{\min_i S_{-i} \sum_{i=1}^m S_{-i}}{S_{-i} \sum_{i=1}^m \frac{\min_i S_{-i}}{S_{-i}}} \quad (6)$$

Stage 6. Determine the priority order of alternatives

The priority order of compared alternatives is determined on the basis of their relative weight. The alternative with higher relative weight has higher priority (rank), and the alternative with the highest relative weight is the most acceptable alternative.

$$A^* = \left\{ A_i \left| \max_i Q_i \right. \right\} \quad (7)$$

Stage 7. Calculation of Performance Index (P_i) Value for Each Alternative

In the last section, P_i values are calculated using following formula:

$$P_i = \frac{Q_i}{Q_{\max}} \cdot 100\% \quad (8)$$

The alternative having 100 degree is the best one. The ranking of alternatives is carried out from large to small.

Application: Performance Evaluation of Research Assistants By COPRAS Method

In the application stage, we evaluate the performance of research assistants taking charge in Pamukkale University.

To evaluate research assistant performance, we use 7 different criteria and 5 alternatives. These criteria are as follows: Undergraduate GPA, master degree GPA, PhD GPA, foreign language mark, master degree and PhD lesson completion duration, number of congress and number of essays.

First of all decision matrix is constructed as in Table (1):

Table 1. Decision Matrix

	Undergraduate GPA	Master Degree GPA	PhD GPA	Foreign Language Mark	Master Degree and PhD Lesson Completion Duration	Number of Congress	Number of Essays
x ₁	3.57	4	4	83.75	3	9	1
x ₂	3.07	3.95	4	83	3	1	3
x ₃	3.23	3.54	3.46	66	4	0	2
x ₄	3.42	3.96	4	70	5	5	7
x ₅	2.56	3.37	3.79	82	4	4	5

Normalized decision matrix is obtained by using Equation (2).

Table 2. Normalized Decision Matrix

	Undergraduate GPA	Master Degree GPA	PhD GPA	Foreign Language Mark	Master Degree and PhD Lesson Completion Duration	Number of Congress	Number of Essays
x ₁	0.225237	0.21254	0.207792	0.217674	0.157894737	0.473684	0.055556
x ₂	0.193691	0.209883	0.207792	0.215724	0.157894737	0.052632	0.166667
x ₃	0.203785	0.188098	0.17974	0.17154	0.210526316	0	0.111111
x ₄	0.215773	0.210414	0.207792	0.181936	0.263157895	0.263158	0.388889
x ₅	0.161514	0.179065	0.196883	0.213125	0.210526316	0.210526	0.277778

Weighted normalized decision-making matrix is constructed using Equation (3). All criteria is given same weight.

Table 3. Weighted Normalized Decision Matrix

	Undergraduate GPA	Master Degree GPA	PhD GPA	Foreign Language Mark	Master Degree and PhD Lesson Completion Duration	Number of Congress	Number of Essays
x ₁	0.032177	0.030363	0.029685	0.031096	0.022556391	0.067669	0.007937
x ₂	0.02767	0.029983	0.029685	0.030818	0.022556391	0.007519	0.02381
x ₃	0.029112	0.026871	0.025677	0.024506	0.030075188	0	0.015873
x ₄	0.030825	0.030059	0.029685	0.025991	0.037593985	0.037594	0.055556
x ₅	0.023073	0.025581	0.028126	0.030446	0.030075188	0.030075	0.039683

Maximizing and minimizing index values are calculated using Equation (4) and (5)

Table 4. Maximizing and Minimizing Index Values

	Si_+	Si_-
x_1	0.198926	0.022556391
x_2	0.149484	0.022556391
x_3	0.122039	0.030075188
x_4	0.209709	0.037593985
x_5	0.176985	0.030075188

Calculation of the relative weight of each alternative is carried out by Equation (6).

Table 5. Relative Weight of Each Alternative

	Q_i
x_1	0.233769239
x_2	0.184327335
x_3	0.148171631
x_4	0.230614871
x_5	0.203116924

Then the best Q_i value is selected according to Equation (7). That alternative is x_1 as it can be clearly seen in Table 5. Lastly performance value index (P_i) is obtained by using Equation (8).

Table 6. Performance Value Index

	P_i
x_1	100
x_2	78.85012407
x_3	63.38371635
x_4	98.65064913
x_5	86.88778934

Ultimate ranking of alternatives is given at Table 7.

Table 7. Ultimate Ranking of Alternatives

x_1	100
x_4	98.65064913
x_5	86.88778934
x_2	78.85012407
x_3	63.38371635

As a result of evaluation of COPRAS method, it is determined that x_1 alternative has the best performance. On the other hand x_3 alternative has the worst performance.

Conclusion

It is highly important to evaluate performance of academic personnel for universities. The presence of academic personnel having high quality increases university efficiency and provides competition supremacy. There must be performance activities to increase having low performance.

In this study, 5 research assistant is analyzed by COPRAS method with undergraduate GPA, master degree GPA, PhD GPA, foreign language mark, master degree and PhD lesson completion duration, congress participated, number of essays data.

In the end, it is established that research assistant symbolized as x_1 has the best performance score. When we look into this research assistant, it can be seen that this research assistant has the highest undergraduate GPA, number of congress participated, foreign language mark on the other side this person has the lowest number of essays. It can be observed that x_3 has the lowest performance level. Having low performance level research assistant, x_3 , has 2 essays and hasn't participated any congress. As a result this research assistant should be educated to increase performance.

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Components For An Educational Research. A Proposal

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Abstract

Scientific language differs from the language of common sense because it's more precise about the phenomena to explain. A word or a term may have a different use or meaning in scientific language. In the case of educational research proper, accurate and explicit terms that support use is assumed. A first analysis of the detection of the use of theoretical concepts *field*, *habitus*, and *capital* proposed by the late French sociologist Pierre Bourdieu, in the papers presented under the Tenth National Congress of Educational Research (X CNIE) of the Mexican Council communicates here educational research (COMIE) held in Veracruz, Veracruz in 2009. In the first part is exposed the place that theoretical concepts have in educational research in general and in the second one an analysis of the papers discussed it is to arrive at a conclusion. This work is part of an investigation into the production processes of dispositions to educational research at Masters level postgraduate and research seminars notes in them.

Keywords: Skills training, Educational research, Documentary analysis, Pierre Bourdieu

Introduction

A National Conference on Educational Research (CNIE, in spanish) invites those who produce or engage in some way educational research, and this presupposes a minimal use of inputs needed for research in this case, the theoretical concepts. If we understand an event like this as a force field in the sense proposed by Pierre Bourdieu, this would imply that some social actors are attracted to a greater or lesser extent, while others are expelled and others may be indifferent to it. This presupposes also that whoever is attracted by the forces of the field enters a fight with the other players involved when documents are requested papers in this case, need to be evaluated by reviewers committee. Thus, the papers accepted for CNIE have passed the filter two reviewers and have eliminated those who have not seemed to

conform to the standards and criteria governing such events. The reader of those papers accepted, also attracted by the forces of the field of educational research, is also able to express their own skills for evaluating the work that reads, and can also be subject to evaluation. The intention of this work is purely educational and, more specifically, a contribution to a pedagogy of educational research that may help enable the eye of those who start in the office of educational research regarding the use of concepts such as field (in their various dimensions), habitus and capital (in its various species) in the presentations. As part of a broader research findings are reported first findings.

The place of the concepts and theories in scientific research

The relevant management of a theoretical culture competition would be expected to acquire education researchers. Part of it depends on the research education received from the dominant scientific culture. With Cassirer (1945) can remember that every culture has five structural components of universal nature: art, religion, symbolic language, myth and science. These are exclusive human activities. But in social practices the fact that humans do not include all in all of them and less with a recognition of the "experts". Thus science, which is one of the universal cultural structures, is an activity that humans beings exclusive practice.

Indeed, scientific practices are not in the public domain in the sense that anyone not fully committed to them in an expert manner, and not all are professional players on a football team just for practice on weekends, or arrive to become neither Rembrandt nor Da Vinci by making strokes on the napkin breakfast. With this in mind one should consider that there are varying degrees of relating to science: either as an expert, a specialist, an amateur or a spectator, among others. Each of these categories means a place in a specific social field. The commitment to the field between one and other position also differs in the benefits derived from it.

But how to understand what is science? *Grosso modo* remember that in their historicity there are at least two ways to detect: modern science and prior to it. The so-called modern science, which currently governs us, has its reconfiguration since the sixteenth century in Europe based on the contributions of Galileo Galilei and Johannes Kepler, and curdled with the mechanistic conceptions of Newton's universe (Mardones, 1991).

But science has not always had the same meaning. Weber (1967) mentions at least five ways or senses science has passed: a) as a way to real being, when the notion of "concept" is invented by Plato; b) a way to true nature, that is, he that knew science knew about nature and both were managed as synonymous; c) a way to true art, where the technique and method are part of scientific practice in the Renaissance; d) the way the true

God, believing that God had revealed himself in his works and the language in which he wrote all was the mathematical language, and who managed mathematics was able to understand and to "talk" to God; and e) the way to true happiness, when science comes as the promise to solve the ills of mankind in all areas of human life. And the same concerns rescuing Max Weber, and we can ask about the current sense as science. This response can be recovered in the conclusions of this work.

In the late nineteenth and early twentieth century modern science is based on three equally recognized paradigms or particular modes of practice and, at least from the German tradition: in its Positivist version, Hermeneutics or Critical. The first "discovers" the problems and seeks how to "resolve" them apprehending how the regularities operate in order to investigate and objectifies social agents by treating them as subjects of social machinery; hence their methods and techniques are more quantitative. The second rescues motives, hopes, reasons, perceptions and feelings of those whose lives these conditions and favors the more qualitative aspects of social research. The critical perspective seeks to outrange both perspectives of the world to understand, not exclusive of each other but complementary, as objectivist and subjectivist moments in social research respectively (Mardones, 1991).

If anything has characterized these science paradigms is its explicit rigor in how to develop research, but above all preconceptions against common sense that flood the consciousness of social subjects. Indeed, an explicit and proper use of language is something that sets you apart. In Social and Human Sciences thoroughness of language it is required. In the talks the everyday sense is permissible to think that a leave has fallen, science is more accurate saying that the leave has been attracted to earth.

With this in mind it is understandable consider that the use of language and scientific terminology does not occupy a minor place in scientific production, so this area requires special attention. But where do concepts and terms of science come from? They come from theories. The term theory comes from Greek, *θεωρία*, which refers to contemplate something carefully, the way as an observer of the stars do, or as a marine offshore stops to look at them for guidance in his journey (Gadamer, 2000). In practical terms, a theory is a way of seeing the world, to engage and operate on it. Therefore, any investigative act is theoretical and practical at the same time. But do so in the current educational research?

Components of a research topic

Bureaucratic categories distinguish between basic research and applied research, first seen as merely theoretical, the other more speculative and practical, ideal for laboratories in the natural sciences. But this

classification is only the objectification of the social division of intellectual labor where some theorize from the comfort of the desktop and others will get their hands dirty to field research to make practical things (application of surveys, polls, etc.).

The eminently discursive nature of social and human sciences tends to reinforce this bureaucratic distance. But this is an effect of the lack of consensus of what is an investigation in social and human sciences, and particularly in education. Indeed, if we take the idea of the "kitchen of the investigation" of Pierre Bourdieu (2005) it is rescued that often what is presented to the reader are the results, not necessarily the development. To enjoy a cake is not enough to have the necessary ingredients: it requires preparation. Having sugar, flour, eggs, butter, milk, etc., even so close together they are, if not ever prepared them all will not make a cake. Similarly, a research paper having an introduction, a theoretical framework, a "state of knowledge" a methodological section, etc., it does not ensure a full-blown investigation.

What ensures that a work intended to convey results is actually a scientific research in education? As well as color theory is a triad of colors (red, yellow and blue) that give place to other colors, or as music components are harmony, rhythm and melody, and as physical phenomena occur over time, matter and space, a social scientific research requires a theme, an empirical dimension and a theoretical dimension from which is "seen" such phenomena. Of these three components, the most difficult to incorporate properly is the theoretical for the long time it takes to be assimilated by the social agent.

Let's say you want to investigate dropout (thematic dimension). What you need to do is find out the most appropriate way on the subject; is generally what some call the "state of knowledge". Despite making a documentary investigation (sometimes exhaustive) does not have a full-fledged educational research. It is required to limit the space and time phenomenon and choosing the subjects to be analyzed (empirical dimension). Even having these two components is not enough to pretend to have an educational research. With those components which we got, at best, it is a kind of journalistic investigation, but not a scientific. What gives a range of scientific research is the proper use of a theoretical and methodological culture application; from them educational problems can be constructed, strategy building and implementation of the instruments and the interpretation of the records that make the finding in scientific data.

The use of theoretical concepts in educational research. The case of papers X CNIE

An event like the X CNIE seems like a case where you can see the use of theoretical concepts in the papers because they are product of an educational research in progress or completed, and have passed the double filter of two expert reviewers in the subject to be exposed for publication in the form of electronic memory.

The proposed exercise is how to detect the use of theoretical concepts of *field*, *habitus* and *capital* of Pierre Bourdieu, as one example among other possible, and more particularly for being the sociologist most cited for 2001 according appointments Social Science Citation Index, which produces effects in the field of social research. It is obvious that it is not obliged review this author to support educational research, but what would be expected of one who does it is to have a sufficient conceptual management that allows support and direct their research optimally.

Findings

The operating-methodological strategy was analytically detect the papers published in the X CNIE COMIE and review in each where and how such notions were mentioned, although in isolation or together, as conceived by its author. Bourdieu (2005) emphasizes this in speaking of the relational unit concepts:

So both concepts, habitus and field are relational in the sense that additional work fully *only in relation to one another*. A field is not just a dead structure, a set of "empty places", as proposed by the Althusserian Marxism but a game space that exists as such only insofar as they enter it players who believe in the rewards they offer and actively fight for them. Proper field theory, therefore, requires a theory of social partners [...] (p. 47).

If we add that a social position within a field consists of capitals (Ceron, 2012) which are administered by the sense of the game and the social partners attributed to the game and capital, the use of the three concepts is interlace.

What was found in the papers of X CNIE? Of the 850 papers distributed in 17 thematic areas, the concept that most found was *field*, with 565 mentions (66.47%) followed by *capital* with 74 mentions (8.7%) and to a lesser extent of *habitus* with 20 mentions (2.35%). However, during the analysis it was found that the notion of *field* is intermingled with other uses of which it was proposed to distinguish between which there is a *generic* and indistinct use (talking about workplace, school, political, scientific, etc.), with 391 jobs (46%) and a *methodological use* with 174 jobs (20.5%). The term is so open that it protrudes with respect to another.

The notion of *capital* appears not always linked to the theoretical system of origin. Indeed, there are three basic uses: *generic* or interchangeably (mostly as capital in its economic dimension) in 12 cases (1.4%), as *human capital* in 17 times (2%), and 45 mentions (5.3%) in *its various species* (cultural, economic, social or symbolic), but in isolation, without reference to *field* or *habitus*.

There are 20 *isolated mentions* (2.35%) to the notion of *habitus*, which makes the least considered in the papers.

In 11 papers (1.3%) there is a use of *capital* and *field* in the Bourdian sense; *field* and *habitus* appear in 13 papers (1.5%), and *habitus*, and *capital* appear in 3 papers (35%) unrelated to the notion of *field*.

Only 13 papers (1.5%) in the three notions together as theoretical support system used for research were detected.

Conclusion

That an author of social sciences is the most cited does not mean that he is therefore the most understood in his theoretical dimension and in his analytical application. This can lead us to think that authors are understood less than what is assumed, even at events like the X CNIE.

A term such as "field" is so open that can lead to a generic use. This may be the effect of an error source in the theory itself, so it requested to recover its various theoretical senses (as a social space, game space, a market, place of forces, and a battlefield), and explicitly articulated whenever it's used as well.

On the other hand, the notion of "capital" as used herein is detected, makes this concept of public domain almost as if everyone knew what was meant by the mere mention of the term. A pitfall is the fetishization of concepts by the concepts themselves.

Finally, the notion of "habitus" not being such generic a term, and is the least used and still detected in an isolated use, what weakens the analytical scope of the work thus employed.

This exercise is an invitation to rethink the proper use of theoretical concepts to not contribute to a common scientific sense so fashionable today by the social conditions of mass production of researchers.

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The Examination Of The Schools In Denizli According To University Entrance Exam By Multivariate Statistical Methods

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Abstract

The aim of the university entrance exam is two folds. First, it identifies the students that deserve the education after high school graduation. Second, the grades taken from this exam specify the quality of the high schools. These grades are important for the schools which are in competition with the others. In the present study, the schools in Denizli are examined according to the grades of the students who are graduates or senior class students. Multivariate statistical methods are used in the data analysis. The data of the study were gathered from 2012 Student Selection and Placement Exam statistics. The findings and the implications of the study is discussed accordingly.

Keywords: Multivariate statistical methods, education, student selection, university entrance

In order to determine students who could continue their education at the higher education schools, there is annual Student Selection and Placement Exam (SSPE) in Turkey. This exam is consisted of two stages: the Transition to Higher Education (YGS) and the Undergraduate Placement Exam. Students with YGS score equal to or greater than 180 are entitled to proceed with the LYS exam. The LYS exam is designated to measure knowledge and talents of candidate students to place them formal undergraduate education schools. Candidates could be placed in the higher education programs which they prefer according to their exam scores (SSPC, 2016).

The SSPE generally refers annual exams taken by senior high school students or individuals graduated from high schools, held in all cities of Turkey and in Nicosia Province of the Northern Cyprus Turkish Republic. Results of these exams provide an opinion to education administrators about education and training activities at the high school level in addition to

determining successful students in each province. Studies that have been conducted so far investigated factor effective on success of students who have taken these the SPEE exams based on survey data (Dursun & Dede, 2004; Sari, 2009). There are also studies investigating the success of provinces or the success of provinces in entire country (İşleri, 2012; Taşpınar Cengiz & İhtiyaroğlu, 2012; Turanlı, Taşpınar Cengiz, & Bozkır, 2012).

Denizli Province was ranked among the first five cities in terms of its general success in the 2015 YGS; and in the first five cities in terms of Math-Natural Science Major, in the first ten cities in terms of Turkish-Math Major. In addition, Denizli Province has been ranked among the first ten cities along the exams in recent years. This situation aroused curiosity about success levels of schools in Denizli among the successful frontier cities in Turkey. The present study aims to determine success levels in the SSPE and relevant similarities of high schools in Denizli Province. In this study, 99 high schools in Denizli Province were investigated according to their Math, Natural Sciences, Turkish, Social mean scores and rate of the students who gained score equal to or greater than 180; furthermore, 73 high schools, in addition to the aforesaid variables, were analyzed in terms of their mean LYS scores from each major and their individual undergraduate placement rates by means of clustering, factor and multi-dimensional scaling analysis methods. Students who applied to the programs at universities prepare a preference list at the end of the LYS according to their score types calculated in Math-Natural Science, Turkish-Math and Turkish-Social Majors. Therefore, high schools were investigated individually according to these score types through the aforesaid methods as well. Variables utilized in this analysis were determined based on the SSPC 2015 statistics; and they were analyzed by means of the SPSS 21.0 software.

Method

Collected data was analyzed by means of Clustering Analysis, Factor Analysis and Multi-Dimensional Scaling Analysis of the multivariate statistical methods. Clustering Analysis is utilized to group observations or variables in the row data matrix into homogenous sub-groups subject to their characteristics. Groups that would be obtained at the end of the Clustering Analysis are expected to be homogenous inside each group, but heterogenous among groups (Alpar, 2013). Clustering Analysis was repeated by means of the K-means method. In this method, observations are clustered in groups whose number of elements is determined by the researcher.

Factor analysis is a statistical method which gathers variables inter-related with each other together in a multi-dimensional case so as to find less new (common) unrelated variables (Tatlıdil, 2002). Before continuing with the analysis, it is necessary to evaluate appropriateness of the collected data

set to the Factor Analysis. In order to evaluate this, Bartlett's Sphericity Test is conducted and the Kaiser-Meyer-Olkin (KMO) criterion is estimated. As a result of the Bartlett's Sphericity Test, if hypothesis that correlation matrix is not equal to the unit matrix is accepted, then it could be concluded that data set is appropriate for factor analysis. In order to describe the factor analysis perfectly, it is desirable that the relevant KMO value is greater than 80% (Albayrak, 2005).

On the other side, the Multi-Dimensional Scaling Analysis (MDS) is the statistical method employed to determine the relationships among objects utilizing from distances among them in cases in which the relationships among objects are not known but the distances among them could be estimated. Stress values in the analysis are examined in order to decide that whether obtained results represent data set sufficiently, or not. According to the ranges of stress value, 0.025 - 0.05 and 0.05 - 0.10 are described as perfect and good conformity, respectively. Thus, it is possible to decide about the quality of the conformity between the original and estimated distances and that whether the analysis results are given as k-dimensional, or not (Kalaycı, 2006).

Greater the R^2 value indicator of conformity of the MDS model to collected data, the better conformity.

Findings

Evaluation of High Schools according to the YGS scores.

In order to organize clusters of high schools with similarities in terms of the relevant variables, clustering analysis method was employed. Hierarchical (gradual) clustering analysis based on standardized variables was conducted according to the Euclidian distance; and high schools were clustered into three sets by means of the tree-diagram. The first, second and the third sets were including 4 (Erbakır, Aydem, the Private Servergazi and the Private PEV Amiroğlu Natural Sciences High Schools (FL)), 35 and 60 high schools, respectively. Whereas the second set were including "Anatolian" high schools (AL) in general, of which, 6 were private institution; 2 were "Anatolian Religious High School" (AİHL) (Sarayköy and Denizli AİHL); and 1 was "Vocational and Technical Anatolian High School" (Pamukkale Vocational and Technical Anatolian High School), the third set was consisted of high schools which could be considered with the lowest success rate according to the YGS results. This set includes "multi-program Anatolian high schools", "vocational and technical anatolian high schools", "anatolian religious high schools" and "sport high schools". Again, there were Kılıçarslan, Menderes, Tavas and Mehmet Akif Ersoy Anatolian High Schools in this group. Unlike other private schools, the Private Denizli Doğa Anatolian High School was in the third list.

In order to support hierarchal clustering analysis results, K-mean method was also used in the clustering analysis. This analysis displayed minor differences with respect to the hierarchal clustering. According to the K-mean method, there were 8, 27 and 64 high schools in the first, second and the third sets, respectively. As a result of the ANOVA analysis, it was concluded that it was appropriate to cluster these 99 high schools in three groups (for each variable, $p=0.000$). In the first set there were Erbakır, Aydem, the Private Servergazi and the Private PEV and Amiroğlu FL as well as Lütfi Ege, the Private Servergazi, Denizli and the TEV Anatolian High Schools. Çal, Mustafa Şipar Anatolian High Schools which were included in the second set on the basis of the hierarchal clustering analysis results, were included in the third set by the K-mean method; that is, they were considered as among the schools with lowest success levels.

The factor analysis was conducted for ranking of these high schools. At first, it was investigated that whether analysis was appropriate for application; then, it was found it appropriate (Bartlett's Spherity Test Statistic = 917.682, p value = 0.000; KMO=0.769). In determination of the number of factors, the eigenvalue criterion was utilized. Accordingly, there were only 1 factor whose eigenvalue was greater than 1; and this factor was explaining 85.985% of the total variance. Total variance explanation strengths were exhibited in Table 1 below:

Table 1. Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4,299	85,985	85,985	4,299	85,985	85,985
2	,514	10,281	96,266			
3	,157	3,136	99,403			
4	,020	,407	99,810			
5	,010	,190	100,000			

Extraction Method: Principal Component Analysis.

As a result of the factor analysis conducted by means of the basic components method, all of the variables were gathered in a single factor. Factor weights of these variables were exhibited in Table 2 below:

Table 2. Component Matrix

	Component
	1
turkce_ort	,981
mat_ort	,942
Social_ort	,922
Fen_ort	,902
oran180	,888

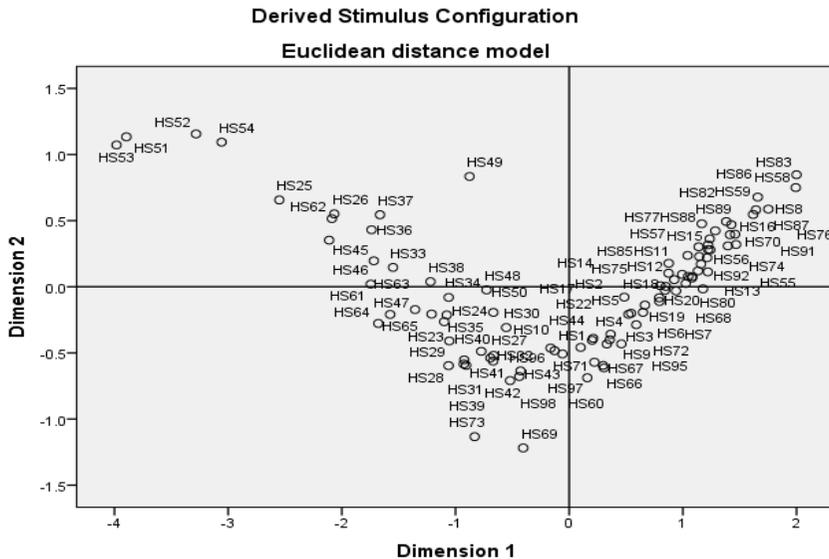
Extraction Method: Principal Component Analysis.

According to Table 2, the most effective variable in success ranking of high schools in terms of the YGS scores was Turkish mean score followed by Math, Social and Natural Sciences mean scores and the rate of the students who entered the YGS and scored equal to and/or greater than 180. According to the ranking based on the factor analysis, whereas the top-five schools were the Private Servergazi, Erbakır, Aydem, the Private PEV Amiroğlu FL and Denizli AL, respectively, 9th place of the Şevkiye Özel AL from Çivril County in this ranking was remarkable. At the end of rank list, abundance of vocational technical Anatolian high schools and multi-program Anatolian high schools were found interesting.

The MDS analysis was conducted to reveal relationships among 99 high schools according to their Math, Fen, Turkish, and Social Science mean scores and rate of the students who gained score equal to and/or greater than 180. For the 2-dimensional MDS analysis result, the stress value was 0.04008. Thus, it was possible to conclude that there was perfect conformity between original distances and estimated distances; and that analysis results would be given as 2-dimensional. R^2 , as an indicator of conformity of the MDS model to the data, was estimated at 0.99674. Such proximity of R^2 to 1 indicates high level of conformity.

In Figure 1, schools were exhibited in 2-dimensional plotting. As it could be understood from the figure, Erbakır, Aydem, Private Servergazi and Private PEV and Amiroğlu FL indicated within the 1st set based on the result of the clustering analysis were compromising their own set and they were differentiated from other high schools.

Figure 1. Derived Stimulus Configuration



Evaluation of high schools according to the YGS and LYS Results

In order to cluster 73 high schools in terms of their similarities based on their variables, their YGS and LYS scores were calculated and the clustering analysis was employed. The hierarchal (gradual) clustering analysis was conducted according to the standardized variables with respect to the Euclidian distance; and high schools were clustered in three groups by means of the tree-diagram. The first, second and third groups were having 5 (Erbakır, Aydem, Private Servergazi, Private PEV Amiroğlu FL and Denizli AL), 32 and 36 high schools, respectively. The second group was consisted of public and private anatolian high schools as well as a religious high school. The third group was consisted of “vocational technical”, “religious” and “multi-program” high schools.

In order to support hierarchal clustering analysis results, the clustering analysis was repeated with the K-mean method as well. This analysis exhibited minor differences with respect to the hierarchal clustering method. According to the K-mean method, there were the same five high schools in the first group. There were 26 and 42 schools in the second and the third groups. All of the 26 high schools in the second group were private and public “anatolian” high schools. Six high schools placed in the second group by the hierarchal clustering method were assigned to the third group by the K-mean method. Since one of these assigned schools was Denizli AİHL, no any other “AİHL” school left in the second group based on the K-mean method’s clustering. As a result of the ANOVA analysis, it was found appropriate to assign 73 schools to the 3rd group (for each variable $p=0.000$). According to the both methods, although all high schools, except the Private Denizli Doğa Anatolian High School, were in the second group, this school was assigned to the third group.

Based on the factor analysis results, it was observed that factor analysis of the data set was appropriate for application (Bartlett’s Spherity Test statistic = 2863.506, p value = 0.000). The KMO value was estimated at 0.935. The fact that the KMO value was above 80% addressed reliability of the factor analysis results remarkably. Eigenvalue criterion was used in determination of the number of factors. Thus, there were two factors whose eigenvalues were greater than 1. Of these factors, while the first one was able to explain total variance by 86.71%, the second one was explaining by 93.087%. Their variance explanation rates and eigenvalues were exhibited in Table 3:

Table 3. Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	13,874	86,711	86,711	13,874	86,711	86,711	8,097	50,604	50,604
2	1,020	6,376	93,087	1,020	6,376	93,087	6,797	42,482	93,087
3	,266	1,660	94,747						
4	,244	1,525	96,272						
5	,191	1,195	97,467						
6	,115	,718	98,185						
7	,068	,423	98,608						
8	,061	,383	98,991						
9	,054	,337	99,328						
10	,041	,253	99,582						
11	,020	,127	99,708						
12	,016	,099	99,807						
13	,012	,073	99,880						
14	,010	,064	99,944						
15	,006	,035	99,980						
16	,003	,020	100,000						

Extraction Method: Principal Component Analysis.

As a result of factor analysis results, employing the principle components method and the Varimax rotation method, the variables were clustered into two factors. Weights of these factors were given in Table 4 below:

Table 4. Rotated Component Matrix

	Component	
	1	2
Fen_ort	,910	,385
LYS1geom_ort	,902	,414
LYS2fzk_ort	,891	,427
LYS2kmy_ort	,870	,458
LYS1mat_ort	,866	,486
mat_ort	,853	,506
LYS2biyo_ort	,824	,532
LYS4flsf_ort	,722	,630
oran180	,264	,920
LYS3tdedb_ort	,437	,830
lisans_oran	,485	,827
turkce_ort	,577	,792
LYS3cog1_ort	,537	,782
Social_ort	,547	,735
LYS4History_ort	,639	,707
LYS4cog2_ort	,632	,645

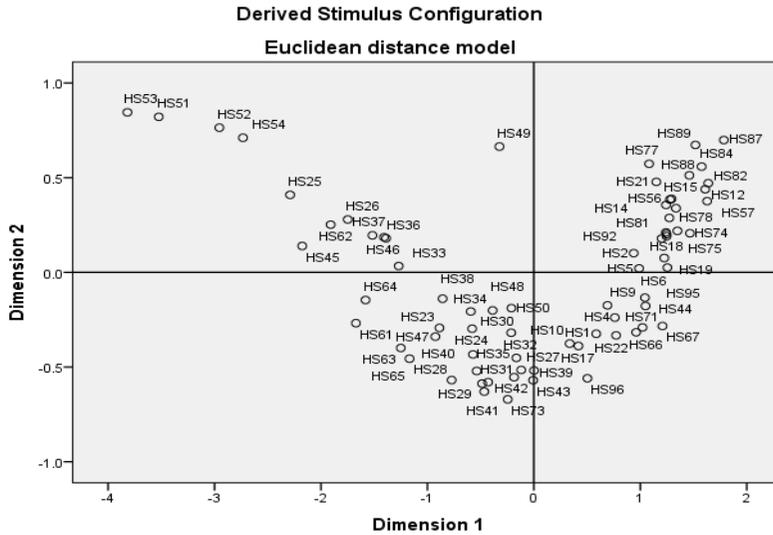
Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.

Based on the comparison of weights of two factors in Table 4, variables of the first factor, displaying greater weight, were determined as YGS Natural Sciences mean, LYS Geometry mean, LYS Physics mean, LYS Chemistry mean, LYS Math mean, YGS Math mean, LYS Biology mean and LYS Philosophy Group & Religion and Ethics mean scores. Other variables displayed greater weight in the second factor. When it is considered that questions in the Philosophy Group were also including Logic questions, it is possible to assess that while the first factor was composed of quantitative courses and relevant success rates, the second factor was composed of verbal course and success rates. When high schools were ranked according to their success in the first factor, it was determined that the first five schools were the Private Servergazi, Erbakır, Aydem, the Private PEV Amiroğlu FL and Denizli AL. When high schools were ranked according to their success in the second factor containing verbal courses, it was determined that the first five schools were Acıpayam, Hilmi Özcan, Akın, Sarayköy and Özay Gönüm AL. On the other hand, when high schools were ranked according to their success in both two factors, the first five schools were the same with the ones determined with the first factor again.

MDS analysis was conducted in order to reveal the relationship among 73 schools according to students' YGS and LYS mean scores, rate of students who gained score equal to and/or greater than 180 and their rate of placement in an undergraduate program. For the 2-dimensional MDS analysis result, estimated stress value was 0.07516. Accordingly, it could be concluded that there was good fit between original and estimated distances; and that analysis results could be given as 2-dimensional. On the other side, R^2 , an indicator of conformity of the MDS model to the data, was estimated at 0.99113. Greater R^2 value suggests that there is better conformity in between.

Figure 2 illustrates high schools in 2-dimensional view. As it could be seen from the plotting, Erbakır, Aydem, Private Servergazi, Private PEV Amiroğlu FL and Denizli AL, ranked in the first group according to the clustering analysis, were constituting an individual group on their own; and they were differentiated from other high schools. Moreover, the closest schools to these 5 schools were determined as the TEV, Hasan Tekin Ada, Mustafa Kaynak, Nevzat Karaalp, the Private Servergazi, the Private Servergazi Günay and Acıpayam Cumhuriyet AL.

Figure 2. Derived Stimulus Configuration



Evaluation of high schools according to the Math-Natural Sciences Group (MF) Results

The clustering analysis was employed to group 75 high schools on the basis of their similarities according to the LYS MF Group (Math, Geometry, Physics, Chemistry, Biology) mean scores, YGS mean scores, rate of students who gained score equal to and/or greater than 180 and their placement rate in undergraduate programs. Hierarchical (gradual) clustering analysis based on standardized variables was conducted according to the Euclidean distance. The relevant tree-diagram revealed that high schools were clustered in three groups. There were 5 (Erbakır, Aydem, Private Servergazi, Private PEV Amiroğlu FL and Denizli AL), 32 and 38 high schools in first, the second and the third groups, respectively. Whereas the second group was consisted of public and private anatolian high schools, it contained one “religious” high school as well. The third group was consisted of “vocational technical”, “religious” and multi-program high schools.

In order to support hierarchical clustering analysis results, the clustering analysis was repeated with the K-mean method as well. This analysis exhibited minor differences in comparison with hierarchical clustering. According to the K-mean method, there were 5, 25 and 45 high schools in the first, second and third groups, respectively. All of the schools in the second group were private and public Anatolian high schools. The hierarchical clustering method assigned the 7 high schools once in the second group to the third group. Assignment of the Denizli AİHL, one of these seven schools, to the third group left no any “religious” high school in the second group. As a result of the ANOVA analysis, it was determined that clustering 75 high schools into three groups was meaningful (for each

variable $p=0.000$). According to the both methods, all private high schools, except the Private Denizli Doğa Anatolian High School, were in the second group.

When assumptions of the factor analysis were taken into consideration, it was concluded that the data set was appropriate for factor analysis (Bartlett's Sphericity Test statistics = 2178.517, p value = 0.000; KMO value = 0.911). In determination of the number of factors, eigenvalue criterion was utilized. Thus, there was only one factor with eigenvalue greater than 1. This factor could explain solely 87.856% of the total variance. Table 5 exhibits total variance explanation rates and eigenvalues below:

Table 5. Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	9,664	87,856	87,856	9,664	87,856	87,856
2	,884	8,040	95,897			
3	,214	1,946	97,843			
4	,098	,888	98,731			
5	,057	,516	99,246			
6	,026	,236	99,482			
7	,018	,163	99,646			
8	,015	,140	99,786			
9	,012	,109	99,895			
10	,008	,073	99,969			
11	,003	,031	100,000			

Extraction Method: Principal Component Analysis.

As a result of the factor analysis conducted through principle component analysis, variables were combined in a single factor. Factor weights of these variables were displayed by Table 6:

Table 6. Component Matrix

	Component
	1
mat_ort	,983
LYS1mat_ort	,980
LYS2biyo_ort	,978
LYS2kmy_ort	,970
LYS1geom_ort	,964
LYS2fzk_ort	,961
Fen_ort	,954
turkce_ort	,944
lisans_oran	,894
Social_ort	,880
oran180	,782

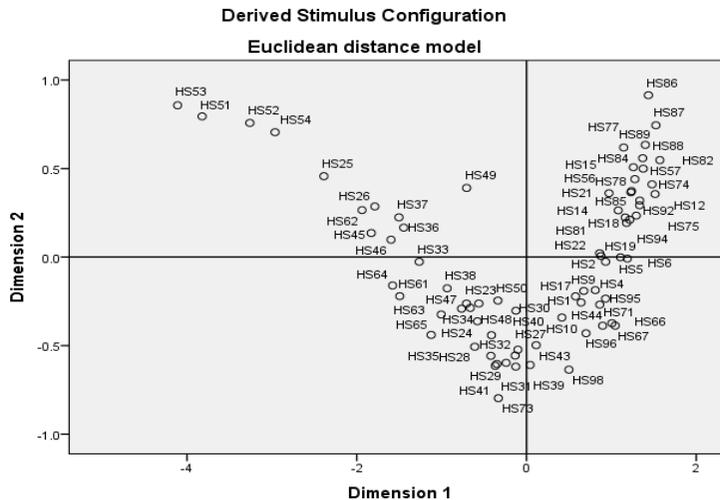
Extraction Method: Principal Component Analysis.

According to Table 6, the most effective variables on success of high school in ranking with respect to the MF Group score were determined as YGS and LYS Math mean scores. When schools were ranked according to scores of this factor, the best five high schools were the Private Servergazi, Erbakır, Aydem, the Private PEV Amiroğlu FL and Denizli AL. It was remarkable result that Acıpayam Cumhuriyet AL and Şevkiye Özel AL were at the 10th and the 12th place in the most successful high school ranking.

MDS analysis was conducted to reveal the relationship among the 75 high schools in terms of YGS, LYS Math and Natural Sciences Group mean scores, rate of students whose scores are equal to and/or greater than 180 and rate of students placed in undergraduate programs. The stress value for the 2-dimensional MDS analysis was estimated at 0.04432. Accordingly, it could be concluded that there was good fit between original and estimated distances; and that analysis results could be presented as 2-dimensional. R^2 , an indicator of good fit of the MDS model to data set, was estimated at 0.99693. The greater R^2 value, the better conformity.

Figure 3 illustrates high schools in 2-dimensional view. As it could be seen from the figure, Erbakır, Aydem, the Private Servergazi, the Private PEV Amiroğlu FL and Denizli AL classified within the first group as a result of clustering analysis constituted their own group; and they exhibited difference with respect to other high schools. Furthermore, the closest high schools to these aforesaid five schools were the TEV, Hasan Tekin Ada, Mustafa Kaynak, Nevzat Karaalp, the Private Servergazi, the Private Servergazi Günay and Lütfi Ege AL. It is possible to conclude that the location at the bottom of the plotting supported the indecisiveness regarding assignment of the Denizli AİHL placed in two different groups by two different analysis methods.

Figure 3. Derived Stimulus Configuration



Evaluation of high schools according to the Turkish-Math (TM) Group Results

In order to groups 87 high schools according to their similarities in terms of the LYS TM (Math, Geometry, Turkish Literature and Geography) and YGS mean scores, rate of students at school who gained equal to and/or greater than 180, and rate of students who placed in undergraduate programs, the clustering analysis was utilized. On the basis of standardized variables, hierarchal (gradual) clustering analysis was conducted according to the Euclidian distance. It was observed that high schools were clustered in three groups according to the tree-diagram. Whereas there were 5 (Erbakır, Aydem, the Private Servergazi, the Private PEV Amiroğlu FL and Denizli AL) in the first group; there were 33 and 49 high schools in the second and third groups. The second group was consisted of public and private anatolian high schools. In the aforesaid group, there were also the Sarayköy AİHL and the Denizli AİHL. Third group was consisted of “vocational technical”, “religious” and “multi-program” high schools.

In order to support results of the hierarchal clustering analysis, the clustering analysis was repeated through the K-mean method. This analysis exhibited minor differences in comparison with hierarchal clustering. According to the K-mean method, whereas there were the same 5 high schools in the first group, the second and the third groups were including 29 and 53 schools. All of 29 schools in the second cluster were private and public Anatolian high schools. According to the hierarchal clustering method, 4 high schools in the second were assigned to the third group. Since the Sarayköy and the Denizli AİHL high schools were in the third group, no any “religious” high school left in the second group. As a result of the ANOVA analysis, it was concluded that differentiation of 87 schools into 3 clusters were found appropriate (for each variable $p=0.000$).

When assumptions of the factor analysis are taken into consideration, it was seen that data set was appropriate for factor analysis (Bartlett's Spherity Test statistic = 1976.849, p value = 0.000; KMO value = 0.917). In determination of number of factor, eigenvalues criterion was employed. Accordingly, there was only single factor with eigenvalue greater than 1. This factor was able to explain 85.342% of the total variance solely. Total variance explanation strengths and eigenvalues were exhibited in Table 7 below:

Table 7. Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	8,534	85,342	85,342	8,534	85,342	85,342
2	,803	8,035	93,377			
3	,249	2,490	95,867			
4	,207	2,066	97,933			
5	,083	,831	98,764			
6	,074	,735	99,500			
7	,019	,186	99,686			
8	,017	,174	99,861			
9	,009	,085	99,946			
10	,005	,054	100,000			

Extraction Method: Principal Component Analysis.

As a result of the factor analysis conducted through the principal components method, variables were gathered in a single factor. Factor weights of these variables were exhibited in Table 8 below:

Table 8. Component Matrix

	Component
	1
turkce_ort	,972
mat_ort	,957
LYS1mat_ort	,950
lisans_oran	,935
LYS1geom_ort	,927
LYS3cogl_ort	,918
Fen_ort	,914
LYS3tdedb_ort	,903
Social_ort	,898
oran180	,859

Extraction Method: Principal Component Analysis.

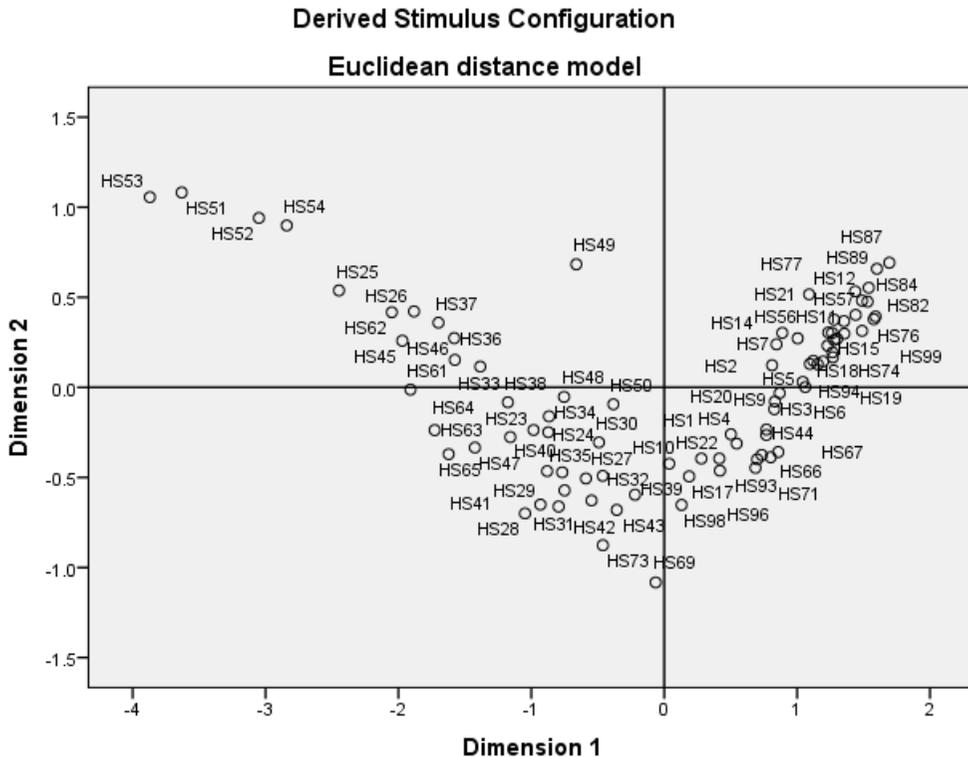
According to Table 8, the most effective variables on success rank of high schools were the YGS Turkish and Math mean scores. In the high school rank based on this factor, the top five schools were the Private Servergazi, Erbakır, Aydem, the Private PEV Amiroğlu FL and Denizli AL. It was remarkable finding with this ranking that the Şevkiye Özel AL and the Acıpayam Cumhuriyet AL were at the 8th and 10th positions, respectively.

Another MDS analysis was conducted to reveal the relationship among 87 high schools according to the YGS, the LYS Math, Geometry, Turkish Language and Literature and Geography Group mean scores, rate of students gained scores equal to and/or greater than 180 with respect to general population of the relevant school, and rate of students placed in an undergraduate program. The stress value was estimated at 0.07284 for the 2-

dimensional MDS analysis. Accordingly, it was concluded that there was good fit between the original and estimated distances; and that the analysis results could be presented in 2-dimensional. R^2 , an indicator of good fit of the MDS model to the data, was estimated at 0.99120.

In Figure 4, high schools were plotted in 2-dimensional graphic. As it could be seen from the plotting, Erbakır, Aydem, the Private Servergazi, the Private PEV Amiroğlu FL and Denizli AL were assigned to the first group by the clustering analysis; and they were comprising of their unique group exhibiting difference with respect to other high schools. Furthermore, the closest schools to these five schools in the first group were the TEV, Mustafa Kaynak, Nevzat Karaalp, the Private Servergazi, the Private Servergazi Günay, Şevkiye Özel and Lütfi Ege AL. The facts that the Sarayköy and the Denizli AİHLs at the bottom of the plotting were assigned to the two different groups and their positions in the graph support the indecisiveness.

Figure 4. Derived Stimulus Configuration



Evaluation of high schools according to the Turkish-Social (TS) Group Results

The clustering analysis was utilized to group 92 high schools in terms of their similarities in terms of their mean scores from the LYS TS (Turkish

Language and Literature, History, Geography and Religion and Ethics, Philosophy) Group, the YGS, rate of students at school, who gained scores equal to or greater than 180, and rates of student at school, placed in an undergraduate program. Based on the standardized variables, hierarchal (gradual) clustering analysis was conducted with respect to the Euclidian distance. According to the tree diagram, it could be observed that high schools were clustered within three groups. Whereas the first group was consisted of 4 high schools (Erbakır, Aydem, the Private Servergazi and the Private PEV Amiroğlu FL), the second and third groups were consisted of 34 and 54 schools, respectively. The second group was consisted of public and private “anatolian” high schools; and this group included two “religious” high schools (the Sarayköy and Denizli AİHLs) as well. The third group was consisted of “vocational and technical”, “religious” and “multi-program” high schools.

In order to support hierarchal clustering analysis results, clustering analysis was repeated by means of the K-mean method. Results of this analysis revealed minor differences in comparison with the hierarchal clustering. As result of the K-mean method, whereas there were 8 high schools (Erbakır, Aydem, the Private Servergazi, the Private PEV Amiroğlu FL, Denizli, the TEV, the Private Servergazi and Lütfi Ege AL) in the first group, the second and third groups were consisted of 29 and 55 high schools. All of the 29 schools in the second group were private and public “anatolian” high schools. Moreover, there was also the Denizli AİHL in this group. Four schools assigned to the second group by the hierarchal clustering method were assigned to the first group by the K-mean method. As a result of the ANOVA analysis, it was found appropriate to cluster 92 high schools into 3 groups (for each variable $p = 0.000$).

When assumptions of the factor analysis were investigated, data set was found appropriate for the factor analysis (Bartlett’s Spherity Test statistic = 1873.749, p value = 0.000; KMO value = 0.922). The eigenvalue was utilized in determination of number of factors. Hence, there was only one factor with eigenvalue greater than 1. This factor was able to explain 84.895% of total variance. Total variance explanation strengths and relevant eigenvalues were exhibited in Table 9:

Table 9. Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	9,338	84,895	84,895	9,338	84,895	84,895
2	,557	5,060	89,955			
3	,292	2,657	92,612			
4	,269	2,442	95,055			
5	,185	1,679	96,734			
6	,125	1,138	97,873			
7	,080	,725	98,597			
8	,070	,639	99,237			
9	,060	,541	99,778			
10	,017	,157	99,935			
11	,007	,065	100,000			

Extraction Method: Principal Component Analysis.

As a result of the factor analysis conducted by the principle components method, variables were gathered in a single factor. Factor weights of these variables were given in Table 10:

Table 10. Component Matrix

	Component
	1
turkce_ort	,973
LYS4flsf_ort	,952
lisans_oran	,945
LYS4History_ort	,938
mat_ort	,932
LYS3cog1_ort	,919
Social_ort	,906
LYS3tdedb_ort	,905
LYS4cog2_ort	,901
Fen_ort	,882
oran180	,877

Extraction Method: Principal Component Analysis.

Table 10 addressed that the most effective variable on high school rank according to the TS Group mean scores were the YGS Turkish and the LYS Religion and Ethics and Philosophy mean scores. In the high school ranking based on mean scores of this factor, the top five high schools were determined as the Private Servergazi, Erbakır, Aydem, the Private PEV Amiroğlu FL and the Private Servergazi AL, respectively. It was also remarkable that there were the Şevkiye Özel AL and the Acıpayam Cumhuriyet AL on the 8th and 10th places in this rank, respectively.

MDS analysis was conducted to reveal relationship among 92 high schools in terms of the LYS TS Group and the YGS mean scores, rates of

Results

In the present study, high schools in Denizli Province were investigated on the basis of 2015 the SSPE results. In order to determine success status of high schools, hierarchical and K-mean clustering analyses, factor analysis and multi-dimensional scaling analysis were employed. Acquired results as result of these analyses were presented below:

The Private Servergazi, Erbakır, Aydem, the PEV Amirođlu FL high schools were gained attention as the most successful school group at the university entrance exams. These schools were the ones who recruited the students ranked at the best percentage share of the exam once called as “the success level measurement exam”. Therefore, students registered with the schools in this group were already successful students in general.

Right next to the most successful high school group mentioned above, in addition to Denizli, the TEV, Mustafa Kaynak, the Private Servergazi, Nevzat Karaalp and Lutfi Ege AL located in the province center, there were also Acıpayam Cumhuriyet and Civrıl Şevkiye Özel AL high schools located in counties.

In general, “anatolian religious”, “multi-program” and “vocational technical anatolian high schools” were considered as unsuccessful schools in the SSPE.

Among “religious high schools”, Denizli AİHL and in some other score types Sarayk y AİHL were ranked at higher levels.

The present study was conducted according to high schools; but, effect of private tutoring institutions on students was ignored. Scores could be derived based on individual students and their socio-demographical characteristics and effect of private tutoring institutions could be included in the analyses. The new circumstance that arises as a result of transformation of aforesaid private tutoring institutions into basic high schools in the academic year of 2015-2016 should be studied in further researches.

Repetition of the study together with the socio-demographical variables that will be compiled according to the students would introduce different results.

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OKUL NO	OKUL ADI
HS1	ACIPAYAM LİSESİ
HS2	AKIN LİSESİ
HS3	ÇAL LİSESİ
HS4	KILIÇARSLAN AL
HS5	MENDERES AL
HS6	TAVAS AL
HS7	BEKİLLİ ATATÜRK ÇPAL
HS8	BEYAĞAÇ ÇPAL
HS9	ANAFARTALAR MTAL
HS10	MEHMET AKİF ERSOY AL
HS11	AKKÖY ÇPAL
HS12	KELEKÇİ ÇPAL
HS13	ÇİVRİL İRGİLLİ ÇPAL
HS14	KARAHİSAR ÇPAL
HS15	HONAZ ÇPAL
HS16	BAKLAN LİMAK HÜSAMETTİN TUYJİ ÇPAL
HS17	UZUNPINAR 70. YIL ÇPAL
HS18	ETHEM ÖZSOY ÇPAL
HS19	BOZKURT ÇPAL
HS20	BABADAĞ HACI MEHMET ZORLU ÇPAL
HS21	ÇAMELİ ÇPAL
HS22	IRLIGANLI ÇPAL
HS23	CUMHURİYET AL

OKUL NO	OKUL ADI
HS56	GÜNEY ÇPAL
HS57	ALİ TUNABOYLU METEM
HS58	SARAYKÖY METEM
HS59	ÇAL METEM
HS60	HAKKI DEREKÖYLÜ GSL
HS61	ŞEVKİYE PRİVATE AL
HS62	LÜTFİ EGE AL
HS63	ÖZAY GÖNLÜM AL
HS64	ACIPAYAM CUMHURİYET AL
HS65	AKIN AL
HS66	CEDİDE ABALIOĞLU AİHL
HS67	ACIPAYAM AİHL
HS68	ÇAL AİHL
HS69	SARAYKÖY AİHL
HS70	KALE AİHL
HS71	ÇİVRİL AİHL
HS72	TAVAS AİHL
HS73	DENİZLİ AİHL
HS74	ACIPAYAM ÇAMLIK MTAL
HS75	DENİZLİ MTAL
HS76	TAVAS MTAL
HS77	ÇARDAK ÇPAL
HS78	HONAZ KAKLIK OSMAN EVRAN ÇPAL

HS24	DENİZLİ LİSESİ
HS25	DENİZLİ AL
HS26	TÜRK EĞİTİM VAKFI AL
HS27	ÇİVRİL EMİNE ÖZCAN AL
HS28	ACIPAYAM AL
HS29	KAZIM KAYNAK AL
HS30	ALİ TUNABOYLU AL
HS31	SARAYKÖY AL
HS32	TAVAS ZEYBEKLER AL
HS33	HASAN TEKİN ADA AL
HS34	DURMUŞ ALİ ÇOBAN AL
HS35	NEVZAT ERTEN AL
HS36	MUSTAFA KAYNAK AL
HS37	NEVZAT KARALP AL
HS38	NALÂN KAYNAK AL
HS39	ÇAL AL
HS40	YAŞAR-SANIYE GEMİCİ AL
HS41	HİLMİ ÖZCAN AL
HS42	HİMMET-NİMET ÖZÇELİK AL
HS43	MUSTAFA ŞİPAR AL
HS44	PRIVATE DENİZLİ DOĞA AL
HS45	PRIVATE SERVERGAZİ AL
HS46	PRIVATE SERVERGAZİ GÜNAY AL
HS47	PRIVATE DENİZLİ BAHÇEŞEHİR AL
HS48	PRIVATE YÜKSEKÇITA AL
HS49	PRIVATE ELİT GRUP AL
HS50	PRIVATE MAVİ BİLGİ AL
HS51	ERBAKIR FL
HS52	AYDEM FL
HS53	PRIVATE SERVERGAZİ FL
HS54	PRIVATE P.E.V. AMİROĞLU FL
HS55	DENİZLİ BOZKURT SL

HS79	YUNUS EMRE MTAL
HS80	KAYHAN 75. YIL MTAL
HS81	KERİMAN KAMER MTAL
HS82	İL PRİVATE İDARESİ 75. YIL MTAL
HS83	YATAĞAN MÜFTÜ ARİF AKŞİT METEM
HS84	ACIPAYAM MTAL
HS85	ATATÜRK MTAL
HS86	BEYCESULTAN MTAL
HS87	KIZICABÖLÜK HANİFE VE AHMET PARALI MTAL
HS88	ORHAN ABALIOĞLU MTAL
HS89	GÜLAY KAYNAK SARIKAYA MTAL
HS90	KARAAĞAÇ MTAL
HS91	KADİR KAMEROĞLU MTAL
HS92	SERİNHİSAR HAKKI GÖKÇETİN ÇPAL
HS93	YEŞİLYUVA OSMAN ÇEMEN ÇPAL
HS94	İMKB MTAL
HS95	SERVERGAZİ İMKB MTAL
HS96	DR. BEKİR SİDDİK MÜFTÜLER MTAL
HS97	BEKİR GÜNGÖR MTAL
HS98	PAMUKKALE MTAL
HS99	SEMA-ABDURRAHMAN KARAMANLIOĞLU MTAL

AL	ANATOLIAN HIGH SCHOOL
AİHL	ANATOLIAN RELIGION HIGH SCHOOL
ÇPAL	MULTİPLE PROGRAM ANATOLIAN HIGH SCHOOL
FL	NATURAL SCIENCES HIGH SCHOOL
GSL	GÜZEL SANATLAR HIGH SCHOOL
METE M	VOCATIONAL AND TECHNICAL TRAINING CENTER
MTAL	VOCATIONAL AND TECHNICAL ANATOLIAN HIGH SCHOOL
SL	SPORT HIGH SCHOOL

Binary Higher Education System In The Republic Of Croatia With Emphasize On The Professional Higher Education

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Abstract

In the Republic of Croatia, higher education is performed through university and professional studies. University studies are performed at universities and professional studies are performed at polytechnics and schools of professional higher education primarily, but they can be performed at universities also, with the prior consent by National Council for Higher Education. Professional study has two levels which are professional study that last two to three years and specialist professional graduate study that last one to two years. There are currently 104 public higher education institutions, 11 of them are polytechnics and 3 are schools of professional higher education. Also there are 28 private higher education institution, 4 of them are polytechnics and 22 are schools of professional higher education. It is interesting to mention the fact from Central Bureau of Statistics in the Republic of Croatia, according to which, in the academic year 2014/15 enrolled 157,827 students from which the largest number of students were enrolled in university studies (68,97%). Here can be raised the legitimate question why there is so much difference between professional and university studies in the registered number of students and whether the reasons can be found in a lack of awareness of students or the unattractive study programs. The aim of this paper is to show the binary higher education system, kinds of professional studies in the Republic of Croatia and the possible reasons that students still prefer to choose a university study for their education.

Keywords: Higher education system, professional studies

Introduction

In the normative definitions of human rights on Higher Education (in the Universal Declaration of Human Rights and the Charter of Fundamental

Rights of the European Union) the most often emphasizes is that higher education must be accessible to all on the basis of "competences". This definition of the right to higher education is included in the Croatian Constitution and Article 66 states "under equal conditions, secondary and higher education is available to everyone in accordance with his abilities." Furthermore, the Act on Scientific Activity and Higher Education in its Article 77 contains anti-discrimination provision that all higher education institutions must ensure entry to the "way to guarantee equality of all applicants regardless of race, color, sex, language, religion, political or other opinion, national or social origin, property, birth, social status, disability, sexual orientation and age" (Farnell, 2004)⁴. Croatian higher education system was under the reform in 2003 and legal framework was set. Bologna process introduced in Croatia binary system with emphasize on professional studies in way that those studies should be closer to citizens in a way of opening polytechnics and schools of professional higher education in smaller cities (Vukovar, Gospić, Knin...).

Legal framework of the higher education system:

Croatian education system is managed by the Ministry of Sciences, Education and Sports (MSES). It is the main administrative body responsible for planning, monitoring and funding of Croatian higher education system. MSES is collaborating with a number of other higher education bodies specialized for particular higher education issues. One of them is Agency for Sciences and higher education (ASHE). ASHE was modelled after the best European practices in quality assurance in sciences and higher education. Also there is Agency for Mobility and EU Programs.

Higher education in the Republic of Croatia is primarily regulated by the *Act on Scientific Activity and Higher Education* (Official Gazette 123/2003, 105/2004, 174/2004, 2/2007, 45/2009, 63/2011, 94/2013, 101/2014 and 60/2015; hereafter: Act). That Act came into force in August

⁴“There are examples from many EU countries that are including the principle of equal opportunities and/or the social dimension into higher education acts. The French Education Act emphasizes the role of higher education in reducing the "social and cultural inequalities", while the Austrian Law on Universities mentions gender equality, equal opportunities and special attention to the needs of persons with disabilities as some of its fundamental principles. Spain particularly stands out as an example of good practice in its Education Act, which has a separate sub-section devoted to "equity in education." Even transition countries take these principles into account: the Hungarian Law on Higher Education mentions as one of the fundamental principles that of "widening opportunities to access higher education", and equal opportunities within the higher education system". More available on: Social dimension of higher education completely omitted from new laws; <http://www.iro.hr/en/infoservice/ide-news/press-releases/info-social-dimension-of-higher-education-completely-omitted-from-new-laws/>

2003 and has established a binary system, meaning that there are two types of higher education; university studies and professional studies. Also, there is *Act on Academic and Professional Titles and Academic Degrees* (Official Gazette 107/2007 and 118/2012) that was passed in 2007 and established system of qualifications for students graduating from Bologna study program and preparing framework for comparison between Bologna and pre-Bologna titles. The *Act on Quality Assurance in sciences and Higher Education* (Official Gazette 45/2009) was passed in 2009. It enabled complete autonomy of the ASHE in the external quality assurance processes in Croatia.

Types of Higher Education institutions:

Higher education institutions in Croatia are universities (along with their constituents- faculties and other legal entities), polytechnics and school of professional higher education.

Article 47 and 54 of the Act said that at each university, teaching and research is carried out by one of the constituent units of the university. *Faculties* organize and carry out university studies (may deliver professional studies also) and develop scientific research and professional work in one or more scientific and professional fields (Article 62, paragraph 1 of the Act). *University departments* participate in the implementation of study programs, develop scientific, artistic and professional work in a single field of science or in an interdisciplinary area of science and participate in the implementation of university studies (Article 64, paragraph 1 of the Act). *Art academies* organize and carry out university artistic studies (may deliver professional artistic studies also) and develop first-rate artistic creative endeavor and scientific research in arts (Article 62, paragraph 2 of the Act).

Polytechnics and schools of professional higher education are higher education institutions which deliver professional study programs. Polytechnics are those schools of professional higher education which deliver professional study programs in three or more scientific fields unlike schools of professional higher education which can deliver only one study program (Article 67, paragraph 1 and 2 of the Act).

Currently there are 132 higher education institutions in Croatia.

Table 1. Public and private higher education institutions

Public higher education institutions	No.	Private higher education institutions	No.
Public university	8	Private university	2
*constituent	82		
Public polytechnics	11	Private polytechnics	4
Public schools of professional higher education	3	Private school of professional higher education	22

Source: MOZVAG, Available on:

<http://mozvag.srce.hr/preglednik/pregled/hr/tipvu/odabir.html>

Table 1 shows that there is 8 public universities, 2 private universities, 82 constituents of the public universities, 4 private polytechnics, 11 public polytechnics, 22 private schools of professional higher education and 3 public schools of professional higher education. The large number of higher education institutions is mostly due to the fact that the four largest universities (Zagreb, Rijeka, Osijek and Split) are not integrated and their constituents are legal entities.

Cycles of Higher Education

In Croatian higher education system we have three cycles of higher education- undergraduate, graduate and postgraduate.

First cycle of higher education is delivered as professional or university study. The minimum educational requirement for admission into first cycles are set by higher education institutions. Normally, the minimum requirement for admission into first cycle is the completion of a four-year secondary school and students are obligated to State Mature. Undergraduate professional study usually last for three years in which students accumulate 180 ECTS. Upon completion students are awarded a professional title of *professional baccalaureus/baccalaurea* with a reference to specializations. Undergraduate university studies are leading to the title of *university baccalaureus/baccalaurea* and they have a duration of three to four years. Students holding a first cycle professional degree may apply for admission into specialist professional graduate studies, to a second cycle graduate university studies under special conditions (some extra exams) or enter the labor market. Students with university degree can apply for admission into graduate university studies, specialist professional graduate studies or enter the labor market. We can see that the first cycle gives almost the same opportunities for the students of both, professional and university studies.

Second cycle is delivered as graduate university study or specialist professional graduate study. Graduate university study normally last for two years in which students accumulate 120 ECTS. The total number of credits accumulated during first and second cycle is at least 300. Upon completion students are awarded with academic title *magistar/magistra* with reference to a specialization. Students holding a second cycle university degree can continue their studies at postgraduate university studies or enter the labor market. Specialist professional graduate study normally last for two years in which students accumulate 120 ECTS. Upon completion of specialist professional graduate studies students are awarded a document called diploma and the professional title *stručni specijalist/stručna specijalistica* in a certain field.

In Croatian higher education system we can find *programs outside the Bachelor and Master Structure*. This are integrated undergraduate and

graduate university study (first and second cycle) that normally last for five or six years in which students accumulate of 300 ECTS. Upon completion students are awarded with the academic title *magistar/magistra* with reference to a specialization. Students can continue their studies at postgraduate university studies or enter the labor market. There is one more program, postgraduate university specialist study that normally last one to two years (courses only). It is important to note that these kind of studies do not refer to doctoral (third cycle) studies. These are for employed persons who have already completed graduate university studies or graduate specialist professional study and wish to further their education in a certain field. Upon completion students are with the title of *university specialist* in a certain field.

Third cycle (PhD) can be delivered only by universities. The minimum educational requirement is the completion of an appropriate graduate university study. Normally it last for three years and upon completion students are awarded with the academic title *doctor of sciences* (*dr.sc*) in their field of sciences⁵.

Binary higher education system

In *binary or dual system* university studies are provided by universities and professional studies are provided by specialized institutions. That is the case, for example, in Lithuania, Estonia and Belgium. There are also *mixed systems* that do not make a clear-cut distinction between universities and other institutions so universities may offer professional studies or professional study institutions may offer university studies. Third option is *partial unitary system* where professional studies are provided by specialized institutions located within universities. That is the case in France and Slovenia. Last one is the *unitary system* in which all types of higher education are offered by the same institutions. Today in EU countries we cannot find an example for that system (Camilleri et al., 2014).

We consider Croatia to have a binary or dual education system, with one exception in which universities may deliver professional studies with the prior consent by National Council for Higher Education. Binary education system is the result of the comprehensive reform within the framework of the Bologna Process. In the 2005/06 academic year reformed study programs were introduced and students could no longer enroll in pre-Bologna programs. Higher education institutions are universities, polytechnics and schools of professional higher education. As we said, universities are primarily delivering university studies (but may deliver professional studies)

⁵ EURYDICE, Available on: https://webgate.ec.europa.eu/fpfis/mwikis/eurydice/index.php/Croatia:Higher_Education

and polytechnics and schools of professional higher education may deliver only professional studies.

Table 2. Number of study programs in Croatia

University studies 1130	Professional studies 242
Undergraduate university study 349	Short professional study 1
Integrated undergraduate and graduate study 52	Undergraduate professional study 167
Graduate university study 386	Specialist graduate professional study 74
Postgraduate specialist study 222	
Postgraduate university study 121	

Source: MOZVAG, Available on:
<http://mozvag.srce.hr/preglednik/pregled/hr/vrsta/odabir.html>

Tabel 2 shows that in the Croatia we can find 1372 study programs. There si 1130 university studies and 242 professional studies. The percentage of professional studies is 17,64% of all studies which is really small percentage.

Table 3. Professional studies at universities

University	Short professional study	Professional studies	Specialist graduate professional studies
University in Osijek	-	7	2
University in Pula	-	2	-
University Sjever	-	7	-
University in Dubrovnik	-	3	1
University in Rijeka	-	10	2
University in Split	-	16	8
University in Zadar	-	2	-
University in Zagreb	1	8	3
TOTAL:	1	55	16
		72 professional studies	

Source: MOZVAG, Available on:
<http://mozvag.srce.hr/preglednik/pregled/hr/vrsta/odabir.html>

Table 3 shows the number of professional studies taught at univerities. Universities may also deliver professional studies, but that should be an exception. It is interesting to see that 29,75% (72 professional study programs from 242 total) of all professional studies are delivered by universities. The intention of the first Act from 2003 was complete separation of professional and university studies. Universities were supposed, by the Act, to deliver only university studies and professional

studies left to polytechnics and schools of professional higher education. For the universities that would mean the loss of a number of students and with that some of the personnel. Biggest problem was that universities would lose a good part of the money proceeds from tuition fees of those students. Universities should not worry for too long. Constitutional Court found unconstitutional the Article of the Act which determine the deadline by which the universities could admit students to professional studies. That meant that universities could continue to deliver professional studies (Croatian Constitutional Court Decision, 2007). „The decision was explained by the fact that university education incorporates professional education as well, so every university meets requirements for the organisation, execution and implementation of professional studies. Inversely, professional studies do not incorporate university education, so no polytechnic or college meets the requirements for the organisation and implementation of university studies including doctoral studies“ (Ivančić et al., 2014).

University vs. professional studies – educational opportunities

The main difference between university and professional studies is for what that study will equip students. University studies equip students for work in science and higher education, in the business world, public sector and society and professional studies provide students with the knowledge and skills they will require to work in professional occupations. There is legitimate question is it really like mentioned. At the professional studies it is expected that students would have more practical training and lectures from experts in particular fields. However, as we can see, especially in the professional studies at universities, lecturers are held by professors teaching at university studies also. Literature on professional and university studies is often the same and the names of the colleges has been modified with the addition at professional studies of “introduction...” or “fundamentals...”. It is necessary to systematically initiate changes of study programs of professional studies and introduce the students of the final year of secondary education in the basic differences between professional and university studies.

Analyze of professional studies and students enrolled in these studies

In the winter semester of the 2014/2015 academic year, a total of 157 827 students enrolled in institutions of higher education. Out of the total number of students enrolled in institutions of higher education in the Republic of Croatia, 79.3% enrolled in faculties, 14.7% in polytechnics, 4.7% in schools of professional higher education and 1.3% in art academies. There were 71.9% of full-time and 28.1% of part-time students enrolled. The largest number of full-time students were enrolled in faculties, 83.4% of

them (6.5% in professional and 76.9% in university studies), 11.3% in polytechnics, 3.5% in schools of professional higher education and 1.8% in art academies.⁶ If we look at numbers we can see that there is 18 252 students on professional studies at universities and 30 486 at polytechnics and schools of higher professional education. We can find an explanation in this numbers for universities not wanting to let go of professional studies. Table 4 shows that number of students enrolled on institutions of higher education does not differ much. Percentage of students on professional studies in academic year 2014/2015 was 30,88%, in 2013/2014 it was 32% and in 2012/2013 it was 31,51%. We can see that university studies are much more attractive for students.

Table 4. Students enrolled on institutions of higher education

	2014/2015	2013/2014	2012/2013
Schools of professional higher education	7 360	10 660	9 601
Polytechnics	23 126	24 465	23 405
Faculties	125 258	124 743	125 074
University studies	107 006	107 557	107 603
Professional studies	18 252	17 186	17 471
Art academies	2 083	2043	2100
Total number of students	157 827	161 911	160 180

Source: authors review of data from Croatian Bureau of statistics

Conclusion

Croatian education system has passed a reform that was never completed by the end. There were good intentions of introducing complete binary system in which professional studies would be performed only by polytechnics or schools of professional higher education and university studies by universities. Such intent of the legislature has failed and we can see that all eight universities performed professional studies today. Now days, there is the idea of merging polytechnics and schools of professional higher education under the universities (as centers or constituents). If we look at other European countries that develop professional studies outside the universities, that would be the step backwards for the Croatian higher education system. It is required to make revision of study programs of professional studies, higher hourly rate of professional practice for students and more lectures by experts. Percentage of students enrolled in professional studies at three last academic years was around 30%. In the European countries is notable rise in the number of students of professional studies, but in Croatia it is the same. The factors that determine increasing enrollment on

⁶ Students enrolled on professional and university study, winter semester of 2014/2015 academic year. Croatian Bureau of statistics, Number 8.1.7. Zagreb, 14th August 2015

professional studies are: duration of professional studies, lower costs of studying and better preparation for labor market. In Netherlands 65% of students are studying at professional studies and in Croatia 30%⁷. Higher education system has many qualities, but there is still a lot of room for improvement.

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Students enrolled on professional and university study, winter semester of 2014/2015 academic year. Croatian Bureau of statistics, number 8.1.7., Zagreb, 14th August 2015

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Introducing The Minnesota Multiphasic Personality Inventory-Adolescent-Restructured Form (MMPI-A-RF)

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Abstract

This paper presents information on the development and structure of the MMPI-A-RF, a 241-item self-report inventory designed to evaluate adolescent psychopathology in clinical, forensic, educational, and medical settings. The MMPI-A-RF as a revision of the MMPI-A, which is the most popular test of adolescent psychopathology in the United States. The MMPI-A-RF is scheduled to be released in the first half of 2016 by the University of Minnesota Press, and distributed by Pearson Assessment.

Keywords: Psychology, Mental Health, Adolescence

Development Of The Mmpi-A-Rf

Various forms of the Minnesota Multiphasic Personality Inventory (MMPI) have been used to evaluate adolescent psychopathology for over seven decades. The original form of the MMPI, while primarily developed for use with adults, was also widely used with adolescents from its original publication in 1942 until the publication of the MMPI-A in 1992. The Minnesota Multiphasic Personality Inventory - Adolescent (MMPI-A) is an instrument which is heavily interrelated to both the original form of the MMPI, as well as to the MMPI-2. The MMPI-A rapidly became the most widely used objective personality assessment instrument with adolescents in research, clinical, and forensic settings. The development of the MMPI-A represented the first time in the history of this instrument that a specialized set of adolescent norms was created, and that a specific test form was developed by the test publisher for the assessment of adolescents. The creation of the Minnesota Multiphasic Personality Inventory-Adolescent-Restructured Form (MMPI-A-RF) was heavily influenced by the theoretical underpinnings and methodological approach used in developing the MMPI-2-RF. The MMPI-A-RF is a 241-item self-report instrument which was

derived from the 478 items of the MMPI-A. The MMPI-A-RF is not a simple revision of the MMPI-A, but is an innovative instrument that shares many of the features of the MMPI-A, but represents a new test instrument.

The Minnesota Multiphasic Personality Inventory-Adolescent-Restructured Form (MMPI-A-RF) development project began in late 2007 with the goal of exploring the potential for developing an adolescent instrument modeled after the Minnesota Multiphasic Personality Inventory-2-Restructured Form (MMPI-2-RF) for adults. Committee members included Robert Archer and Richard Handel at the Eastern Virginia Medical School, Yossi Ben-Porath at Kent State University, and Auke Tellegen of the University of Minnesota. The initial responsibility of the committee was to advise the University of Minnesota Press concerning the feasibility of creating an adolescent form of the MMPI-2-RF, using the MMPI-2-RF as the template to inform the development of the adolescent instrument.

The development samples used for the construction of the MMPI-A-RF scales were initially based on a sample of 11,093 boys and 7,238 girls from a variety of settings including inpatient and outpatient psychiatric settings, correctional, drug and alcohol treatment, general medical, and school settings. Because of the relatively small number of participants in the drug/alcohol treatment and general medical settings, these latter samples were eventually removed from any further analyses. Additionally, a variety of exclusion criteria were applied, which included the following:

- 1) Age restricted to adolescents between 14 through 18, inclusive;
- 2) MMPI-A Cannot Say scores less than 30;
- 3) *MMPI-A VRIN, TRIN, L, and K* scale scores less than 80;
- 4) *MMPI-A F* scale score less than 90.

Applying these inclusion criteria, the final developmental sample consisted of 15,128 adolescents including 9,286 boys and 5,842 girls. The mean age for these samples which were derived from outpatient, inpatient, correctional and school settings was 15.61. In order to evaluate the influence of age and gender on scale construction, samples were further subdivided by age and gender, creating four developmental samples used in scale development. These four samples were: 1) younger boys (14 to 15); 2) older boys (16 to 18); 3) younger girls (14 to 15), and 4) older girls (16 to 18).

Once the decision was made to develop the MMPI-A-RF, the first step in developing the test was to identify a measure of demoralization, a major factor contributing to the high intercorrelation between the MMPI-A Basic Clinical scales. This led to the development of the Demoralization (RCd) scale. Three broad scales of psychopathology, the Higher-Order (H-O) scales, were also developed for the MMPI-A based on principal component analyses of the MMPI-A Basic Clinical scales. Additional

analyses were also conducted to identify major distinctive components for each of the MMPI-A Basic Clinical scales, which could be differentiated from the demoralization factor. This process essentially led to the development of the Restructured Clinical (RC) scales for the MMPI-A-RF. The next step was to develop additional substantive scales to cover other content areas available in the MMPI-A item pool that were not directly addressed by the RC scales. The MMPI-2-RF Specific Problems scales served as the initial template for scale development, but were also augmented by scales uniquely developed for the MMPI-A-RF to address adolescent problem areas. In developing the MMPI-A-RF Specific Problems scales, procedures similar to those used to develop the MMPI-A-RF RC scales were followed by the test developers. Specifically, each of the MMPI-2-RF Specific Problems scales was examined to evaluate the extent to which corresponding MMPI-A items were available within the MMPI-A item pool. There was also a group of 58 items unique to the MMPI-A item pool which are not found on the MMPI-2-RF, for example those items uniquely found in the MMPI-A Content scales. After deriving a preliminary set of Specific Problems scales for the MMPI-A-RF, each scale was subjected to factor analyses to reduce the extent to which Specific Problems scales were strongly associated with the demoralization factor dimension. The remaining seed or core scales were further refined by dropping candidate items that appeared to be too highly correlated with other SP scales. Finally, we correlated each of the candidate SP scales with all remaining items from the 478-item pool of the MMPI-A. In this final stage, items with relevant content were added to a scale if they sufficiently correlated with that scale and showed a pattern of lower correlations with other SP scales. As with the MMPI-2-RF, the process of deriving a final set of Specific Problems scales included numerous analyses of different subsets of items conducted in various age and gender subsamples.

Finally, a revised set of Personality Psychopathology-Five (PSY-5) scales was developed for the MMPI-A-RF by John McNulty and Alan Harkness based on their five-factor personality model. Harkness, McNulty, and Ben-Porath (1995) originally created a set of PSY-5 scales for the MMPI-2, and McNulty, Harkness, Ben-Porath, and Williams (1997) developed PSY-5 scales for the MMPI-A. McNulty and Harkness developed the MMPI-A-RF PSY-5 scales using a similar methodology to that employed for the MMPI-2 and MMPI-A. Items were selected on a rational basis, and internal consistency and external criteria analyses were conducted based on samples divided into developmental and validation studies. A cycle of internal analyses was conducted in four large databases, separately by gender.

The development process used to create the MMPI-A-RF resulted in 48 scales (six validity scales and 42 substantive scales). These 48 scales are shown in Table 1.

TABLE 1 *MMPI-A-RF Scale and Descriptions*

The MMPI-A-RF Scales

Validity Scales

VRIN-r (Variable Response Inconsistency) Random responding
TRIN-r (True Response Inconsistency) Fixed responding
CRIN (Combined Response Inconsistency) –
Combination of fixed and random inconsistent responding
F-r (Infrequent Responses) Responses infrequent in the general population
L-r (Uncommon Virtues) Rarely claimed moral attributes or activities
K-r (Adjustment Validity) Uncommonly high level of psychological adjustments

Higher-Order (H-O) Scales

EID (Emotional/Internalizing Dysfunction) Problems associated with mood and affect
THD (Thought Dysfunction) Problems associated with disordered thinking
BXD (Behavioral/Externalizing Dysfunction) Problems associated with under-controlled behavior

Restructured Clinical (RC) Scales

RCd (Demoralization) General unhappiness and dissatisfaction
RC1 (Somatic Complaints) Diffuse physical health complaints
RC2 (Low Positive Emotions) A distinctive, core vulnerability factor in depression
RC3 (Cynicism) Non-self-referential beliefs that others are bad and not to be trusted
RC4 (Antisocial Behavior) Rule-breaking and irresponsible behavior
RC6 (Ideas of Persecution) Self-referential beliefs that others pose a threat
RC7 (Dysfunctional Negative Emotions) Maladaptive anxiety, anger, and irritability
RC8 (Aberrant Experiences) Unusual perceptions or thoughts associated with psychosis
RC9 (Hypomanic Activation) Over-activation, aggression, impulsivity, and grandiosity

Specific Problems (SP) Scales

Somatic/Cognitive Scales

MLS (Malaise) Overall sense of physical debilitation, poor health
GIC (Gastrointestinal Complaints) Nausea, recurring upset stomach, and poor appetite
HPC (Head Pain Complaints) Head and neck pain
NUC (Neurological Complaints) Dizziness, weakness, paralysis, and loss of balance
COG (Cognitive Complaints) Memory problems, difficulties concentrating

Internalizing Scales

HLP (Helplessness/Hopelessness) Belief that goals cannot be reached or problems solved
SFD (Self-Doubt) Lack of self-confidence, feelings of uselessness
NFC (Inefficacy) Belief that one is indecisive and inefficient
OCS (Obsessions/Compulsions) Varied obsessional and compulsive behaviors
STW (Stress/Worry) Preoccupation with disappointments, difficulty with time pressure
AXY (Anxiety) Pervasive anxiety, frights, frequent nightmares
ANP (Anger Proneness) Easily angered, impatient with others
BRF (Behavior-Restricting Fears) Fears that significantly inhibit normal behavior
SPF (Specific Fears) Multiple specific fears

Externalizing Scales

NSA (Negative School Attitudes) Negative attitudes and beliefs about school
ASA (Antisocial Attitudes) Various antisocial beliefs and attitudes

CNP (Conduct Problems) Difficulties at school and at home, stealing
SUB (Substance Abuse) Current and past misuse of alcohol and drugs
NPI (Negative Peer Influence) Affiliation with negative peer group
AGG (Aggression) Physically aggressive, violent behavior
Interpersonal Scales
FML (Family Problems) Conflictual family relationships
IPP (Interpersonal Passivity) Being unassertive and submissive
SAV (Social Avoidance) Avoiding or not enjoying social events
SHY (Shyness) Feeling uncomfortable and anxious around others
DSF (Disaffiliativeness) Disliking people and being around them
Personality Psychopathology Five (PSY-5) Scales
AGGR-r (Aggressiveness-Revised) Instrumental, goal-directed aggression
PSYC-r (Psychoticism-Revised) Disconnection from reality
DISC-r (Disconstraint-Revised) Under-controlled behavior
NEGE-r (Negative Emotionality/Neuroticism-Revised) Anxiety, insecurity,
worry and fear
INTR-r (Introversion/Low Positive Emotionality-Revised) Social disengagement
and anhedonia

MMPI-A-RF scale names excerpted from the MMPI-A-RF Administration, Scoring, Interpretation, and Technical Manual by Archer, Handel, Ben-Porath, and Tellegen. Copyright © 2016 by the Regents of the University of Minnesota. Reproduced by permission of the University of Minnesota Press. All rights reserved. “Minnesota Multiphasic Personality Inventory” and “MMPI” are trademarks owned by the Regents of the University of Minnesota.

The 48 MMPI-A-RF scales, similar to the MMPI-2-RF, have a three-tiered hierarchical structure that includes three Higher-Order (H-O) broad-base scales at the top of the hierarchy, nine Restructured Clinical (RC) scales at the midlevel, and 25 Specific Problems (SP) scales at the lowest level, as well as five PSY-5 scales. While the Higher-Order scales, RC scales, and many of the Specific Problems scales are identical in name to their counterparts on the MMPI-2-RF, it is important to note that the item composition of these scales differs, often significantly, from their MMPI-2-RF counterparts. The MMPI-A-RF also contains a set of six Validity scales which include three scales of response consistency, one scale measuring over-reporting symptomatology, and two scales devoted to evaluating the extent to which an adolescent may have underreported their experience of psychiatric symptomatology

The MMPI-A-RF Specific Problems scales are organized into five Somatic/Cognitive scales, related to elevations on Somatic Complaints (*RC1*), and nine Internalizing scales measuring aspects or facets of demoralization (*RCd*) and Dysfunctional Negative Emotions (*RC7*). There are also six Externalizing scales which measure facets of Antisocial Behavior (*RC4*) and Hypomanic Activation (*RC9*). It should be noted that three of the six Externalizing scales (Negative School Attitudes, Conduct Problems, and

Negative Peer Influence) are unique to the MMPI-A-RF and do not have a counterpart on the MMPI-2-RF. The MMPI-A-RF also contains five Interpersonal scales, three of which (Family Problems, Social Avoidance, and Shyness) are interpretable in terms of both high and low scores. Finally, the Personality Psychopathology-Five (PSY-5) scales are based on the revision undertaken by McNulty and Harkness to accommodate the 241 items of the MMPI-A-RF.

The MMPI-A-RF will be released in 2016. Test materials scheduled for release include the MMPI-A-RF Manual for Administration, Scoring, Interpretation, and Technical Manual (Archer, Handel, Ben-Porath, & Tellegen, 2016) and scoring and automated interpretation systems available through Pearson Assessment. The MMPI-A-RF norms are derived from the normative sample for the MMPI-A, and focus on the assessment of adolescents ages 14 through 18, inclusive. A comprehensive discussion of the MMPI-A-RF, including the development and interpretation of the Validity scales, Higher-Order scales, Restructured Clinical scales, and Specific Problems scales, is provided in Archer (2016).

The research literature on the MMPI-A-RF will undoubtedly show areas of advantage for this instrument (relative to the MMPI-A) in many assessment tasks with adolescents. This research will also identify areas of limitations for the MMPI-A-RF in addressing other types of assessment issues or areas. It is likely that the ultimate evaluation of the MMPI-A-RF will be based on a scale-by-scale or specific groups of scales (e.g., RC scales) analyses of the instrument, rather than broad generalizations concerning the overall utility of the test instrument. The publication of the MMPI-A-RF offers test users a valuable alternative instrument to the MMPI-A, particularly in situations in which the 241-item length of the MMPI-A-RF serves as an important factor in successful test administration.

The reduction in test length provided by the MMPI-A-RF, however, was not the primary objective of the development of this test. The central objective in the development of the MMPI-A-RF was to improve on the discriminate validity achievable by the MMPI-A by reducing the ubiquitous and confounding influence of the demoralization factor commonly found in most personality inventories. Archer (2006) and Friedman et al. (2015), for example, noted that the extensive item overlap that occurs across the MMPI Basic scales (including the MMPI-A Basic scales) is attributable to the criterion-keying method of item selection employed by Hathaway and McKinley (1943) for scale development, the degree of symptom overlap among psychiatric disorders, and the pervasive influence of shared first-factor variance, a factor labeled by Tellegen as Demoralization. While scales heavily influenced by the Demoralization factor might be expected to show strong evidence of convergent validity (i.e., high correlations with

predicted external criteria), such scales typically suffer from relatively poor specificity or discriminant validity (i.e., the ability to discriminate between various forms of psychopathology). The MMPI-A-RF seeks to reduce the redundancy found among MMPI-A scales by isolating the demoralization factor and reducing its influence on the “seed” or “core” components of MMPI-A-RF scales. This process, if successful, should result in shorter scales (in contrast to MMPI-A counterparts) with comparable convergent validity but improved discriminative ability. The MMPI-A-RF Manual (Archer et al., 2016) provides over 17,000 correlations between MMPI-A-RF scale scores and external criteria in a variety of adolescent samples. These data provide an important initial step in evaluating the MMPI-A-RF. Future research will further establish the extent to which the MMPI-A-RF has achieved the important objectives of maintaining convergent validity while demonstrating improvements in discriminant validity.

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Genderlect Investigation In Susan Glaspell's *A Jury of Her Peers*

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Abstract

The development of stylistic analysis that focuses on the role of the linguistic codes of the text dates back to the classical period. From the classical period onwards there has been continued interest among scholars in the relation between patterns of language (linguistic descriptions) and the meaning (interpretation) in the text. Feminist stylistics, a sub-discipline of stylistic analysis, is the study and interpretation of a text from a genderized and feminist linguistic perspective. Feminist stylistics, providing an insight into aspects of feminist writing and stylistics focus on the analysis of the factors which determine the meaning of text in its social context. Feminist stylisticians highlight in a systematic manner the self-conscious attempts by female writers to modify traditional modes of language use from a female perspective. For years women's writing and language were criticized of not being stylistically unique but recent feminist researches have shown that women's writings were 'écriture feminine' and language was stylistically unique, therefore modern feminists indicate that there is difference between male and female writing and language use. This paper, aims to focus on feminist stylistics by exemplifying the difference between male and female language use that is referred as genderlect in Susan Glaspell's short story *A Jury of Her Peers*.

Keywords: Linguistic codes, Susan Glaspell, "A Jury of Her Peers"

Introduction to Feminist Stylistics

Feminist stylistics is a sub-discipline of stylistic analysis that studies a text from a genderized and feminist linguistic perspective. Feminist stylistics focuses on the analysis of feminist writing, discourse and stylistics. Feminist stylistics, from a female standpoint tries to modify traditional modes of language use in a systematic manner of female writers. For years writings and language of female writers were criticized of not being stylistically unique enough but recent feminist studies have shown that female writings were stylistically unique. The issue of gendered language

has imposed as a distinct category in the field of feminist linguistic. Thus, the modern feminist stylisticians by focusing on female writing and female discourse tried to indicate that stylistically female writing and discourse is unique and different than male writing and discourse.

Feminist stylistics derives its theoretical basis from the theories and practices of feminist criticism that emphasizes the social, political and economic equality between women and men. For Mills most feminists believe that "women are treated oppressively and differently from men and that they are subject to personal and institutional discrimination"(1995;3) because society is organized by male power that oppresses women and their works and words. Feminists express that there are differences in the ways men and women are treated in the male dominated society. Feminism and feminist criticism emphasizing women's oppression and limited place in the society developed critical views about social statues, gender distinction and language usage between the sexes. Feminists through feminist stylistics and language usage that is "the very medium of literary reality, and the real world codification of social values" (Ufot, 2012; 2461) intended to change the stereotypical women image and present the difference between male and female discourse. Feminist stylistics argues that there is a male hegemony in both the treatment of women in society and their characterization in literary texts. Therefore, feminist stylistics seeks to "formulate an authentic counter-image of women through their writings" (Ufot, 2012; 2462) because they see literature as a medium for foregrounding the female experiences and destructing women stereotypes formed by male works and words. Feminist stylistics by focusing on the "aesthetic effect achieved through language" (Leech and Short, 1981; 13) intends to explore the stylistic ways in which language usage and social structure in literature express female consciousness and present the dialectical struggle between male and female characters of feminist writings. McFadden states that "feminist writing and feminist stylistics both reflect genderized perspectives in literary studies which can either perpetuate the oppression of women or help to eliminate it" (1997;14).

Feminist stylistics by identifying the dialectical features in language usage and the alternative forms of expression in female texts intend to develop a textual analysis with the feminist discourse. For Mills, Feminist stylisticians aimed to "develop an awareness of the way gender is handled in texts" (1995;1). Mill indicates that feminist stylistics does not only focus on the description of sexual discrimination in literary works but also includes a study of "the ways that point of view, agency, metaphor or transitivity are unexpectedly related to matters of gender" (1995; 2). Basically, Feminist stylistics emphasizes the ways in which female authors conceptualize their works and reflect meaning in their texts. Blaine, argues that Feminist

stylistics is "the strongest successor of critical stylistics with more specific concerns of unmasking patriarchal ideologies and denaturalizing patriarchal assumptions" (1990; 3). The goal, therefore of Feminist stylistics approach to stylistic study is the evolution of linguistic and social change that altered the usage of language which oppress, subordinate, humiliate and dehumanize women in society.

Generally, in recent years, Feminist stylistics tends to emphasize, in a variety of ways the differences between the sexes whereas in the early period its focus was on the sameness of the sexes and the sameness of the presence of simple and complex sentence structures in male and female works. Namely, the early feminist stylisticians' emphasis was on the similarities between texts produced by both men and women and it was thought that there were no significant differences in style between works written by men or women. Yet, in the modern times, emphasis has shifted and number of feminist stylisticians starting with Robin Lakoff's *Language and Woman's Place* (1975) and Dale Spender's *Man-Made Language* (1980) insisted that there is a women's writing that is different in style from men's writing. Although the roots of feminist linguistic or gendered language come from Virginia Woolf and Simone de Beauvoir, the modern feminists' works have provided new perspectives, such as; Sara Mills's works; *Discourses of Difference: Women's Travel Writing* (1991), *Feminist Stylistics* (1995), *Feminist Reading/Feminist Readings* (1996), *Gender and Politeness* (2003), *Language and Sexism* (2008), and her *Feminist Postcolonial Theory: A Reader* (2008) Mills works recommend her as one of the most important feminist stylisticians and theoreticians of gender and discourse in the last decades, together with Robin Lakoff, Deborah Cameron, Deborah Tannen. Sara Mills's *Feminist Stylistic* is a pioneering work discussing the feminist writing and discourse. According to Mills, Woolf asserted that there was a "sentence of the feminine gender" and certain "women writers created a new type of sentence which is looser and more accretive than the male sentence" (1995; 44). Woolf and modern French feminists such as Luce Irigaray and Helene Cixous assert that there is a difference between men's and women's writing and their way of language use. Namely, modern feminist stylisticians insist that men and women differ in their ways of writing and linguistics. Briefly, the writing difference/écriture feminine and linguistic difference/genderlect between men and women form the important basis of feministic stylistics in the postmodern feminist era.

Genderlect Difference

The question of male-female language differences has generated a considerable amount of thought and discussions, among feminists, feminist stylisticians, linguists and socio-linguistics over the last twenty years. The

discussion whether women write different than men began with Virginia Woolf and developed with the modern feminists who insisted that men and women differ in their ways of thinking, writing and expressing reality. Virginia Woolf, in her *Women and Fiction* (1990: 47-53) or in her *The Angel in the House* (Woolf, 2004: 185-190) focus on the struggle women writers experience because they are limited by the conventions of writing that have been created by men's words. Woolf refers to unique writing style of women as the "female sentence" and Mills describes it as the "gendered sentence"(qtd in Ufot, 2012; 2463). Generally, the writing difference in the way men and women structure their sentences is defined as "écriture feminine", a term coined by Helen Cixious that emphasizes the unique "female writing", and the linguistic differences in the way men and women use language is referred as "genderlect" which is a term used by Cheri Kramer (Kramarae). In other words, the term genderlect, combining gender and dialect, has been coined to define the linguistic difference between the way men and women speak. The portmanteau word, "genderlect is a variety of a language that is tied not to geography or to family background or to a role but to the speaker's sexual gender" (Suciu, 2012; 1). According to the sexual differences the speech and conversation between men and women change. Women use "rapport talk" to establish meaningful connection with others, while men use "report talk" to gain status in relation to others (Tannen, 1990; 434). Rapport Talk is the typical conversational (dialogical) style of women, which seeks to establish connection with others. Report Talk is the typical monologic style of men, which seeks to command attention, convey information, and win arguments. Because women and men use language differently, Tannen suggests that they are speaking "different dialects, or genderlects"(1986;124). The goal of genderlect theory is to understand the language of the sexes. Early works in genderlect theory explored how gender patterns in language use often diminished, marginalized and silenced women compared to man. However, later works began to focus on how gender patterns in language use differed in women's and men's speech and writing. Therefore, recent feminist studies have focused on critical views about female language use that emerged a sub-discipline study of stylistics defined as feminist stylistics that intends to explore the ways in which literature expresses female consciousness, experiences, writing and language. McFadden states that feminist writing and feminist stylistics:

Raises questions about literature that are basic to men's struggle for autonomy. Such questions include: how does the language of literature represent women and define gender relations? ... How does one's gender alter the way in which one writes? (1977;14)

Feminist Stylistics that focuses on the difference between men's and women's language usage indicated that men and women speak differently because of belonging to different subcultures and being brought up in different sociolinguistic subcultures, cultural coding and the socialization process, including family, friends, school, games, that contribute to one's femaleness or maleness. Linguistic differences between men and women are not caused by a power imbalance but by different norms of conversational interaction. Rather than speaking differently simply because they are women and men, women and men may differ in their patterns of language use because they are engaged in different activities or are playing different conversational roles, therefore, each gender has its own weaknesses and strengths. "Culture is simply a network of habits and patterns gleaned from past experiences, and women and men have different past experiences. From the time they were born they were treated differently, talked to differently, and talk differently as a result." (Tannen 1986:125) Dennis Baron, in his book *Grammar and Gender* states:

Women's speech differs from men's is accepted in much the same way that the psychological differences between the sexes are accepted, and because language is perceived as an innate and essential part of our humanity, sex differences in language are treated as natural, genetic, only to be expected and frequently to be reinforced (2007;55).

The majority of feminists linguists regard "men's speech as forceful, efficient, authoritative and serious while women's language is viewed as a deviation from the norm, and is characterized as trivial, hesitant, super polite and euphemistic" (Suciu, 2012; 2). Not only how or what men and women talk about is different, but also the way in which they talk about the subjects differ because "women wait patiently for the other person to finish his/her turn; men interrupt, they compete for the dominance of conversation topics" (Suciu, 2012; 2). Feminist stylisticians posit that female writing and language is substantially different in terms of its formal linguistic constituents as well as thematic concerns. Tannen assumes that male and female conversational styles are equally valid: "We try to talk to each other honestly, but it seems at times that we are speaking different languages—or at least different genderlects" (1990;433). In sum, male and female are speaking two distinct cultural dialects of the same language that forms a genderlectal discourse.

Genderlect Investigation in Susan Glaspell's *A Jury of Her Peers*

Susan Glaspell, living in a community passionately concerned with socialism and feminism . . ." (BenZvi, 1995; 160), was supported by a "group of friends who were intellectuals, socialists, feminists and radicals"

(Makowsky, 1993; 24). Thus, "Glaspell found encouragement for her interest in creating female characters who desired to free themselves from the stereotypical roles into which they had been cast" (Ben-Zvi,1995; 160-161) from a social and feminist perspective. Susan Glaspell has written more than forty short stories, fourteen plays, and nine novels. Glaspell's short story *A Jury of Her Peers* (1971) is an adaptation of her best known play *Trifles*. Both the play and the story have been analyzed from feminist perspectives raising questions about women's oppression in a society dominated by men and gender differences in perception. In this paper the story is analyzed from a feminist stylistic perspective focusing on the genderlect notion. Thus, the difference between male and female investigation is referred as the genderlect investigation because men and woman investigate, talk and communicate on same events from a different gender dialects. Namely, women and men differ in language use, even though they seem to speak the same language they use different words or dialects that create conflict and misunderstanding between the two sexes.

Susan Glaspell's, *A Jury of Her Peers* (1916) is a detective story on the surface but is more of a commentary about female oppression, justice, and difference in perspective and discourse between men and women that present a genderlect investigation because both sexes solve the same murder from different perspectives. The important things for women become trivial for men and the important thing for the men seem meaningless for the women, therefore; the trifles for men become the evidence for the women in solving and understanding the reason behind the murder. Tanner suggests that it is "about pre-judging and re-judging of men and women who focus on different details as evidence and speak a different language"(1972; 8). In other words, during the genderlect investigation men and women are speaking different dialects of the same language to solve a murder from different standpoints.

A Jury of Her Peers takes place in the rural Midwest, Dickson County. Throughout the story, the men and the women display different interests, concerns, and priorities as they investigate the crime. As the men: the Sheriff, county attorney (Henderson), and Mr. Hale, and the women: Mrs. Peters and Mrs. Hale enter the Wright farmhouse they are divided into two separate groups and their act of perception becomes sex-coded because of their different physical, psychological and emotional reactions to the murder. Men, inside the Wright's farmhouse, take charge at once and begin their investigation to solve the crime while the women, wonder with worried eyes and express their sadness and anxiety. In other words, the men look around the house only to talk "about what had happened,"(155) while the women quietly gaze around noting "a lonesome-looking place"(155) and the untidiness in the house.

After Mrs. Hale "had her foot on the door-step, her hand on the knob she felt she could not cross the threshold" (155) because for twenty years she did not visit Minnie Wright properly. Thus, Mrs. Hale felt pity and guilt. The men went over to the stove as they entered from the kitchen door and the women stood close to by the door. "Sheriff Peters unbuttoned his outer coat, and leaned over the kitchen table in a way that seemed to mark the beginning of an official business"(155), and asked Mr. Hale to "tell just when he came here yesterday morning"(156). Mrs. Hale hoped Mr. Hale would tell the story straight and plain and would not tell anything to make things harder for Minnie Foster (Mrs. Wright). Mr. Hale told the sheriff that he had come to the Wright's house to ask John Wright if he would like to have a telephone line but Mrs. Wright was sitting on a rocking chair and looking "queer" (157). When Mr. Hale asked, Mrs. Wright, where John Wright was, pleating her apron, quietly she said "he is dead"(158). Mr. Hale was surprised and said "he didn't know what to do". He asked her "why he died" and she said "he died of a rope round his neck and continued pleating the apron"(158). Harry asked her as "someone slipped a rope around his neck and strangled you didn't wake up"?. She responded "I didn't wake up"(158). Mr. Hale expressed his disbelief that she could have slept through the murder, afterwards he went and called the attorney. Attorney got his pencil in his hand all ready for writing (159). The county attorney walked toward the stair door and looked around the kitchen and said with a little laugh "nothing here but kitchen things"(159). He saw the kitchen things as insignificant trivial objects. The initial separation between men and women started with their attitude and interpretation over the kitchen things.

The county attorney looking at the old fashioned kitchen cupboard, said "Here's a nice mess"(159) but the one of the two women looking around with sympathy, Mrs. Peters, the sheriff's wife, said "She worried about that when it turned so cold last night. She said fire would go out and her jars burst"(159). Women were humiliated and laughed at when they expressed their sadness and worry over Mrs. Wright's broken jars of jam. Sheriff Peters found the explanation of his wife tremendously humorous and said: "Well, can you beat the women! Held for murder, and worrying about her preserves!" and the attorney said: "I guess before we're through she may have something more serious than preserves to worry about" (160). The men laughed at their wives' and Mrs. Hale's husband said with a good natured superiority: "women are used to worrying over trifles" (160). However, it is precisely the "trifles" (160) that hide the evidences to solve the murder. The dialogues between women and men show that men's report talk seeks to command attention, convey information, and win arguments while women's rapport talk seeks to establish connection with others, therefore women

sympathize with Minnie Wright's situation and try to re-judge the event with trifle evidences to protect her while the men judge and accuse her.

The two women moving together acting as supporter and protector decide "what is relevant under the marriage law whereas the men power of authority, acting as judge and jurors, decide what is relevant under the law" (Bryan,1997;1306). Thus, the men judge Minnie Wright and accuse her because they cannot understand her complex story and her situation. The differences of the men and the women in their investigation and comprehension of the murder reveal the differences in how they discover and decode clues of the event, therefore as men prejudicially judges, women re-judge the fate of Minnie Wright.

After the investigation in the kitchen men continue their investigation by going "upstairs first-then out to the barn and around there" (156) in their search for clues, while the women are left in the kitchen and parlor seeking for their own clues. The men cannot understand what is happening in the kitchen, therefore they try to seek for evidence upstairs and outside. The women left alone in Minnie's kitchen, moving together begin discovering their own clues about Minnie's situation in the kitchen and the parlor. Gradually, Mrs. Hale and Mrs. Peters begin deciphering details about Minnie's life that escape the notice of their husbands. They notice Minnie's despair, loneliness, her broken furniture, the mess in the kitchen where she had to cook, and her ragged clothes.

Men humiliating the women say: they would not "know a clue if they did come upon it,"(161). The two women begin to investigate the insignificant "kitchen things" (161), the unusual, and remnants of kitchen chores left "half done"(162). Additionally, the women comprehend the implications of some "fine, even sewing gone suddenly awry, as if she didn't know what she was about!"(165). As the two women piece the clues together, Minnie's situation starts to be revealed. When they spot the crooked stitching on one of the quilts Minnie was working on, Mrs. Hale pulls out Mrs. Wright's "crazy" stitching, she says she's "just pulling out a stitch or two that's not sewed very good" (165). Yet, they both know what that stitching means, therefore they speculate that she must have been upset and confused.

The two women also find Minnie's canary strangled and carefully tucked away in a box inside her sewing basket. After discovering the canary, the two women begin talking about how Minnie, once was a sociable and cheerful women but after marrying her silent, cold husband, in years she turned into a lonely person. In other words, Mrs. Hale states that Minnie, the young and pretty girl that she once knew, has died. Mrs. Hale recognizes Mr. Wright's responsibility for what has happened to Minnie, for creating the circumstances that drove her to violence. As she says to Mrs. Peters after

they discover the body of the bird, "No, Wright wouldn't like the bird ... a thing that sang. She used to sing. He killed that too." (170). The women's perspective and understanding of Minnie Wright raised questions about the responsibility of her case. Both women also notice that a birdcage door has been broken and with few words spoken between them, they infer that John Wright might have strangled Minnie's canary, her only source of joy, much the way he killed his wife's spirit with his violent manner. The two women piece together the clues; strangled canary and the birdcage and speculate that Minnie has strangled her husband just as he had strangled her canary. Empathizing with Minnie, the women decide not to tell their husbands about the results of their own investigation by concluding; "We all go through the same things-it's all just a different kind of the same thing! If it weren't-why do you and I understand? Why do we know-what we know this minute?"(171). Thus, they repair the stitching on Minnie's quilt and hide the body of the canary. First, Mrs. Peters tries to put the box holding the strangled bird's body into her handbag but cannot fit the box into it. Seeing this, Mrs. Hale takes it from her and hides it in her large coat pocket just as the men enter the room. Thus, the way men and women solve the murder differ regarding to the way and which they use language and investigate the event which can be indicated as in the following list.

The Differences Between Male and Female Genderlect Investigation:

Male Investigation	& Language	Female Investigation	& Language
Outside	public	Inside	private
Upstairs/Bedroom & barn	general / formal	Downstairs/ kitchen& parlor	specific/ informal
Powerful	serious/ efficient	Powerless	trivial/hesitant
House	logical	Cage	emotional
Strangled man	aggressive	Strangled bird	passive
Dead body	authoritative	Dead Spirit	euphemistic
Rope	direct	Quilt	indirect
Strangling event	hostile/forceful	Stitching event	polite/detailed
Speaking	advising	Silent	sharing
Questioning critically	answering	Gossiping	therapeutical
Problem solving	proving	Speculating	hiding
Noisy communication	arguing	Silent communication	/supporting
Evidence	knowledgeable	Trifles/Hints	understanding
Searching	pre-judging /accusing	Discovering	Re-judging/defending
Reacting physically	Discussing	Reacting emotionally	Empathizing
Solving	Commenting	Knotting	sympathizing
Resulting	Judging	Conclusion	Saving

The last words of the story are Mrs. Hale's in response to a question asked by the county attorney as to how Mrs. Wright planned to finish her quilt, she replies, "We call it-knot it." (173). In the final statement of the story, Mrs. Hale indicates the bonding of the two women and the way they silently bind the clues together to knot Minnie's case and "not tell" what they know to the men. Thus, the genderlect investigation ended from a totally feminine standpoint knotting mutely against the male authority that always sees female as dealing with trivial things that actually can be significant evidences in solving and judging a serious crime.

Conclusion

In conclusion, Feminist stylistics providing the basis for the interrogation of texts from a feminine standpoint analysis the text's language from a female perspective that provides alternate possibilities in interpreting gendered patterns, discourse, character and sentence analysis. Glaspell's *A Jury of Her Peers* employs essentially a feminist stylistics standpoint in presenting a genderlect investigation of a murder on the surface but in depth a story of revenge, women's victimization, oppression, justice and women's shared experience, together with a possibility for the creation of an alternate feminist jury and justice judging from a feminized perspective. Thus, Feminist stylistics standpoint tries to state the difference in gender discourse that enables the women to become a jury of their peers experiencing feminized perspectives, and female writing/ecriture feminine and female language/genderlect. Briefly, the genderlect investigation has been drawn on the Feminist stylistic standpoint of the genderlect jury who has given their verdicts with their own experiences and words.

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Hospital Efficiency In Turkey: Metafrontier Analysis

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Abstract

Turkey has the highest health spending on hospitals within OECD. Therefore measuring efficiency of hospitals is crucial to improve the health care. In line with this purpose Turkey experienced major reforms in healthcare since 1980s'. This paper focuses on the healthcare system for the Aegean Region of Turkey. The data obtained from Health Statistics Yearbook 2007 and our data covers 135 hospitals. Because of the heterogeneity across hospitals we used DEA Meta frontier analysis. The results show that the technical efficiencies with respect to group frontier and meta-frontier training-research hospitals and the medical faculty hospitals are higher than state and private hospitals. The results also indicate that the variation of technology gap ratio (TGR) is high for training-research hospitals and the medical faculty hospitals. Furthermore TGR for private and state hospitals are high and close to each other.

Keywords: Hospital, Turkey, Efficiency, Metafrontier

Introduction

The quality of health services is one of the important factors which affects the quality of life of individuals or communities. As a result of which, important policy changes in health services are made in most countries also in Turkey, and the quality of health services is tried to enhance. Turkey experienced major reforms in healthcare since 1980s', and health system of Turkey had a big transformation. The mentioned Health Transformation Programme aimed to improve the quality and decentralized health system and benefited from these challenges. As a result of this programme, the average life expectancy was 61.4 and increased to 75.4. (www.worldlifeexpectancy.com), and the population ages 15-64 became 67.5% of total population. As the number of elder population increases, the pressure on the financing health care also increases. Therefore the finance of the health care system is effectuated through General Health Care Insurance.

Though occurred improvements in health sector, the key issue is the efficiency of the hospitals which are the main actor of the health sector. The main factor which determines the efficiency of the hospitals is the applied health policies. There have been some studies on the importance of the efficiency of the hospitals. Gülsevin and Türkan (2012), Gülcü et al.(2004), Bal and Bilge (2013), Temür and Bakırcı (2008), Tetik (2003), Aslan and Mete (2007), Yeşilyurt and Yeşilyurt (2007), Bayraktutan and Pehlivanoğlu (2012), Yeşilyurt (2007a), Doğan and Gencen (2014), Yeşilyurt (2007b) and Yeşilyurt and Yeşilyurt (2006) had measured the efficiency of hospitals in Turkey, and DEA is used to measure the efficiency in these studies. The main assumption of DEA is that the decision making units (hospitals) have homogeneous structure. A considerable amount of research has been made about the measurement of the efficiency of hospitals, but there is not any study accounting for the heterogeneity across hospitals. In this study, the differences across the hospitals are discussed by using metafrontier analysis. The metafrontier approach allows to define different frontier for each group, and the efficiency is measured in reference to the groups and the metafrontier. Furthermore, by using the mentioned approach Technology Gap Ratio (TGR) can be defined to compare the relative efficiency levels of hospitals.

The rest of the paper is organized as follows. In the next section, we describe methodologies to be used. Then the data for the empirical analysis are introduced. Section four, presents and discusses the empirical results obtained from the metafrontier approach. Finally section five, concludes the paper.

Methodology

Data Envelopment Analysis (DEA) is widely used method to measure efficiency levels across hospitals. Although DEA is famous method, it has some drawbacks. One of most important drawback of common DEA is that all DMUs are assumed homogeneous. If this assumption is not valid, measured efficiency score can be biased. To avoid this problem, we employed metafrontier approach, developed by Battese and Rao (2002) and O'Donnell *et al.*(2008) in this study. Metafrontier approach is to account for heterogeneity across hospitals and contains the calculation of efficiency with respect to metafrontier and frontiers of homogeneous group which represent the common and the group specific technologies.

Assumed that there are k homogeneous group (in this study hospitals are classified into three groups as state hospitals, private hospitals and training-research and medical faculty hospitals) and technology set of each group can be described as combination of efficient production possibilities (Battese *et al.* 2004).

$$T^k = \{(x, y) \in R_+ | x \text{ can produce } y\} \quad (1)$$

In equation 1, x denotes nonnegative input vectors y denotes nonnegative output vectors and T denotes the technology set. According to this approach, meta frontier can be described as a function which envelops different group frontiers. And this different group frontiers has different technology and factor levels. In this circumstances, meta technology set can be written as below equation.

$$T^* = \left\{ (x, y) : x \geq 0 \text{ and } y \geq 0, \text{ such that } x \text{ can produce } y \text{ in } \right. \\ \left. \text{at least one group technology, } T^1, T^2, \dots, T^k \right\} \quad (2)$$

It is assumed that T^* satisfies all production axioms, so technical efficiency can be measured by using distance function related to meta technology set. The relationship between meta frontier and group frontier is illustrated in Figure 1.

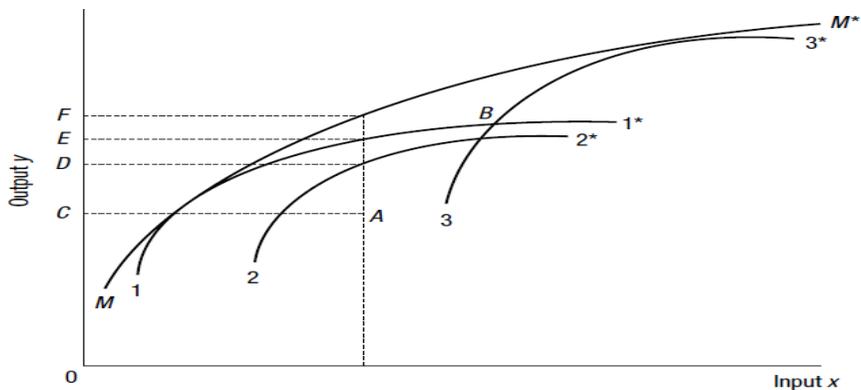


Figure 1: Metafrontier and group frontier
Source: O'Donnell et al. 2008: 236

According to Figure 1 and above explanations, technical efficiency with respect to group frontier and technical efficiency with respect to meta frontier can be written as follow respectively.

$$TE^k = D_0^k(x, y) = \inf_{\theta} \{\theta > 0 : (y/\theta) \in P^k(x)\} \quad (3)$$

$$TE^* = D_0^*(x, y) = \inf_{\theta} \{\theta > 0 : (y/\theta) \in P^*(x)\} \quad (4)$$

These equations show the maximum degree to which a given output vector can be increased and still within the production possibility set. Due to the fact that meta frontier envelops all group frontiers shown in Figure 1, output distance function of group frontier should be greater than or equal to output distance function of meta frontier. After the measure of technical efficiency, Technology Gap Ratio (TGR) which measure the gap between group and meta frontier can be obtain like this.

$$TGR_0^k(x, y) = \frac{D_0^*(x, y)}{D_0^k(x, y)} = \frac{TE_0^*(x, y)}{TE_0^k(x, y)} \quad (5)$$

TGR has values between zero and one and this ratio indicate that for a given input vector, potential output of the group frontier is a certain percentage of the potential output defined by the meta frontier (Tunca *et al.* 2013).

Data

In this study 135 hospitals have been analyzed for the Aegean Region of Turkey. The data on hospitals obtained from Health Statistics Yearbook 2007. The number of doctors and beds are used as input, the number of surgery, operations, outpatients, inpatients and inpatient days are used as output. All variable used in this study are expressed per ten thousand head. Due to the heterogeneous structure, we split the data into three groups. The first group contains State hospitals, the second group consists of private hospitals and the third group contains Training- research hospitals and medical faculty hospitals. In each group there are 81, 39 and 15 hospitals, respectively.

Descriptive statistics of all variable is shown in Table 1.

Table 1: Descriptive Statistics

		doctor	bed	surgery	outpatient	operation	inpatient	inpatient days
state hospital	Mean	0,4283	1,7940	3070,8908	83,2711	43,3356	84,6881	359,4786
	Std.Dev.	0,5599	2,9942	4166,4525	146,1249	76,0593	148,6359	612,1063
	Min	0,0160	0,0695	174,0328	1,3585	0,1667	1,2109	4,2761
	Max	4,0405	23,4949	31411,8492	1115,4842	501,2945	1130,8266	4254,6728
private hospital	Mean	0,1859	0,3309	411,1964	24,6413	15,4860	24,9931	47,1846
	Std.Dev.	0,1444	0,2785	425,3347	20,8896	15,9823	21,1976	41,9332
	Min	0,0080	0,0267	2,8481	0,6418	0,3182	0,6383	0,8986
	Max	0,4960	1,2269	1984,2297	90,8715	72,7082	91,6145	148,7802
Training- research hospital	Mean	1,6725	2,2714	1763,9727	102,6172	89,9344	104,7543	634,8682
	Std.Dev.	1,3124	1,7333	1077,2708	69,4283	84,5878	70,8497	506,8199
	Min	0,0535	0,0294	71,8654	3,0540	2,1581	3,0902	5,5544
	Max	3,5207	6,0721	3686,0120	224,5943	316,1911	228,7878	1598,4674

As observed from Table 1, there is a large difference between the minimum and maximum value for all of the variables. For example, doctor in private hospitals are 2.30 times smaller than state hospitals and 8.99 times smaller than training-research and medical faculty hospitals. Surgery in private hospitals are 7.47 times smaller than state hospitals and 4.29 times smaller than training-research and medical faculty hospitals. All of these explanations clearly observed that each group displays very different characteristic features. If we are to summarize briefly, it can be said that private hospital group has smallest scales than other and training-research hospitals and medical faculty hospitals group have maximum mean value in all variables except surgery.

Results

Estimated average meta and group technical efficiency score are reported in Table 2.

Table 2: Technical efficiency score

	Technical efficiency with respect to group frontier			Technical efficiency with respect to metafrontier		
	State	private	Medical faculty	State	private	Medical faculty
Mean	73,25%	66,06%	94,33%	67,66%	61,22%	76,73%
SD	16,40%	28,49%	9,53%	16,66%	29,23%	14,90%
Min	38,60%	11,79%	68,25%	32,87%	10,33%	42,67%
Max	100,00%	100,00%	100,00%	100,00%	100,00%	99,34%

Source: own calculation

The Training-research hospitals and the medical faculty hospitals are the most efficient hospitals in our study. The average technical efficiency score for this group is 94.33%. This score shows that the training-research hospitals and the medical faculty hospitals are producing 94.33% of the maximum output with respect to the given group technology. Private hospitals have the lowest average technical efficiency scores with 66.06%. The standard deviation is also high for this group and this indicates that the efficiency scores are widely ranged. Average efficiency scores of state hospitals with respect to group frontier is 73.25% and ranged from 38.60% to 100%. This shows that standard deviation of state hospitals are very high like private hospitals. Although technical efficiency with respect to metafrontier found to be less than group technical efficiency, they support the findings obtained from group frontiers. According to Table 2, training-research hospitals and medical faculty hospitals are producing %76.73 of their potential output with respect to the meta-frontier technology. The remarkable point of these results is about the maximum efficiency scores. The maximum efficiency scores of state and private hospitals are 100% whereas training-research hospitals and medical faculty hospitals are 99.34%. This result yields that state and private hospitals have an important role in identifying the metafrontier. In other terms at least one of the state and private hospitals are on the metafrontier however none of the training-research hospitals and medical faculty hospitals are not.

TGR's of each group represent in Table 3 are also important. While the frontiers of state hospital group and private hospital group are tangent to the metafrontier, the frontier of training-research hospitals and medical faculty hospital is below to the meta-frontier. In other words, there is gap between metafrontier and training-research hospitals and medical faculty hospitals frontier.

Table 3: TGR of each groups

	Technology Gap Ratio		
	State	Private	Medical faculty
Mean	92,42%	91,18%	81,31%
SD	9,95%	9,75%	13,07%
Min	49,55%	69,72%	42,67%
Max	100,00%	100,00%	99,34%

Source: own calculations

Technology gap ratios (TGR) are presented in Table 3. Even though average technical efficiency of training-research hospitals and medical faculty hospital is the highest, the average TGR of this group is the lowest. We can say that this group could produce about % 81.31 of output that could be produced using the unrestricted meta technology. In addition to this, the highest standard deviation also belongs to this group. This implies that the variation in the TGR is the highest among the training-research hospitals and medical faculty hospitals.

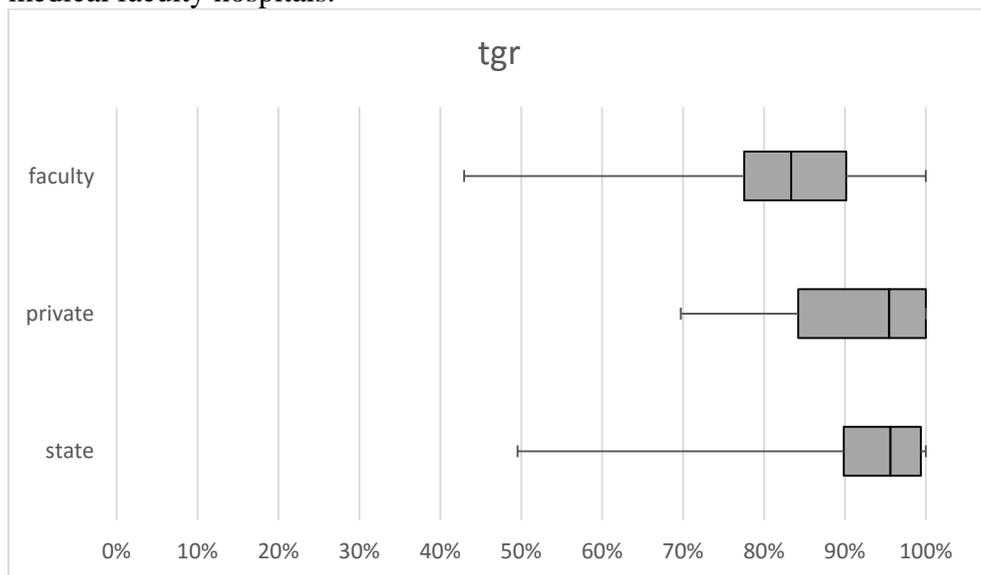


Figure 2: TGR for each group

According to Table 3 and Graph 2, TGR is high and approximately the same for state hospitals and private hospitals. This shows that state hospitals and private hospitals can produce 92.42% and 91.18% of the potential output given the available unrestricted meta technology, respectively. Besides these results private hospitals have more important role for identifying global technology, by virtue of the high standard deviation in state hospitals.

Conclusion

It is aimed in this study at calculating the efficiency of 135 hospitals operating in the Aegean Region. Based on the assumption that the hospitals in the sample constituted a heterogenous structure, they were divided into three groups and the Metafrontier analysis developed by Battese and Rao (2002) was utilized. Thus defining the technological gap ratio, the relative efficiency levels of hospitals and groups were compared.

The findings obtained indicate that training-research hospitals and medical faculty hospitals have the highest efficiency scores both in group frontier and metafrontier. Nevertheless, it is seen that the private hospitals group with the lowest efficiency scores have the highest values of standard deviation. This implies that the efficiency scores of the private hospitals fluctuate within a very wide range. The Technology Gap Ratio (TGR) scores indicate the exact opposite results. The state and private hospital have very high TGR scores whereas the training-research hospitals and medical faculty hospitals have lower TGR scores. It can be understood from this finding that state and private schools play a more important role in defining the global technology in the health sector.

The training-research hospitals and medical faculty hospitals having lower TGR ratios despite higher technical efficiency scores indicate that they lose especially their human capitals to private hospitals in return for high wages. Moreover, state hospitals' corporate identity and strong organizational structures based on their histories caused them to have higher TGR scores. While private hospitals' lower technical efficiency scores imply that they cannot use their own resources rationally or work on a low scale, their higher TGR scores mean both the quality human capital they transfer and the strong technological infrastructure they established.

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Adolescent Migrants In The North Border Of Mexico: A Psychological Perspective

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Abstract

The goal of this work was to show the psychological perspective of 84 adolescent migrants who were caught by American authorities during the time period of July 2014 and January 2015. Adolescents answered the Child Manifest Anxiety Scale (CMAS-R) and a semi-structured interview. Depending on their place of origin, anxiety could be affecting some more than others. It is highly recommended continuing this line of research since there are very few studies on the psychological perspective of Mexican and Central-American migrants who try to cross to the United States. Having a broader idea of this matter could generate interventions that will benefit this vulnerable group.

Keywords: Adolescent, migration, migrants, Mexico, psychology

Introduction

Based on a previous work (Aguilar, Michel, & Gutiérrez, 2016) this work presents the psychological portrait of adolescents who decided to migrate to the United States of America (USA). These adolescents came from different countries such as Guatemala, El Salvador, Mexico, among other places, but did not make it to the USA because they got caught by American authorities. These adolescents are in search of their personal identity looking for values and roles to live for. Also, this work described the challenges during their transit, especially in Mexico, that migrants have to endure. The experiences they lived during their transit generated so much tension and anxiety that affected them differently depending on their place of origin.

Migration

Migration is the transit of people from one place to another, the purpose of this movement is to take a new residence in a permanent or semi-permanent way (National Geographic, 2005). It has been part of the human history since its beginning, so migration is not a recent phenomenon (International Federation of Red Cross and Red Crescent Societies, n.d.). The causes of migration are many, past research (Musalo, Frydman, & Ceriani, 2015) have highlighted that the reasons of migration in Central and North America reside in the witnessing of violence, violation of human rights, social exclusion, lack of education and employment opportunities, lack of medical services, among other severe conditions. These harsh circumstances force many children, adolescents and their parents to move in search of better quality of life.

Adolescence and Personal Identity

It is important to define the period of maturity the group of migrants was experiencing in their lives. The group of migrants was composed of adolescents between the ages 11 and 17. During adolescence the person experiences important physical and psychological changes; it is a transition period that features the growth spurt and the onset of puberty (Nairne, 2000). According to the developmental psychologist Erik Erikson, one of the most important milestones of social development is the formation of personal identity, a sense of self, of who you are as an individual and how well you measure up against peers. Erikson (1968) believed that personal identity is shaped by a series of psychological crises that each person must challenge at a characteristic stage in development. By the time we reach adolescence, our intellectual development has developed so we begin to consider personal qualities that are general and abstract.

Erikson proposed that adolescents have to deal with the fundamental crisis of identity versus role confusion. During this time the adolescent becomes concerned with three processes: testing roles, adopting their own values, and finding their true identity (Morris & Maisto, 2009). First, when adolescents test roles some choose the roles by modeling others: "I'm an honest and cooperative hard worker because that's the way I was brought up by my parents" (Nairne, 2000, p. 154). In the search of their own identity, most adolescents continue doing what their parents taught them: farming, cattle raising, and commerce. But for some, there comes a point in time when they feel ready for a transition in life, something that will forge their own identity. Therefore, for some adolescents, part of this transition in life means the decision to migrate. Second, adolescents adopt their own values. When an adolescent questions his own values he is taking the first step towards adopting or rejecting them. Erikson describes this period as a time the

adolescent looks forward to travel, takes temporal jobs, and sets goals and values that will lead his path in life (Jiménez, Torregrosa, Burgos, & Uitzil, 2013). And third, the adolescent develops his identity during experiences that mark a difference. For instance, migration is something that many will consider a significant experience, this implies leaving their hometown, confronting experiences that make them adapt in a rapid way to a new socio-cultural environments. Therefore, migration produces identity changes for sure; the person has to assimilate new backgrounds that will make him redefine his previous social insertion (Velasco, 2008).

The anxiety of migration

The difficulties and traumatic events that migrants experience during their journey are countless. Migrants from South Mexico and Central-America usually have two options to go across Mexico: the *polleros* or the train called *La Bestia* (The beast). *Polleros* are people who charge a high amount of money for human smuggling to the USA. Those who decide for the *polleros* travel in truck trailers with no water, no food, and no ventilation for days (Riediger-Röhm, 2013). Even though migrants pay for this “service” there is no warranty they can make it safe. Many *polleros* abandon the migrants in the middle of the desert. Other migrants decide to go across Mexico, free of charge, using *La Bestia*, also known as the train of the death. The journey on board of this train takes place on top of the wagons, thus migrants have to endure the inclemency of the weather for weeks. However, the weather is the least of their preoccupations because there are so many threats aboard this train. Migrants worry about other crew members who try to kill each other, for this reason they have to stay awake the whole time; there is robbery, rapes, mutilations, among other terrible experiences (Riediger-Röhm, 2013). Those who make it to the north of Mexico they still have to cross the border without getting caught by the American authorities. Those who could not make it go through the repatriation process. Other migrants decide to stay close to the border and wait for the opportunity to cross to the USA; in the mean time they could be victims of extortion, prostitution and kidnapping.

Methods

Participants

The study included a group of 84 adolescents caught by American authorities in the border of Mexico and the USA and brought to a shelter in the border town of Juarez City, Mexico. These adolescents were caught during the time period of July 2014 and January 2015. There were 16 females and 68 males; the age range was from 11 to 17 years old, mean age was 15.32, standard deviation (SD) = 1.69.

The group was divided in 3 groups depending on their place of origin. Local migrants were living at Juarez City (38 adolescents); national migrants (20 adolescents) were from South Mexico from states like Guerrero, Oaxaca, Tabasco, Chiapas, among other states; and international migrants (26) from Central-America from countries like Guatemala, El Salvador, Nicaragua, Ecuador, among other countries.

Instruments

Adolescents answered a semi-structured interview with open-ended questions. The information obtained was recorded, analyzed and codified for keeping its confidentiality. They also were evaluated using the Child Manifest Anxiety Scale (CMAS-R). The scale has 37 items; the answer options were “yes” or “no” for each of the items. The scale has 6 components: concealment of anxiety, inconsistent answers, total anxiety, physiological anxiety, general concern, and social concerns.

Results

There was a significant difference for age, $F(2, 83) = 24.763, p < .001$, adolescents from local procedence were significantly younger ($M = 14.18, SD = 1.76$), as compared to those coming from South Mexico ($M = 16.40, SD = .88$) and from outside Mexico ($M = 16.15, SD = .88$).

There were no significant differences between groups for inconsistent answers, total anxiety, physiological anxiety, and general concern. There were significant differences between groups for social concerns, $F(2, 83) = 2.956, p = .05$, and for concealment of anxiety $F(2, 83) = 10.781, p < .001$. In order to determine which of the three groups differed from one another a post hoc test (Dunnett) was performed. For social concerns it was found that local migrants differ from those of South Mexico, mean difference = 2.38, standard error (SE) = .99, $p = .03$. For concealment of anxiety, local migrants differ from those of South Mexico, mean difference = 1.82, SE = .66, $p < .01$; and from those of other countries, mean difference = 2.74, SE = .61, $p < .01$.

Testimonials

Some adolescents have testimonials of their own experiences. For instance, “Juanito”, 16 years old from Chiapas, shared that when he was about to cross to the USA, he and his father were so close to make it, but his father had cut his leg during the trip that he could not walk anymore, so he asked Juanito to leave him in the middle of the road, Juanito knew his father was going to die so he decided to return to Mexico with his father.

Another testimonial from “Sandra”, 15 years old from Tabasco, she reported that she had a lot of problems with her mother, so she left home and decided to quit school. Sandra and one of her best friends decided they

wanted to move to the USA, but they did not have the means to go across Mexico. They asked some trailer drivers for a free ride, however the drivers accepted to take them in exchange of some sexual favors; the adolescents took the offers of the drivers so that was how they got to Juarez City. In one occasion they attended a party with some new friend they made, they drank so much that the next morning Sandra did not remember anything. She woke up in a different place alone, so she started walking on the streets looking for her friend. Sandra was walking close to the border when she saw Mexican authorities who took her to the shelter for adolescent migrants.

The story of “Pedro”, 12 years old from Guatemala, his family experienced a terrible economic situation, some days they had something to eat, other days had nothing. Pedro decided to quit school and started to work so that he could help his family with some money. Pedro’s uncle suggested to Pedro he should go to the USA and work. Pedro got excited and started to work harder to make some savings for the trip. Pedro’s uncle got some savings for Pedro, so with both savings they paid a *pollero*. Pedro and a group of 4 more people got into the border between Mexico and USA, the *pollero* started to walk with them for some minutes then said “keep walking, you are about to get there” and left. Pedro said they walked for a long time by themselves until the American authorities got them.

These are only a few of the many tragic stories of many adolescents who get caught by Mexican and American authorities in the border area of Mexico and the USA.

Discussion

Surprisingly, the age of the migrant adolescents from Juarez City was significantly lower as compared to those from South Mexico and other countries. Adolescents from Juarez City try to illegally cross to the USA at age 14, while adolescents from South Mexico and other countries try to cross at age 16. Many adolescents from Juarez City reported that their families have put them in this illegal situation because that is what they do for a living: human smuggling. These adolescents are asked by their parents to distract the authorities in the border area so that the parents can sneak in migrants to the other side of the border. Thus, these local adolescents can get caught as many times as they want, their families will pick them up at the shelter and continue with their “business”, because there are no legal consequences to regret. Many of these adolescents have made this routine their way of living, so it has been very convenient for them to live in this border town (Aguilar, Michel & Gutiérrez, 2016).

On the other hand, adolescents from South Mexico and other countries decide to move to the USA at age 16, which is 2 years after compared to local migrants from Juarez City. This age difference may

represent a more mature decision for migrating, and their reasons could be more personal in the sense that family members did not ask them to migrate to the USA as compared to local migrants.

Migrants experience very stressful situations which makes them a vulnerable group for experiencing post-traumatic stress disorder (PTSD), anxiety, and depression (García, Hijano, Carreño, Martín, Gisbert, & Peña, 2006; Kaltman, Green, Mete, Shara, & Miranda, 2010). Particularly migrant adolescents are at risk of developing high anxiety levels due to the severe difficulties. It was found that adolescents coming from Southern Mexico have higher anxiety related to socio-cultural stressors. Many of these adolescents are the main economic support of their families, thus they feel a greater commitment for improving the quality of life of their families, for this reason they decide to migrate to the USA. Also, it was found that migrants from Central-American origin (for example Guatemala, El Salvador, Honduras) reported the highest levels of concealment of anxiety. This particular finding reflects a defensive attitude in order to cover any sign of anxiety. Past studies suggest that concealment of anxiety is predictive of anxiety (Pina, Silverman, Saavedra & Weems, 2001). It is reasonable to think that international migrants conceal their anxiety as a defense mechanism. After all, coming from another country, getting caught by authorities, and returned to their place of origin take its toll on them. Psychologically they feel defeated after having invested their resources (food, time, family savings, effort, emotional and psychological losses). The journey ends right where they first started, back in their country where they idealized with a better life for them and their families.

Conclusion

The goal of this work was to describe the psychological perspective of adolescent migrants who were caught by the authorities in the Northern border of Mexico during the time period of July 2014 and January 2015. Adolescents, as part of their natural development, experience the need to attach to values, roles and most important their personal identity. The reality for some of these adolescents was that in search of those values, roles and identity they put the needs of their family members first. Then, the decision to migrate becomes the first step in the journey of their maturation.

In general, illegal migration is a major concern for many; however migration of adolescent should be of greater concern. For this reason, research on this matter must be continued and expanded in order to generate interventions and promote policies that will protect vulnerable groups such as adolescent migrants.

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Economy And Moral Education In Early Republican Period Of Turkey⁸

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Abstract

In the early Republican period of Turkey, governments placed significant importance to education council meetings in order to structure educational policies. While these councils gathered as a consulting unit, necessary reports on the subjects determined by governments were prepared and submitted back to governments as suggestions. Whereas the first of these councils was held in 1939; the second one was held in Ankara under the title of “the Second Educational Council (SEC)” to discuss issues on morals, language and history in the period of February 15th-21st, 1943. In the present study, reasons and purposes of the moral education taken into consideration during the SEC were tried to be comprehended. To that end, four basic principles considered within the scope of the moral context in the council were tried to be structured on the economical context of the early Republican period. As a result of the study, it was concluded that some behavior and attitude types requested by leaders of the mentioned era and institutional spurts taken into the agenda along the economic targets determined during the construction of modern Turkey were taken into consideration under morality concept in the SEC in 1943.

Keywords: Early Republican Turkey, the Second Educational Council, morals, education, economy

Introduction

Moral education, as a government tool to raise loyal citizens in the modern times, was first taken into consideration systematically in the SEC in the history of the Republic of Turkey. The government added subject of morals next to the language and history subjects in the agenda of the council gathered for the period of February 15th-21st, 1943; a report on morality issue

⁸ This article was generated from the master thesis under title of “Moral Education in the Building of Modern Turkey: 1943 The Second Educational Council”.

comprised of moral principles which are to be followed by Turkish youth was accepted at the end of this council meeting. Ministry of National Education published two separate course books based on the principles adopted in the council for primary and secondary schools under title of “Türk Ahlâkının İlkeleri” (Principles of Turkish Morals) at the end of the council; thus, decisions made concerning Turkish morals were put in practice.

The purpose of the present research is to determine aim of the Turkish government with the moral education by 1943s in the lights of the SEC talks, moral education commission report and course books published within the scope of the council. Indeed, there have been various studies oriented on expectations from the moral education considered in the SEC based on the absence of religion courses in curriculums. According to the agreed point of view, the reason for inclusion of morality subject into the agenda of the SEC held on February 15th, 1943 was dismissal of religion courses from formal education institutions progressively after 1930s and consequent moral depression observed among youth (Ergin, 1977; Ayhan, 2014; Ersoy, 2007; Efendioğlu, 2013). Defending this issue in the relevant studies, “personal critics” driven against the government in the parliament or in the press concerning dismissal of religion courses or negative behaviors observed in morals of youth were expressed. At this point, there are couple of issues which need some particular attention.

First, whereas personal critics against the government were not sufficient in explanation of that there was depression among youth; even members of the government of the concerned era did not take these critics seriously and carried them into the agenda of the SEC. In fact, similar critics were voiced in the parliament before the SEC; nevertheless, government official, Minister of National Education, Hasan Ali Yücel, who took the floor to answer critics, was not agree with critics and stated that those critics were rather personal instead of realist ones; he also stressed necessity of empirical observations to make an appropriate conclusion (Eronat, 1999). Actually, if explanation suggested by the contemporary educational scientists that the impact of education on economic development could only be “felt” rather than directly “measured” is taken into consideration (Akyüz, 1992), aforesaid critics should have include measurement tools and their findings regarding the relationship between “lack of religion education” and “moral depression” clearly so that they could not have been taken as nothing but personal. Again, as a result of similar critics were aimed at the Ministry of National Education in another parliament session, Minister Hasan Ali Yücel stated that couple of occasional incidents reported from schools could not have been generalized to all Turkish children and that Turkish children were well-behaved and characterized with higher morals (Eronat, 1999).

Second, it was realized that aforesaid studies ignored the explanations made by government members and other council members about the reason of inclusion morality subject into their council agenda. Indeed, it was clearly and repeatedly emphasized along the council sessions that moral issue considered was not referring any issue subject to a depression observed in youth's morality. Chairman of the council and Minister of National Education, Hasan Ali Yücel, addressed this issue in the opening speech as below (T.C. Maarif Vekilliği, 1943):

“This essential issue which we included in our agenda was not considered because of an influence caused by depression observed in youth's morality... I could tell in confidence and proudly that Turkish children do not deserve miserable complaints of their seniors who are assigned for upbringing them. If there should have been such a circumstance, I could have been the one in charge, who complained and took serious measures to resolve this problem.”

Similar to the chairman of the council, other members of the council declared that the issue was not related with any moral depression seen among youth. For instance, Cemil Bilsel, member of the moral education commission determining moral principles, stated in his discourse during board of members meeting that “if moral issue was included in agenda of the SEC meeting, it should not be implied that we are facing a moral depression circumstance” (T.C. Maarif Vekilliği, 1943) and thus, addressed the point emphasized by Yücel. Another member of the moral education commission, Rauf İnan, put the moral issue into the words in general board of members meeting as follows (T.C. Maarif Vekilliği, 1943):

“Just as it was brought in by master academicians, the issue is that the next generations would be cleared off deficiencies and sicknesses that we already have rather than whether an immorality exists in the country. Which measures should be taken and which methods should be followed to ensure that new generations could be free from our current some deficiencies?”

Accordingly, it should be admitted that the theory that the government took moral education into the meeting agenda just because of moral depression observed in youth was not able to explain developments here. This article, therefore, search for reasons and purposes of the moral education emphasized in the SEC in other rationales. While purposes of moral education are tried to be comprehended, it could be considered that education systems and moral institutions are social events subject to the structure and requirements of the society in which they function (Tezcan, 1996). At this point, it could be concluded that principles taken into consideration within the scope of the moral education, opinions voiced at the council and printed course books of Principles of Turkish Morals arose as a result of social needs. Hence, based on a literature review covering the

period before 1943, it could be seen that some moral principles which occurred in this period were ideological behavior and thinking patterns requested by the government in the economic development process of Turkey.

The present study aims to discuss four principles in the moral education report approved by the council and issued under the title of “Primary Social and Individual Principles of Turkish Morals” and which were directly included in published school course books to understand reasons and purposes of moral education taken into consideration in the SEC.⁹ These four principles were given as follows (T.C. Maarif Vekilliği, 1943): “(1) There are number of tasks to be implemented to ensure persistence of the homeland. Each person, who fulfills completely and honestly each of these tasks, deserves respect in the same proportion. Service of people who labor with handiwork to this country is considered as important as the ones who labor with headwork. (2) Conservation of personal health is the task assigned by the nature. Hygiene of body, dressing and personal good are essential requirements of this task. Healthy thinking could only be possible by conservation of body health. It is necessary to perform exercises which strengthen and aestheticize the body. (3) Persons who abuses substances which could only provide pleasure for a brief of time jeopardize both their lives, lead to sickness and give harm to their generation. (4) Luxury and wasting are devastating for individuals and the community. Constructivism could only be possible by means of saving and sparing. As much as the generosity is good character, parsimony is as bad as that.”

We should admit that we lack of historical document which propound rationales and purposes of council members clearly while they were approving these four principles during the SEC moral education commission meetings. Yet, as it was mentioned above, these four moral principles considered within the framework of the official education could be taken into consideration as social result which emerges during fulfillment of social needs so that their rationales and purposes could be determined. Accordingly, in this work, requirements which produced these moral principles considered that they arose as a necessity were searched for within economic spurt period of the Republic of Turkey in the pre-council times. For this, council talks which elucidate rationales and purposes of aforesaid principles and information in the course books of Principles of Turkish Morals published after the council meeting were presented. Moreover, newspapers and periodicals which mentioned the SEC debates on morality

⁹ Title is consisted of totally twenty-three principles. This study tries explaining four of them.

were utilized in the present study as well.¹⁰ It was concluded that these four principles approved at the end of the council meetings were composed of ideological thinking and behavioral patterns necessitated by economic development of the modern Turkey in its construction period.

Economy of Modern Turkey and Principles of Turkish Morals National Morals and Economy

In the SEC meetings, subjects concerning boundaries and foundations of the moral education designated for schools were taken into the agenda. In council talks, it was underlined that the essential issue was not “universal values”. Hence, chairman of the council and Minister of National Education in the relevant period, Hasan Ali Yücel, emphasized upon various comments on moral principles that their agenda was not universal values by stating in the general board of members meetings that “indeed, we are not determining general principles of morality, embraced by the whole world now...” (T.C. Maarif Vekilliği, 1943). Additionally, “national values” prevailed in the council. One of the permanent members of the council, İsmail Hakkı Baltacıoğlu (1943), stated in his speech just before the council meeting that “it has been focused on abstract concepts in moral education since 1908; no any opinion concerning national morals has been suggested yet; but in this coming meeting, the council will concretely consider principles of Turkish morals.

Indeed, it was observed during the talks maintained in the council that a national “Turkish” morals was tried to be structured instead of a general morality with universal foundation. The difference of national Turkish morality understanding and universal morality even reflected on the media under reference of “national-Turkist” and “humanist-humane”. Journalist Peyami Safa (1943a) who closely monitored moral education commission meetings mentioned in his column that there was debate on foundation of the moral principles to be adopted either “Turkist” or “humane” in the first council meeting. Again he included commission discussions in his article published under title of “National morals or humane morals?” In these talks, one of the permanent board members, Sadri Maksudi Arsal, claimed that universal codes are known by everyone and the essential subject of the council should be morals of the Turkish nation with his words (Safa, 1943b): “We are not to establish moral principles from the beginning. Universal principles are common for everyone. Our focus is required to be morals of Turkish society instead of abstract moral case.”

¹⁰ In regard to accessing newspapers and periodicals, master thesis prepared by Adem Ersoy under title of “İkinci Maarif Şûrası’nda Alınan Kararlar ve Dönemin Aydınlarının Görüşleri” was rather guiding.

In the council, one of the significant areas to whom national morality would serve was economic issues; and it was emphasized that moral principles must be considered according to the needs in this area. Of the outstanding social scientists of the period, and one of the permanent members of the moral education commission, Hilmi Ziya Ülken (1943), mentioned in his column which issues to be discussed in the SEC with these sentences:

“Whatever the principles of our morals are, they must be deduced from our actions and business life rather than our words. ...hence, origins of all moral issues which are considered as totally theoretical are indeed regular business organizations...since in each society, upper values and codes are certainly required to rely on a sub-structure, similarly morals is required to rely on the relevant business life of that specific major about the subject to be inspired. ...a certain type of business organization necessarily exists within every society, and transformation of understanding of business organizations into codes represents their morals.”

Ülken (1943) also stated in further section of his article that the issue to be discussed in the council was morals of a nation experiencing evolving into the industry society through various reforms; and thus, he stated that morality subject was to be related with economic issues. As a matter of fact, it was observed that these four principles could only be regarded meaningful with respect to the general economic policy of the country. It was realized that whereas the first principle was aiming to resolve the problem encountered by the industrial vocational high schools which supplies qualified personnel to the industry of the country; the second and third principles had functions in establishing workforce one of the important component of the national economy. Finally, the fourth principle was significant in terms of general saving and sparing policies of the country and in creating national investment capital. Following three sections try to put aforesaid principles into the economic circumstances of the early Republican period so that their targets could be better understood.

Issue of Industrial Vocational Schools and Morals

Administrations of the late Ottoman period and early Republican period were always aware of the fact that one of the antecedents of the modern economy is industrial revolution. Hence, two industrial incentive laws were enacted in both 1913 and 1927. Developments in industry were tried to be funded by founding Türkiye İş Bankası in 1924 and Endüstri ve Maadin Bankası in 1915 (Akşin, 2013; Buluş, 2015). Development was experienced in this field in 1930s. Then Sümerbank was established to manage all industrial breakthroughs; prepare etudes and feasibility projects of factories to be established; operate facilities; and provide funding for

industrial institutions (Kipal & Uyanık, 2001). Whereas Sümerbank was established as core center of industrialization; its path was determined in the scope of the First Five-Year Industrial Plan (Boratav, 2004). Although the plan exceeded envisaged period about 9 years, it was completed in the period of 1934-1948. In fact, majority of this plan was executed within the estimated time. Thus, when it comes to 1938, foundations of 19 of the 23 planned factories were laid (Kipal & Uyanık, 2001).

Subjects regarding foundation of schools and raising higher engineer, technician, master and workers necessary for industrial facilities that would be built in Turkey were specified in both among foundation purposes of Sümerbank and in the First Five-Year Industrial Plan (Kipal & Uyanık, 2001). Accordingly, parallel to all these developments, significance of schools supplying workforce to the industrial organizations increased along the industrialization process. These schools¹¹ were vocational institutions which supplied workers and technicians who could answer industrial needs of the country and who could accommodate evolving need of the industry (Turan, 1992; Turan, 1996). A report prepared in 1936 by a commission established among various ministries indicates need towards these schools and rationales behind foundation of them. In this report founding of a large number of medial and advanced industrial schools to train skilled and competent workers who would be needed by existing and future factories was found necessary (Doğan et al, 1997; Cicioğlu, 1985). On the basis of the importance attached to them, it was observed that while industrial schools were funded by local city administrations until 1935, they were included in government budget afterwards of this date (Doğan et al, 1997). Nevertheless, by 1943, it was seen that educators in the SEC were complaining about difficulty experienced by industrial schools to find students because of society's negative point of view toward handiwork.

If it is considered that industrial schools were the primary workforce supplier of country's industry, workforce problem faced by industrial factories in those years could make educators' concerns to be better understood. In 1939, Tokat deputy, Hasib Ahmet Aytuna, stated in his speech concerning this issue in parliament that (Eronat, 1999):

“Gratefully we could mention that our country has been through an extensive industrialization process. Large industrial organizations have

¹¹ In official documents it can be seen that official names of these schools changed through the history. In the field of industry the first school was founded in the early 1860s, under the name of “İslâhane”. They became widespread in time and were called “Mekteb-i Sanayi” in the Second Constitutional Era. In the period between 1923 and 1935 they were named as “Sanatlar Mektebi” and “Bölge Sanat Okulu” after 1935. When it comes to 1974 their names were changed to “Endüstriyel Meslek Liseleri” (Cicioğlu, 1985; Turan, 1996; Doğan, 1983). In the present study “industrial schools” is preferred to refer to them.

exhibited great development across Turkey. However, according to the issues submitted to us, these organizations are not able to find skilled worker and master. Nevertheless, we extremely need these employees.”

It is possible to state that one of the factors which caused labor problem in industry, as it was reflected to the SEC, was difficulty experienced by industry schools with finding student which originates from negative prejudice of society toward handiworks.¹² In fact, it was noted that this situation was inherited the Republican Turkey from the Ottoman Empire period. In the Ottoman period, except couple of intellectual government members, handiwork profession was despised; and the most popular professions were military and public positions (Turan, 1992). Based on the common understanding of that period, education meant a chance to escape from working with hands. Among educated people, even doing their own handiworks was condemned by the society. According to educated Ottoman individuals, handiworks were considered as laborious and donkey work and therefore they were belittled (Yalçın, 2006).

In the Republican period, it was observed that some of graduates of the industrial schools transferred to secondary public servant positions (Turan, 1992). Therefore, Hasan Ali Yücel (1993) requested in his radio speech on September 30th, 1940 from families that they need to advise their children to have technical jobs rather than official positions since government positions were already full. These concerns of the period studied reflected onto the council agenda and on moral education talks. In 1939, whereas a parliament deputy stated on the platform that Turkey was industrialized but these facilities were having difficulty to find skilled worker and masters; and; he suggested increasing number of industrial schools as a solution (Eronat, 1999); the SEC considered morality comprehension issue as a solution rather than technical precautions. In general board of members meeting of the council, it was mentioned that families were reluctant to send their children to industrial schools and even they did not allow their girls to marry with boys graduated from such school because of their weird perception towards handiworks; and therefore, council members declared that they had to add an article which indicates “handiwork” and “headwork” were equivalent to each other. While Hasan Ali Yücel presented justification for the relevant article in the council sessions as “we used to experience hard time to find students for our industrial schools. Again, we did not let our girls to marry with craftsmen. Even today, there are some families who still do the same... This is the issue” (T.C. Maarif Vekilliği, 1943); member of

¹² For possible other reasons see *Ameleden İşçiye*, work by Ahmet Makal in which he handled labor history of early Republican period of Turkey.

moral education commission, Tezer Taşkıran, made following explanation (T.C. Maarif Vekilliği, 1943):

“...the reason for us to think in this way was that, as it was stated by our chairman, there are various points of views towards handiworks in the country, which could be considered as weird and which is witnessed very well by my colleagues who work at high schools and secondary schools. For example, I am one of your colleagues who have been school principal for a long time. When I say many parents of students that ‘your children would be happy in industrial schools, please register your children with these schools’ their answer was that ‘no, I will send my children to university so they would receive education in here.’ We want to save them from this circumstance. Since we want to inspire that hand work and brain work are equally precious for this country, we placed the relevant article.”

In this way, expressions of “there are number of tasks to be implemented to ensure persistence of the homeland. Each person, who fulfills completely and honestly each of these tasks, deserves respect in the same proportion. Service of people who labor with handiwork to this country is considered as important as the ones who labor with headwork” (T.C. Maarif Vekilliği, 1943) involved in the aforesaid report as moral principles under the title of Primary Social and Individual Principles of Turkish Morals emerged within this period.

Economy, Health and Morals

In order to consider discourses and policies of early Republican period about development accurately, health policies of the period are required to be considered together with them. As it was stated by a Turkish physician who was interested in Atatürk-era health policies, “foundation of Ministry of Health is not an accidental or a discrete incident for our country... This is result of a certain point of view, philosophy or public policy” (Aydın, 1995).

It was observed that early Republican Turkey was deprived of necessary workforce needed for economic development. Besides the factors such as long war periods which have massive negative impact on population, epidemic diseases such as malaria, cholera, dysentery, typhus and plague seen across the population caused loss of important portion of productive population (Sarıkaya, 2012). Lack of competent personnel emerged as one of the obstacles in the post-Independence War before the beginning of modern Republican state (Buluş, 2015). Concerns about possible adverse impacts of diseases on economic development reflected on the report prepared by General Director of Health, Dr. Ekrem Hayri, who were sent to Antalya City upon broke out of epidemic malaria, in 1920 (Aydın, 1995):

“In case a victim of malaria disease experiences at least ten seizures in a year, this counts to impressive amount of work-hour loss for example 4 million hours only for Antalya City, which can be considered as waste for the country. Accordingly, I would like economic specialist to calculate the resulting total economic losses because of work-hour losses caused by diseases... Finally, this disease spending effort to destroy Turkish people living across the Anatolia grabbed destiny of our nation and threaten our country to transform it no man’s land slowly.”

According to this report, the government was aware of importance of economic functionality of healthy population. President of the assembly, Mustafa Kemal, made following speech at the opening reception of the parliament on March 1st, 1922 (Sevim et al, 2006):

“Our purpose with respect to health and social service is that: protection and strengthening health of our nation, reducing death rate, taking precautions to increase population, minimizing and neutralizing social and epidemic diseases so as to ensure members of the nation could have vigorous and perfect body structure appropriate for work.”

Moreover, Manisa Industry Deputy, Kazım Karabekir who made a speech at the Izmir Economy Congress, in which economic path of the country was determined, emphasized the relationship between health and economic development (İnan, 1972):

“If we fail to conserve our health because of ill-conditioned villages, houses, public fountains and swamp areas and if we suffer from various infectious diseases... all prescribed economic measures and laws would mean nothing... Our doctors and veterinary practitioners who have travelled across and get acquainted with our country are required to organize congresses similar to the economy congress that we are holding now so that we could conserve our health and thus, we develop our economy.”

It was observed that an article which inspires living healthy was added onto the economic principles adopted at end of the congress, which was given below (Ökçün, 1997):

“In addition to increasing our country’s population which has been decreased because of numbers of wars and difficulties, conservation of our people’s health is our most essential target. Turks are abstained from microbes, dirty air, epidemics and dirt; they prefer clean air, water, sun light and hygiene. They try to perform physical training inherited from ancient generations such as horse-riding, marksmanship, hunting and sailing. As they exhibit the same care and attention to their animals, they try to increase their population and enhance their breed.”

In this period, importance of personal health and conserving health were explained to public for development of the country and this process conducted in parallel with the educational mobilization (Gül, 1988). Besides

the fight against alcohol and substance addictions threatening public health by means of enacted laws (**Temel, 2008**), an article was added onto the School Discipline Directive issued in 1939 such that “(Turkish youth) do not harm their health and strength dedicated for service to their country and nation by means of detrimental and poisonous substances” (**T.C. Maarif Vekilliği, 1939**). As a support to children health at schools, especially physical training courses were emphasized; and purpose of these courses were determined as raising “healthy” and “hard-worker” children for the country. Hence, the purpose of physical training courses was indicated in the 1938 High School Curriculum as below (Türkiye Cumhuriyeti Kültür Bakanlığı, 1938):

“The purpose of gymnastic training, games and sport activities held at high school level is to raise healthy, strong, respectful, skillful, committed, hard-worker, youngsters who love their nation and homeland.”

It was observed that these concerns and targets defined within the education system were reflected on the SEC by 1943. Hasan Ali Yücel remarked in the council as well that citizens with poor health jeopardize their countries as much as themselves. Yücel, in the opening speech of the council, addressed that children must be explained about the vital importance of personal health for them as well as for the Turkish nation comprised of them; and dangers faced by the citizens and the country because of members of society who do not fulfill health requirements (T.C. Maarif Vekilliği, 1943). Additionally, Yücel stated in his speech in which he assumed personal health as a citizen task that individuals do not satisfy this rule by attending tobacco café shops and taverns were lack of citizen responsibility through following expression (T.C. Maarif Vekilliği, 1943):

“Let’s explain our children... that people who rush in tobacco café shops and taverns and who kill majority of their time and health in these places are in fact the persons who do not understand their obligations against themselves, others and their society or who pretend that they do not understand their obligation...”

After all these opinions remarked in the council, moral education commission report was added following two principles (T.C. Maarif Vekilliği, 1943): “Conservation of personal health is the task assigned by the nature. Hygiene of body, dressing and personal good are essential requirements of this task. Healthy thinking could only be possible by conservation of body health. It is necessary to perform exercises which strengthen and aestheticize the body” and “persons who abuses substances which could only provide pleasure for a brief of time jeopardize both their lives, lead to sickness and give harm to their generation.” Again, in the course book of Principles of Turkish Morals printed along the report, it was considered that conservation of health and body was self-obligatory task for

citizens as well as this task has economical function in terms of citizens' service to their country as follows (Taşkıran, 1943b):

“We could only fulfill our services and obligations toward our nation and all humanity as long as we are strong and healthy. ...our health status is significant determinant of being a hard-worker professional.”

In the aforesaid book, healthy nutrition, avoiding drinking and smoking, fresh air, regular sleeping hours, personal hygiene, epidemics and exercises to strengthening and aestheticizing body were emphasized; and necessary habits expected from students to ensure them to conserve their health and body, which was considered as a national task were listed (Taşkıran, 1943b).

Saving, Sparing and Morals

In the early Republican period, it was observed that issues of saving and sparing habits were reflected on speeches of political leaders of the period and official economic targets at government level. Hence, it was observed that these behavior patterns were included among the articles of the “Misak-ı İktisadi” (Economic Pact) accepted in the Izmir Economy Congress and became policy of the Republican government (Özer, 2013). In the mentioned congress, congress chairman and Manisa industrial deputy Kazım Karabekir mentioned about sparing at the last article while he was addressing necessary precautions for economic development (İnan, 1972):

“First of all, we need to conserve our people, animal and crops ultimately... Second importantly, we need to increase our production and to build our railways, ferries, and especially roads so that we could send our products to countryside... The third issue is extremely important. This task is of our women: reducing the consumption and sparing their resources.”

Again, Mustafa Kemal Atatürk stated in his parliament opening speech made on March 1st, 1923 that “maximum sparing is required to be our national purpose” (Tokgöz, 1982).

The development which underlined the significance of saving and sparing was the Great Depression encountered across the world in 1929. The National Economy and Saving Association was established as a reaction against this global crisis on December 12th, 1929 (Duman & Varnalı, 2013); and the following expression was included in its foundation paper as its aim that (İloğlu, 1974): “inviting citizens to fight against wasting resources and to live by saving and sparing their available resources”. Moreover, afterwards of 1929, the week between December 12th and 19th each year have been celebrated as Saving and Domestic Products Week (Özer, 2013).

Since its foundation, the association has informed society about having control on their consumption and aimed to raise awareness towards saving; and strived to create national capital which plays significant role in national economic development. The Prime Minister İsmet İnönü, in his

speech made on the parliament on December 13th, 1930, mentioned importance of capital accumulation for economic development; then, declared tasks of the National Economy and Saving Association along with the purposes specified in its regulation (Özer, 2013):

“Through small amounts saved from decent revenues of every family, our essential national capital could be created on its own. National Economy and Saving Association is entitled to enlighten the public especially about the fact that large capitals could be acquired by means of small savings.”

Again, the Prime Minister İsmet İnönü emphasized the relationship between saving and national capital during the speech in the first activity of celebration of Saving and Domestic Products Week and wished from all citizens to undertake responsibility regarding this issue with his words below (İloğlu, 1974):

“For capital needs, importance of temporary loans from external sources could not be questioned. However, essential national capital should be accumulated by means of personal saving of the members of this nation. The most permanent and solid capital could be saved through humble efforts of each family in the country.”

İnönü, in his speech made at the Ankara People’s House where he was invited by the National Economy and Saving Association on December 12th, 1933, indicated that saving cannot be composed of a sole concept of saving money; it is necessary to be differentiated from parsimony. The Prime Minister emphasized that saving could only accomplish its purpose if it contributes into national economy by accumulating capitals either in small or large amounts; and made following remarks (İnan, 1972):

“I would like to stress a point while I am having words on saving. There are individuals who consider that saving means only saving money. These people who view the concept from this aspect and speak out in this way are the same with the ones who bury their money in a treasure chest underground.

Essence of saving is to avoid spending more than you earn; but certainly producing more than ever in order to be capable of spending more. Accumulated capital is required to serve national economy to gain progress. Self-interest of each citizen is also in it.

In order to comprehend meaning of national saving, I should mention about a case from near past: ‘Ergani Internal Loan Bonds’. ...while citizens purchasing these bonds; they make very lucrative and safe investment with their personal savings. But, more valuable than this is their contribution into the national economy. Thus, a significant national natural wealth of the country could be processed and all country, citizens, government could take advantage of this potential in their economic

development and gain strength. Ultimately, all individuals would win. Either in small or large capital amounts, if savings of citizens would contribute into progress of the national economy along this way, it could only be considered that the essential purpose of saving is comprehended by the nation.”

In the further section of speech, İsmet İnönü indicated that certain capital was required for production and commerce; and therefore, there was need for capital and loan; and that they welcomed the development that small savings were increasing national credit volume (İnan, 1972). In fact, banking system gained prominence in this period in term of transformation of small savings into large capitals. Household savings were especially seen as the essential resource to supply loan necessitated by commercial capital requirements (Tezel, 2015). In the studied period, Türkiye İş Bankası was founded to supply national organizations with loans and to take initiative for development of savings and deposits in the country. Mentioned bank applied bonus and penny-bank system to motivate saving. Through these practices, it was ensured that citizens acquainted with the banking system; and banks became the first institution appealed by businessmen when they need external loan (Bozoklu, 2003).

In this period, under the initiative of the National Economy and Saving Association, various activities were conducted across Turkey in order to incent citizens for saving and sparing (Özer, 2013). Additionally, Ministry of National Education directly intervened into saving policy applications. The ministry requested from schools to organize activities within the celebration of Saving and Domestic Products Week and ceremonies in which all students to participate; and to furnish hallways of schools with posts inspiring saving opinion (Duman & Varnalı, 2013). It was observed with the 1936 Primary School Program that saving ideology was to be made one of the pillars of a Turkish family (Türkiye Cumhuriyeti Kültür Bakanlığı, 1936). Even, following headlines were thrown by a newspaper from the relevant period (Duman & Varnalı, 2013):

“In order to ensure our children to adopt saving understanding, the Ministry of Education attracted attention of the teachers. Hence, no matter their teaching branch is, all teachers will explain content, benefits and essence of saving understanding; and envisage a small amount saved by a little child from their pocket money to become such a significant fortune in the future.”

When it comes to 1943, it was observed that the same ideological thinking and behavioral patterns were embraced as one of the principles of Turkish morals included in the agenda of the SEC. According to the report concerning Turkish morals, accepted in the council, an article which contained following expressions was included (T.C. Maarif Vekilliği, 1943): “Luxury and wasting are devastating for individuals and the community.

Constructivism could only be possible by means of saving and sparing. As much as the generosity is good character, parsimony is as bad as that.” Along the proposed report, behaviors expected from Turkish children regarding saving and sparing were mentioned in the course book of Principles of Turkish Morals published for primary schools through the sentences below (Taşkıran, 1943a):

“I will save my money and use my goods like a person who thinks his future. I will not be a piker or wasteful because people who do not think their future and who spend all of their income for vanity and transitory fun will be remained in need and be devastated. We should listen to our ancestors’ advises such as ‘stretch your arm no further than your sleeve reach’ and ‘little and often fills the purse’.”

In the further sections of these sentences, it was mentioned that “as much as sparing is beneficent, parsimony and lack of capability to use personal earnings and money for necessary and beneficent things is such a negative characteristic. Such a person could not be beneficent neither for himself nor other members of the society” (Taşkıran, 1943a). Thus, it was emphasized just like addressed by İsmet İnönü that saving is not solely comprised of accumulating money; instead, saved money should be spent to serve beneficent purposes.

Conclusion

The most attractive dimension of the SEC for researchers with respect to the other councils was the fact that the moral education was included in its agenda. In this council, the Turkish government considered the moral education systematically for the first time in its history. Additionally, the causes which obligate the government to focus on this subject at official level were associated with dismissal of religion courses from curriculum of the formal education institutions in the contemporary studies probably because of extensive meaning of “morals”; and accordingly, it was claimed that lack of religion education resulted in moral depression among youth and moral issue was brought in the council agenda.

However, no any morality concept was discussed in the SEC as it was comprehended by today’s researchers. Indeed, council members and government officials voiced the fact that the issue taken into consideration at the council was not related with any moral deterioration observed among youth along discussions. Furthermore, it was emphasized moral principles were required to be derived from the specified economic conditions in the council meeting about which it was declared that the national morals was supposed to be taken into consideration. So indeed, it could be clearly seen that four moral principles considered in the present article make sense with economic conditions of the early Republican period. It is possible to

conclude that these conditions were consisted of the policies on industry, workforce supply and saving and sparing.

Hence, it could be understood that the first considered principle was related with industrial spurt and necessary relevant behavior patterns. It was experienced that industrial schools, founded to supply qualified employees to factories established along the industrial spurt in the early Republican period, had difficulty in finding students because of the negative view of society towards handiwork; and this situation reflected on meetings on morality subject at the SEC. It was determined in the council that industry schools experienced difficulty with finding students to recruit due to the despising view of society towards handiworks; and accordingly, an article which indicates that handiworks deserve respect as much as the headworks was added as one of the principles of the Turkish morals. This also indicates how a moral perception that equates, in today's concepts, blue-collar positions with white-collar positions to achieve economic goals was needed in the early Republican era.

Again, it was observed with the second and the third articles that they included the behavior patterns which would create productive citizen type in the needed economic field in the early Republican period. Indeed, similarities between the health-related articles accepted both in the economy report of the 1923 Izmir Economy Congress¹³ and in the moral education report of the SEC were notable. In the early Republican period, conservation and supporting of the national health was found necessary as it was discoursed by Mustafa Kemal "so as to ensure members of the nation could have vigorous and perfect body structure appropriate for work" and by Kazım Karabekir to "develop our economy"; and work hours that could be lost due to seizures of a malaria patients and concerns about their total cost to the country economy were reported. In this line, while it was observed that education programs were demanding from students to develop behavior patterns which support national health such as paying attention to personal hygiene, performing sport and abstaining from addictive substance; the same behavior patterns were accepted in the SEC as moral principles.

Finally, it was understood that the fourth moral principle presented in this study could only make sense together with general saving and sparing policies of the early Republican period. It was contained in the economic reports and public speeches of leaders of the studied period, which tried to convinced citizens to make savings; and the same issue was underlined in educational curriculums as well. By 1943, these behavior patterns were adopted as moral principles. If it is considered that saving was seen as a tool for accumulation of necessary capital and investment in the early Republican

¹³ See page 10.

period, macroeconomic targets of the moral principle included in here could be better understood at government level. In fact in this period, the opinion that economic development could be acquired by means of national capital rather than foreign capital was emphasized; and it was prescribed that national capital could be accumulated through moderate savings inside families. Whereas banks performed mediatory function between money saved by small families and investors through bonus and penny-bank systems, individuals were tried to gain saving habit through activities of National Economy and Saving Association and implementations within the formal education system. While the same behavior habit was accepted as moral principle in the SEC, it was stated in the morality book published for formal education institutions based on the council results that saving was not just composed of accumulation of money, rather it was inspired that money should be used in beneficent activities for the society just like the system need.

Conclusively, it was observed that some behavior and opinion types requested by leaders of the studied period and by institutional spurts taken into agenda along the economic targets in the construction process of the modern Turkey were considered under morality concept in the SEC by 1943. Four principles of Turkish morals handled in this study, in the given form, occurred as a natural result of economic development in Turkish Republic history. All these processes suggest as well that economic history of the early Republican period could not be explained only based on the quantitative data. Indeed, for example, acquired success in establishing facilities as it was determined by the industrial plans of the government suggests that the *financial capital* required for industrial progress was accumulated. However, as reflected to the SEC, it was understood that existence and adequacy of *moral capital* comprised of mental satisfaction provided from glorifying handiworks by attaching importance as much as works required cognitive skills and which directs individuals into blue collar professions, is required to be taken into consideration in explaining industrialization process as well.

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An Analysis of the Strategic Plan (2013-2017) of Turkish Ministry of Health within the Framework of Planning Approaches

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Abstract

Since 1980's it is possible to see the transformation of public administration with the understanding of New Public Management (NPM) in many countries. In this context, the idea that the techniques of the private sector which have been used for many years can be applied successfully to public sector forms the basis of NPM. Strategic planning is highly crucial in order to take measures against environmental threats and be ready for opportunities. Strategic planning approaches such as Reactive, Inactive, Preactive and Proactive are functional to have a systematic strategic plan. The legal infrastructure of the strategic planning implementation was generated with the Law No. 5018 (Public Financial Management and Control Law) which was put into force in 2003. It is essential to examine the effectiveness of strategic planning implementations against potential threats and opportunities. Therefore, in this paper, it is aimed to scrutinize the strategic plan (2013-2017) of Turkish Ministry of Health (MoH) within the framework of planning approaches.

Keywords: Strategic Planning, Proactive, Preactive, Reactive, Inactive

Introduction

In the process of change experienced in the field of public administration in the 1980s, the influence of the revolution in private sector activity has been quite decisive. Increased competition in national and international level, resulting in shrinking resources and markets, the quality and attention to decentralize authority of private companies, and has led to the orientation to customer satisfaction. These new management techniques have been applied in the private sector and started to show positive effects in terms of efficiency and effectiveness. Strategic management approach has

been introduced in the private sector in 1950's however adoption in the public sector is based on the years 1990's. Political, social, technological, demographic and cultural changes have been forced to restructure all private and public sector. This new situation to have a vision for continued success in an environment filled with life threatening each institution is inevitable. In accordance with the objectives specified vision and determination to reach the targets and methods should put into practice. The achievement of the targets set in particular monitoring and the establishment of a flexible structure changes can be made when needed is an important component of strategic management. Strategic management has an important place in providing efficient and effective services of public knitting quality. Uncertainty will be reduced because the institutions are identified and communicated the vision and mission of the strategy to be followed. The result of evaluation of an analytical environment will be prepared against threats that may occur with set strategies. With the participation of all stakeholders aimed at determining the mission, vision strategy as a result of effective and efficient service delivery will be provided. Target for the future of the institution, plans, and methods will be opposed to change because of organizational resistance determined by the participation of all stakeholders can be broken.

Turkey has started to implement strategic management after the term of 2001 economic crisis. Behind the strategic management of the transition process and the conditions put forward by the IMF in return for loans made available from organizations such as the World Bank and the desired demands for reform lies in the integration process of the European Union. The official agenda of the Strategic Planning, which was signed in 2000 and is the result PFPSAL- Programmatic Financial and Public Sector Adjustment Loan agreement. With this agreement, public financial management, fiscal and structural policies, budget reform, reform of accountability and governance are implemented. First, in accordance with the "2003 Law on Public Financial management and control", strategic planning has been made compulsory for all public institutions.

The Aim of the Study

The ultimate purpose of the study is to figure out the MoH's strategic plan for the years 2013-2017. Thus, the strategies prepared by the ministry will be evaluated in case of planning approaches which were put forth by Ackoff (1974). Reactive, Inactive, Preactive and Proactive planning approaches will be applied to the strategies of MoH in order to discover the tendency of the strategic plan. There are several studies focused on the strategic plans by using the approaches of Ackoff. Arslan et al. (2013) analysed the strategic plans of the local governments within the context of

Inactive, Reactive, Preactive and Proactive approaches. Kulaç et al. (2015) also evaluated the strategic plan of the Ministry of Culture and Tourism (MoCT) in respect of planning approaches. According to their study, most of the strategies of the MoCT were formulated by considering preactive and proactive approaches.

In this study, MoH strategic plan was chosen due to significant developments and transformation in the Turkish health sector in last two decades. The planning approaches will be briefly explained and the strategies of the MoH will be classified so as to have a comprehensive analysis. Moreover, one of most crucial objectives of the study is to encourage and support the following studies by filling the void in this field.

Strategic Planning and Management

Planning which is one of the core elements of administrative sciences, have an essential impact on the organizations. Especially in the last two decades, many public and private institutions have started to formulate strategic plans in order to set their mission, vision and objectives. According to Bryson (1995: 4), it is possible to find out some answers to the questions by strategic planning. These questions can be listed as What is an organization?, Why and What does it do? On the other hand, strategic management is the process of coordinating various sources and staff so as to accomplish the defined targets (Rachman et al., 1993: 54). By applying strategic management tools, organizations can have an opportunity to be ready for the changeable conditions and to sort out some main problems. Moreover, strategic management provides organizations with certain goals and objectives in order to systematize business decisions (Jauch and Glueck, 1989: 18). According to Özgür (2004: 233-234), public servants that have an essential role for the government can easily demonstrate and reveal their actions, motives and methods by strategic management. In addition to this, Özgür (2004) emphasizes that strategic management might be overwhelmingly useful for the organizations such as reducing uncertainties, preventing waste of resources and figuring out the requirements to deal with the issues.

Strategic planning and management have been widely applied in the public sector in last two decades. Thus, by having a strategic plan and management, public institutions can produce more influential and efficient policies. Public policies that have a circle structure affect all the citizens and to have a sufficient analysis, it is mandatory to focus on the all process of the policies (Kulaç and Çalhan, 2013: 207). Many actors, such as official, unofficial and international have a fundamental role in policy process. As one of the unofficial actors, think tanks have a primary role in public policy making process. Especially with the globalization in all over the world, it is

quite easy to witness the contribution of the think tanks to policies even in developing countries (Özgür and Kulaç, 2015: 74). Therefore, organizations in developed and developing countries can integrate the positive effect of strategic planning and management techniques with the role of policy actor to acquire an outstanding achievement.

Planning Approaches

Every organization has plans for the future to reach their goals. In order to manage the objectives of the organization, formulating a strategic plan is overwhelmingly important. Many institutions, whether in the private or public sector have a strategic plan which consists of strategies, mission, vision and goals. By preparing strategic plan, organizations will be sufficiently ready for the threats and opportunities. In 1974 Ackoff put forth four types of planning approaches and these approaches can be listed as Reactive, Inactive, Preactive and Proactive. Every approach has their own characteristics and point of view for the future of the organizations.

In reactive approach, current problems are highly considered and basic ways of solutions are offered. In problem solving process some factors such as experiences, intuition and common sense are mostly used and arising issues are tried to be solved. Reactivists mostly do not prefer to be in complexity and unlike inactivists swimming in the well-known waters is mainly chosen (Ackoff, 1974: 430- 431). In public policy decision making process, it is also possible to see the effects of reactive approaches. The incremental model which was firstly introduced by Lindblom (1959), are based on the past experiences and minor steps in order to revise the policy. After benefiting and drawing lesson from the past applications, policy makers update the policies and provide simple solutions. In inactive approach, it is feasible to observe the conservative type of management. According to inactivists, the organization should be closed to the influences of external environment. Thus, the structure and system are preserved and minor steps are taken against serious attack or crisis. Inactivists believe that future planning is not essential to sort out problems and the indications of the problems should be suppressed rather than settling (Ackoff, 1974: 50-51).

In preactive approach, even the threats of the future cannot be easy to control, organizations have to be ready and take precautions so as to minimize the negative effects of potential risks. For that reason, it is fundamental to benefit from science and technology while formulating plans for the organizations (Ackoff, 1999: 52). According to preactivists, competition is quite significant, but having cooperation with other organizations or systems cannot be the roadmap. Therefore, it is possible to indicate that in preactive approach, change is only seen as a chance or opportunity for the organizations and prediction is highly used in order to

have an effective plan (Ackoff, 1974: 432). In proactive approach, there is always an attempt to design the future within an idealist point of view. Moreover, long-term plans are made by using science and technology in order to alter the functioning of the organizational structure and the usage of resources (Ackoff, 1974: 433). According to proactive approach, the possibilities and the opportunities for the change are seen as a chance and change-oriented goals are determined. Also, the future problems are foreseen and precautionary measures are highly taken (Bateman and Crant, 1999). In public policy process, there are some analysis models introduced by various scholars. Punctuated equilibrium model which was put forth by Baumgartner and Jones (1993) is commonly applied in public policy analysis studies. Within this context, it is possible to aware some similarities between proactive approach and punctuated equilibrium model. Both of them have an emphasis on the revolutionary change in the organizations or policies. Thus, policy analyst and strategic plan makers can benefit from each other to have an improved output.

Evaluation of MoH's 2013-2017 Strategic Plan According to Planning Approaches

In this part of the study the strategies of the MoH will be classified and analysed in respect of the planning approaches.

Table 1. Evaluation of MoH's 2013-2017 Strategic Plan According to Reactive Approach (MoH, 2012: 71-121)

To change individual dietary and physical activity behaviours through health promotion programmes (MoH, 2012: 71-121)
To prevent the use of tobacco and addictive substances through health promotion programmes
To improve smoking cessation services
To improve the provision of preventive, curative and rehabilitative services for other addictive substances
To improve reproductive health services
To improve reproductive health services for abortions
To improve the effectiveness of pre-marital counseling services via inter-sectoral cooperation
To improve service delivery during and after emergencies and disasters
To improve the delivery of occupational health services
To improve the quality and safety of primary healthcare services
To improve the quality and safety of diagnostic and curative services
To improve the quality and safety of rehabilitation services
To improve preventive mental health services
To improve the emergency response system
To improve emergency care services in hospitals
To improve the practice of family medicine
To improve the distribution of human resources for health
To increase the competence of human resources for health
To improve the motivation of human resources for health
To improve the quality and security standards for the people and institutions using the Health Information Systems
To improve the quality and the security standards for the sector developing Health Information Standards
To better respond to the needs and expectations of individuals
To improve healthcare services provided to disabled individuals
To improve the delivery of homecare services
To improve mental healthcare services
To improve healthcare services within the framework of gender equality and combat violence against women
To improve healthcare services for the elderly
To improve the healthcare services provided to individuals with low income

Table 1 which was given above consists of the strategies which were generated in case of reactive approaches. 28 strategies in Table 2 were formulated in respect of reactive approaches. In other words, %28 of the strategies in the strategic plan of the MoH is remarkably sufficient to be scrutinized in Table 2. The main purposes of the following strategies provided by the ministry are to focus on the current problems and developing random solutions. In this context, experience, intuition and common sense are overwhelmingly used in order to have a better way of solution against tough problems.

Table 2. Evaluation of MoH's 2013-2017 Strategic Plan According to Proactive Approach (MoH, 2012: 71-121)

To improve governance in the fight against the use of tobacco and addictive substances
To change individuals' behaviours through programmes and activities aimed at promoting reproductive health
To strengthen disaster preparedness
To increase employee and employer awareness of occupational health
To strengthen occupational disease surveillance
To increase public awareness of the negative health impact of environmental hazards
To cooperate with relevant agencies to reduce the risk of carbon monoxide poisoning
To reduce the negative impact of water, air and land pollution on environmental and human health
To establish policies and programmes that ensure health equity and that influence social determinants of health within the framework of multi-sectoral cooperation
To strengthen inter-sectoral cooperation in high-priority areas
To raise awareness of non-communicable diseases and risk factors
To establish a surveillance system to monitor and manage non-communicable disasters
To strengthen the prevention and control programmes for non-communicable diseases
To roll out the use of health promotion and healthy life style programmes
To increase the proper use of emergency call services
To strengthen the integration of other primary health care services into the family practice system
To strengthen the integration of family medicine into hospital and laboratory services
To increase the awareness of the importance of complications of non-communicable disasters
To develop evidence-based policies and programmes on traditional, complementary and alternative medical practices
To improve the governance of evidence-based traditional, complementary and alternative medical practices
To ensure the sustainability of human resources for health
To increase the awareness among individuals of the need for their active participation in decisions regarding their healthcare
To initiate behaviour change among healthcare staff to encourage individuals to actively participate in decisions regarding their healthcare
To carry out activities that contribute to ensuring equity in the financing of healthcare services
To improve the practices that protect individuals against impoverishment due to health expenses
To establish a dynamic structure that defines and detects problems in order to preserve the financial sustainability of the health system
To develop programmes and methods to ensure the optimum use of resources in order to maintain the financial ability of the health system without compromising service quality
To convert the payment system for Ministry of Health staff into an Outcome-Oriented Financing Model
To develop support programmes to promote research, development and innovation in health
To develop activity that will increase the contribution of the health sector to the economy
To launch promotions and to become a destination centre for health tourism
To improve the health tourism governance
To increase the capacity in global and regional health issues
To influence global and regional health priorities
To become a role model for other countries on the matters of international importance

Table 2 shows the strategies of the MoH which were provided to public. These strategies were designed within the context and fundamentals

of proactive approach. %35 of the strategies of MoH's strategic plan that composes of 35 pieces of strategies, have an attempt to design a future within an idealist point of view. By increasing capacity in global and regional health issues, MoH tends to have a coordination and cooperation with systems inside and outside their region. Moreover, by proactive strategies like improving health tourism governance and practices that protect individual against impoverishment due to health expenses, MoH can have efficient long-term plan so as to make diversified public policies.

Table 3. Evaluation of MoH's 2013-2017 Strategic Plan According to Preactive Approach (MoH, 2012: 71-121)

To develop standards for identification, monitoring and treatment of overweight individuals.
To facilitate healthier food choices
To identify, monitor and increase the level of health literacy in the population
To strengthen communication efforts aimed at improving health literacy in the society
To strengthen disaster preparedness
To organise training programmes and campaigns to promote general hygiene and hand-washing
To strengthen the surveillance system for early diagnosis and management of communicable diseases
To sustain and strengthen communicable and zoonotic diseases control programmes
To continue to improve healthcare services in terms of administration, structure and function
To protect and improve maternal health
To protect and improve neonatal and infant health
To protect and improve child and adolescent health
To increase access to primary healthcare services
To increase the utilisation of preventive dental care services
To improve and expand the scope of cancer screening programmes
To reduce the negative health impact of accidents, injuries, and poisoning
To improve the quality of healthcare services for chronic diseases
To improve the quality of traditional, complementary and alternative medical practices
To improve the capacity, quality and distribution of the infrastructure of healthcare institutions
To improve the capacity, quality and distribution of health technology
To ensure that drugs, biological products and medical devices are of high quality, accessible, safe and efficient
To ensure the rational use of drugs and medical devices
To ensure the safety of cosmetic products
To improve the Turkish Health Information System which established to collect health data in a joint database and share the data in a safe environment
To develop an Electronic Health Record system and a portal to collect, monitor and provide safe access to and sharing of health records
To establish data silos for the "Decision Support System" that has been established to plan health services and improve data mining practices
To improve health IT standards in order to increase e-health practices by service providers and users and to rollout e-health practices
To ensure the integration of health information systems into Health.Net and to roll it out to improve the quality and efficiency of service provision and to increase access to health services
To identify and implement the confidentiality, security and privacy principles for personal and institutional health records within the framework of information security and protection of personal privacy
To develop health communication channels to better respond to the needs and expectations of individuals
To increase the level of satisfaction among patients and healthcare staff
To monitor and assess programmes implemented to preserve the financial sustainability of healthcare services without compromising quality
To develop, monitor and evaluate the performance measurement system for 2013-2017 Strategic Plan of the Ministry of Health
To develop and institutionalise the Turkish Health System Performance Assessment (THSPA)
To establish evidence for the contribution of health to the national economy
To improve the quality of the service provision in health tourism
To expand the scope of health tourism services
To increase the amount of humanitarian aid and development aid to countries in need of aid at the global and regional level

In table 3, 38 strategies from the strategic plan of MoH were put listed. This implies that %38 of the strategies was prepared by the ministry in respect of preactive approach. By having these strategies which are highly suitable to the preactive approach, many developments in Turkish health sector and health policy will be occurred. By developing Electronic Health Record system, health communication channels, Turkish Health System Performance Assessment, which were categorised in the preactive strategies table, will give opportunity to Turkish health sector to have an outstanding quality of services.

Conclusion

Turkey has succeeded in transforming its health system and achieved impressive health gains. Strategic planning has played a crucial role in this achievement. At first, MoH in Turkey pursued strategic way to build the political support for radical reforms. At the same time, it developed the capacity to create approved strategic plans that involve all stakeholders. Without strong political decisiveness, strategic planning process would be unsuccessful in implementation phase. In this case, the success of Turkey's strategic planning was the firm leadership in the MoH and the high-level support provided by Prime-Minister of Turkey. The main reason for the switch to sustainable strategic management of public institutions is to create public value (Bryson, 1995: 8). The basic objective is to produce citizens of public institutions to facilitate the life and effectively implement policies. For this purpose, social, cultural and physical sense to generate projects, strategic planning is a necessity to develop and implement policies. Strategic planning process in the public sector should be open to the participation of all stakeholders and harmonize different interests in order to facilitate analytical decision making. In other words, only around events and the environment rather than a reactive stance, trying to adapt to the phenomenon aimed at sustainable change in the public interest and play a proactive attitude. (Barça and Nohutçu, 2008: 343).

Turkey's Strategic Plan 2013–2017 includes strong commitments about interrelation and cooperation of all stakeholders within Turkey and international level. The emphasis attached to multilateral planning action in Turkey's 2013-2017 strategy aims to transform its environment for the sake of public interest. It can be seen that Strategic plan of 2013-2017 is closely related to Tallinn Charter's main principles: Making health systems more responsive to people's needs and expectations, fostering cross-country learning and cooperation on the design and implementation of health reforms ([euro.who.int /__data/ assets/ pdf_file/ 0008/ 88613/E91438.pdf](http://euro.who.int/__data/assets/pdf_file/0008/88613/E91438.pdf)). The emphasis on strong cooperation between all stakeholders and public interest designates the proactive insight of Strategic Plan of 2013-2017.

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Turkey's Pursuits Of Alternative Gas Suppliers: Central Gas Hub Project?

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Abstract

Energy has always been the most crucial issue on the world's political agenda and it is likely to remain so in the future. In recent years, changing dynamics of world politics has made the 'energy security' the number-one topic on the international relations. At theoretical level, dependency on one country for energy supply has been regarded as a leverage of one country over another. Thus, in this scope, diversification of energy suppliers has inevitably become a topic of academic and political discussions. As a result, diversification of not only energy suppliers but also energy routes has gained significance. In this sense, the diversity of energy transition routes is the essential part of the energy security issue (The IEA defines energy security as "the uninterrupted availability of energy sources at an affordable price"). This creates an opportunity for the countries like Turkey which occupy a geostrategic position to provide a secure transportation route by means of pipeline systems. At this juncture, this paper examines Turkey's efforts and potentials in diversifying source country and automatically energy routes for the purpose of increasing the energy security. Thus, forthcoming sections of the paper will touch firstly upon why Turkey has still potential to be central gas hub because of geostrategic position. Then, alternatives source countries will be analyzed.

Keywords: Energy Security, Gas Hub, Energy Sources, Energy Routes

Introduction

Changing dynamics of world politics has made the 'energy security' the number-one topic on the international relations. At theoretical level, dependency on one country for energy supply has been regarded as a leverage of one country over another. Thus, in this scope, diversification of energy suppliers has inevitably become a topic of academic and political discussions. As a result, diversification of not only energy suppliers but also energy routes has gained significance. This creates an opportunity for the countries like Turkey which occupy a geostrategic position to provide a

secure transportation route by means of pipeline systems. Thanks to that geo-strategic position, Turkey has been eager to be central gas hub and has sought to develop an energy security accordingly. Yet the international and regional developments have seemed to threat Turkey's energy politics to be central hub, which requires a short historical background for better comprehension.

Increasing energy demand and the practices in diversification of energy sources (in the context of energy security) have led to natural gas gaining importance and priority in the last decades¹⁴. In this regard, energy security has increasingly become an accelerator of Turkey's energy politics with a special emphasis on natural gas. Dependency of Turkey on Russian gas is obvious since that Turkey is dependent on Russia for almost 55 percent of its natural gas. And to clarify, together with Turkey, Europe is, as being the biggest consumer of natural gas, also destined to use Russian gas. There were two separate operating pipelines to meet both consumers' gas need. One was from Ukraine to Europe and another from Blue Stream to Turkey. After Russia annexed Crimea without international agreement Western block (the EU and the US) applied economic sanctions to Russia. As a reaction, Russia intended to supersede the South Stream with Blue streams which will be extended through Turkey and be called as Turkish stream. Under these international circumstances, Turkey took the advantage of it to realize its main energy politics to be central gas hub in the region, especially between Russia and Europe. While meetings started to get an agreement on the Turkish stream, Syrian crisis changed the path of the game. Turkey downed the Russian warplane on the ground that it transgresses the Turkish airspace. Since that, Russia declared that current gas delivery will continue but Turkish stream project suspended.

In the light of this short history, Turkey itself seek for more options to reduce the dependency on Russian gas and did not abandoned its energy politics to be energy hub. That is where the main argument of the paper starts as Turkey reached out alternate suppliers in incredibly short time. Moreover, the most recent efforts to explore natural gas reserve in Mediterranean Sea by Cyprus, Israel and Egypt will probably serve to the Turkey's energy politics despite disagreements between Turkey and them. That geostrategic position of Turkey locating between new potential suppliers and consumers is still applicable and Turkey preserves its political stability. Turkey's energy politics to be central hub does still seem realizable with alternative energy rich-countries and routes.

¹⁴ Yuri F., Makogon, S. A. Holditch, and T. Y. Makogon. "Natural gas-hydrates—A potential energy source for the 21st Century." *Journal of Petroleum Science and Engineering* 56.1 (2007): 17.

Potential to be central gas hub

Thanks to the fact that it is located between major suppliers and consumers, Turkey can play a crucial role in the global energy arena. Turkey has sought to strengthen its position as an energy hub, aggregator and transit corridor in the region in the nearest future¹⁵. As it has been estimated by IEA (2014), by 2025 there will be 30 bcm of natural gas from Caspian area and 70 bcm from Middle East reaching Europe by pipeline. Therefore, As stated by Aribogan and Bilgin¹⁶, both the United States and the EU will need the cooperation of Turkey to include at least two of the energy rich countries - Azerbaijan, Turkmenistan, and possibly Iran to the European energy supply house. The EU's initiatives for the creation of alternative gas pipelines to bypass its energy dependency on the Russian natural gas resources¹⁷ have arisen Turkey's geostrategic position through alternative pipelines from Caspian area. That argument has been practically proved especially after the Russian-Ukrainian gas crisis which has posed a threat on the EU's energy security. To crystalize this argument, alike that the Baku-Tbilisi-Ceyhan (BTC) pipeline carrying oil from the Caspian to the Mediterranean and eventually to the Europe, and many other projects, including the Nabucco, natural gas can be delivered through parallel pipelines as long as Turkey success in being central gas hub. It shows that, Turkey has an advantage of ready buyer. Through such initiatives, Turkey can not only obtain energy sustainability for itself, but also contribute to the global energy security.

European natural gas security of supply is highly dependent to Russia. Due to worsening security concerns about the potential disruption of energy supply, the strategic objective of diversifying sources and routes of energy supply" will be taken more seriously by European Union¹⁸. Given the history of gas conflicts between Russia and Ukraine, and the latest warplane crisis between Russia and Turkey on one hand, and recent war of mutual sanctions between EU and Russia, on the other, EU has to either reduce its gas consumption in future or find new reliable suppliers. In this regard, the Southern Gas Corridor project or alternative projects via Turkey can play an important role¹⁹. Here several exporters from Middle East and Caspian area will compete for the share in capacity, while Turkey may take an advantage of monopoly power in natural gas transition.

¹⁵ Mert Bilgin, "Turkey's energy strategy: What difference does it make to become an energy transit corridor, hub or center?" *UNISCI discussion papers* 23 (2010): 120.

¹⁶ Ülke Aribogan and Mert Bilgin. "New Energy Order Politics Neopolitics: From Geopolitics to Energieopolitics." *International Relations/Uluslararası İlişkiler* 5.20 (2008).

¹⁷ Zeyno Baran, "EU energy security: time to end Russian leverage." *Washington quarterly* 30.4 (2007): 140.

¹⁸ Michael Ratner, et al. "Europe's Energy Security: Options and Challenges to Natural Gas Supply Diversification." *Current Politics & Economics Of Europe* 23 (2012).

¹⁹ Bilgin, "Turkey's Energy Strategy," 121

With the Crimea issue between Russia and Ukraine it can be claimed that the pressure over Russia have changed the topology of future transit routes, with replacement of South Stream via Turkey. And in the same coin, the willingness of Middle East and Caspian countries to export their gas to Europe has made Turkey the best alternative route as seen in the figure below;



Source: Platt's Energy Economist (2013).

Taking the case of TANAP (Trans-Anatolian Natural Gas Pipeline) as an example (showed in the figure) an essential component of a future southern gas corridor, TANAP would enable Turkey to become a major energy transit state. Turkey may become a significant energy hub (physical and/or trading) after substantial investments having been made to upgrade infrastructure²⁰. Before December 2014, Russia was planning South Stream route with the capacity of 60 bcm/year. Due to primarily geopolitical tension with the West, Russia has decided to replace this route with Blue Stream-2 of similar capacity and has reached the preliminary unofficial agreement with Turkey. While this action practically and economically does not change anything for Russia, it does so for both Turkey and the EU. As can be seen again from the map, any challenges to the energy security bring Turkey into the mind when the subject is alternative energy routes, which also confirms the importance of geostrategic position of Turkey.

²⁰ "Türkiye'nin Enerji Stratejisi", accessed January 7, 2016. http://www.mfa.gov.tr/turkiye_nin-enerji-stratejisi.tr.mfa.

In the meantime, as a result of the agreement on enrichment capacity of uranium²¹ between the US, the EU and Iran, Iranian gas resources could be used to meet the EU's gas demand. Closeness of Turkey's geostrategic position to alternative natural gas resources is crucial for transit path. For instance, Turkey has started to buy Iranian natural gas in the 1990s. In 2011, Iran supplied 8.4 bcm natural gas for Turkey. In addition, there is a MoU (memorandum of understanding) which includes Turkey's participation in South Pars gas production. That shows the potential of Turkey to diversify natural gas suppliers. These arguments especially on natural gas resources of Iran superseding Russian ones are still on the table. However, from the perspective of political stance on Syrian crisis they do not seem applicable in near future.

The dependency of both the Europe and Turkey on Russian natural gas gives Russia a strategic advantage over energy relations. In other words, Russia is capable of using energy wealth as economic and political leverage on the Europe and now on Turkey. Besides, the recent warplane crisis between Turkey and Russia has deteriorated Turkey's long and short terms energy politics. Turkey has to meet its annual current natural gas needs, from more than 50 percent of it is being met by Russian natural gas resources. That leads us to the fact that Turkey itself is dependent on Russia. Thus it can be claimed that Turkey is moving too fast to form alternative energy routes, careless about its own energy dependency. To answer the claim, it should not be forgotten that Russia is already suffering from reduced oil prices which is speculated by the US and Saudi Arabia intentionally. In that case it does not seem possible that Russia can play its natural gas card against Turkey which is the second biggest buyer²² of Russian natural gas resources.

In sum, economic conditions of Russia due to western economic embargo will prevent Russia to play this card against Turkey. Despite warplane crisis Turkey's geostrategic position resurfaced and proved its potential as right after the crisis Turkey managed to find alternative gas-rich fields such as Azerbaijan, Kurdistan Regional Government, Qatar and Eastern Mediterranean. Relying on that, the argument of Turkey's potential to be energy hub is still intact. Yet it just can be argued that it is going to be delayed as such plan of Turkey requires massive infrastructure and long term

²¹ "The Historic deal that will prevent Iran from acquiring a nuclear weapon", accessed January 8, 2016. <https://www.whitehouse.gov/issues/foreign-policy/iran-deal>.

²² According to the latest statement made by Gazprom which is national gas company of Russia, Russia will keep its written promises in the previous signed agreements. "Gazprom: Türkiye'ye doğalgaz sevkiyatı normal şekilde sürüyor", *Hürriyet*, 3 December 2015, accessed January 7, 2016. <http://www.hurriyet.com.tr/gazprom-turkiyeye-dogalgaz-sevkiyatı-normal-sekilde-suruyor-40022462>.

negotiation which was already completed phases with Russia before the crisis.

Alternative Source Countries

In a country which is willing to be an energy hub like Turkey, there needs to be big gas storage capacities, more than 20 percent of its annual consumption. According to the strategic plan of Ministry of Energy and Natural Resources of Turkey for 2015-2019²³, there are plans to raise the gas storage capacity to 10 percent of the country's annual consumption level by the end of 2019 and to further raise this to 20 percent in the long-term. However, Turkey has quickly entered into search for alternatives immediately after the plane crisis with Russia and it has made strategic deals with several energy-rich countries, including Qatar and Azerbaijan, and has been developing several energy projects to further diversify its energy sources. In this sense, the natural gas reserves in Northern Iraq and the Eastern Mediterranean can be seen as crucial alternative sources advancing the diversification of Turkey's gas supply in the medium term. However, to diversify its energy supply through alternative routes Turkey essentially needs to construct a large scaled supply infrastructure (new pipelines and terminals, the solution of legal disagreements).

In Turkey's pursuits of alternative source country, Azerbaijan first comes to mind due to rich natural gas resources. The Azerbaijan's natural gas supply can be considered in the short term. Turkey receives annually around 6 bcm gas from Azerbaijan via the South Caucasus Pipeline. And Azerbaijan is also eager to become a high profile gas provider to both Turkey and Europe. The latest agreement²⁴ between Turkey and Azerbaijan has settled the acceleration of TANAP and initiation of gas transfer in 2018. In line with these developments Turkey is planning to import an additional 6 bcm from Azerbaijan at the end of 2018. In addition, with the completion of TANAP, Turkey expects to increase gas supply from Azerbaijan approximately 23 bcm by 2023, and 31 bcm by 2026. Despite such plans can be realized in medium term, Azerbaijan is one of the applicable options in Turkey's energy politics.

²³ T.C. Ministry of Energy and Natural Resources: Strategic Plan of 2015-2019, accessed January 5, 2016. <http://www.enerji.gov.tr/File/?path=ROOT%2F1%2FDocuments%2FStratejik+Plan%2FETKB+2015-2019+Stratejik+Plani.pdf>

²⁴ "Turkey agrees with Azerbaijan to accelerate gas Project", Hürriyet Daily News, December 3, 2015, accessed January 8, 2016. <http://www.hurriyetdailynews.com/turkey-agrees-with-azerbaijan-to-accelerate-gas-project-.aspx?pageID=238&nID=92046&NewsCatID=348>.

In such a competitive gas market, Northern Iraq having around 5.7 trillion cubic feet gas reserves is willing to be an important player by supplying gas to both Turkey and Europe. The warm relations between Turkey and Northern Iraq have created opportunity to Turkey to diversify source country. Immediately after the Russian warplane crisis, officials from Iraq's Kurdistan Regional Government (KRG) announced²⁵ that a plan has been drawn up to export natural gas to Turkey and therefrom to Europe. According to this plan, the government of Iraqi Kurdistan plans to deliver natural gas to Turkey by late 2016 and through Turkey, Northern Iraqi natural gas will be exported to Europe within three years. The region will be able to export annually 10 bcm gas to Turkey at the end of three years, and if everything goes right, by the early 2020, it is expected to reach 20 bcm.

In the diversification of natural gas supply the liquefied natural gas (LNG) can be considered as a potential source. The agreement²⁶ signed with Qatar during the recent visit by the President of Turkey indicated Turkey's willingness to increase the respective portion of LNG in the natural gas mix. As Turkey's strategic partner in the Middle East, Qatar is the largest exporter of LNG in the world and can supply high portion of LNG to Turkey. However, in that case Turkey needs to increase its storage capacity for LNG. But here, the critical issue of Turkey's LNG storage and regasification capacity pops into mind. According to the International Energy Agency, Turkey's LNG storage capacity covers around 3 bcm and the regasification capacity around 14 bcm. The current storage capacity supplies only 5 percent of Turkey's national demand which is well below the levels of Europe's demand (20 percent). Therefore, both LNG storage and delivery infrastructure requires major investments that would need years to complete and huge numbers to finance.

The recent discoveries of a significant amount of natural gas in the Eastern Mediterranean have increased the options in diversification of source country in the international gas market as shown in the table below; three large fields have been discovered offshore both Israel and Cyprus between 2009 and 2011. These three fields contain natural gas in total 1040 bcm. Moreover, the recourses discovered in the Zohr field (an offshore natural gas field located in the Egyptian sector of the Mediterranean Sea) are currently estimated about 850 bcm.

²⁵ "Iraq: KRG gas 'enough for needs of Turkey and Europe", Anadolu Ajansı, accessed January 7, 2016. <http://aa.com.tr/en/economy/iraq-krg-gas-enough-for-needs-of-turkey-and-europe/482935>.

²⁶ "Turkey, Qatar sign liquefied natural gas agreement", Daily Sabah, December 2, 2015, accessed January 7, 2016. <http://www.dailysabah.com/energy/2015/12/02/turkey-qatar-sign-liquefied-natural-gas-agreement>.

Key recent gas discoveries in the Eastern Mediterranean

Gas field	Country	Year of discovery	Resources
Tamar	Israel	2009	280 bcm (Gross mean resources)
Leviathan	Israel	2010	620 bcm (Gross mean resources)
Aphrodite	Cyprus	2011	140 bcm (Gross mean resources)
Zohr	Egypt	2015	850 bcm (Potential of lean gas in place)

Data sources: Noble Energy and Eni (2015) [bcm: billion cubic metres].

These recent developments have opened discussion about the relationship between regional geopolitics and energy. Many analysts have expressed hopes that the Eastern Mediterranean might become a gas-exporting region. Moreover, this newly discovered gas sources could pave the way for a new era of cooperation which has potential to solve conflicts in the region. In parallel with this argument, the Israeli officials' announcements²⁷ about gas supply to Turkey just after the Russian warplane crisis, gave reason to be optimistic about future energy cooperation. In fact, despite the ongoing political crisis, the trade between Israel and Turkey has reached an all-time high at 5.44 billion dollars in 2014²⁸. And also several Turkish companies such as Zorlu Group and Turcas have enhanced some initiatives for construction of pipeline transporting natural gas from the giant Leviathan field to the Turkey²⁹. It can be claimed that, this commercial factors can induce Turkey a quite pragmatic approach due to energy politics. In this context, the Eastern Mediterranean gas can be one of Turkey's options in the diversification politics.

Conclusion

It is obvious that Turkey initiated a clear-cut project to be a central gas hub due to the fact that its geo-strategic location being right between major gas-rich areas and consumers. As being the biggest gas supplier, Russia was an inevitable actor within this project. As it was the case till their

²⁷ "10 bcm of Israeli gas planned in first phase of Turkey deal", Today's Zaman, December 18, 2015, accessed January 8, 2016. http://www.todayszaman.com/business_10-bcm-of-israeli-gas-planned-in-first-phase-of-turkey-deal_407384.html.

²⁸ "Turkey-Israel relations: a political low point and an economic high point," Brookings Institution, 19 February 2015, accessed 8 January, 2016. <http://www.brookings.edu/blogs/markaz/posts/2015/02/19-israel-turkey-trade-business-economy>.

²⁹ "10 bids for Leviathan export tender to Turkey," Globes, 23 March 2014, accessed January 8, 2016. <http://www.globes.co.il/en/article-10-bids-for-leviathan-export-tender-to-turkey-1000926526>.

invidiously good bilateral relations was exposed to sudden opposite direction. Therefore, it is undeniable that the developments in the region especially the Russian warplane crisis have affected Turkey's energy politics and caused speculations that Turkey would not even get adequate gas supply from Russia for itself. This paper, in contrary, argues that all these developments could transform Turkey's energy politics in a way that it would limit its dependency on one source country.

In this sense, Turkey has accelerated its efforts to diversify gas suppliers in order to procure its energy security. Closeness of Turkey's geostrategic position to alternative natural gas resources and its pragmatic initiatives has proved that Turkey has a high capacity to diversify its energy supply. In case of being an energy hub, Turkey's potential still needs to be considered. In such conflict-ridden region, the most important feature of Turkey in the context of energy security is that Turkey is preserving its stability. Together with political stability of Turkey and secure routes, by increasing its storing capacity, Turkey can serve an uninterrupted availability of energy sources and at an affordable price. In conclusion Turkey's position within energy politics is still promising.

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A Study On Cosmetic Virtual Product Purchase In Multiplayer Online Battle Area Games

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Abstract

Video games are definitely one of the fastest growing industry in all kind of digital platforms from computers to mobile phones. Cellular data and wifi connections allow players to link to their virtual life easily wherever they are. Online transactions have transformed video games into bustling online markets. Most of the games now offer variety of virtual products to their gamers within the virtual world. Multiplayer online battle arena or MOBA is one of the newest game models that use the free to play business model which allows users to purchase mostly virtual cosmetic products that have no effect on actual game play. In this study gaming time effects and virtual product involvement are researched in concept of cosmetic virtual product purchase. Players divided into five groups for gaming time from very low to very high while two group for virtual product involvement as interested and uninterested. Also players' views about purchases are discussed.

Keywords: Virtual Product, Virtual World, Online Game, MOBA, Free to play

Introduction

Introduction of three-dimensional cyberspaces named virtual worlds was one of the major development in social computing. Virtual world industry has growth with the increasing number of players, establishment of new servers and players' cash flow (Jung, Pawlowski, 2014: 520). Economic value of video games used to be a niche sector. Nowadays it has turned into a blockbuster business (Marchand, Hennig-Thurau, 2013: 141). Despite the global economic crisis in 2008, online game industry has kept growing (Chang vd, 2013: 175). The development and growth of online games at the beginning of 2000s was extraordinary. After online games was recognized as mere method of entertainment, it has proved itself as applicable and profitable sector (Lee, 2010: 81). Online games are one of the best business model that works on Internet (Wu vd, 2013: 158).

The history of video games has started with Willy Hihhinbotham's Tennis for Two in 1958. The first commercial game launched in 1971 after development of computer hardwares. As computers perceived as working tool, games were rejected in minds for a long time. When Nintendo released family computer systems in Japan, families and educational organizations had concerns of its effects on children and teens. But it did not stop the rapid growth in popularity of the sector. Recently many video games can be played online (Chang vd, 2013: 176).

Video games act as bridge between different sectors and presents a hybrid experience. For example Lord of the Rings is a book series and inspired movies, games and different products. Video games can be considered as the fastest growing and the most exciting mass media tool for the next decade. The sector has also high innovation and dynamic structure (Marchand, Hennig-Thurau, 2013: 141).

Consumer and product in virtual worlds

There are many reasons that why people plays video games. While some of them play only during spare time, some others play for many hours as it is a kind of task. The most important difference between other video games and online games is many players that connects to the world and affect it individually which causes a unique game scenario and experience for each time. Even a single player can change the whole virtual world.

The interaction between gamers is very same to the real life behaviors. Consumer and consume concepts also undoubtedly exist in virtual worlds.

Online games present a virtual reality. Every player can interact with other players and has a role. Different games provide various experiences. Creating "Deep-going and satisfying experience" for players became a key to improve the marketing effect because these experience has urgent influence on consumption desire. Perceived experience will affect future consumption patterns of online game consumers (Sheu vd, 2009: 8487).

Similar to the real world, virtual world players also demand virtual products. Only difference is their digital form. These products are weapons, armors, magical items that increase character's performance as giving ability to move faster, to fight stronger etc or clothes, pets, virtual houses, furniture that customize outfit of character and personalize players' personality in virtual world (Guo, Barnes, 2011: 303; Wu vd, 2013: 158). The cash trade between user to manufacturer and user to user have a dramatic growth in virtual worlds (Jung, Pawlowski, 2014: 520). The secondary market that lets digital products to be exchanged with real money, has started in 1999 on Ebay with the auction of very rare items that exist in MMORPG (Lehdonvirta, 2009: 98).

In virtual worlds, the products may be virtual and digital, but the economic system is not. Even though it is called as “virtual economy”, it is a system that has a strong link with the real economy (Jung, Pawlowski, 2014: 521). Having currencies that have exchange rates pegged to real-world currencies of games such as of Second Life and Entropia Universe prove the strong link between real life and game economy (Harwood, Ward, 2013: 251).

These products can be bought with real money, but they can only be consumed or used inside the virtual world (Mäntymäki, Salo, 2011: 2089). These products can be obtained in several ways. They can be found in monsters’ remains, as reward of quests or on the ground randomly. They can also be traded with player or non-player character. Players can trade virtual product with real money, or directly buy it on official page of game.

Gamers experience competency, enjoyment, visual authority and monetary value from using and purchasing virtual products. As players perceive greater values of products, they tend to purchase more. When players identify with their game characters, they care about virtual products more (Park, Lee, 2011: 2184). Purchasing clothes or other virtual products provides differentiation among other players. Consumption concept became something about personality, experience and status as it does in real life because of a great number of players that exist in virtual world (Mäntymäki, Salo, 2011: 2089).

Moba and purchase

The game consist of two base and two teams that have five players for each. Players try to destory enemy base while defending their owns’. This type of games are called Multiplayer Online Battle Arena (MOBA). Players joins the army with their characters, try to improve their levels and gain loots by fighting enemy troops. The team who has higher level characters has an advantage over the opponent team. All characters start game equally in level and gold. Most of the MOBA games use free to play business model. In free to play games, players dont need to pay to connect to the virtual worlds, but they are able to pay for the extra stuff and services.

Multiplayer Online Battle Area genre has a balance force from its nature between players since it was based on equality in competition. Power gaining products will most likely damage the community. So most of the virtual products are cosmetic which shift the appearance of characters. According to Lehdonvirta (2009: 106) when the aesthetic aspects of virtual products are sufficiently compelling, players may derive hedonistic enjoyment. Compelling aesthetic will be differed upon target audience.

In a virtual community, there are many ways to show about your status like buying an expensive aircraft, gaining postwar medals. This may

be an important psychological motive for many players (Szell ve Thurner, 2010: 314). Virtual products also support on building and strengthening self-image in virtual worlds (Kim vd, 2011: 229).

In our study MOBA gamers has a communication link to trade and contact each other. The link consists of in-game chat channel, trade web pages and face to face interaction between players. These web pages quicken the virtual product flow while informing the player about the true market price of the product. Since every virtual product has a different value, market information has a strong value for traders to avoid scams.

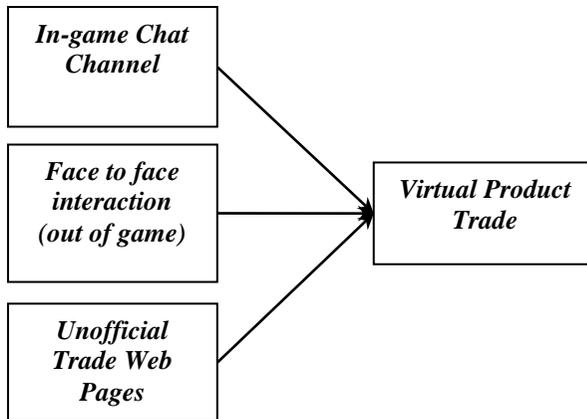


Figure 1: Virtual Product Trade Path

Method

Sampling was conducted in two chat channels to Turkish players. Convenience sampling method was used due to mass log in/log out activities which prevent researcher from tracking players without support of developers. Also response rate was very low because players tend to maximize their gaming time as much as possible. To reach different type of players, data were collected in the morning, evening and night time during three days. All players who are not away from keyboard were texted in the channels and 57 players accept to be participant for the study. Respondents were asked about demographic variables and their past virtual purchase behavior. Later participants' gaming time data and most successful characters data were collected from their profile page.

In this study, all participants are male. They are mostly college students. Some of the purchase patterns of participants are shown in the table 1. The data represents all purchases since they played first.

Table 1. Purchase Patterns of Participants

	Amount of Players	Amount of Purchase	Count of Purchase	Amount of Per Purchase	Avg Purchase
Paid Players	27	2004 \$	1053	1,90\$	74,2\$
Non-paid Players	30	-	-	-	-
Total	57	2004\$	1053	1,90\$	35,1\$

This study aims to reveal cosmetic virtual product purchase behavior with considering playing time and product involvement. Product involvement stands for passing time by activities about virtual products which means virtual product trade and virtual product bet. Players who do one of them considered as interested player, and who do not considered as uninterested. Virtual product trade stands for exchange of virtual items between players. Virtual product purchase split the participants into two, who purchased at least one time, and who did never.

The first hypothesis is;

H1: There is a significant relationship between product involvement and cosmetic virtual product purchase with real money.

Gaming time is a key factor of being part of the virtual world. Every player has different type of gaming. There are five different gaming time appeared between players from very low, low, medium, high, very high. These hours differ from 106 to 3700 hours for this study. Our second hypothesis is about gaming time and the virtual product purchase is;

H2: There is a significant relationship between gaming time and cosmetic virtual product purchase with real money.

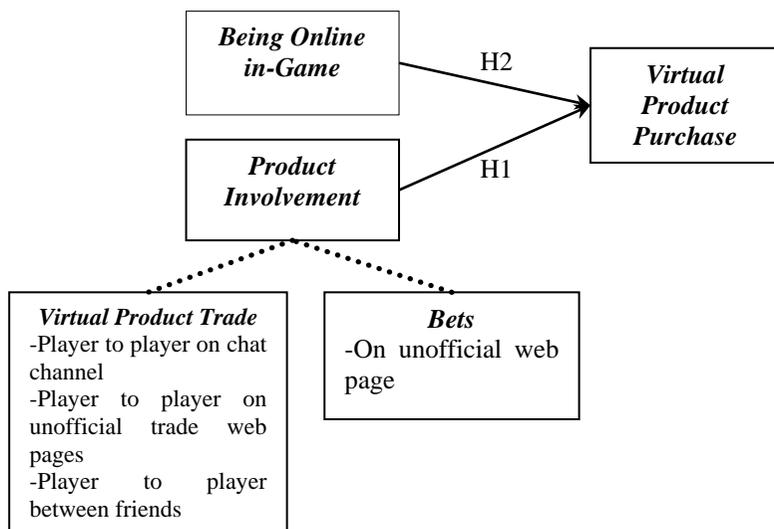
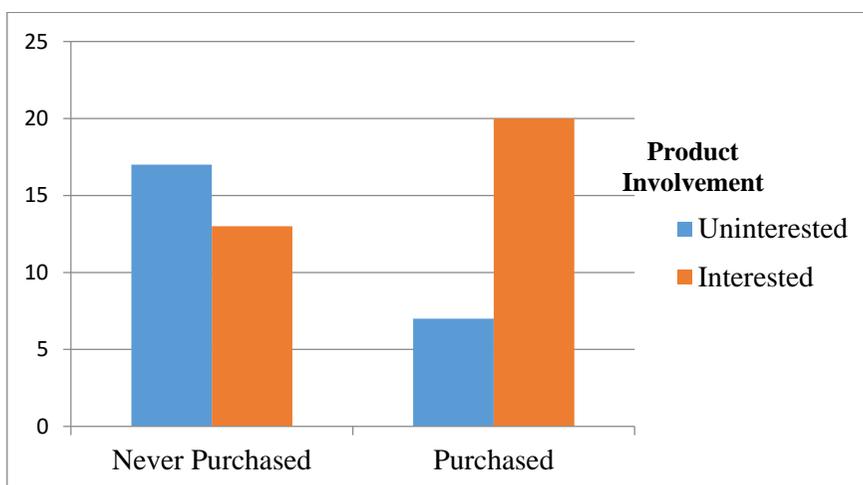


Figure 2: Research Model

The significance level was set at 0.05 for this study. Chi square independence test was used to test our hypotheses. For the first hypothesis p value is 0,019 and $0,05 > p$, H1 hypothesis is supported. There is a significant relationship between product involvement and cosmetic virtual product purchase with real money.

Table 2. Crosstables for Product Involvement and Cosmetic Virtual Product Purchase

		Product Involvement		
		Uninterested	Interested	Total
Never Purchased	Count	17	13	30
	% of Total	29,8%	22,8%	52,6%
Purchased	Count	7	20	27
	% of Total	12,3%	35,1%	47,4%
Total Player	Count	24	33	57
	% of Total	42,1%	57,9%	100,0%



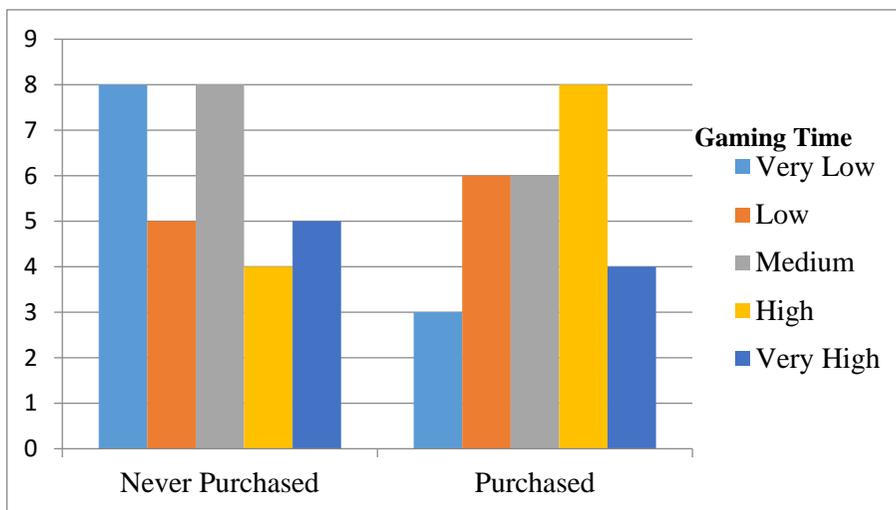
Graphic 1. Product Involvement and Purchase

There are many players who did not pay a penny for virtual products in this study but it is not possible to say they are not interested in virtual products. They may gain these products from events as a present and trade them with others. Most of the players who did virtual product purchase also interested in virtual products which means they are trading or placing bet with them. There is a small group of player who did virtual product purchase but does not trade or placing bet with them. They prefer to use their time by playing or watching games instead of trading/betting. They directly pay for the virtual products.

For the second hypothesis p value is 0,413 and $0,05 < p$, H2 hypothesis is not supported. There is not a significant relationship between gaming time and cosmetic virtual product purchase with the real money. It can also be seen clearly on the graphic 2.

Table 3. Crosstables for Gaming Time and Virtual Cosmetic Product Purchase

$\chi^2: p= 0,413$		Gaming Time					Total
		Very Low	Low	Medium	High	Very High	
Never Purchased	Count	8	5	8	4	5	30
	% of Total	14,0%	8,8%	14,0%	7,0%	8,8%	52,6%
Purchased	Count	3	6	6	8	4	27
	% of Total	5,3%	10,5%	10,5%	14,0%	7,0%	47,4%
Total Player	Count	11	11	14	12	9	57
	% of Total	19,2%	19,2%	24,5%	21%	15,7%	100%



Graphic 2. Gaming Time and Purchase

There is also qualitative data obtained. From what participants told, it can be clearly said that players like customizing their characters. Even one participant told that he feels naked without virtual products. According to the data, purchases mostly happen on players' most successful characters. Achievement may motive players to differentiate themselves among others. Also most of the players who like to trade virtual products told that they were scammed by other players during their early gaming times. It is an unfortunate experience for new players which may damage the future of the community.

Conclusion and Future Work

Chi Square tests show that there is a significant relationship between product involvement and virtual product purchase with real money. 60,6% of the interested players has purchased for a virtual product with real money while 74,1% of the players who purchased also interested in virtual products. Product involvement and virtual product purchase has a positive relationship.

There is no relationship between gaming time and virtual product purchase in this study.

It is necessary to launch new cosmetic virtual products to provide hedonic and symbolic satisfaction in MOBA games. There is a need of reliable channels to make trades and bets safer and more activities to increase product involvement besides the existing ones. This research suggests that suggestions above will increase the virtual product sales in total. The average age of participants is 22. New updates should be considered within the age group for every game. Age is a strong guide for advertising and production process. For this game, all existing childish content should be changed. Also previous purchases should be used to prepare customized offers for every player. These offers can be strengthened with sales promotions. This study has also shown that players generally buy cosmetic virtual products for characters that they are most successful with.

Future studies may contain more participants. In this study, although we have tried to reach as many player as we can, only very little of the gamers answered due to lack of gaming time. The data may be collected in long-term to reach more players. Also achievement should be focused by researchers as a strong motive for future studies.

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Impact Of Economic Freedom On Economic Development: A Nonparametric Approach To Evaluation

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Abstract

The paper examines the impact of economic freedom on economic development of European countries. Economic freedom is assessed using data from Heritage Foundation (Index of Economic Freedom). Nonparametric method - data analysis method is used which allows us to set a limit on the efficiency of the relationship between economic freedom and economic development. We assess to what extent the achieved degree of economic freedom in various countries is reflected in their level of economic performance, respectively what is the potential for better "assessment" of economic freedom to increase their economic level. The analysis confirmed that economic freedom creates better conditions for increasing economic performance. The decomposition of inefficiencies indicated that in the European transition economies there is a relatively strong area for improving economic performance through the extension of individual indicators of economic freedom.

Keywords: Socio-economic development, human development index, economic freedom, measurement of development

Introduction

Economic freedom is an integral part of institutional quality that cultivates social responsibility and business environment, provides basic conditions for investment and creates an image of the country's credibility. Countries which have in general high levels of economic performance have also high quality of institutional framework and large economic impact. Countries that have good institutional framework and economic system have been consistently connected with institutional quality and at present achieve higher levels of economic performance.

According to Friedman, “free societies have arisen and persisted only because economic freedom is so much more productive economically than other methods of controlling economic activity.” (M. Friedman, in Gwartney, Lawson, Block, W., 1996). Although economic performance often correlates with high quality institutions, causations are not unidirectional, i.e. that the quality of institutions may be the result of economic growth and don't have to be only its cause. Higher economic level may change moral values of society, make it more free, open, reliable and responsible, thus affects the development of the institutional quality. Individuals are economically free, as far as they are free to control their own labor force and property (Friedman, 1993). The above areas of economic freedom are prerequisites for ensuring the conditions for economic development. Human quality of life is significantly determined by the political rights and civil liberties (Körmenđi, Meguire 1985, Scully, 1988, Wight, J. B., 2011), which are the basic parameters of economic freedom. Therefore, economic freedom is regarded as an important condition for improving economic performance (Berggren, 2003 Haan and Sturm 2000).

Methodology and data

The quality of a person's life is significantly determined by his political rights and civil liberties, which are the basic parameters of economic freedom. Economic freedom is an aspect of human freedom, which deals with the material autonomy of individuals in relation to the state and other organized groups. Individuals are economically free, as far as they are free to control their own labor force and property (Friedman, 1993). Economic freedom is closely linked to economic performance (Berggren, 2003 Haan and Sturm, 2000).

Economic freedom is assessed in a way that covers a wide range of factors of institutional quality. The complex is assessed by the Fraser Institute, Freedom House and the Heritage Foundation. Index of Economic Freedom, compiled by the Fraser Institute, assesses conditions to ensure freedom of choice of the individual. Mainly evaluates the quality of the competitive environment, the quality of legislation in terms of law enforcement and protection of property rights and the quality of the regulatory framework. A positive note is that the index examines also macroeconomic stability, which incorporates space on the discretion of individual subjects. In summary, the project evaluates the quality of economic policy approaches to socio-economic, legal and cultural fields and their impact on economic growth and development. Identical mission, i.e. to examine the effect of economic freedom and the quality of institutions in developing countries, has also the economic freedom index compiled by the Heritage Foundation. It focuses on four key aspects of the economic

environment – rule of law, government size, regulatory efficiency and market openness. Evaluation mentioned four aspects of economic freedom is realized via a 10 components (10 components of economic freedom – property rights, freedom from corruption, fiscal freedom, government spending, business freedom, labor freedom, monetary freedom, trade freedom, investment freedom, financial freedom). The components of economic freedom are rated on a scale from 0 to 100. Scores on these 10 components of economic freedom, which are calculated from a number of sub-variables, are equally weighted and averaged to produce an overall economic freedom score for each economy (Heritage Foundation 2015).

The purpose of the following part of this article is by DEA method to assess to what extent is the achieved degree of economic freedom in various countries reflected in their level of economic performance, respectively what is the potential for better "assessment" of economic freedom to increase their economic level.

Classical DEA assesses efficiency of *Decision Making Units* (DMUs) which are viewed as transforming m inputs into s outputs. Mathematical expression of transformation function as the production set boundary representation is not being focused. Assuming out stochastic shocks, the data are treated deterministically to construct the *best practice* frontier, deviation from which ascribed to inefficient performance. Interpreting efficiency in Pareto-Koopmans sense, an efficient DMU cannot improve its performance, e.g. increasing its output or reducing any input without employing additional input or reducing output respectively. In DEA, approximation of efficient boundary is carried out by linear combination of efficient units which also presents a set of benchmarks for inefficient ones. Potential improvements are represented by *slack* variables.

In the specific application of the method in this study, the approach of Tone (2001) was adopted to assess n DMUs represented by activity $(\mathbf{x}_0, \mathbf{y}_0)$ where \mathbf{x} and \mathbf{y} stand for inputs and outputs vector respectively, and DMU under assessment is indexed by 0. All inputs and outputs are arranged in matrices X and Y . Slack variables can be expressed as follows.

$$s^- \lambda = \mathbf{x}_0 - X \tag{1}$$

$$s^+ \lambda = \mathbf{y} - \mathbf{y}_0$$

As proposed in Cooper, Seiford, Tone (2007), input-oriented measure of efficiency can be constructed by excluding input slacks from the objective function assessing efficiency. The resulting optimization program takes the form

$$\min \quad 1 - \frac{1}{m} \sum_{i=1}^m s_i^- / x_{i0} \tag{2}$$

$$\begin{aligned}
 \text{s.t.} \quad & \mathbf{x}\lambda = \mathbf{s}^- + \mathbf{x}^+ \\
 & \mathbf{y}\lambda = \mathbf{y}^- + \mathbf{y}^+ \\
 & \mathbf{e}\lambda = 1 \\
 & \lambda \geq 0, \mathbf{s}^- \geq 0, \mathbf{s}^+ \geq 0
 \end{aligned} \tag{3}$$

Variable returns to scale assumption taking account of size of economies at considerable variance is incorporated by means of the additional constraint for λ following Banker et al. (1981). The term $\frac{1}{m} \sum_{i=1}^m s_i^- / x_{i0}$ presents the total penalty for inefficiency represented by nonzero slacks in (2), thus relative inefficiency s_i^- / x_{i0} of individual i -th input can be looked at as the contribution of the input to total penalty. Comparing individual contributions may reveal relative importance of respective inputs for DMU in terms of efficiency.

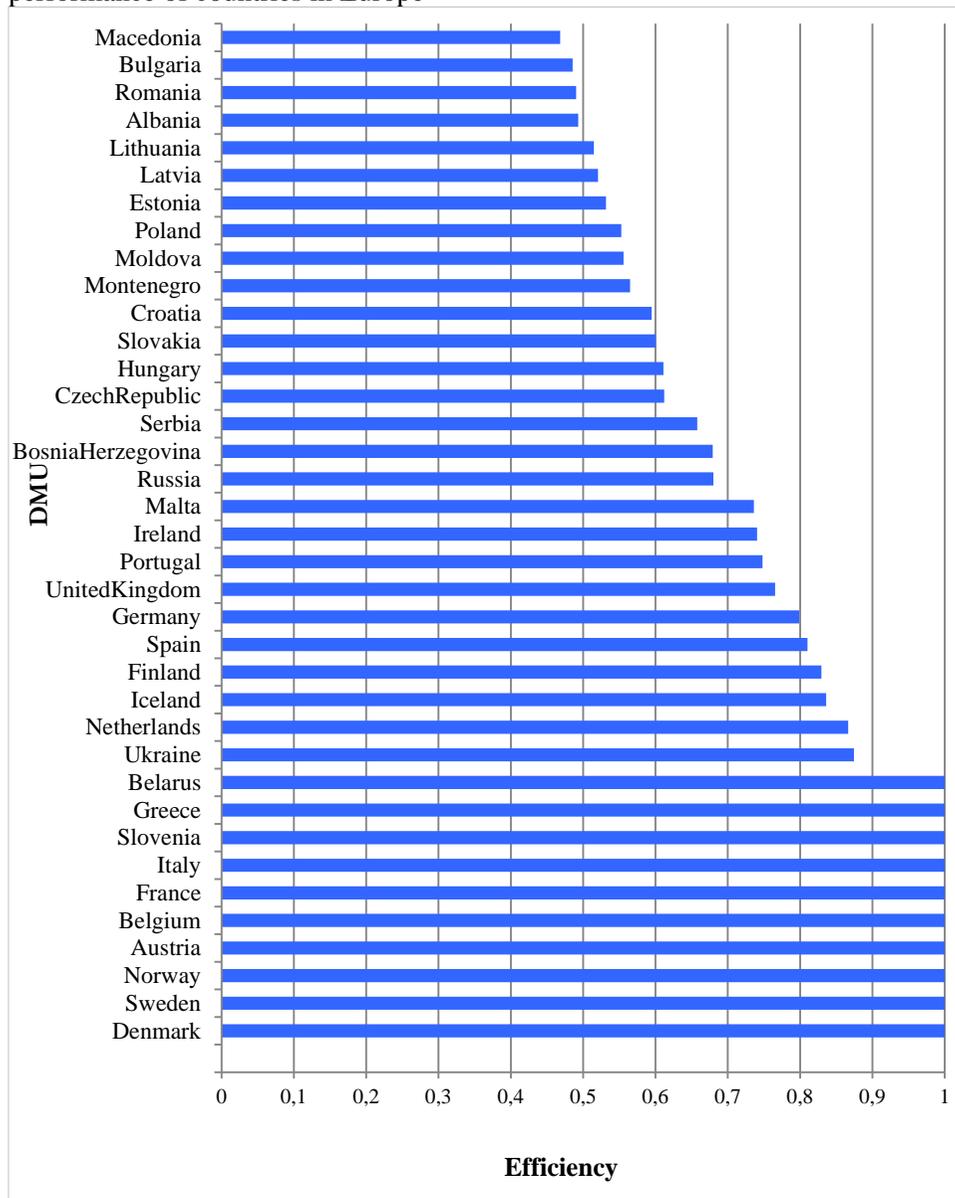
Given the large set of countries that were the subject of our investigation, we further present only the results for European countries. Inputs to the model have been individual components which form the basic framework of economic freedom index, compiled by Heritage Foundation. Subject of research were those countries of the world that had evaluated all components of economic freedom (174 countries). The "world" efficiency frontier has been constructed, which is formed by those countries of the world that have managed to entirely effectively transform the achieved degree of economic freedom into their economic performance. This means that countries located on the border of efficiency³⁰ can increase their economic performance only by increasing the degree of their economic freedom.

Results

The European countries on the global efficiency frontier are Denmark, Sweden, Norway, Austria, Belgium, France, Italy, Slovenia, Greece and Belarus (Figure 1). These countries at a given level of economic freedom achieve the highest possible economic performance and the increase can only be achieved by improving economic freedom. This fact is especially evident in the case of Belarus, whose GDP per capita at PPP only reaches 41% of Estonia and a half level of Latvia and Lithuania (these are comparable transition countries). At present, Belarus is located in the captivity of his economic freedom, which does not create any space for economic development. A similar assessment can be attributed to the Ukraine, which at the current level of economic freedom has only minimal space for economic development.

³⁰ In accordance with the Pareto-Koopmans interpretation.

Graf 1: The efficiency of transformation of economic freedom into the economic performance of countries in Europe



Source: Heritage Foundation, Index of Economic Freedom 2015, own calculations.

For those European countries that are below the efficiency can be identified in the economic freedom areas where improvements could enhance the performance of the country (Table 1). The individual components of economic freedom have different potential to support the improvement of the economic level. Property rights (the quality of the legal framework, protection of property rights, law enforcement, the possibility of

accumulation of private property) belong to the components of the institutional environment in which potential for improvement in the European countries shows most differences (from 1.19% in Finland, 1.59 % in the Netherlands up to 8.75% in Romania and 8.9% in Estonia).

In general, in the most economic developed European countries the property rights contribute almost entirely to economic development but in the European transition economies their quality improvement create a great potential for economic development (the largest potential is in Croatia, Bulgaria, Czech Republic, Albania, Lithuania, Latvia Poland, Moldova, Romania, Estonia). In transition economies represents a major potential for economic development the reduction of the level of corruption, similarly as other components of economic freedom. Particularly important place while minimizing the bottlenecks of development has in the case of transition countries Investment Freedom (assessed by the extent of barriers to investment capital), which contributes most to the overall inefficiency in Romania.

Table 1: Decomposition of inefficiencies in European countries (in %)

Rank*	DMU	Score**	Property Rights	Freedom from Corruption	Fiscal Freedom	Gov't Spending	Business Freedom	Labor Freedom	Monetary Freedom	Trade Freedom	Investment Freedom	Financial Freedom	Growth potential of economic performance
6	Switzerland	78,17	2,40	2,01	1,70	3,79	0,09	4,13	0,64	1,13	2,45	3,51	21,83
9	Estonia	53,17	8,90	7,20	0,65	4,01	5,39	4,33	0,02	3,86	6,20	6,28	46,83
10	Ireland	74,04	4,00	2,59	1,38	1,72	2,03	4,62	0,46	1,81	3,83	3,52	25,96
14	United Kingdom	76,55	4,12	2,59	0,63	2,85	1,79	2,08	0,00	0,46	3,79	5,13	23,45
16	Lithuania	51,47	8,39	6,66	1,89	4,66	5,55	4,69	0,64	3,82	5,90	6,33	48,53
17	Germany	79,87	3,67	2,63	0,00	1,58	2,19	1,84	0,21	1,54	3,50	2,96	20,13
18	Netherlands	86,64	1,59	1,39	0,00	1,95	0,24	2,55	0,23	0,32	2,46	2,64	13,36
20	Finland	82,94	1,19	2,08	2,82	3,14	1,37	2,00	0,31	0,57	2,26	1,32	17,06
24	Czech Republic	61,21	8,24	4,95	0,57	1,26	3,93	4,98	0,38	3,48	5,07	5,93	38,79
26	Iceland	83,61	3,51	2,27	1,72	0,00	1,81	1,97	0,00	0,88	1,70	2,51	16,39
35	Latvia	52,05	8,44	6,33	1,09	3,18	5,22	5,21	2,50	3,44	7,67	4,87	47,95
40	Poland	55,28	8,52	6,80	0,83	2,37	4,29	4,79	1,33	3,66	6,10	6,03	44,72
47	Spain	81,01	1,71	0,58	0,00	8,69	0,79	0,00	0,85	0,83	3,06	2,49	18,99
48	Slovakia	60,03	7,75	5,37	0,58	3,63	4,28	3,46	0,00	3,60	5,67	5,63	39,97
52	Hungary	61,09	7,78	5,70	0,92	0,00	3,74	3,40	1,79	2,56	6,39	6,62	38,91
53	Bulgaria	48,54	8,18	5,14	1,75	2,23	3,98	6,73	4,46	2,96	9,51	6,51	51,46
55	Romania	49,04	8,75	5,35	1,37	1,65	4,04	6,47	4,46	2,86	10,00	6,00	50,96
56	Malta	73,61	4,90	2,76	0,00	6,51	0,62	2,21	0,65	2,16	3,86	2,72	26,39
61	Albania	49,33	8,33	3,55	1,40	3,17	4,11	5,43	4,70	2,85	10,00	7,14	50,67
62	Portugal	74,81	4,73	3,37	0,00	1,71	3,23	0,00	2,40	1,64	4,72	3,40	25,19
64	Montenegro	56,49	7,65	4,79	2,23	0,00	3,91	5,06	3,67	2,01	8,19	6,00	43,51

79	Croatia	59,46	8,11	5,94	0,00	0,88	2,92	3,24	2,47	3,30	7,84	5,83	40,54
88	Serbia	65,76	7,29	4,10	1,50	0,00	1,30	3,31	2,35	0,94	7,45	6,00	34,24
95	Bosnia Herzegovina	67,93	3,94	4,11	1,54	0,00	0,61	2,60	3,44	1,88	7,29	6,67	32,07
109	Moldova	55,59	8,74	4,27	1,19	0,00	3,76	3,99	4,36	2,12	9,97	6,00	44,41
141	Russia	68,01	6,40	3,01	1,27	2,57	4,78	5,20	0,87	2,15	3,86	1,87	31,99
160	Ukraine	87,44	2,88	0,17	0,40	0,00	1,85	0,00	2,76	1,93	0,00	2,56	12,56

* Within 174 assessed countries in the world, ** achieve a level of efficiency,
 Source: Heritage Foundation, Index of Economic Freedom 2015, own calculations As can be seen from Table 1, the improvement of individual parameters of economic freedom in the transition economies has contributed significantly to their economic development. The potential for improvement in these economies is from about 40 and 50%.

Conclusion

While creating conditions for economic development in the current period an important place is attributed to local institutions and the general recognition is that the development of the institutional quality creates better conditions for economic growth and development. The economic level of the country has long been linked to the quality of institutions. At the same time economic level changes moral values of society, makes it more free, open, reliable and responsible, thus affects the development of the institutional quality.

That is why for the assessment of individual areas of quality of institutions is great deal of attention paid to economic freedom and its impact on the economic development of the country. The data envelopment analysis method (DEA) allowed us to evaluate the impact of economic freedom on the achieved level of economic performance. On the sample of 174 countries of the world we used the data obtained from the index of economic freedom, compiled by Heritage Foundation to design a border of efficiency. Efficient scale is formed by countries that achieve the level of economic performance with effective utilization of all components of economic freedom. Creating boundary of efficiency also allowed the identification of the weaknesses of development of those economies that are below the threshold. This means that in the case of improvement of the efficiency of the component of economic freedom would increase the potential of their economic development. The countries that make efficient scale can only enhance economic performance by increasing the degree of economic freedom.

In the case of European countries has been shown that the most economically developed economies transform their high level of economic freedom into a high economic level. In economically less efficient economies (Belarus, Ukraine) is a lower degree of economic freedom limiting factor for increasing economic level. In those countries that are below the efficiency, the individual components of economic freedom have different potential to promote economic growth levels. The most significant

potential for economic development would be for all countries the improvement of property rights.

Transition countries of Europe have the potential to increase the economic level in all components of economic freedom; however they report the greatest inefficiencies in the investment freedom. In many transition economies represents an improvement of economic freedom the potential for economic development in the order of 50%.

As can be seen from Table 1, the improvement of individual parameters of economic freedom in the transition economies has contributed significantly to their economic development. The potential for improvement in these economies is from about 40 and 50%.

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Competition Law Applications And Encountered Problems In Turkey In The Perspective Of Business Concerns And Personal Consumers

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Abstract

In Turkey in the concept of European Union adaptation process, Law No.4054 on the Protection of Competition has come into effect in 1994. Then in 1997 Turkish Competition Authority has been established. Turkish Competition Law is parallel to competition law's rules of European Union Agreement. In this concept the actions that are forbidden and has monetary penalties are like belows:

1. Agreements, Concerted Practices, and Decisions Which are Restricted Competition
2. Abuse of Dominant Position
3. Merger and Acquisitions That Are Causing Dominant Position or Strengthening of Dominant Position

In Turkish Competition Law administrative monetary penalties are being applied to the actions which are lessening competition. These penalties can be up to 10% of the firm's revenue according to the action's importance.

In this study a general overview will be made for Turkish Competition Law and sample cases of Turkish Competition Authority will be considered. These cases will be analysed in the perspective of business concerns and personal consumers. In the end problems and solution offerings will be discussed.

Keywords: Turkish Competition Law, Personal Consumer, Business Concerns

Competition Law Enforcements and Problems Encountered in terms of Undertakings and Ultimate Consumers in Turkey

Introduction

The 4054th Law concerning the Protection of Competition (LCPC) within the context of the adoption process to the European Union (UE) went into effect in 1994. In the sequel, the Turkish Competition Authority was formed in 1997. The LCPC offers parallelism with the competition rules in the UE Agreement.³¹ In this case, the actions prohibited and subjected to pecuniary fines with LCPC are listed as follows³²:

1. Agreement Limiting Competition, Concerted Practice and Decisions (a4.)
2. The Abuse of Dominant Position (a6.)
3. Merger and Acquisition to be such as to Create or Strengthen the Dominant Position (a7.)

In the Turkish Law, administrative pecuniary fines are applied for distortion of competition³³. The subject fines can reach up to 10% of the endorsements of the concerned undertaking based on the significance of the action (LCPC a16.)³⁴. Also, up to 5% of the fine (given to the undertaking or undertaking union) is applied as administrative pecuniary fine on the undertaking detected with determinant effects of violation or the undertaking union administrators or workers. Otherwise, those who suffer from competition violation can claim for damages against the concerning undertakings (LCPC a.57). In the claim by the sufferers, the judge may rule compensation on a threefold rate of the damage caused, the profit made from those who caused the damage or the procurable profit on the requisition of the sufferers (LCPC a.58). The aim of the threefold sanction besides creating a deterrent effect on competition violations is to encourage the sufferers to claim for damages³⁵.

Since the Turkish Competition Authority has been founded, within this 19-year process, it has applied pecuniary fines in many industries. Some of these are connected to industries holding an important place in the economy. However, pecuniary fines cannot be deterrent enough to prevent competition violations. This situation can appear especially when the income that could be received from competition violation is higher than the rate of the pecuniary fine. At this point, damage actions gain importance. The risk of undertakings paying a substantial amount of compensation could have a

³¹ Güven P., *Rekabet Hukuku*, Ankara, 2005, p. 35.

³² Topçuoğlu, M., *Rekabeti Kısıtlayan Teşebbüsler Arası İşbirliği Davranışları ve Hukuki Sonuçları*, Ankara, 2001, p. 84; Sanlı, K. C., *Rekabetin Korunması Hakkındaki Kanunda Öngörülen Yasaklayıcı Hükümler ve Bu Hükümlere Aykırı Sözleşme ve Teşebbüs Birliği Kararlarının Geçersizliği*, Ankara 2000, p. 27.

³³ Topçuoğlu, M., p. 88.

³⁴ Aslan, İ. Y., *Rekabet Hukuku*, Bursa, 2005, p. 637.

³⁵ Şahin, M., *Rekabet Hukukunda Tazminat Talepleri*, İstanbul 2013, p. 198.

deterrent effect on competition violations. However, the restraints of sufferers claiming damage decrease this effect. In this study, general information on Turkish competition authority will be given and competition law applications in terms of undertakings and the problems encountered will be mentioned.

Turkish Competition Authority Overview

The actions prohibited and subjected to pecuniary fines in LCPC are as follows:

- Agreement Limiting Competition, Concerted Practice and Decisions (a4.)
- The Abuse of Dominant Position (a6.)
- The Merger and Acquisition to be such as to Create or Strengthen the Dominant Position (a7.)

The 4th article of LCPC forbids the agreement, concerted practice and associations of undertaking decisions “aiming to prevent, damage, or restrain competition directly or indirectly or to be such as to cause or be able to cause this effect”.

Thus, for

- Agreements between undertakings
- Concerted Practices between undertakings and
- undertaking union decisions

to be forbidden, it has been resolved that in a certain product and service market they need to be activities which aim to

- Restrain
- Damage or
- Limit

the competition or be such as to cause or be able to cause such an effect³⁶.

Here, for an agreement, concerted action or decision to be counted incompatible, it should be pointed out that it is definitely unnecessary to be applied. In this case, actions not yet applied and therefore not restraining actions “aiming to limit competition” will be counted against the Law, it is not required to wait and see the effects of this application.

After it is indicated that the competition violating agreement, concerted action and undertaking union decisions in article 4 of LCPC are forbidden, examples have been given regarding in what cases these kinds of violations will be in question. Among these are:

- Determination of Price and other Commercial Provisions
- Sharing Markets
- Controlling Supply and Demand
- Exclusionary Applications

³⁶ İnan, N., Piker, M. B., *Rekabet Hukuku El Kitabı*, 2007, p. 25.

- Discriminatory Applications

- Putting Additional Obligations and Conditions

For undertakings found in dominant position as per article 6 of LCPC to misuse this power they possess in a way to limit the competition in the market is forbidden as per article 6 of LCPC. Therefore, preventing undertakings in dominant position from misusing these powers to batten upon other undertakings and consumers or pushing them outside of the market is demanded. The definition of the phrase “misuse” in article 6 of LCPC has not been given³⁷, instead examples of misuse situations that are come across most have been given. These are situations such as,

- Exclusionary Applications

- Discrimination

- Setting forth Additional (Abnormal) Obligations

- Damaging Competition in another Market due to a Dominant Position in a Market

- Limiting Production, Marketing or Technical Progress.

At last, in article 7 of LCPC “The Acquisition and Joining to be such as to Create or Strengthen the Dominant Position” has been forbidden. The type of joining and acquisition processes which can be permitted have been arranged in the Declaration issued by the Competition Authority.

Not only have the competition damaging actions been indicated in LCPC, but the sanctions to be applied due to these actions have also been stated. It could be said that in the Turkish Competition Law a binary sanction system has been adopted. These are two types such as administrative sanctions and private law sanctions.

Pecuniary fines are the most important of the administrative sanctions. Sanctions applied in some countries such as prison sentence³⁸ and prohibition of management³⁹ are not applied in our law.

Pecuniary fines have been itemized in article 16 of LCPC. According to this, a pecuniary fine of up to 10% of the yearly gross income stated at the end of the financial year from the previous year of the final judgement order

³⁷ European Court of Justice, Hoffmann- In the La Roche case has defined misuse as “every action that could damage, limit, or prevent competition of a dominant position and could provide itself with unjust advantages”. See also Aslan, p. 396.

³⁸ For example, prison sentences can be given for competition damaging action in the USA. For more information, please see Gökşin K., ABD, AB ve Türk Rekabet Hukukunda Kartellerle Mücadele, Rekabet Kurumu Uzmanlık Tezi No: 213, Rekabet Kurumu, Ankara, 2003, p.7, 84.

³⁹ Prohibition of Management is the manager of the undertakings with competition violating actions being disqualified for a certain period of time. For detailed info please see Kortunay A., Şahin M., “Rekabet Hukukunda Alternatif Bir Yaptırım: Teşebbüs Yöneticilerinin Görevden Uzaklaştırılması (Yöneticilik Yapma Yasağı), Rekabet Hukukunda Güncel Gelişmeler Sempozyumu- IX, 6 Mayıs 2011, Kayseri, pp.137-164.

is given to the undertakings or the undertaking unions which act against the forbidden actions of LCPC. Also, up to 5% of the fine (given to the undertaking or undertaking union) is applied as administrative pecuniary fine on the undertaking detected with determinant effects of violation or the undertaking union administrators or workers.⁴⁰

The private law sanctions that can surface for the reason of contradiction to LCPC are “invalidity” and “claim”. According to LCPC article 56, every kind of agreement and decision of undertaking unions contradictory to article 4 of LCPC is invalid.

Otherwise, those who suffer from competition violation can claim for damages against the concerning undertakings (LCPC a.57). In the claim by the sufferers, the judge may rule compensation on a threefold rate of the damage caused, the profit made from those who caused the damage or the procurable profit on the requisition of the sufferers (LCPC a.58). The aim of the threefold sanction besides creating a deterrent effect on competition violations is to encourage the sufferers to claim for damages.

Examples from Applications

Since the Turkish Competition Authority has been founded, within this 19-year process, it has applied pecuniary fine in many industries. The amount of cases in the context of the 4th and 6th articles of the Competition Authority between 2011-2014 is 259+283+303+142+163= 1150 fines have been given to 52 of them. According to this, the fine rate is around 5%.⁴¹ This state is most importantly due to the applications made to the Competition Authority for reasons that are not in the context of LCPC. It is possible to say that the fact that the Competition Authority in Turkey does not have a deep rooted history (when compared to America and EU countries) is an important factor with this situation.

Some cases in which pecuniary fine is applied by the Competition Authority are related to important industries in the economy and the fines given have been in great amounts. For example, in 2008 in the context of the misuse of dominant position (about price squeeze), a 12,4 Million TL (about 7 million Euro) fine was given to Turk Telekom and its subsidiary company TT-Net.

Likewise, investigations were started for 23 automotive companies in 2011 in the context of the article regarding Agreement Limiting Competition, Concerted Action and Decisions (LCPC a. 4). A total fine of

⁴⁰ Pecuniary fines as per article 16 of LCPC are not limited to this. Other fines will be applied in cases of contradiction to other obligations undertakings are required to fulfill to LCPC (for example, giving misleading information at dispensation applications or preventing viewing).

⁴¹ Resource: www.rekabet.gov.tr

277 Million TL (about 130 million Euro) was given to 15 of these companies (for reasons as negotiating about price strategies for the future, negotiating about stock, goals, and sales strategies).

Again in 2013 within the context of the same article a fine of 1.1 Billion TL (about 450 million Euro) was given to 12 banks (for reasons of determining their interest rates together).

A couple of months before the Competition Authority started an investigation in order to investigate if insurance companies were in agreement/concerted action due to the extreme rise in traffic insurance rates⁴².

With statistical data regarding claims for damages due to competition violation not being found it is understood through the number of court decisions that the number of them are not so many.

Evaluations in terms of Undertakings and Ultimate Consumers

The direct and primary aim of the Competition Authority is to provide and protect competition order. An efficient competition environment before everything causes effectivity in production and resource allocation. Also, it encourages production on less cost and technological advancement. As a result of this, the possibility of being able to buy quality products and service for a cheaper price. Therefore, the welfare of consumers and social welfare increases.⁴³

Apart from these, the competition order enables the safety of opponent and (especially) small undertakings by means of forbidding the dominant undertakings from misuse of their economic powers and to eliminate the barriers of entering the market. Also, it is known that the competitive environment is advantageous in decreasing the inflation.

As a result, it could be said that the aim of the competition norms is to protect the competition environment by means of the market operators' activities being bound to rules, as well as the ultimate aim being "providing financial efficiency" and therefore "maximizing social welfare (therefore consumer welfare)".⁴⁴

Besides heavy fines of up to 10% of yearly gross income of undertakings causing competition violation, it is subject that they encounter agreements they made being void and receiving a threefold fine. Also, along with the "undertaking image against competition order" not showing itself directly as financial loss, it could also as an "indirect sanction" they can encounter. However, this is the actual problem: In case the income received

⁴² Resource: www.rekabet.gov.tr

⁴³ Aslan, p.8.

⁴⁴ Gürkaynak, G., Türk Rekabet Hukuku Uygulaması İçin "Hukuk ve İktisat" Perspektifinen "Amaç" Tartışması, Ankara 2003, pp. 6-7, Güven, p. 32.

due to competition violation is higher than the fine to be applied, undertakings will be able to continue violating. In Turkish Law (contrary to the USA and many other countries), giving cartels prison sentences is out of the question. In this case, the deterrent effects of damage claims should be taken advantage of. The threefold fine sanction in the Turkish Law is an important instrument. However, because damage claim cases take long, are costly, and that the undertakings do not want to damage their relationship with other undertakings in the position of the client or supplier it is not a method applied to frequently (enough).

Competition violations sometimes arise from the ignorance of the undertaking managers about competition law. The fact that undertaking managers do not have enough information on competition law is not a sufficient reason to not give a fine or for the fine to be decreased. For this reason, it is important that the managing personnel are informed by specialists, and that the undertaking process and decision making mechanisms are adapted to competition law. The managing personnel being informed by specialists, and the undertaking process and decision making mechanisms being adapted to competition law is possible with competition compliance programs. In Turkey, especially after heavy fines given to banks, the importance of competition compliance programs has come to surface once again, and has started to be applied in some big/corporate companies. A competition compliance program being applied in an undertaking –on the contrary to some countries- has been regulated as a reason for fine reduction in the Turkish Competition Authority.

Substantially, consumers are the ones who are ultimately damaged by competition violations. Along with this, it is a proven fact that consumers with damage from competition violation due not want to go in the way of damage claims due to their atomized/crystalized damage. Among many reasons for this are that proving competition violation is not easy, consumers do not want to face the financial and time cost the case will cause, and that they do not have the opportunity to open a group or class action case⁴⁵. Earning operability to damage claims is a current problem of the Turkish Competition Authority. Applications in other countries such as relieving the managers who violated competition from their duty, deduction of fines that will be given to undertakings which have paid a fine have started to be discussed in the Turkish Doctrine.

⁴⁵ For detailed information please see Kortunay, A., AB Rekabet Hukuku'nda Tazminat Davalarına Yönelik Reform Çalışmaları ve Türk Hukuku Bakımından "De Lege Ferenda" Düşünceler, Rekabet Dergisi, C.10, S.1, pp.107-138.

Conclusion

The aim of the competition norms is to protect the competition environment by means of the market operators' activities being bound to rules, as well as the ultimate aim being "providing financial efficiency" and therefore "maximizing social welfare (therefore consumer welfare)".

The 4054th Law concerning the Protection of Competition (LCPC) went into effect in 1994. The actions prohibited and subjected to pecuniary fines with LCPC are listed as follows:

4. Agreement Limiting Competition, Concerted Practice and Decisions (a4.)
5. The Abuse of Dominant Position (a6.)
6. The Merger and Acquisition to be such as to Create or Strengthen the Dominant Position (a7.)

Fines given by the Competition Authority can reach important amounts. It is essential that competition compliance programs are applied at undertakings in order to avoid these fines. In case the income to be received by competition violation is higher than the fine to be given, undertakings will be inclined to violation. For this reason, damage claims have an important deterrence in preventing competition violation. However, the fact that proving competition violation is not easy, consumers do not want to face the financial and time cost the case will cause, and that the Turkish Law does not have the model to open a group or class action case comes to us as an important obstacle. Applications in other countries such as relieving the managers who violated competition from their duty, deduction of fines that will be given to undertakings which have paid a fine have started to be discussed in the Turkish Doctrine. It is evidential that the steps to be taken/the innovations to be done will cause important effects either in undertaking management policy or in consumer welfare.

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www.rekabet.gov.tr

Gaining Ghost Town of Tourism Economics Northern Cyprus Varosha City

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Abstract

Ghost towns were abandoned places for same reasons such as disasters, economic collapse, disease, war. North Cyprus City's Varosha is a ghost town. The city was received during the Turkey's Peace Operation. It has been closed until that time - 1974. It is under the control of UN and takes place in the Green Line buffer zone. The research is based on the site work. The data obtained from the local authority and information collected by interviews with local people. To be entered in the City with special permission and observation could be made in Varosha. Before 1974 Varosha is one of the most lively tourist center of the world. 200 billion euros investment needs for Its reconstruction. After reconstruction business volume of the region will be exploded. Without wasting more time, the City should be given to the tourism economy. However, the risk of deterioration of existing tissue will raise after opening of Varosha. The city has been witness to the period of the humanity history. There is no other city in the world having this property. Projects related to the City must be produce without losing its texture. Aimed of the study is that without lossing its features, put forward proposals for opening to tourism of the City. In this study recommendation for the City's protection were developed. Based on the successful example of revived ghost town, a museum city proposal improved for Varosha.

Keywords: Tourism, North Cyprus, ghost cities

Introduction

"Ghost towns" refer the settlements abandoned by their occupants. Ghost habitations are the ones left because of various reasons such as human/nature-born, decreasing resources, difficulty to fulfill basic needs, shifts in railway/highway routes, shifting local economy, epidemics, war and etc. Maraş City in Northern Cyprus which has been kept closed since 1974 is ghost city today. The city captured during the Peace Operation was banned

from occupation. It is located on the “Green Lane” buffer zone under the UN control. It is considered as significant bargaining counter in Cyprus Crisis in pursuit of a resolution. Neither a consensus has been reached until today nor any step taken for Maraş City. Although Maraş City was one the most alive 10 tourism cities in the world before 1974, currently it is just a dead one. Whereas assumed land values of the city is just above 100 Billion US Dollars, 2 Billion Euro investment is needed for its re-construction. It is expected that upon its re-construction, employment, commerce and trade of goods and services would be boomed. The city, without losing further time, is required to be gained in tourism economy by conforming to the universal law and monitoring benefits of the winning party. However, opening Maraş may introduce the risk of losing its current texture.

Although it was banned for people, a different life aspect prevails in the city. As a result of 40-year isolation, the city has never lost its value and created a unique ecosystem. As the city witnessed a certain history period of humanity could be considered as live documentary with its current condition. Every building in the city has its own story which enhances magnificence of the city. There no any other similar city with this characteristic in world. Projects are required to be produced without losing this texture. In the present study, it was aimed to grab attention for closed city Maraş within the scope of Ghost City concept. The relevant suggestions were presented to gain the city in tourism economy without preserving empty-texture of the city which has now been a natural feature of the city. Some successful ghost town cases which were rejuvenated were shared.

Ghost cities are the ones usually abandoned as a result of failed economic structure, disasters or wars etc. Ghost town expression is used to refer settlements losing their populations remarkably. Furthermore, antique places not occupied anymore, which could only be visited, and which cannot survive under regular circumstances except tourism could be included in this definition. However, the real ghost settlement is the one still preserving its structural and architectural characteristics but abandoned by its natural residents. Some ghost towns are open to tourism activities and visitors. But, whereas some of them are forbidden by the law; and some are considered as dangerous to visit.

Reasons to Abandon Settlements and Ghost Town Examples

The common reason for human beings to leave their settlements is disaster. Then, this is followed by economic reasons and decreasing resources. In today’s world, number of cities emptied because of wars has displayed a sharp increase as well. In the following section, abandoning reasons were exhibited in tables with relevant examples:

Disasters

Natural – humane disasters such as flood, volcanic eruptions, fire, earthquakes and nuclear threats are effective in occurrence of ghost settlements.

Flood :The U.S. Missouri, Pattonsburg City have experienced flood incident 30 times since its foundation in 1845. In 1993, it was moved 3 km away and re-established under the name of “New Pattonsburg” (Gençalp, Sabah, 2015).

Volcanic Eruption:Italy - Pompeii and Herculaneum are Roman Cities covered by ashes upon eruption of Vesuvius Volcano in 79 A.C. As these cities were lost for 1700 years, they were discovered coincidentally. These cities are included in the UNESCO World Heritage list. They are among the most popular tourist destinations of Italy (Gençalp, Sabah, 2015)

Earthquake:Nepal – Katmandu – Two earthquakes with 7.8 and 7.3 magnitudes experienced in April 2015 turned Capital Katmandu into a ghost town. Hundreds of residents left the city for safer places to shelter. All business and touristic places in the city are closed. While there is food and fresh water shortage in the city, people are experiencing difficulty in supplying their needs (trthaber, ghost-city Katmandu, 2015).

Nuclear Disasters: Ukraine – Pripjat City was established for employees of the Chernobyl Nuclear Power Plant in 1970. By 1986, the most significant nuclear accident of the 20th Century occurred; 500 thousand people were immediately evacuated from the city. Scientists reported that the city would not be occupied for another 900 years; and that the radioactive residues could only be cleared out in 48 thousand years. People banned from the city (telegraph.co.uk 2015).

Fire: The U.S. - Pennsylvania, Centralia – This city is a prosperous settlement with coal mines. However, afterwards of fire in 1981, population of the city significantly reduced and finally 9 people left in the city by 2008 (sputniknews, 2014).

Economic reasons

As mine has lost its economic weight, as economic activities varied and shifted to other business areas, changes in commercial routes, draught, scarcity and environmental pollutions are main reasons for abandonment of settlements.

Mines losing economic significance: Japan - Gunkanjima (Hamachi Island) - While the island was silent in 1887, it transformed into a coal center by 1890. After Mitsubishi Company purchased the island, it exhibited great development pace. The first large concrete buildings of Japan were built for workers. In 1959, it was the most condensed residential area in the world (1,391 ha/person). After coal is replaced with oil in 60s, the mine was shut

down and emptied in 1974. Whereas "Battle Royale II (2003)" was shot in this island, it inspired "Killer 7" video game. The island is closed to visitors (sputniknews, 2014).

Shifting economy to other places:The U.S. – Detroit was once industrial and commercial city of the U.S. According to the figures reported by the U.S. Population Office, population of Detroit has decreased by 25% in 10 years. While it was 951 thousand in 2000; it is 713 thousand in 2014. Due to bankrupting automobile industry, closed automobile factories, the city has emigrated. Currently, the lowest population is observed since 1910. The population of the city was 1.85 million in 1950 (usasabah, Detroit, 2015)

Draught:India - Fatehpur Sikri – This is the capital of the Mongol Empire in the period of 1571 -1585. Whereas the settlement has social-complex structure, the Mongol architecture is dominant. Akbar Shah waited for a child for twelve years. Then, he built this city for his boy miraculously born. Then, the city was abandoned for water scarcity. The city was declared UNESCO Heritage in 1986 (Server, gezialemi, 2015).

Draught and scarcity:Italy - Craco Craco – This is an impressive medieval city located in Basilicata Region. Whereas the population was more than 2,000 in 1891, it reduced because of draught and scarcity. The last people in the city migrated in 1963 and the city was left to rot away (sometimes-interesting, craco, 2011)

Change in commercial route:The U.S. - Colorado - St. Elmo was established in 1880 as mining town and its population was 2,000. Then, the town was emptied upon closure of Colorado railway in 1922. St. Elmo is the most preserved ghost town in Colorado; and it was included in National Historical Locations lists. Hundreds of people visit the town every year. Old house goods are still remaining the same as they used to be at homes and stores (Wikipedia, St. Elmo, 2015).

Wars, terror and political reasons

They are substantially important reason for abandoning settlements. Changing capital cities and political decisions leave ghost towns behind.

Wars: Syria – Kobani in the Middle East - While the war in Syria and Northern Iraq has intensified its violence, communities have abandoned bombed and invaded settlements and left ghost towns behind which bear their sorrows. Kobani, Humus, Daraya Cities and Bayırbucak Turkmen area of Latakia City are just examples of these settlements (milliyet, ghost-kent-kobani, 2015)

Terror and Vandalism:Azerbaijan – Agdam – Whereas the city was occupied with 150,000 population once upon a time, Armenian rebels invaded in 1993 during Nagarno Karabagh issue. The city was not directly in

the middle of clashes. However, it was victim of vandalism and terror and abandoned (google, agdam, 2015).

Anarchy:China - Kowloon Walled City – The city was built by the United Kingdom. Then it was occupied by Japanese during the World War II. Upon their defeat, the island passed to China. Neither Chinese nor British governments were interested in the island; and it has turned into a lawless place under mafia control. As its population has significantly increased, the city was structured with labyrinth streets and high buildings. While the streets of island were burst into garbage, casinos, barrel house, substance manufacturing places filled the city. Finally, the city was evacuated based on British – Chinese agreement in 1993 (google. Kowloon+Walled+City, 2015)

International Disagreement: Turkey - Kaya Köy – The village was established in Muğla City around 1200s. In the last period of the Ottoman Empire, population of the village was 3,000 and its residents were Greek s. Then, based on the migration-exchange act between Turkey and Greece in 1923, the village was evacuated. Since Turks brought from Thrace experienced difficulty in accommodating this village, they were settled in the plain. Studies on taking advantage of Kaya Köy in tourism activities have still been continued (google. Kaya+köy, 2015).

Concentration Camps and large detention centers:Russia – Gulag – This concentration camp was gigantic detention center in the Soviet era for millions of political and criminal prisoners. In Gulag not operated today, there was numbers of prisons once (google, rusya+gulag, 2015).

Other Reasons

Mysterious events, settlements believed to bring bad luck, scientific study areas, dam constructions and residential areas experienced epidemic diseases are significant factors in abandonment of settlements.

Bad Luck and Mysterious Events: Taiwan - San Zhi – The construction of a holiday village complex was initiated in this settlement interesting futuristic architecture. The construction was not completed because of bankruptcies and work accidents. According to ghost rumors in the area, no one wanted to make an investment and even to visit here. Finally, the project was terminated ([sputniknews.2014](#)) (notcot. San zhi, 2008).

Scientific Developments:The U.S. - Mississippi - NASA – When governments expropriate land properties for scientific studies, the settlements in proximity are evacuated. When some lands are expropriated for rocket tests of the NASA, town in nearby were abandoned (space.nasa,

2015). Evacuated research stations in Antarctica could also be considered in this regard.

Dams: Turkey - Hasankeyf – Evacuation of basin area of dams results in ghost settlements. The most important example of this is Hasankeyf next to Tigris River. This location is quite old such that its history could be traced back to 10,000 years ago. The most magnificent period of this town was experienced during Ayyubids in the 14th Century. Majority of today's remaining monuments and buildings are from this period. Upon construction of Ilisu Dam, all these treasures will be buried by water. The county was declared as Natural Protection Area in 1981 (wikipedia, Hasankeyf, 2015)

Epidemics: Peru - Machu Picchu City – This city was built by Inca civilization around 1400s. It is located at 2,360 m altitude at the top of And Mountains and it could be climbed up through 200 stairs with 3000 steps. While the reason for establishment of this settlement was a temple for some people or prison for some others. This settlement was protected very well from invasions and attacks and has never got damaged. However, it was abandoned because of smallpox. In 2007, it was nominated as one of the 7 wonders of the world (bilgiustam, 2015).

Future Ghost Towns

International Economy Magazine Forbes published list of cities which would turn into ghost towns during the 21st century due to climate change, global warming and flood etc. reasons. It is expected that these cities which shelters millions of residents would be destructed before this century ends. Banjul City in Gambia will be deserted; Mexico City will be a ghost city soon. Textile center of Russia, 1,000 years old Timbuktu City of Mali, would be erased from the map real soon. Whereas Napoli in Italy is under danger of volcanic eruption; Venetia tried to be saved by means of giant dam is under risk of swallowed by water (mynet. 2015).

Rural areas are also in danger of disappear. In this regard, there is an ongoing fight in the U.S. by distributing free lands to their citizens. On the other hand, cities populated over 10 million are also in the same condition. Although the world population is fixed around 9-10 billion, migration to metropolitan cities is still continuing. At this rate, 60% of world population will be living in these metropolitan cities by 2030 (planlama. 2015). Nevertheless, these cities have been fed. In the developing countries, this trend started to work reverse side. In Tokyo, the most populated city of the world, the population display tendency to decrease. Similarly, population growth rate in New York and London is stopped. On the other hand, the problem still intensifies exponentially. The population of Lagos reached 16 million; and it is expected that its population would reach 21 million in 10 years. A similar pace exists in Bombay and Calcutta as well (mimdap.2015).

Revival of Ghost Towns

European and American planners are working on “shrinking cities”. Efforts for revival of ghost towns and gaining them into economy have gained pace. Public interest to historical events and settlements witnessed to history has increases. Revival models for ghost towns These places are usually utilized for tourism purposes. It is also common practice to utilize them as film setting or museum-city.

Making use of ghost settlements in various purposes: Canada – Toronto - Distillery District is industrial settlement with extraordinary architecture, located in Toronto. While this industrial complex was established in 1832, it was the largest liquor brewery center of the world and steered establishment and development of Toronto City. This place transformed into a ghost settlement after termination of production in 1990. Then, it was revived in 2003 and became the prominent cultural-tourism center of Canada (Torlak, 2013).

Opening for Tourist Visitors: Italy - Balestrino – This town is located in Toscana territory and has the same appearance for centuries. As the town was established by San Pietro Prince around 1100s, its historical fortress and buildings exhibit medieval view. It is open for tourist visitors (Gençalp, Sabah, 2015).

Film Studio: Namibia – Kolmanskop – Upon discovery of diamond in 1900s, the town was rushed by people; and casinos, hospital, luxury mansions were established in the middle of the dessert. As the demand for diamond reduced in 1950s, this brought end of the city. Abandoned city was raided by dust of dessert; houses and streets were covered by sand. "The King is Alive" (2000) and "Dust Devil" (1993) films were shot in this city because of its interesting scenery. It is open to visitor (Gençalp, Sabah, 2015).

Museum-City: France- Oradour-sur-Glane – During the World War II, Germany brutally invaded by mistake; killed all residents and burned the whole town. Their real target was Oradour-sur-Vayres territory. After the war period, the city built on another location. The old town was preserved in the memory of this tragic event. Burnt buildings and goods witnessing the invasion are currently exhibited in this museum-city (Gençalp, Sabah, 2015).

Opening for Tourism Settlement: Russia - Kizhi Island – The island was developed around the church built in the 16th century. Since there is tough winder season (-40), the residents who were mainly farmers left the island. Then in 1960, the island became an open archeological museum exhibiting Russian wooden architecture. It was acknowledged as world heritage by the UNESCO. Main income resource is tourism. All residents of the island have business in tourism ([wikipedia, Kiji,2015](#))

Maraş

Maraş is district of commonly known Mağusa Region of Cyprus. The Maraş district is composed of three regions as tourism, residential and central areas. The tourism section of the district was banned after the 1974 military operation. Residential and central areas are still open for public use. The Maraş is located on the “Green Lane” dissecting the island under the UN control.

History of Maraş

The Maraş city was first emerged in the Ottoman period. Upon conquest of the island in 1571, the whole island became Ottoman territory. Mağusa city walls were repaired and the community was settled within these city walls to protect them against attacks. Christians once was in the walls were moved outside the center and they formed a suburb. Greek s used to call this suburban area as "Varosha". Whereas there was ancient city texture within the walls, a modern city texture was apparent in Maraş.

During the English Colony period, while Turks lived in the walls, Greek s were settled down on the shore in Maraş. In this period, both societies used to have independent administrations in terms of education, religion and culture. In the 1960 Republic of Cyprus period, the country was administered under two different societies as Mağusa In-Walls and Maraş. However, alienation of Turkish society from Cyprus administration in 1963 deepened distinction among two societies (Dağlı, 1998:19). Accordingly, as result of intensification of assaults in 1963, Turks totally retreated inside the city walls and polarization strengthened. Concerning the period of 1963-74, contribution of Cyprian Turks into the island economy was very limited. Turks had to work in jobs in Maraş. However, they were not able to afford their living. Therefore, Kızılay was sending humanitarian aids in every six months through ships. Since the government of the island was Greek , all sorts of business credits were issued only Greek businessmen.

In 1974, Greek s organized military coup in Cyprus with the support of Greek military rule. Long term violence intensified after the military coup in the island. One of the guarantors of Cyprus, Turkey organized a military peace operation in 1974. The military operation resulted in dissection of Cyprus Island into two sides. While Greek s left the Maraş district, Turkish Armed Forces captured the city. Western side of the city was opened for immigrants from south Cyprus and Turkey. Touristic eastern side was held as leverage and closed based on the decree of the UN Security Council. Afterwards, the city turned into a “ghost town”. Military Social Facility of Turkish Army, the UN Military Residential Facility and a dormitory for girl students were established and the others were banned from entry. People who want to see the city are not allowed to pass beyond Maraş Icona Church.

Ghost Town Maraş and Its Tourism Economy

Industrialization in the Cyprus commenced after its release from English dominance and foundation of Cyprus Republic. In this period, large amounts of capitals flowed into the island owing to church donations. Tourism was remarkable income for Cyprus. Tourism activities were initiated in the island around 1940s; and urbanization gained pace by 1960s. In the period 1965-66, a five-star hotel was built in every six months. Significant portion of hotels and tourism businesses in Maraş were investments of international organizations. Italian, German and British companies leased lands for 50-100 years and were allowed to make long term investments. One of the most important hotels was the Golden Sands Hotel which belongs to British Royal Family. In 1970s, while half of the overall hotels in the island were located in Maraş, the city was with capacity of 100 hotels and 10,000 beds. In the same period, all bed capacity of Turkey was below 10,000. In 1974, 53% of general tourism accommodation was in Mağusa. The city used to supply 10% of general labor force of the island and to provide employment for 5,000 employees. Today, bed capacity of the Northern Cyprus is 16,000. While tourism share of the island was 53%, it decreased to 7%. As Mağusa was hosting 700,000 tourists annually once upon a time, only 40,000 tourists visited the city with 8 facilities and 1,500 bed capacity in 2000. In the period before 1974, whereas 50% of tourists were entering into the Cyprus through Mağusa Port; today, naval transportation dropped from 46% to 4% (Boğaç, 2002:7-15).

High-tech furnace, washing machines, refrigerator and television which are not found in Turkey in that period were just ordinary household appliances. Automobile dealers, luxury fashion store, perfume stores, international banks, taverns, faded store signs, entertainment places, luxury restaurants and tourism agencies are still remaining in the condition as they were left 40 years ago (Boğaç, 2002:7-15). In addition to all these, there are 414 sealed safe cases filled up with cash reveals former prosperity and luxury of the city.

Regarding the population of Maras before 1974, all of Mağusa was occupied by 39,000 residents; and population of inside the wall was 15,000. Maraş experienced its most magnificent period in the period of 1970-1974; and visited by world-famous stars such as Marilyn Monroe, Sophia Loren, Elizabeth Taylor, Richard Burton, Raquel Welch, and Brigitte Bardot. As the Mağusa was the most important port of the island; the most attractive tourist hotspot of the island was Maraş. Maraş City has 3,400 m-long beach and 6.4 km² closed area. Together with its modern architecture and urbanization, it's most vivacious and luxury art and intellectual centers of Mediterranean. Once this city was full of sparkling life in its period, today, time is frozen in this city. The city is occupied abandoned buildings, streets and creepy

silence deeply influence observers. Walls with bullet holes, high wild bushes on streets and wild trees grown in hotel rooms formed an interesting ecosystem in which only animals live.

Resolution process and the issue of property ownership

The most significant issue regarding resolution of the Cyprus crisis is closed Maraş. Maraş City was captured to gain leverage for bargains after Peace Operation in 1974. In the “Doruk Act” signed in 1975, which constituted foundation of the Cyprus talks, the article concerning Maraş was included as following: “in case an agreement reached, Maraş will be opened without a comprehensive solution is waited”. However, no any agreement has been made until today. Regarding return of Maraş under supervision of the U.N., there are numbers of the U.N. Security Council decisions enacted between Denктаş and Kipriyanu afterwards of “10 Point Agreement” on 19.05.1979.

Discrete talks which have been continued until 1983 gained different dimension together with proclamation of the Turkish Republic of Northern Cyprus (TRNC). The U.N. did not recognize this proclamation. While Eastern Mediterranean University was planned to be established in Maraş, the U.N. Security Council declared that no any other parties could settle in Maraş except its legal owners. In 1984, Maraş transferred to the control of the U.N.. After proclamation of the TRNC, President Denктаş proposed a suggestion under "good intentions". The suggestion was including intimate cooperation between the two societies, termination of embargo, and commencement of integrative agreement talks. "Security Lane" will be maintained. On the other hand, Greek leader Kipriyanu in this period refused the suggestion by stating that “this suggestion meant that the TRNC was recognized”. Additionally, agreement packages of the General Secretariat of the U.N. were accepted by Turkish side but again refused by the Greek s. The travel restriction was removed for the first time for two weeks. Under the U.N. control, residents were allowed pass through the buffer zone. In the 2004 Annan Plan, a united Cyprus was suggested. Maraş was left to Greek administration. In the general referendum, whereas the Annan Plan was accepted by Turkish Cypriots, refused by Greek Cypriots. The essential purpose of the Geneva meetings, it was aimed to integrate both societies in 2012 and to create a federal structure with two societies. Nevertheless, these efforts did not yield any result.

The TRNC prepared a plan for Maraş. The suggestion was returning the properties in the close Maraş to their Greek owners; giving administrations of local authority and police department of Gazi Mağusa to the Gazi Mağusa Municipality. Greek Cypriots who have properties in Maraş are required to appeal to the TRNC Property Commission (TMK) and they

are allowed to return to the area. Repair of the Greek properties in the Maraş could only be implemented through purchasing material and labor from the TRNC. Ottoman Foundations would be secured by the TMK. Vakıflar İdaresi (Foundation Administration) will be in charge of the foundations maintaining their existence in the Cyprus. Accordingly, Greek property owners were required to appeal to the TMK for their great amount of real estates in Maraş so that they could demand compensation or return of the property. Diplomatic represents indicated that the suggested plan was appropriate for practice. Greeks required return of Maraş as “confidence building measure” as a precondition to continue talks suspended since March 2012. Turkish Cypriots declared that they were ready for talks but they emphasized that Maraş was only part of comprehensive solution to the crisis and there should be a compromise in the exchange of Maraş. Turks associated Maraş suggestion with natural gas and opening Ercan Airport and Mağosa Port to international service.

Key aspect of the Cyprus Crisis is “property issue”. Without handling this problem in a satisfactory way for both sides, it is not possible to reach a peaceful conclusion. There is Maraş in the center of property issue. It was aimed to resolve property issues through the TMK established by the TRNC. The European Court of Human Rights (ECHR) recognizes the TMK. The reason for recognition was that the TRNC administration assured that they acknowledge return of the Greek properties. The TMK resolved number of property issues through return, compensation and exchange procedures. However, Closed Maraş was not under authority of the TMK. Individuals who own a property in Maraş have appealed to the ECHR against Turkey.

The most important debate issue is that Maraş territory has the Ottoman Foundation Land status. Upon conquest of the Cyprus, number of Ottoman senior administrators such as Sultan Selim II, Lala Mustafa Pasha, Abdullah Pasha and etc. established foundations. Two thirds of Cyprus is comprised of lands in the possession of these foundations. Majority of these lands remained to Turks are located in Maraş. Land of Maraş is registered in the name of pious foundations with the land registry office. The region is property of aforesaid foundations evidenced with land registry certificates. Seventy-eight percent of Gazi Mağusa is registered property of Abdullah Pasha Foundation. In the beginning, English Administration used to respected property of foundations. Then, these lands were transferred to Mağusa Greek Municipality in 1898. Then, lands of foundations were distributed to churches, priests, monasteries under leading of Greek Orthodox Churches after parceling them in 1913. All monuments representing Turkish existence were destructed. Turkish names of these foundations were changed into church and monastery names such as Nikola and Aya Luka. In the exchange of capture and seizure actions of English and Greek Administration against

Turkish foundations, title holders went to courts and these lawsuits continued until 1975. There interim decisions regarding lawsuits at the TRNC courts regarding lands of Maraş foundations.

In these verdicts it is emphasized that characteristics of these lands could be changed from foundation property into something else. Vice versa, land of foundations could include these buildings into their properties. Former president of the Turkish History Institution, Ph.D. Y. Halaçoğlu stated that “according to the law of foundation, it would not be possible to take property of foundations into personal possession at all; and accordingly, there is extensive lawless execution at this point”. Additionally, principle of “reciprocity” is not applied for our foundations in the abroad as well. No matter how much Greek Administration who does not miss any chance to capture Maraş claim right, it is a solid fact that the city was established on the land registered in the name of a foundation. Legal possession and retrospective approach subject are required to be investigated by the specialists.

Potential Results of Opening Maraş

Maraş City has great economic potential. Its land value is calculated around 100 billion U.S. dollars. Re-construction process of Maraş necessitates 2 – 4 billion dollars. During the re-construction process, construction and labor activities, export and transportation of materials and increasing frequency of naval shipment would develop local economy. Upon construction of Maras, more than a million tourists could be welcomed annual by means of 10,000 bed capacity. Opening Maraş would result in increasing commercial activities and accordingly, Mağusa and Girne will be influenced in positively. Employment in Mağusa and sales of goods and service would increase exponentially. Opening of Mağusa harbor to international shipment would vitalize the port operating at quarter capacity currently. Incoming tourists in Mağusa, both old city and other districts, would provide income to the regions. Restoration of historical and cultural monuments in old Mağusa would also contribute into tourism income. However, tourism specialists remark that it would take 5 years for Mağusa to recover to its old days; and it would be pointless to expect making profit before this period. In case Maraş is opened for settlement, it is questionable whether the TRNC economy would benefit from this and what sort of impact would it have on the city; and whether Turkish company would receive share from this development. If Maraş is handed over to the Greek Cypriots, it is considered that Turkish entrepreneurs would not be given much opportunity and future of Greek capital in the city is questionable. On the other hand, in case Maraş is opened under the monitoring of the U.N., it is considered that the organization would provide more fair opportunity to the Turkish

Cypriots. Opening of Maraş City is considered as catalyzer for resolution of the Cyprus crisis (Dağlı, 2011;10-13).

Suggestions for Closed Maraş

Maraş issue is the most vital point of the Cyprus crisis. It is the most prominent tension point between two societies. The city is currently located in the TRNC. Although it was natural to be in control of the winning party after the war, it was closed for settlement after the war for a gesture the crisis has long took until today. In this process, neither a solution has been reached with the crisis nor any step taken for Maraş City. Any step that would be taken in terms of Maraş City, both parties would exhibit reaction. However, without waiting any further, it is necessary to open Maraş City to tourism by means of a project that could be agreed by both parties. A project that could be developed for Maraş should not be postponed to the period after resolution of the crisis; rather, it should be part of the resolution.

In this regard, there are numbers of various studies and different project were suggested. One of the notable ones of these studies was suggested by Ph.D. G.Tankut. It was suggested that the city would be opened to settlement by repairing buildings if their structural statuses are appropriate; by renovating the damaged buildings; and by re-consideration of the region through a new urban design respecting property rights and land prices (Tankut, 1999:195) Another suggestion was to transform Maraş into an eco-city. The plan includes re-creation of the current city by means of green technologies to vitalize the life energy which once existed in the region. The city was to be re-built from scratch. TRNC Deputy Prime Minister, Serdar Denktaş, stated that “Closed Maraş city could be made a film studio” (Milliyet Gazetesi, 26.08.2014). In general, it could be observed that suggestions were revival of Maraş through opening the city for settlement. Prevailing visibility is to develop Maraş as one of the popular entertainment and tourism centers of the world (Dağlı et al., 1998:19).

Museum-City suggestion for Maraş – “Maraş, the City of Peace”

Re-settlement of Maraş is also accompanied with risk of deterioration of existing city texture. The city was transferred into a ghost town for the purpose of bargaining; closed its doors to settlers and turned into a dead city. However, it continues the life in different dimension in itself. Maraş did not experience looting after the war; it was sealed and surrounded by wires against looters. This insulation surrounded the city like a bell-jar. Finally, the present form of the city occurred like everything was frozen for 40 years. The city has not lost its value at all and still persisting against years. This texture should not be lost. Each building in the city has different story. Everyone is curious about this ghost city, its stories, windowless hotels and its lornness; and they are willing to see its current status. On the other hand,

the city is like a historical documentary and it could be considered as exemplary story for humanity. There is no any other city in the world. The closed city Maraş is required to be protected and be transformed into a museum-city; and it must be preserved as “city of peace”. This is suggestion for creating a model to live in “peace”. The city must be a present to history of humanity. Its conservation could be obtained through inclusion into the UNESCO’s World Heritage list. In this regard, international society and governments are responsible as well as universities. The present study was considered within this responsibility aspect.

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How Slovak Economic Development (Did Not) Contributed To Its Employment Growth

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Abstract

The socio-economic development of Slovakia in past two decades is considered to be a success. One of few parameters where the development did not fully reflect is the unemployment rate. Despite the effort in this area, it is still lagging behind the other neighbouring countries. The paper provides some interesting insights how was the employment (and unemployment) affected by the economic development of the country. Based on structural decomposition, the two scenarios were created to simulate the possible outcome of economic development if certain parameters would remain stable over the time. The first scenario underlines the role of catching up process in the technological gap; the second scenario deals with the role of overall economy structure change.

Keywords: Technology gap, economic development, structural decomposition, employment

Introduction

The connection between economic growth and low unemployment level (or high employment level) as partial aims of economic policy is in economic theory defined relatively straight forward. It is based on the assumption that economy with high economic growth invokes job process creation and therefore growth of total employment. Empirically, this is true for developed Western countries where the connection between economic growth and employment is relatively intense. Economic growth occurred in past two decades affected mainly the growth of labour productivity; however, such effects lacked in the field of employment growth. Consequently, the country has been challenged with relatively low employment rate and persisting jobless economic growth. So far, this relative lack of connection between these two variables was blamed on labour productivity growth. It expelled job creation once the significant economic

growth occurred. However, such rigid relationship between economic growth and employment could also be determined by some other factors (not just labour productivity) to which economic theory did not pay much attention. In particular, structural change of economy and its individual parts is one of the potential candidates for determinants of the relationship. This implies the aim of the paper – to provide a deep explanation of Slovak labour market rigidity with regards to economic growth. Another aim is also to explain how important was the role of changing the economy structure in such non-flexible labour market relation to economic growth.

Literature

There has been a lot of available literature on structural change and its influence on employment development utilising input-output analysis. It allows revealing direct and indirect effects of the structural change to employment level and development. One of such papers is a paper by Huachu (2008). He utilises structural decomposition to uncover contribution of particular sectors to employment development in China during years 1997 – 2002. The author notes in results that if all other variables remained constant, the export would be main contributing sector to employment growth (on average about 4 % per year).

On the other hand, the technological progress occurred in country lowered the employment growth by approximately 6 % per year. The author suggests to focus growth of the economy to domestic consumption and not to investments. The topic of labour productivity decomposition was addressed in the paper by Yang a Lahr (2010) which identify the determinants of labour productivity growth in China between years 1987 – 2005. The conclusion of their study explains that rapid growth rate of Chinese labour productivity is caused by the low comparative base, especially in the agriculture sector. Skolka (1989) studied structural changes of Austrian economy during the period of 1964 – 1976. One of the analysed factors was a change in employment. The analysis came to the conclusion that aggregate change in the structure of domestic and foreign final demand was the main driver of employment development. The changes in industry structure of employment changed mainly due different rates of labour productivity growth among individual industries. Also, the change in technologies used in economy expressed by changes in Leontief inverse matrix played a significant role in explaining the development of the whole economy and employment as well. And the latest paper in the field of structural decomposition focused on employment changes is by Tin (2014) where he pays attention to the development of Malaysian economy. There are three input-output tables used for decomposition (1970, 1991 and 2000). The main contributor to employment growth was in the first period 1970 – 1991 the change in the

structure of domestic final demand, in the second period 1992 – 2000 the change in export. So far, there has been none paper published yet focusing on the development of employment in the SR with the use of structural decomposition approach. However, the phenomenon of jobless growth creates ideal conditions to perform such analysis. Also, use of continual structural decomposition of employment for each year of study and in such detailed breakdown composition of determinants is to our knowledge new approach and has not been conveyed on any data yet.

Methodology and Data

The data used in the analysis are taken from World Input-Output Database (WIOD). The database covers 27 European Union countries and other 13 major countries in the world for the period from 1995 to 2009. We use the data Slovakia. Two types of sources are used from this database. First, world input-output tables in previous years' prices, denoted in millions of dollars. Second, Socio-Economic Accounts, where employment data by industries are available. World Input-Output Tables are constructed for 35 industries. More information on the construction of the World Input-Output Tables can be found in Dietzenbacher, Los et al. (2013).

Input-output model with employment effects

Open Static Leontief model is a widely used empirical method that allows us to analyse the complex linkages among industries. Assuming the fixed industrial input structure, we are able to compute the total production that is necessary in order to satisfy exogenously given final demand. The basic equation of the model looks as follows

$$\mathbf{x} = (\mathbf{I} - \mathbf{A}^D)^{-1} \mathbf{f} \quad (1)$$

Where \mathbf{x} stands for a total production vector, \mathbf{f} for a final demand vector and \mathbf{A}^D for a matrix of input coefficients. The upper index D indicates the use of domestic intermediate products. Matrix $(\mathbf{I} - \mathbf{A}^D)^{-1}$ is called Leontief inverse and its elements represent the amount of production from industry i that is necessary to satisfy one unit of final demand for commodities from industry j . A detailed description of the properties and assumptions behind the input-output model can be found in Miller and Blair (2009).

If we assume fixed proportions between labour requirements and total production by industries, that can be expressed in following way:

$$l_j = \frac{e_j}{x_j}, \quad j = 1 \dots n \quad (2)$$

then the model can be augmented by the effects of final demand on total employment in the economy. The elements of the vector $\mathbf{l} = \{l_j\}$ are direct labour coefficients computed as a ratio between employment in industry j and total production of industry j . The inverse value of direct labour coefficients is a labour productivity. Augmented input-output model then takes this form

$$E = \mathbf{l}'(\mathbf{I} - \mathbf{A}^D)^{-1} \mathbf{f} \quad (3)$$

where E is a total employment in the economy. There are three determinants of the employment given by equation (3): labour requirements per one unit of production (inverse of labour productivity), structure of the production represented by Leontief inverse matrix and final demand vector \mathbf{f} . Further, we can decompose the input coefficient matrix \mathbf{A}^D into two components and final demand vector \mathbf{f} into three components. The use of domestic intermediate products per unit of production is given by the total use of intermediate products and corresponding share of domestic intermediates on total inputs. Thus, matrix $\mathbf{A}^D = \mathbf{D} \circ \mathbf{A}^T$, where \mathbf{D} is a matrix of import shares of domestic products, \mathbf{A}^T is a matrix of total input coefficients based on domestic and imported commodities and the symbol \circ represents the element-wise multiplication of the matrices (Hadamard product). Input-output tables provide the information about the final demand according to industries as well as final demand categories (final consumption expenditures of households, final consumption of government, gross capital formation and export). So, we can calculate the share of each final demand category on final demand \mathbf{s} and the share of each industry on total final demand of particular final demand category \mathbf{B} . Final demand vector is then given by this expression $\mathbf{f} = \mathbf{B}\mathbf{s}F$, where F is the total volume of final demand. Taking these factors explicitly into account, we can rewrite the equation (3) like this

$$E = \mathbf{l}'(\mathbf{I} - \mathbf{D} \circ \mathbf{A}^T)^{-1} \mathbf{B}\mathbf{s}F \quad (4)$$

From equation (4) follows that the total employment in the economy depends explicitly on six factors. The volume of final demand F is just one of these determinants. We will elaborate more on this in the following sections.

Multiplicative structural decomposition analysis

If we use an index 1 for a comparison period and index 0 for a base period, then the index of employment between two periods is given by

$$\frac{E_1}{E_0} = \frac{\mathbf{I}'_1 (\mathbf{I} - \mathbf{D}_1 \circ \mathbf{A}_1^T)^{-1} \mathbf{B}_1 \mathbf{s}_1 F_1}{\mathbf{I}'_0 (\mathbf{I} - \mathbf{D}_0 \circ \mathbf{A}_0^T)^{-1} \mathbf{B}_0 \mathbf{s}_0 F_0} \quad (5)$$

The overall change in employment, measured as employment index, is given by the change in six factors described above, such that

$$D_E = \frac{E_1}{E_0} = D_l \times D_D \times D_A \times D_B \times D_s \times D_F \quad (6)$$

where D_E - the index of employment

D_l - weighted change in labour productivity (or direct labour intensity)

D_D - weighted change in import shares

D_A - weighted change in total input coefficient matrix

D_B - weighted change in final demand structure by industries

D_s - weighted change in final demand structure by sectors (by final demand categories)

D_F - weighted change in final demand volume.

The final decomposition presented in the paper is thus given by the following formula

$$D_E = \frac{E_1}{E_0} = D_l^F \times D_D^F \times D_A^F \times D_B^F \times D_s^F \times D_F^F \quad (7)$$

Results

Our results reflect already mentioned contributions of each determinant to employment development in the Slovak Republic as a result of performed structural decomposition. In total, we can attribute and evaluate the list of following main determinants of employment.

- Contribution of labour intensity change (labour productivity)
- Contribution of economy structure change
- Contribution of changes in import of intermediates
- Contribution of changes in the structure of production
- Contribution of final demand change
- Contribution of change in the industrial final demand structure
- Contribution of change in the final demand structure by sectors
- Contribution of change in the final demand volume

In order to provide deeper analysis, the results of structural decomposition are aggregated in two selected time periods. These periods differ by their characteristics when first period 1995 – 2002 could be described as a period when signs of transformation from the centrally

planned to the market-oriented economy were still present and the second period 2003 – 2008 is known as the period of very favourable economic development. In the end, the summary of results for the whole period 1995 – 2008 are provided.

Contribution of changes in labour productivity

The process of technological catching up to Western countries (still presents even nowadays) had a major impact on employment in the early years of transformation. The technological gap and its gradual reduction resulted in a fundamental growth rate of labour productivity. From the whole economy point of view, such growth had a positive impact on the value added growth and created pressure on wages growth. However, in terms of employment development, such growth of labour productivity blocked an additional increase in total employment.

Table 1 shows that in the first period 1995 – 2002 the Slovak Republic experienced a decrease in volume of employment by 0.5 % per year on average. Such negative development was mainly caused by diminishing aftermaths of the transformation process and privatisation of state enterprises. Similar negative effect on employment development was imposed by the recession in late 90's when employment decreased by more than 2 %.

The contribution of change in labour productivity was in this period negative when the potential growth of employment was hampered by more than 4 % per year on average. This could be assigned to the catching up process of technologies in SR, productive gap and inflow of foreign capital which pushed the economy towards better and more effective use of production capacities.

In the second analysed period 2003 – 2008, well known for its unusual positive development economic growth, the employment had developed in qualitatively better pattern. The employment experienced increase with the average rate of 1.6 % per year. However, such growth rate could be even more pronounced if the contribution of productivity growth would not act against this trend. It negatively contributed to employment growth by more than 4 % per year.

In total period 1995 – 2008, the positive trend of the second period in employment development was neutralised by the negative effects of the first period and total average growth of employment remained on values close to zero (0.4 % per year). Also, the negative impact of labour productivity was confirmed over the total period when the contribution of productivity development weakened potential growth of employment. It needs to be underlined again that such labour productivity development could not be

perceived as negative phenomena in the economy, in fact, it is quite the opposite.

Contribution of structural changes in economy

Labour productivity growth was not the only factor that influenced the development of employment. Also, the changing structure of the economy has played an important role in affecting the development of employment growth. The total effect of the structural change has been split into two special factors. The first factor is the contribution intermediate consumption share of imported products on the total intermediate consumption needed for production and contribution of the overall structure change in the economy (direct and indirect effects) which could be obtained by the means of input-output analysis.

The first factor has an intuitive economic interpretation. The larger share of imported intermediate products from abroad, the lower contribution to the domestic employment because employment effect is generated in origin country of intermediate products. There may be several reasons for such negative contribution, one of them might be cheaper labour costs and the overall price competitiveness of intermediate consumption products in abroad. This means the import of such products is for manufacturers cheaper than produce them by themselves in domestic country.

The gradual inflow of foreign investments in Slovakia along with more intense involvement in international trade reflected in the share of domestic intermediate consumption on total intermediate consumption. The negative trend of the indicator demonstrates that share of foreign intermediate products over the time significantly increased. From the economy point of view this is a clearly positive phenomenon, but in terms of employment not that much. The employment remains generated abroad and therefore, the contribution of this factor is slightly negative.

In the first period 1995 – 2002, the contribution of changes in import was on average negative by -0.9 % per year. This could be interpreted as the increase in a number of intermediate consumption products from foreign countries affected the potential growth of employment by almost a 1 percentage per year. However, in the second period, the contribution of this determinant decreased by almost half of its intensity to 0.5 % per year.

In the overall period, this determinant affected the employment growth negatively by the average contribution of -0.7 % per year. Based on this finding, the growing share of foreign intermediate products in total intermediate consumption could be considered not to be as strong determinant of employment development as productivity growth. However, we can still consider it to be strictly negative.

The second factor from the group of determinants connected with the structural change of economy is the change of economy itself and particularly the change in the links between different sectors of the economy. Such changes are expressed as changes in the Leontief inverse matrix which indicate how many products of i -th sector must be produced for the purpose of supplying one more unit of final demand in the j -th sector (Miller and Blair, 2009). The actual change in the Leontief inverse matrix shows the change in technology that various sectors use for production and how they evolve in time.

The impact of changes in technology used in the economy shows that in the first period the size of the determinant is marginal or even insignificant. On the other hand, the contribution of the determinant increased to almost -1 % per year. It was the period of huge FDI inflow to Slovakia which imported in the country new technologies. However, they do not require such significant involvement of human labour in the manufacturing process and therefore the technology indirectly hampered potential employment growth despite the fact that economy was achieving high economic growth. In the overall period, the contribution of this determinant fell to a relatively low value of -0.5 % per year. Roughly the same size as the determinant of changes in the volume of imported intermediate products.

Contribution of changes in final demand

The final group of employment development determinants included in the analysis is the contribution of changes in final demand. However, this specification does not allow us to reveal the detailed contribution of all kind of dimensions of the determinant so further elaboration to another three dimensions is performed.

Changes in industrial structure of final demand

The first dimension is change in the industrial structure of final demand. It represents how the production was produced by all industries. The Slovak economy went through some changes with the gradual development of certain industries that have become pillars of the economy. The changes were mainly represented by the significant inflow of FDI in manufacturing.

Transformation process which took place in SR did not contribute to employment growth positively. Partly due to the situation when the transformed corporations were exposed to global competition and many of them faced bankrupt. Partly due the fact that transformation process led indirectly to structural changes in an economy with a similar effect on employment development. Labour intensive branches in manufacturing, such

as textile industry gradually disappeared and were replaced by new branches, which are characteristic by their lower labour intensity of production. Manufacturing of vehicles or electronic and optic equipment could be considered as one of these “new” industries.

This change has negatively affected employment development in the first period 1995 – 2002 when the average annual contribution of this determinant was more than -1 % per year. In the second period 2003 – 2008 the negative contribution climbed even further and weakened potential employment growth by approximately -1.3 % per year. By extending the decomposition to total period 1995 – 2008 we can conclude that changes in the industrial structure of final demand contributed negatively to the employment growth. Although the magnitude of this determinant is not as high as was in changes in labour productivity, it is necessary to take into account a non-positive character of the determinant.

Changes in sectoral structure of final demand

The Slovak economy gradually became typical small open economy where a significant proportion of production is meant for export. Habrman (2014) in his paper came to the conclusion that export-oriented industries tend to generate less employment than industries oriented for domestic consumption. The results of decomposition support these findings because the main increase in export sector and decline of domestic demand share on total production led to the negative contribution of sectoral structure change to the development of employment.

Even though the results for the first period 1995 – 2002 show marginal effect of contribution in a sectoral change of final demand, the second period 2003 – 2008 is characteristic for negative contribution to potential employment growth. In total period 1995 – 2008 this determinant became similarly significant as the previous change in industrial structure. Even though the contribution of these determinants is relatively small, the cumulative effect was strictly negative and affected employment development in a non-negligible way.

Changes in volume of final demand

The last dimension which was analysed in case of structural change of final demand was its volume. It can be vaguely perceived as economic growth of country measured by GDP, even though they are not the same categories. GDP measured by expenditure way similarly to final demand includes final consumption, gross capital formation and export, but in the case of GDP import is subtracted from export so final value differs from final demand category. However, with a certain level of caution, results can be interpreted as a substitute for economic growth itself.

Table no 1 refers to change of volume in final demand as the only determinant with a positive contribution to employment change. Average annual contribution in the first period was above 6 % per year. The employment growth was even negative with magnitude -0.5 % per year. Such strong rigidity of labour market is in line with already mentioned facts in the first chapter.

The second analysed period characteristic for its strong economic growth. The average annual contribution of determinant exceeded 11 % level what reflected in very mild increase in the rate of employment growth (1.6 % per year). The differences between these different rates of growth could be partially explained by the development of labour productivity. However, the significant role could also be attributed to contributions of structural changes in the economy. In total, the contribution of volume change in final demand was a very strong positive determinant of employment growth in SR. The highest effect was recorded in the second period due to rapid economic growth which pulled employment growth from previously negative values in the first period. Although the contribution of the factor was strongly positive, the combination of other negatively acting variables caused very mild and relatively poor results approaching indifferent values. This provides a strong recommendation for economic policy makers, when the sole economic growth should not be the only benefiting factor to employment development, but also the structure of the growth represents (among others) significant determinant of labour market responsiveness to growth.

Table 1 *Structural decomposition analysis of employment growth in the Slovak Republic (1995 – 2008).*

Period	Employment growth index	Changes in labour productivity	Changes in import of intermediates	Changes in the structure of production	Changes in the industrial final demand structure	Changes in the final demand structure by sectors	Change in the final demand volume
995-2002	-0.47	-4.17	-0.90	-0.15	-1.09	0.08	6.03
003-2008	1.59	-4.09	-0.52	-1.15	-1.31	-1.52	10.84
995-2008	0.41	-4.13	-0.74	-0.58	-1.18	-0.61	8.06

Source: Authors calculations based on WIOD.

Scenarios on employment development

The structure of decomposition allows us to simulate the effect of experienced economic development on employment. The basic idea is to simulate the employment effects if some determinants remain constant during the whole analysed period. There are two possible scenarios. The first operate with the idea of no catching up process in technology gap and no change in share of domestic intermediates. The second scenario operates

with no structural change at all (not even in the structure of industrial and sectoral final demand). The only determinants changing are labour productivity and volume of final demand (economic growth). It is necessary to bear in mind that such scenarios are rather a mathematical exercise than real development, but these results underline our findings of negative impact on overall employment development.

By the look on results in the first scenario, we can see the positive employment growth in each analysed period. They represent possible employment growth on annual base if there is no technology gap. The role of technologies can be easily observed in results of the first period 1995 – 2002 when originally negative contribution turned to positive values. In second analysed period the average employment growth grew even faster to values close 3.5 % per year. If we take a look at the second scenario, the growth of employment would be even higher. Especially the second period would be very labour intensive. However, the structure of growth was not in favour of such development.

It is important to note that such scenario does not deal with the problem of available labour resource. Slovakia was at the end of the year 2008 dealing with the lack of available labour resource and faced the threshold of structural unemployment.

Results of performed scenarios underline our findings of technology gap importance as a barrier to higher employment growth along with the structure of growth itself. Policy makers in the country should bear in mind these findings when designing new tools to improve the rather high unemployment rate.

Table 2 *Scenarios with no change in structure parameters; Slovak Republic (1995 – 2008).*

	Slovakia	
	No change in technology level and import of intermediates	No structural change (even in structure of final demand)
1995-2002	0.59	1.61
2003-2008	3.31	6.30
1995-2008	1.75	3.60

Source: Authors calculations based on WIOD.

Conclusion

From the results achieved by use of structural decomposition of employment based on I-O analysis we can conclude that several factors have influenced the development of employment in SR and these factors have not been much analysed in recent available studies. It is important to note that analysed factors have not been influencing the development of employment individually (as one might want to interpret it from the structure of the analysis), but simultaneously when each factor was just one piece of the

greater jigsaw in the field of employment growth. That is the reason why some of the relatively low influencing determinants also partially contributed to the whole pattern of employment development. The results support already known facts about the negative contribution of labour productivity growth in the country. The productivity growth was one of the highest negatively contributing factors affecting the growth of employment. However, there have also been several other factors influencing employment growth which effect has been revealed in the analysis. From an aggregate point of view, all factors could be considered as a total change in the structure of the economy, in the individual approach, it was mainly change in the share of imported intermediate products on total products, but also change in the technological level of economy expressed as change in the inverse Leontief matrix. Other significant factors were a change in the industrial and sectoral structure of final demand, mainly due the growth of industries orienting their production on foreign markets (export). The only positive determinant of employment growth in SR was change in the volume of final demand which had the highest contribution to employment growth among all analysed factors. From the alternative point of view, it is necessary to note that labour productivity growth affected the employment development in two dimensions. In the first dimension, as already concluded, it hampered the potential employment growth, but in the other dimension, the growth of productivity supported the growth of final demand volume what makes the final effect of such growth mixed. Results of performed scenarios underline our findings of technology gap importance as a barrier to higher employment growth along with the structure of growth itself. Therefore, the economic policy makers should also take into account the role of structural change when analysing the possible reasons of labour market irresponsiveness to economic growth (especially in long-run perspective). It would help them to predict and model more precise outcomes of their analyses and better targeting of policy tools on actual economic problems of countries.

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Participatory Land Use Planning in Natural Hazard's Fragile Context: A Case Study of Kalam, Pakistan

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Abstract

Land use planning is an integrated and multi-disciplinary approach towards using available land in a more appropriate way. This approach is contributing towards the sustainability of available resources, mitigating environmental degradation, better physical infrastructure, and mitigating natural disasters. The unplanned built up and inappropriate practices by human beings have led to the depletion of natural resources and an increase in vulnerability of the communities to natural disasters. Some factors which include lack of planning, rapid increase in population, and poor physical infrastructure further aggravate the situation. In such situations, there is a dire need to conduct surveys and equip the local communities with a knowledge and awareness of land use planning. This research is part of the project titled "Building Resilience through Community Disaster Risk Reduction" funded by Diakonie Katastrophenhilfe (DKH). This research presents the findings of the participatory land use planning exercise conducted in five villages of Kalam in Pakistan.

Keywords: Land use planning, Natural Hazards, Sustainability

Introduction

Land use planning is an integrated and multi-disciplinary approach towards using available land in a more appropriate way. This approach is contributing towards the sustainability of available resources, mitigating environmental degradation, better physical infrastructure, and mitigating

natural disasters. However, all of these are contributing towards livelihoods improvement and sustainability.

LASOONA Society for Human and Natural Development under the project titled “Building Resilience through Community Disaster Risk Reduction” funded by Diakonie Katastrophenhilfe (DKH) conducted land use planning in five villages of Kalam Union Council. Thus, this village is situated at the extreme north of Swat district. Villages selected for this purpose were **Kalam proper, Gorkin, Ashuran, Gaheel, and Jalband**. Generally, the major land use area includes alpine postures, snowy and rocky mountain peaks, forest, grazing lands, agriculture lands, and settlements. Forest is the most important land use in the area. Alpine and Sub Alpine forest is the most dominant and important land use pattern of the area. In addition, there are valuable forest trees on hill slopes and foothills which provide ample opportunities of livelihoods including NTFPs. The surrounding mountains along the villages also consist of high peaks exceeding an altitude beyond the tree line. These peaks are perennially covered with snow, while some peaks are too steep that they lay as barren. Furthermore, this enhances the aesthetic value of the area.

The major natural disasters of the area are flood, land sliding, and glacial avalanche. According to the field work conducted in the target villages, the anthropogenic causes and mitigation measures are almost the same in different parts of the Union Council

Methodology

Stakeholder’s Analysis

The following are the key stakeholders of land uses in the target union councils. They are:

i- Local Population

The local people are the primary stakeholders. However, with the passage of time, the population is increasing sharply. Thus, this result in a change in the land use pattern.

ii- Government Departments

The stakeholder government departments include the federal/provincial/district government, departments of forest, agriculture, livestock, soil conservation, mining, communications and works etc. Subsequently, government departments and local population are the two most important stakeholders. The government policies, regulations, plans, and implementation affect the land use pattern of the area.

iii- Nomads/Herders

During the summer season, the nomads migrate with a large number of sheep and goats to the area to graze in the forest and grazing lands. Thus, there is

no control over grazing. Due to uncontrolled grazing, the newly growing forest trees are affected and this leads to decrease in forest cover.

iv- Businessmen from Down Country

The target union councils are tourist hubs. Also, the business community from the down country is investing in the area of hotteling and other commercial activities including timber, NTFPs trade, and mining. Increase in commercial activities results in changes in the land use pattern. Thus, this leads to increase in settlements and infrastructure area.

v- Tourists

The tourist from all over Pakistan and abroad are visiting the target union councils for tourism trips. Before the militancy war, a large number of foreigners were also visiting Kalam and Utror UCs. Furthermore, there are large numbers of hotels, especially in Kalam union councils. In addition, the tourists stay in the local hotels. These hotels often use forest wood for heating purposes especially during winters.

vi- Seasonal Migrants

Some of the families from the down country migrate to the villages in the target union council to spend the summer season. These families pay the rent for the small houses. Due to increase in the trend, the local people are constructing small houses rather than their living places. It also increases the built up area and resulted in changes in the land use pattern.

vii- Nongovernmental Organizations

Different NGOs are working in the area on different themes. Some of the NGOs are raising awareness regarding mitigation of natural disasters, land use planning, agriculture, agro forestry, and forestation. These activities also positively contribute to raising the awareness regarding land use planning.

Field Work

During the field work, a total of five sessions were conducted in five different villages of Kalam union council. Thus, the following strategy was adopted during all these sessions:

- i- Briefing with the staff members of LASOONA society regarding the village, and gathering key informants for the session.
- ii- Documenting direct observation through a walk in the village.
- iii- Preparing existing land use map of the village.
- iv- Analyzing existing land uses through pie diagrams or focused group discussions.
- v- Exploring trends in land uses for the past two decades and forecasting for future two decades.
- vi- Analyzing existing status of natural resources, exploring trends in natural resources since the last two decades, and forecasting future two decades.

- vii- Exploring natural disasters of the village with anthropogenic causes and proposed mitigation measures.
- viii- Documenting information from the key informant through semi structured interviews.
- ix- Preparing land use planning map for the village.
- x- Concluding remarks

Tools Used in the Field

The following tools were used during the land use planning exercise. They are:

i- Land Use Mapping

During the exercise after the introduction of the event, the participants were told to construct a map showing the existing land uses of the village. The community members were facilitated by the field staff of Lasoona Society. In each village during the beginning, a land use map was prepared. The task was also conducted with the women activists. However, in some villages, it does not seem possible to draw a land use map. As a result, their inputs were recorded regarding existing land uses.

ii- Pie Charts

The existing land use was analyzed by the participants through pie charts. They were being provided with charts and markers. They have drawn a circle as the total area of the village. Then, they divided the circle into different parts according to the know-how of the covered area by forest, agriculture land, open spaces, and settlements.

iii- Focused Group Discussions

During the focused group discussion, each of the land use was analyzed on a chart. The existing land use was compared to the situation twenty years back. Then, the situation of the land use was forecasted for the coming two or three decades according to the present trends.

The natural resources were also analyzed in a focused group discussion. The existing status of the resource was explored. Then, the twenty years back time was compared and the forecasting was made regarding the status of the natural resources according to the current trends. The participants also put forward their suggestion regarding land uses after having a thorough discussion with each other.

The natural disasters being active in each village since the last few decades were explored. The impacts, anthropogenic causes, contributing to the disaster and mitigation measures were also proposed during the discussion.

iv- Disaster Mapping

After having discussion during FGD on natural disasters, the disaster prone areas were shown on the land use map. Different symbols were used for different disaster like red line along the river for flood prone sites, writing

capital G for glacial avalanche prone site, and writing LS for land sliding prone areas.

v- Natural Resource Mapping

The status of the natural resources was explored during the focused group discussion. The existing status of each natural resource was compared to the status of two decades back. Then, the existing trends of what will be the situation after two or three decades was kept.

vi- Semi Structured Interviews

From the key participants, the information related to land use planning was recorded through semi structured interviews. The tools were mostly used during women sessions. Also, the information related to existing land uses, natural resources, natural disasters, trends, forecasting, and land use planning was recorded.

vii- Direct Observations

During the field work, the consultant conducted a walk through the village and documented direct observations related to land uses, natural resources, and natural disasters.

viii- Land Use Planning

The last thing employed during each session is to have a land use plan for each locality. Prior to land use planning, the existing land use was analyzed. The status and trends of the natural resources were also analyzed. The natural disasters and mitigation measures were explored. Then, keeping in mind all the previous data, the participants were asked to prepare a land use plan for their village on a sheet.

Field Survey of the Target Villages

Kalam Proper

Elevation : 1984 meter

Coordinates : 35 28 46.9 North, 72 37 33.4 East

Kalam is the commercial and administrative center for the villages of UC Kalam and UC Utror. It is also a hub for providing accommodation, food, and transportation services to tourists. It is a commercial area in which the settlements are rapidly increasing with the passage of time. The valuable agriculture land is being converted into houses, hotels, shops, and apartments.

The land use planning exercise was conducted at Hujra with an active participation from the local committees.

Analyzing Existing Land Uses

The following are the major land uses of Kalam. It includes the changes that have occurred in the past 20 years and the forecasting for the future 20 years.

i. Forest

According to the elders of the village and local activists, the forest cover has decreased by 40 % in the past 20 years. This occurs as a result of encroachment on forest land by agriculture lands towards forest area cultivation. Thus, over grazing in the forest area lead to a decrease in the new growing forest trees, deforestation, natural disasters, population increase, and increase in commercial activities. Based on the existing analysis in the present circumstances, the forecasting for the future regarding forest area resulted in further decrease by 50 %.

Present Situation

Presently, a total of 30 to 40 % area is covered with thick forest cover, including hill slopes and on piedmont plane developed between the two rivers.

Trends in Forest Cover since the Past 20 Years

The forest cover is decreasing sharply with the passage of time. In the past 20 years, the forest cover decreased approximately by 40 %. The following are the reasons for reduction in forest cover. They are:

- Encroachment by agriculture land in the forest area.
- Over grazing in the forest lead to decrease in the growth of new trees.
- Deforestation.
- Natural disasters especially land sliding, glacial avalanche, and floods.
- Population increase leads to increased housing.
- Increase in commercial activities leads to increase in hotels and shops.

Forecasting for the Future 20 Years

In the present circumstances, if the same trend continues, it will lead to a decrease of forest area by 50% in the coming 20 years.

Suggestions for Mitigating a Sharp Decrease in Forest Cover

- Plantation of agro forestry trees in the open spaces within the village settlements and foothills for local use.
- Plantation of forest trees on hill slopes and protecting of newly growing forest trees.
- Awareness rising regarding the importance of forest cover.

ii. Agriculture Land

In Kalam village, the agriculture land is found on the gentle slopes between the river and mountains. On some foothills, the farms are being formed in terraced form. Mostly, there are patches of agriculture lands mixed with the houses. Kalam is a mono cropped area and the people are cultivating

only maize. Later on, many organizations worked on vegetable cultivation, and now the people are successfully cultivating vegetables on their farms.

Three decades earlier, the people were cultivating only maize for domestic use. Also, there were many barren lands lying useless. As the vegetable production started, and as the people sells it on high prices, it resulted to the making of new farming lands. As a result, even the people began encroaching towards the forest.

Existing Situation

The agricultural lands are forming almost 10-15% of the total area. Thus, the houses are mostly scattered in the fertile agriculture land.

Trends in Agriculture Land since the Last 20 years

The agriculture land increased due to the making of farming land in the open spaces and encroachment towards the forest. On the other hand, the agriculture land is decreasing due to increase in the settlement area. Still, there are many open spaces which lie vacant. Hence, these are communal lands mostly disputed or being used for grazing livestock.

Forecasting for the Future 20 years

If the present trend continues, there will be a sharp decrease in the agriculture lands. Presently, construction is mostly going on fertile agriculture fields. Thus, the present trends will lead to a decrease of 50 to 60 % of agriculture lands.

Suggestions

- Awareness regarding land use planning
- Dividing the communal lands
- iii. Settlements

The settlements including houses, hotels and shops, constitutes almost 5 to 10 % of the total area. This is due to sharp increase in population and increase in tourism activities. Consequently, the people are mostly using stone and forest wood during house construction.

Trends in Settlements since the Last 20 Years

There is almost 100 % increase in the settlements since the last 20 years. The number of hotels and houses was almost half as compared to the present situation.

Forecasting Future Trends

In the coming 20 years, there will be more than 100 % increase in the settlement area. It will cover most of the agriculture lands. Also, the trend towards multi story buildings will increase.

Suggestions

- Constructing houses at safe places
- Decreasing the use of forest wood in construction
- Awareness raising

- Taking care of fertile agriculture lands during construction
- iv. Open Spaces/Grazing Lands

There are open spaces composed of grasses in the foot hills or along the river, or which is composed of barren soil with shrubs or hard barren rocks. In addition, there are also alpine pastures above tree line.

Trends since the Last 20 Years

The open spaces are decreasing with the passage of time. Thus, these were converted to agricultural lands and houses. Also, some of the open spaces close to the forests provides very good space for tourist to have picnics.

Forecasting the Future

The present open spaces will be reduced. Nevertheless, decrease in forest cover can lead to more open spaces on the mountain slopes.

Suggestions

- Zoning for the open spaces.

3.1.2 Natural Disasters

i. Flood

During the 2010 flood, Kalam was worstly affected. The houses, hotels, shops, and agricultural land along the river and streams were washed away by flood water. After the year 2010, the river bank erosion occurs during the flood season each year.

In addition, the prime reason behind the disaster is the decrease in the forest cover. Suggestions for mitigating the hazards are to stop construction at flood prone sites, to construct protection wall at some points, and to increase forest cover.

ii. Glacial Avalanche

The area experienced glacial avalanches during the years 2005 and 2006 in two different locations. The disaster washed away some empty houses, agriculture lands, and forest trees. Thus, the major cause of the disaster is decrease in the forest cover.

Furthermore, the people should be informed so as not to construct houses that would face the risk of glacial avalanche.

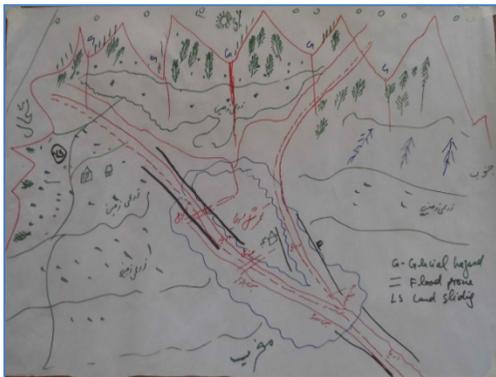
iii. Rock and Land Sliding

During the year 2005, land sliding occurred towards a hill side near Gaheel village. Apart from that, rock sliding is common especially after the melting of snow from the hill slopes. The reasons behind the disaster are decrease in forest cover and erosion due to running water. The mitigation measures involve checking dams for fragile slopes and plantation.

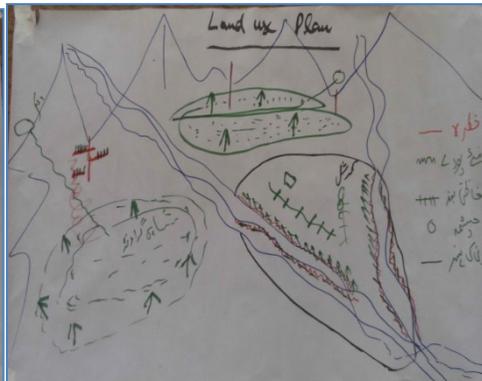
3.1.3 Suggestion for Land Use Planning

In the land use planning, the target communities suggested the following measures:

- Stop constructing houses along the river banks, streams, and sites prone to land sliding and glacial avalanches.
- Plantation of forest trees on the open spaces on hill slopes.
- Construction of an irrigation channel from a spring for irrigating the waste land.
- Construction of check dams on fragile slopes and protection wall construction at the flood prone sites along the river and streams.



Existing land use of Kalam by local people
Showing sites prone to natural disasters



Land use plan by local people showing sites of plantation, irrigation channel, protection walls, and check dams

Gorkin

Elevation : 2155 meter

Coordinates : 35 30 54.6 North, 72 37 05.9 East

Gorkin village is situated on Matiltan road at a distance of 2 to 3 km from proper Kalam. It is a small village with houses mostly scattered in the agricultural lands. Subsequently, the village is also prone to land sliding and glacial avalanche.

Analyzing Existing Land Uses

The major land uses in the village are forest, agriculture land, open spaces including barren rocky mountain slopes, and settlements.

i. Forest

Forest is the most important land use of the village. There are two types of forests situated towards the hill slopes. The first is forest trees found a bit far from the village settlements, while the second is another broad leaf forest situated close to the village settlements. Thus, the wood of these trees are used only for burning and is locally known as Serai.

Present Situation

The forest cover is almost 40 % including both the coniferous and broad leaf trees. The people uses broad leaf trees such as fuel wood and the forest trees for constructing their houses.

Trends since the Last 20 Years

According to the local people, the forest cover decreased by 40 to 50% in the last 20 years. The major reason behind this is the use of forest trees by local people, population increase, and natural hazards.

Forecasting Future

If the same trends were going on, the forest cover will be further decreased by 50% in the coming 20 years.

Suggestions

- Alternate sources of fuel, like natural gas, etc.
 - Introducing fuel efficient stoves.
 - Plantation of forest trees.
- ii. Agriculture Land

The agriculture land is situated between the mountain slopes and river. Also, there are houses in the scattered form in these agriculture lands. The farmers cultivate vegetables for earning their livelihoods. According to the farmers, the production of different vegetables, especially potato, is decreasing with the passage of time.

Present situation

In the present circumstances, the houses of the village are scattered in the farming land. Thus, the reason behind this is land ownership. The people have the opinion that agriculture land is the major source of their livelihoods. On the other hand, they are not having another option in constructing their house.

Trends since the Last 20 Years

Since the last 20 years, the agriculture land is almost decreased by 10 %. However, the people also prepared agriculture land in the open spaces. Still, the overall area is being reduced by the change of agriculture land into settlements. During 1980s and early 90s, the farmers were only cultivating maize. After then, the trends towards vegetable cultivation increased which led to commercial farming.

Forecasting for the Future 20 Years

With reference to the present trends, the agriculture land will be reduced further by 30 to 40 % in the coming 20 years.

Suggestion

- There should be a thorough research on soil and agriculture practices. Also, the farmers should be trained to get more production from their agriculture lands. This will reduce the trend of housing within the fertile agriculture land.

iii. **Open Spaces/Grazing Area**

There are open spaces in the surroundings of the village towards the mountain slopes and river.

Since the last 20 years, the open spaces were increased by 15 to 20 % in the area. The reason behind this increase is the conversion of forest area to open spaces.

If the same trend continues, then there will be an increase in the open spaces by 30 to 40 % towards the mountain slopes.

iv. **Houses**

At present, there are a total of almost 150 houses in the village. Thus, they are mostly in scattered form. In the last 20 years, these houses increased from 70 to 150 houses. In this present trend, there will be almost 250 to 300 houses after 20 or 30 years.

Natural Disasters

i. **Floods**

During the year 2010, the flood washed 2 houses and agriculture lands. After that, the river bank erosion occurred during the summer season when the water flow in the river is high.

In overcoming the issue of flood, there should be a plantation at the river side. Check dams should be constructed on the prone sites of mountains. In addition, houses should not be constructed on flood prone sites.

ii. **Glacial Avalanche**

Glacial avalanche occurred during the year 2007 and 2008. The reason behind its occurrence is due to reduction in the forest cover.

In overcoming the hazard, the forest cover should be increased especially on the fragile slopes.

iii. **Land Sliding**

The land sliding is occurring on small scale especially after the winter as the ice melts from the nearby hill slopes.

With the passage of time, the intensity of land sliding is also increasing due to decrease in forest cover and the weathering of rocks.

In overcoming the hazards, the forest cover should be restored on the fragile hill slopes. In addition, some species having quality of slope stability should be introduced.

Suggestions for Land Use Planning

- Plantation of erosion resistant trees along the river and streams.
- Awareness raising regarding house construction by keeping in mind safety and the preserving of fertile agriculture land.
- Constructing check dams along the channel of seasonal streams.

- Plantation of agro forestry trees to reduce the cutting of forest trees for fuel wood.



Existing land use of Gorkin by local people
Showing sites prone to natural disasters

Land use plan by local people
showing sites of plantation, irrigation
channel, protection walls, and check
dams

Ashuran

Elevation : 2085 meter

Coordinates : 35 30 21.8 North, 72 34 53.6 East

Ashuran village is situated on Kalam Utror road on a very beautiful plain formed between the two main branches of river Swat. The settlements of the village are scattered in the fertile agriculture fields along Kalam Utror road bounded by the forest trees on one side. It is sloping towards the river on the other side.

Analyzing Existing Land Uses

The following are the major land uses of the villages, including settlements, forest, open spaces, and agriculture lands.

i. Settlements

At present, there are a total of 350 houses. These are mostly semi pacca houses made with stone, forest wood, and CGI sheets on top of the houses.

Twenty years back, there were a total of 120 to 130 houses, which were made from stones and forest wood.

According to the present trends, there will be a total of 800 to 1000 houses in the next 20 to 25 years. According to the past trends, increase in the area of settlements will occur within the fertile agriculture lands.

ii. Forest

Forest is the most important land use of the village. The present forest cover is almost 40 % of the total area of the village according to the local people.

The forest areas is depleting with the passage of time. The reason behind this is the use of forest wood by local people and as a result of natural disasters. Encroachment of agriculture land into forest area also results in a decrease in the forest cover.

The forest cover can be increased by planting more forest trees and taking care of the new plants. If the present trend continues, there will be a decrease in the forest area in the coming twenty years by 40 % to 50 %.

iii. Agriculture Land

In the village, the average land holding is 4 to 10 kanals per households. This is with minimum of 0.5 kanals per household and maximum of 100 kanals per household.

Since the last 20 years, the agriculture land has increased in the area. However, the people have constructed their houses in the fertile agriculture land. More than that, the people prepared farming lands and grazing lands in the open spaces and in the forest area after cutting the trees. In the present circumstances, the agriculture land is decreasing with the passage of time due to rapid increase in population. However, this has led to the construction of more houses in the farming lands.

If the present trend continues, then the agriculture land will be reduced by 30 to 40 % in the coming 20 years.

iv. Open Spaces/Grazing Area

There are open spaces and grazing areas in the surroundings of the village settlements. With the passage of time, the forest area is been converted into grazing area. After then, the people prepares agriculture land within that area.

Natural Disasters of Ashuran Village

The following are the most common disasters of the village. They include:

i. Glacial Avalanche

In recent years, the village observed glacial avalanche during the years 2007, 1998, and 1993. During the winter season due to heavy snowfall, sometimes the glacier start fast movement along the mountain slope. With the passage of time, the frequency of the disaster is decreasing in the village due to decrease in the snowfall.

Therefore, the disaster can be mitigated by:

- Selecting proper site for housing.
- Constructing check dams along the fragile mountain slopes.
- Increasing the forest cover.

ii. Floods

The village experienced floods during the years 2010, 2006, and 2005. Apart from that, after 2010 flood, the river is cutting the sides during the

maximum flow season during the summer. During 2010 flood, a total of 35 houses and 03 mosques were swept away with the flood water.

Therefore, the flood disaster can be mitigated by the following measures.

They include:

- Protection walls on the potential sites
- Thick tree cover along rivers and streams
- Check dams along the channel of streams
- Selecting appropriate space for house and mosque construction

iii. Land sliding

The land sliding is the most frequent natural disaster of the village. Almost every year, the rocks and debris are falling from the mountain slopes. Majorly, they brought damages to the forest trees, livestock, and agriculture lands.

With the passage of time, the frequency and intensity of the disaster is increasing. Therefore, the major reason behind this is the decrease in forest cover.

Consequently, the disaster can be mitigated by the following measures.

They include:

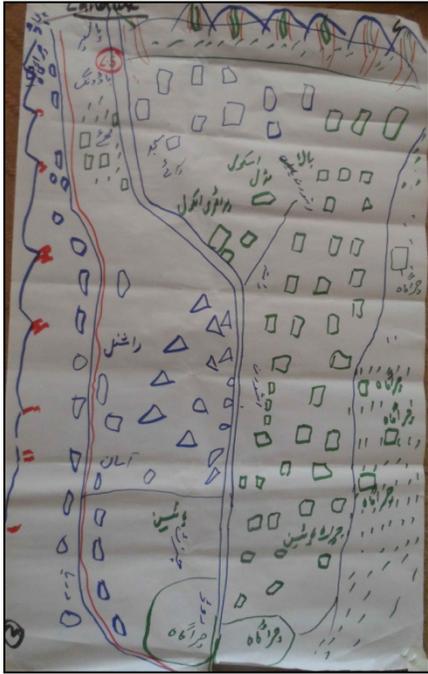
- Plantation on the open spaces
- Protecting forest on the steep slopes

Suggestions for Land Use Planning

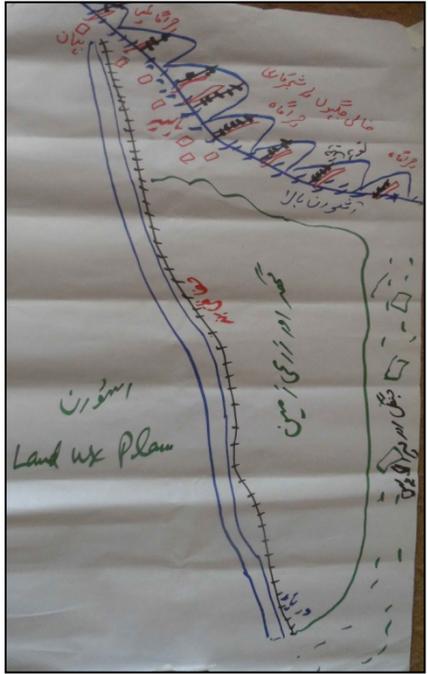
The elders and activists of the village are proposing the following measures for land use planning.

- During construction activities, floods, glacial avalanche, and land sliding should be taken care of.
- Protection wall along the river.
- Plantation on the open spaces and hill slopes.
- Constructing check dams along the channel of streams.

Existing land use of Ashuran by local people. Showing sites prone to natural disasters



Land use plan by local people. Showing sites of plantation, irrigation channel, and protection walls and check dams



Gaheel

Elevation :
2107 meter

Coordinates : 35 27 28.9 North, 72 35 16.9 East

Gaheel village is situated towards the south of proper Kalam along a stream coming from a lake named *Godar Jheel*. The village is a tourist area and it has a nice hotel. However, the hotel and the access road were swept away during the 2010 flood. Furthermore, there were also some fully concreted houses constructed by the people of down country including Punjab province.

Analyzing Existing Land Uses

The following are the major land uses of the village. They are:

i. Settlements

At present, there are a total of 180 houses situated in a scattered form. The houses are mostly semi pacca made with stone, forest wood, and CGI sheets on top. On the other hand, some fully concreted houses were also constructed by the residents of other parts of the country.

Twenty years back, there were a total of 50 houses in the village. Later, it increased to 180 after 20 years' time.

If the same trend continues, there will be almost 500 houses in the village after twenty years.

ii. Agriculture Land

The total agriculture land in the village is approximately 2500 to 3000 kanals. The people are mostly cultivating vegetables for earning their livelihoods.

However, the agriculture land is decreasing with the passage of time due to construction activities. Thus, if the aggregate area is compared with the agriculture land two (2) decades earlier, then it is increased. This occurs as a result of commercial farming. Consequently, the people are now preparing more agriculture lands in the open spaces.

If the same trends were going on, there will be a decrease of 30 to 40 % of the agriculture land in the next 20 years' time.

iii. Forest

There is thick forest cover in the surrounding hill slopes of the village, with some barren rocky mountain slopes. Thus, the forest is covering almost 40% of the total area of the village.

In the last 20 years, the forest area is reduced by almost 40 to 50% due to local use, natural disasters, and some illegal cutting and trade. The reason behind the forest depletion is overgrazing and forest cutting.

Keeping in view the present trends, there will be a decrease of 50 to 60 % in the forest cover in the coming 20 years' time.

Suggestions

- Strong coordination between the local people and the forest department.
- Controlled grazing.
- Reforestation.

iv. Grazing Land/Open spaces

There is approximately a total of 3000 kanal of grazing land and vast rocky open spaces on the mountain slopes.

With the passage of time, the grazing areas close to the village reduces due to the preparation of farming land. Also, the barren rocky open space increases due to decrease in the forest cover.

If the same trends continue with the passage of time in the coming 20 years' time, the open spaces on mountain slopes which cannot be used for construction or farming will be increased by almost 40 %.

Natural Disasters of Gaheel Village

The following are the common natural disasters of Gaheel village. They include:

i. Flood

The flood occurred during the years 2010 and 2005. During the 2010 flood, a total of 20 houses and almost 3% of agriculture land were washed away. The reason behind the disaster was the extremely high flow of water in the stream, lack of thick forest trees close to the stream, and houses on the flood prone points.

The flood disaster can be mitigated by the following steps:

- Protection wall at few points.
- Thick layer of erosion resistant trees close to the stream.
- Constructing houses on safe points.

ii. Land sliding

Apart from small scale rock and debris sliding during the year 2005, a total of 17 persons died due to land sliding. The frequency of the disaster is increasing with the passage of time. However, the reasons behind that is decrease in the forest cover. Therefore, the disaster can be mitigated by the following steps:

- Constructing houses on safe points
- Increasing forest cover on fragile slopes

iii. Glacial Avalanche

Glacial avalanche is occurring almost every year. The intensity of its occurrence depends on the quantity of snowfall. The avalanche is occurring in the gorges along the mountain slope. Thus, it leads to the washing away of forest trees and plants.

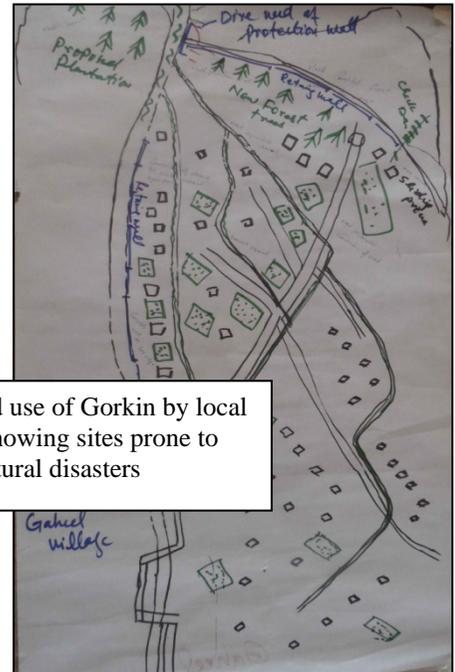
However, the disaster can be mitigated by:

- Plantation which can be resistant to extreme cold and glacial flow.

Suggestions for Land Use Planning

The following measures were proposed by the inhabitants of the village for land use planning. They include:

- Towards the extreme north of the village, there is point which is an easy diversion for flood water towards the village. Also, there is a need for protection wall at that point.
- Plantation of forest trees towards the west and south side and along the stream.
- During construction activities, the natural disasters and preserving agriculture lands should be kept in mind.



Existing land use of Gorkin by local people. Showing sites prone to natural disasters

Jal Band

Elevation : 2094 meter
Coordinates : 35 28 00.3 North, 72 34 54.0 East

Jal Band village is situated near proper Kalam. The commercial activities include hotels which are almost reaching the village boundaries. Furthermore, there are a total of 500 houses in the village mostly in scattered form. The following are the major land uses of the village.

Analyzing Existing Land Uses

The following are the major land uses of Jal Band village. They are:

i. Settlements

There are total of 500 houses mostly in semi pacca form. The houses are mostly found in semi scattered form. Also, the clusters of houses are with 5 to 10 houses together.

According to the participants 20 years back, there were a total of 200 to 250 houses in the village which have been almost doubled.

Forecasting the coming twenty years, the participants were of the opinion that after 20 years, there will be approximately 1000 to 1200 houses in the village.

The following are the suggestion for the land use related to settlements:

- Constructing house on safe places.

- Preserving fertile agriculture lands during house construction.

ii. Agriculture Land

At present, the total agriculture land of the village is 500 Acres. However, 20 years back, the people were carrying out agriculture practice only for their household needs. Then, as commercial farming started with the introduction of high value off season vegetables, the people prepared more agriculture lands. With the passage of time due to population increase, agriculture lands were being occupied by settlements and were also eroded by flood water. The agriculture land of the village is reduced almost by 50 % as compared to the past 20 years.

iii. Forest

The forest cover of the village is sharply decreasing with the passage of time. As compared to the 20 years back time, the forest cover remained only 1/4th. On the other hand, the remaining 3/4th part do not exist anymore. However, the following are the reasons behind forest depletion. They include:

- For local use, a household need almost 4 to 5 trees for their yearly consumption.
- The local people need forest wood during construction activities.
- Natural disasters, especially floods and glacial avalanche.

However, the following are the suggestions for improvements of forest cover:

- Providing alternate source of fuel.
- Cooperation between forest department and target communities.
- Plantation of agro forestry trees close to the village settlements.
- If any solid measures were not implemented, then the forest area of the village will be near to be completely finished after 20 years.

iv. Grazing Land/Open Space

There is a total of almost 550 acres of open spaces including 250 acres owned by a person. On the other hand, the remaining are the communal lands. However, the communal lands were increased due to deforestation. The people are also using these lands in preparing farmlands and in constructing their houses.

Natural Disasters at Village Jal Band

The following are the most common natural disasters of village Jal Band.

i. Flood

Earlier, the flood which occurred during 2010 affected houses, forest trees and agriculture lands. The reasons behind the damages include the construction of houses near the stream, and very less trees along the stream.

Thus, the following are the suggestions for mitigating flood hazards:

- 1 Constructing protection walls

- 2 Check dams along the channel of the stream.
- ii. Glacial Avalanche

Glacial avalanche is occurring almost every year. Also, it brings damages to houses, agriculture lands, and forest trees. The magnitude of the damages from the disaster is increasing with the passage of time due to decrease in forest cover. The disaster can be mitigated by thick forest cover on the mountain slopes.

- iii. Land Sliding

Land sliding is also affecting the lives and livelihoods of local people. Thus, this is with the passage of time as the frequency of the hazard is increasing. Few years back, some people died due to land sliding.

3.5.3 Suggestions for Land Use Planning

The following are the suggestions of local people regarding land use planning:

- There are two potential points for the construction of protection walls.
- A layer of forest trees at least 20 to 20 feet wide with thick plantation of erosion resistant trees.
- Houses should not be built along the streams and on the sites prone to land sliding and glacial avalanche.



Existing land use disasters



Land use plan

Land Use Plan for UC Kalam

According to the ongoing trends, population increase, technical studies, and inputs from the target communities were the proposed zones for land use planning in union council Kalam.

Critical Zone

This is a flood prone zone along the river with a risk of lateral erosion during the flood season. Therefore, this is shown on the map in red color. The zone is not proposed for any settlements or commercial activities. It can be utilized for flood protection measures including plantation, bio engineering structures, and construction of protection wall.

Forest-new Plantation Zone

In union council Kalam, the foothills and the vast grasslands below the tree line are potential sites for plantation of forest trees. According to the field work conducted in all the villages, the forest cover is sharply depleting. Thus, this results in natural disasters and environmental problems. The proposed sites on map are ideal for plantation of forest trees with protection measures after plantation like restriction of free grazing.

Recreational Zone

Kalam is a famous tourist area. It is also a hub providing services to the tourists for all the surrounding areas of Swat. However, the river side and forest side, everywhere in Kalam, is a recreational area. It is used for improving the services of three different zones which are allocated for recreational activities including picnic, sightseeing, and arranging events like Mela etc. One of the zones is situated in proper Kalam vast grassland; another is situated at the south of Kalam at village Gaheel; and the third is situated at Ushu village.

Agriculture Cum Residential Zone

In this present circumstance, due to the availability of very less plain or gentle slopes, land ownership and disaster proneness of the residential area cannot be separated from the agriculture lands. The people are constructing houses in the agriculture lands owned by them and are doing farming in the nearby land. The site is situated between the steep mountain slopes. Also, the river shown on the map is allocated for agricultural and residential activities.

Commercial Zone

At present, the shops and hotels are mostly situated along the main road. In the proposed land use plan, two different zones at proper Kalam and Ushu were allocated for commercial activities. At proper Kalam, the area adjacent to the present commercial area is mostly composed of open spaces or houses that are allocated to commercial area. Another zone for

commercial activities is allocated at village Ushu. Therefore, the site is situated close to the main road.

Existing Forest Area Zone

The forest in the area is so much important to be protected. The zone already covered by the forest area is allocated to the forest. Thus, it needs to be further protected from deforestation. The forest area is also providing sources of earning livelihoods like non timber forest products including morels, medicinal plants, local honey, tourism, and valuable fallen trees. No any other land use shall encroach to the existing forest area.

Glacier and Snow Zone

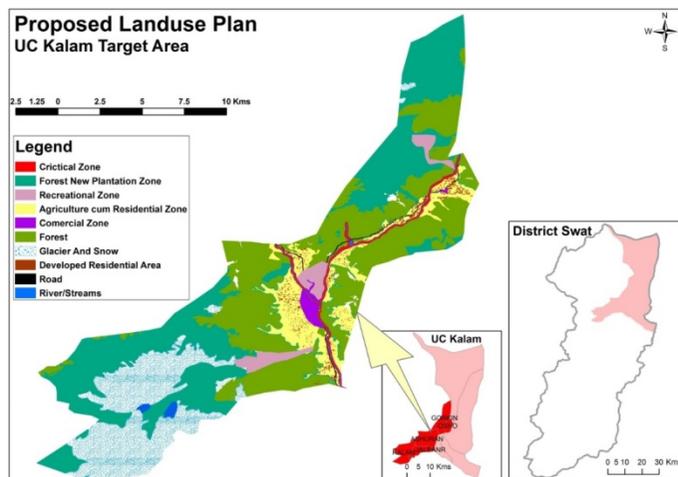
The region above the tree line on mountains is covered by vast pastures, snow and glaciers, providing a very nice view from the down valley regions. However, this zone cannot be used for any other purpose except grazing in the pastures during the summer season and providing hiking services to the tourists.

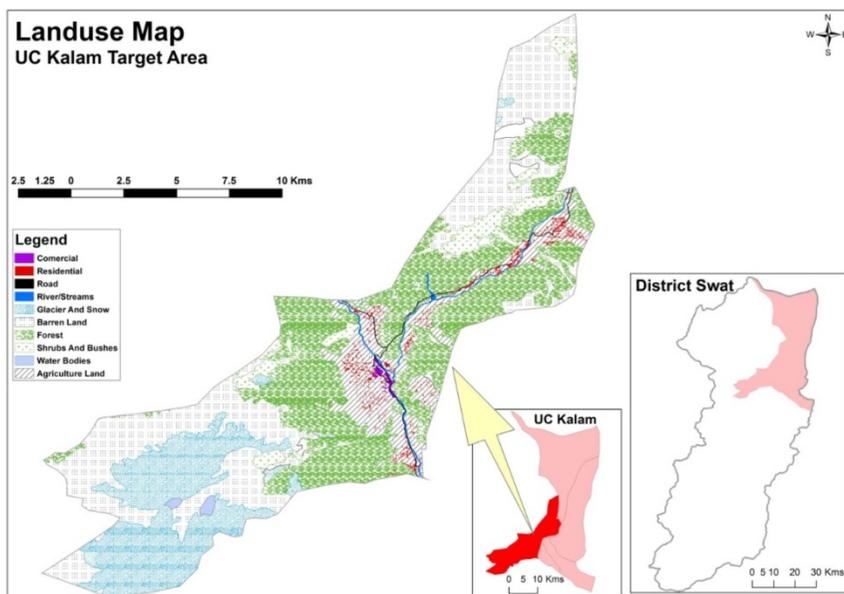
Developed Residential Zone

The zone which is already being occupied by the residential area is shown on the map. The houses are mostly in scattered form in the agriculture lands.

Road and River Zone

The road and river is shown on the map. The proposed zoning is made according to the accessibility of the road side. According to the local people after the 2010 flood, the lateral erosion of river is active. However, this can result to an increase in the river area. For this purpose, there is a need for erosion control measures along the river.





Recommendations

i- Controlled Grazing

Apart from deforestation, the major cause of forest depletion is free grazing. Every year, the nomads keeping goats and sheep are migrating to the area in big number. Thus, they freely graze their herds. Free grazing affects newly growing forest trees. In such situation, there is a dire need for controlled grazing on a rotational basis.

ii- Alternate Sources of Fuel and Construction Wood

In the present circumstances, each of the household need four to five forest trees for their annual fuel consumption. This is especially for those families who remain in the area during winter season. In the present circumstances, they are not having an alternate source of wood fuel. Hence, they were used for heating purposes. It serves as some alternate sources of wood fuel like plantation of fast growing trees on marginal lands, use of coal for heating etc.

iii- Soil Erosion Measures

In the target Union Councils, soil erosion is becoming so much frequent. Therefore, the valuable soil is being eroded with the passage of time with surface runoff and along the streams and river. Increase in the rate of soil erosion results in an increase in the waste lands with barren hard rocks. In addition, areas lying below are becoming more prone to rock sliding. In mitigating soil erosion, there is a need for soil erosion measures including plantation, bio engineering structures, and constructing of check dams.

iv- Standards Regarding Housing

The people in the target union councils were using excessive forest wood during the construction activities. Apart from the common use in housetops, frames, and doors, they are also used for the construction of walls. In constructing houses, a standard and excessive use of forest wood should be prohibited.

v- Improving Land Tenure System

In the present circumstances, there are some big pieces of lands. These lands were disputed and the local people are more proactive to cut trees from these lands. Improving the land tenure system for such lands will lead to clear ownership. Also, some productive use can be initiated by the owners.

vi- Top Working and Value Chain Promotion on Agriculture

According to the opinion of local farmers, the agriculture productivity is sharply decreasing with the passage of time, especially for some vegetables like potato. Due to decrease in agriculture productivity, the local people are not taking care of the agriculture lands. If the productivity will be increasing, they will value the land and will try to preserve agriculture lands for earning their livelihoods.

Conclusion

Land use planning is almost having similar challenges in all the ten villages of the target union councils. Forest cover being the most important land use is almost decreased by 40 to 50% in the target villages. With the passage of time, the agriculture lands are encroaching towards forest area. Also, the fertile agriculture fields are being converted into settlements. Constructing houses in a scattered form also increase the area covered by streets and drains. Due to small land holdings, it is hardly possible to allocate space for housing that is safe from the disasters and protection of the valuable agriculture land. The open spaces close to the village settlements which were being used as communal grazing lands are being converted into agriculture lands. Also, the barren rocky open spaces are increasing on mountain slopes.

Consequently, the major natural disasters of the area are rock/land sliding, glacial avalanche, and floods. This is with the passage of time. Also, the frequency and intensity of the natural disasters is increasing. The prime reason behind this is the decrease in forest cover. If the same trend continues, there will be an increase especially in land sliding and floods. The forest cover is depleting with the passage of time due to deforestation, overgrazing, and encroachment of other land uses. The natural disasters can be mitigated by an increase in forest cover and some other initiatives like bio engineering structures, plantation along streams and construction of protection walls.

Some initiatives from the local people and government can lead into positive contribution towards forest cover like controlled grazing, plantation of forest trees, use of other than valuable forest trees for household use including some indigenous trees and agro forestry trees. In some villages, the communal land is laying waste. Mostly, the soil cover is sharply eroded by water. The division of such land among the people can have some productive use of the land like plantation etc.

In conclusion, the population is sharply increasing with the passage of time which leads towards changes in the land uses. Also, natural disasters are becoming more frequent. In this situation, there is a dire need of land use planning, raising awareness regarding that, and the implementation of some measures related to land use planning by the target communities and government departments.

Pictures taken during the field work

Useless rocky slopes



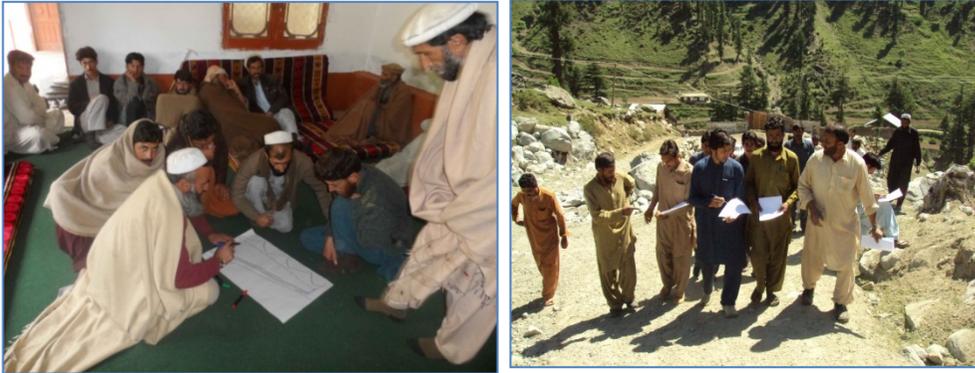
Soily open spaces, potential for forestation



Deforestation leading to slope instability



Sessions with the community in progress



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The Effects Of The Law No. 6360 On Metropolitan Municipality System In Turkey⁴⁶

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Abstract

Turkey, since beginning of the new millennium, experiences a significant change and transformation related to the structure of local administrations. The Law on Special Provincial Administration (No 5302), the Law on Greater/Metropolitan Municipality (No 5216), the Law on Municipality (No 5393), and the Law on Local Administration Unions (No 5355), which were enacted after 2003, are the examples of arrangements legislated in the field of local administrations. With the Municipal Law No. 6360 on “The Establishment of Fourteen Metropolitan Municipalities and Twenty-Seven Districts and Amendments at Certain Law and Decree Laws” the Turkish metropolitan municipality system has changed considerably. With this law, significant changes were implemented in Turkish metropolitan municipality system with respect to the presentation of administrative, financial, political and public services. These changes had a fundamental impact on both local and central governments. As a result of this law some new innovations occurred in Turkish local and central administrative system. The aim of this study is, to examine the developments in Turkish metropolitan municipal structure within the framework of the basic laws no. 3030, 5216 and 5747, and to discuss the changes implemented with the Law no. 6360 in the system.

Keywords: Local governments, metropolitan municipality system, Law No.6360, Turkey, boarder expansion, abrogation of local government units

Introduction

In the constitutional bylaw no. 127, local administrations are defined as “*public legal entities whose foundation principles are defined by the law and decision making entities are formed by election by the people as indicated by the law to fulfill the local and common needs of the people of*

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the province, municipality or the village.” According to the constitution, local administration units include municipalities, provincial private administrations and villages. With the support of an amendment of the bylaw related to local administrations in 1982 constitution as “for metropolitan areas, specialized forms of administration could be established,” in March 1984, a two-tiered metropolitan municipality system was initiated in three metropolitan centers within the legislation of Statutory Decree on the Administration of Metropolitan Municipalities no. 195. As Derdiman (2012: 53) put it, the Constitutional Court (CC) mentioned these administrations as “local administrations” in their judgement no. 2007/35. Metropolitan municipalities are referred as “decentralized administrative organizations with respect to localities” or “local administrations” in the literature, similar to other “local administration” organizations mentioned in the constitution.

The process started with the Public Administration Fundamental Law, legislated in the parliament in 2003 but vetoed by the President, was the first and most important step towards the realization of the change that started with Justice and Development Party (JDP). Although the law was never came into effect, its spirit was in fact enacted through the changes in primarily the laws on local administrations subsequently. The Law on Municipality (No 5393), The Law on Greater/Metropolitan Municipality (No 5216), The Law on Special Provincial Administration (No 5302), The Law on Development Agencies (No 5449) and the changes enacted in these laws reflect the traces of the Public Administration Fundamental Law.

A significant change as a result of the process described above was the “The Establishment Of Fourteen Metropolitan Municipalities And Twenty-Seven Districts And Amendments At Certain Law And Decree Laws” (no 6360) that was claimed to contribute to the problems of scale, capacity, model, urban and rural infrastructures, settlement and structuring in local administrations in Turkey and enacted on November 12, 2012.

The regulations enacted with the law (No 6360) became the target of the parliamentary and public debate and was criticized heavily in the academic literature due to the claims that it contradicted with the equality principle (Adıgüzel, Tek, 2014: 99), the provinces based on central administration principles could transform into a regional administration as a result of self-government (İzci and Turan, 2013: 135; Ayman Güler, 2012; Çukurçayır, 2012), it was unconstitutional due to the contradiction with the bylaw on establishment of metropolitan cities in the constitution, since metropolitan municipality boundaries were also civilian borders (Gözler, 2013, Derdiman, 2012: 74), it would cause an alienation from the discretion principle of the public services and an increase in costs (Ersoy, 2013; Çukurçayır, 2012; Yılmaz, 2012: 5), representation and complications in public participation (Zengin, 2014), increase in bureaucracy and a powerful

presidential model (Çukurçayır, 2012), and contradiction with European Charter of Local Self-Government (Zengin, 2014; Ayman Güler, 2012), etc.

Furthermore, the law was also perceived positively for the support a local level single stage metropolitan municipality model would provide for service efficiency and prevent waste of resources by preventing foundation of unnecessary administrative units, that it would enable fairer distribution of resources among the rich and poor regions of the province and promote urban integrity (Arıkboğa, 2012: 17), it was in accordance with the modern tendencies on “optimal scale” , its “area and population optimality” in providing economic services and investments, ability to provide better services for residential areas and towns that failed to receive efficient services so far, ability to empower metropolitan district municipalities financially, and based on zoning integrity in the whole province (Parlak, 2013).

The present study investigates the development of metropolitan municipality structures in Turkey within the frameworks of the laws numbered 3030, 5216, and 5747. Furthermore, the changes that occurred in Turkish administrative organization and metropolitan municipality system as a result of the Law no. 6360, which was legislated in 2012 and put into effect following the 2014 local elections, will be discussed including overall positive and negative criticisms attributed to the law.

Development of Metropolitan Municipality System in Turkey

The beginnings of metropolitan municipality organization could be dated back to Ottoman times. During the years that followed 1839 Tanzimat reforms, Ottoman intellectuals who returned from the West requested the organization of municipalities under the influence of western structures. On August 16, 1854, Istanbul Municipality (İzci and Turan, 2013: 118; Ulusoy and Akdemir, 2001: 148) and in 1858, 6th Department of Municipality, which included Galata and Beyoğlu neighborhoods, were established. Istanbul Municipality Administration Charter of 1869 aimed to expand the municipality organization throughout the city and divided Istanbul into 14 municipal departments (Ortaylı, 2000; Ortaylı, 1974: 117). Other incentives to establish municipal organizations outside Istanbul appeared from 1868 and Provincial Public Administration Charter of 1870 made it necessary to establish municipalities in provinces, districts and townships, while 1876 Provincial Municipality Law stipulated the establishment of municipalities in every city and town, and these municipalities to be governed by elected councils and the method of their election to be determined by a separate law (Keleş, 2012: 159-161). Istanbul Municipality Law enacted in 1877 preserved the previous municipal institutions, however increased the number of municipal departments in Istanbul to 20. The Provisional Law on Istanbul

Municipality replaced municipal departments with municipal branches. This system prevailed until 1930 (Özgür and Savaş Yavuzçehre, 2016: 907).

Republican era municipal practices started with the existing Ottoman two-tiered structure that included municipality and the departments established in 1858 in Istanbul, which was a metropolitan urban center even then. The first municipal organization of the Ottoman Empire during its last era in Istanbul was in fact their first attempt in urban area administration (Özgür and Savaş Yavuzçehre, 2016: 908). Enacted in 1930, Municipality Law (No 1580) proposed a single-tier municipal structure in all cities, independent of their scale. In this municipality Law (No 1580), there were certain special regulations for then largest cities, Istanbul and Ankara.

As a result of urbanization and migration of the rural population to cities during 1945 – 1960, populations of Istanbul and Ankara largely increased, rendering the existing municipal law (No 1580) ineffective. Number of municipalities also increased due to the increase in urbanization (Geray, 2000: 25; 1990: 217-218). The old Municipality Law (No 1580) remained in force between 1930 and 2004. One of the steps taken to remove the problems caused by rapid urbanization, urban sprawl, small municipalities, unplanned metropolises, and problems of scale, was the establishment of metropolitan municipalities (Genç, 2014: 2).

Law No. 3030

Metropolitan municipalities became possible as a result of the bylaw (No 127) included in 1982 constitution on local governments, which stated that “*special administration regimes could be established in large metropolitan areas.*” According to the Article 4 of this statutory decree, a metropolitan municipality bearing the name of the metropolitan city and district municipalities bearing the names of the districts would be established. Based on the decree no. 195, Istanbul, Ankara and Izmir metropolitan municipalities were established.

Law no. 3030 depicted that there should be more than one district within a city for a metropolitan municipality to be established. In the second generation, at least two district municipalities were established in the additional 5 metropolitan municipalities (In Bursa, Adana, Gaziantep, Konya and Kayseri). During the validity of Law no. 3030, there were discussions/proposals on different population count criteria, but none of those were legislated into law (Özgür, Savaş Yavuzçehre and Cigeroğlu, 2007: 480-481).

After 1988, regulations on metropolitan municipality establishment based on district municipalities and by individual law were averted with the excuse of the costs necessary to establish a district. Statutory Decree to Establish of Metropolitan Municipalities in Seven Cities (No 504) in 1993

declared the cities of Mersin, Eskişehir, Diyarbakır, Antalya, Samsun, İzmit and Erzurum metropolitan municipalities. District municipalities were not established in these metropolitan municipalities, but first-tier metropolitan municipalities, a new administrative unit that was similar to metropolitan district municipalities in practice, were established. As a result of the statutory decree (No 593) in 2000, Adapazarı became a metropolitan municipality as well (Özgür, *et all*, 2007: 481).

Laws No. 5216 and 5747

According to Metropolitan Municipality Law (No 5216), legislated in 2004, “*Metropolitan municipality means a public legal entity, having administrative and financial autonomy, which comprises at least three district or first-tier municipalities, coordinates the functioning of such municipalities, discharges its statutory duties, responsibilities and exercises statutory powers, and whose decision-making body is elected by voters*” and the first-tier municipality reflects the belde municipalities.

Law No 5216 introduced the criteria of both the scale and population for metropolitan municipality boundaries. The Law reads “City municipalities with a total population of 750,000 or higher in the last census including the urban areas within municipal borders and the urban areas that are at a maximum distance of 10,000 meters to these borders would be transformed into metropolitan municipalities by law based on their physical locations and economic development levels.” Law No 5216 expanded metropolitan municipality zones increased the number of second-tier municipalities under metropolitan municipalities considerably and widened their statutory powers. Expansions of metropolitan boundaries, known as compass regulations, brought into effect with the temporary 2nd article of Metropolitan Municipality Law (No 5216) were 20 km for cities with a population of up to 1,000,000; 30 km for cities with a population of 1,000,000 – 2,000,000; and 50 km for cities with a population of higher than 2,000,000 with the existing governor’s building at the center and within the upper limits of provincial administrative boundaries. However, in Istanbul and Kocaeli, provincial administrative boundaries were accepted as the new municipal boundaries. In short, the law determined the jurisdiction and service areas for 14 metropolitan municipalities, except Istanbul and Kocaeli with a circle.

2008 Law on Establishment of District within Metropolitan Municipality Boundaries and Amendments to Certain Laws (No 5747) was an important regulation for the integration of local governments. The Law provided metropolitan district municipality status for only a few first-tier municipalities, while local-government status of many was rescinded. Forty-three new districts were established in certain provinces as a result of the

Law (No 5747). The Law revoked the legal entity status of first-tier municipalities within metropolitan municipality boundaries, and included neighborhoods and neighborhood sections in district municipalities. As a result, metropolitan municipality system is reorganized based on district municipalities. Furthermore, sub-district organization was abolished with this Law. Sub-district centers and villages were assigned to the cities and districts (Çınar, Çiner and Zengin, 2009: 120-122).

Law No. 6360

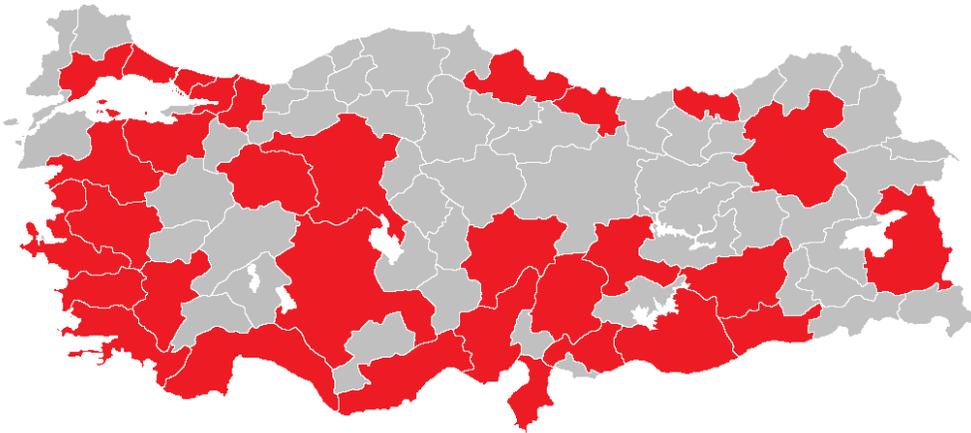
Preamble: The preamble of the Law No 6360, which resulted in extensive changes in Turkish metropolitan municipality system, presented to the parliament on October 8, 2012 was as follows (sayilikanun.com, 2016): “*As a result of the establishment of economies of the scale due centralization of services provided in the metropolitan context, it would be possible to provide active, increased and quality services. Providing the services via a larger center with a more ideal scale, instead of providing these services by more than one center that exists today, would decrease unit costs and per capita public expenditures.*” According to the preamble, new metropolitan centers were expected to provide more effective, economic and qualified local services. As stated by Zengin (2014), it was argued that the application of equalizing the metropolitan municipality boundaries and administrative boundaries in Istanbul and Kocaeli improved the integrity and effectiveness of the services, thus, the implementation should be expanded.

The Law defines the metropolitan municipality as follows: “*It is a legal entity limited by the provincial administrative boundaries, that coordinates the district municipalities within its boundaries, fulfills the duties and responsibilities, exercises the power assigned by the law, using administrative and financial autonomy and whose legislative body is elected by the electorate*” (Article 4, Law No 6360). With this Law, the application of metropolitan municipality with powers within provincial administrative boundaries as implemented only in Istanbul and Kocaeli metropolitan municipalities with the Law no. 5216 was expanded to cover all metropolitan municipalities. Metropolitan municipality assignation criteria became easier with this Law when compared to laws nos. 3030 and 5216.

Administrative Structure: The number of metropolitan municipalities increased to 30 as a result of the Law. Metropolitan cities are shown in red in the map shown below. According to the first article of the Law, metropolitan municipalities were found within the provincial administrative boundaries of the cities of Aydın, Balıkesir, Denizli, Hatay, Malatya, Manisa, Kahramanmaraş, Mardin, Muğla, Tekirdağ, Trabzon, Şanlıurfa and Van, bearing the same name with the province, and provincial municipalities of these provinces were transformed into metropolitan municipalities. As Genç

(2014: 3) put it, Law no. 6360 stipulated a two-tiered metropolitan government model adapting a province-based integrated urban government. Existence of first-tier district municipalities is significant especially in providing local scale municipal services and maintenance of local democracy. Since the metropolitan municipality would provide province-wide services, all services in 30 metropolitan urban centers could be considered as regional-scale urban services. Thus, metropolitan municipalities in fact become regional-scale urban governments (Gül, Batman, 2013: 548).

Map1. Metropolitan Municipalities in Turkey after Law no 6360



Reference. List of Metropolitan Municipalities, (tr.wikipedia.org, 2016)

The first article of the Law also abolishes provincial special administrations in 30 provinces that became metropolitan municipalities. However, provincial special administrations still exist in 51 provinces, causing duality in administrative structure (Genç, 2014: 7). Villages and belde municipalities within the administrative boundaries of the districts in metropolitan municipalities are no longer legal entities. The legal entity status of villages and belde municipalities within the administrative boundaries of the districts in new metropolitan municipalities and villages within Istanbul and Kocaeli provincial administrative boundaries were removed and all became a neighborhood within the district municipality they were located. Thus, in these metropolitan centers, 1578 belde and 16,544 villages lost legal entity status. A total of 1,053 belde municipalities and 16,082 villages within 30 metropolitan centers became neighborhoods (Genç, 2014: 4). This situation is against the three-tiered structure adopted in the constitution (Gözler, 2013, Derdiman, 2012: 74). Abolishing numerous municipalities and villages without asking the local people or referendum is against European Charter of Local Self-Government, signed by Turkish

Republic. Furthermore, it has problems with respect to the representation of the local people. Self-elected councils/legislative organs of these people were abolished. Now, the groups that live far from the urban center, in the country determine the formation and representation of decision making organs in the metropolitan city/the main center (Zengin, 2014: 111). The situation is problematic with respect to subsidiarity in services, providing the services by the closest unit to the citizen. Especially, similar to other local services, implementation development plans and subdivision plans should in principle developed by the subsidiary local units (Ersoy, 2013). An increase in public expenditures providing these services is also possible. In geographically large provinces, the capacity of metropolitan municipalities to provide sufficient services in all neighborhoods is also debatable. This condition also constitutes a contradiction with European Charter of Local Self-Government.

The Law transformed all district municipalities within the provincial boundaries of these thirty provinces into metropolitan district municipalities. Twenty-seven new districts were established within the context of metropolitan municipality in 14 provinces that became metropolitan municipalities and dependence alterations were conducted and the total number of metropolitan district municipalities increased from 143 to 519 (Zengin, 2014: 102).

559 belde municipalities where the population was smaller than 2,000 and located outside the realm of metropolitan municipality provinces were transformed into villages. Units that lost their legal identities with the Law such as municipalities, provincial special administrations and villages and local administrative unions that remained without a function were all liquidated before 2014 local elections.

Investment Monitoring and Coordination Directorates: Law no 6360 abolished provincial special administrations in 30 metropolitan municipalities and Investment Monitoring and Coordination Directorates that report to the governor's office were established. The purposes of these units were to conduct, monitor and coordinate investments and services efficiently for public institutions and organizations in metropolitan cities. The duties of these directorates organized in the periphery (Official Gazette, 2014) were to conduct investment, construction, maintenance and repair works for public institutions and organizations, to report efficiency – productivity of services and activities of all departments and relevance of these activities to strategic plans and performance programs, with the only exception of judiciary and military organizations, protection of cultural and natural assets, and will also conduct services related to disaster and emergency aid, emergency call services, promotion of the province, representation, ceremonies, awards and

protocol services⁴⁷. Here, the aim is to create a coordination center that would coordinate public institutions in the province and by placing the organization under the governor, the activity of the governmental organization is being promoted.

Power and Responsibilities: According to the Law, metropolitan district municipalities transfer certain municipal services to metropolitan municipalities and share certain others. In addition, certain services have to be approved/ audited by the metropolitan municipality, and revenues obtained from certain services have to be transferred to metropolitan municipalities. For instance, metropolitan municipality has the power to audit zoning applications of district municipalities. When compared to Law no. 5216, the power delegated to district municipalities has partially increased.

Law no. 6360 amended the article 7 of the Law no. 5216 on powers and duties and stipulated that the following four functions could be delegated to district municipalities or conducted in conjunction with a decree approved by the municipal assembly: i) Construction, procurement, operation, leasing or licensing passenger and cargo terminals, indoor or outdoor parking lots; ii) Identification of cemetery zones, establishment, operation, leasing of cemeteries, burial services; iii) Construction, procurement, operation, leasing all types of wholesale markets and slaughterhouses and licensing and auditing of private wholesale markets and slaughterhouses that would be built as designated in development plan; iv) Cleaning and addressing and numbering services.

Legally and administratively, district municipality is under the authority of metropolitan municipality. This situation could cause different outcomes in practice based on the differences of opinion between the political parties that held these two organizations. In cases where both metropolitan municipality and district municipality represent the same political party there could be cooperation and an increased administrative and financial support, however, when the situation is reversed, lack of assistance by the metropolitan municipality and even stonewalling the district municipality in producing and providing services are possible. This duality, unfortunately, mainly determines the way duties and responsibilities are fulfilled by the administrative units in Turkey (Zengin, 2014: 107).

Water and Sewage Administration General Directorates: Water and Sewage services fell into the responsibility of metropolitan municipality in metropolitan areas. These services are conducted by “Water and Sewage Administration General Directorates (WSAGD)” in metropolitan areas.

⁴⁷ For the duties of *Investment Monitoring and Coordination Directorate* please see: <http://www.resmigazete.gov.tr/main.aspx?home=http://www.resmigazete.gov.tr/eskiler/2014/04/20140404.htm&main=http://www.resmigazete.gov.tr/eskiler/2014/04/20140404.htm>

WSAGD is a separate organization and a legal entity outside the organization of metropolitan municipality. According to the Council of Ministers decision (No. 2014/6072) published in the Official Gazette dated March 31, 2014 (No. 28958), water and sewage administrations were established in the new metropolitan municipalities.

Financial Provisions: As a result of amendments to the Law on Allocation of a Share from General Budget Tax Revenues for Provincial Special Administrations and Municipalities (No 5779) by the articles 25 – 27 of the Law no. 6360; 1.50% of general budget tax revenues (was 2.85 in 5216) would be allocated to non-metropolitan municipalities, 4.5% (was 2.50 in 5216) would be allocated to metropolitan district municipalities, and 0.5% (was 1.15 in 5216) would be allocated to provincial special administrations. 6% (was %5 in 5216) of the general budget tax revenues within the limits of metropolitan municipalities would be allocated to metropolitan municipalities. 60% of this share (was %70 in 5216) would be credited directly to the metropolitan municipality account, and 70% of the remaining 40% would be distributed based on the population and 30% would be distributed based on the acreage (tbb.gov.tr, 2014). This was positive for fiscal decentralization. Law no. 6360 generally included improvements that benefited metropolitan municipalities. However, for villages that were transformed into neighborhoods, valid from December 21, 2017, tax, fee and share duties were introduced, from which they were previously exempt. This is the price the urbanized villages would have to pay for the termination of their village legal identity. In localities that were transformed from a village into a neighborhood, the rights of the inhabitants were protected based on the forestry legislation. On the other hand, the taxes due for the regular taxpayer in 14 provinces that became metropolitan centers doubled.

The role of metropolitan municipality as determined with the Law was to provide unity and coordination, in addition to a more centralized structure (İzci, Turan, 2013: 133). Regulations were expected to enforce local governments within the context of 2004 process; however, with the legislation of this Law, the tendency towards centralization had increased in Turkey (Görmez, 2013).

Conclusion

With the Law no. 6360, which could be considered within the JDP's Restructuring Public Administration Movement, fundamental changes were implemented not only in metropolitan municipality administration, but also in the current municipality administration, provincial special administration and village administration. With the Law no. 6360, significant changes were implemented that affected the municipal system in administrative structure by abolishment of legal entities, creation of new legal entities, administrative

subordination and change of names, merging, changes in boundaries and division of power; in the financial system by redefinition of the shares of local governments; in presentation of services by matching administrative and municipal boundaries and expansion of service zones. When compared to previous laws nos. 3030 and 5216, it became easier to attain metropolitan municipality status. By transferring the provincial powers to metropolitan municipality, the regulation established centralization at local level.

The coordination and activity in providing services, economics of scale and access to urban services, as mentioned in the preamble for the Law, could be improved as a result of the enforcement of the Law. However, it should be remembered that the new metropolitan mayor would be a more powerful political figure with more authority and fund. It was also observed that concessions were made by the legislation in pluralistic democracy and local autonomy principles by abolishing half of the local government establishments.

All articles of the Law no. 6360 came into force on April 2014 and more than 70% of the nation's population started to live within metropolitan municipality boundaries. After this legislation 30 provinces with enormous differences in geographical and population scales are administered with the same Law on Metropolitan Municipality. The metropolitan municipality model established by the Law no. 6360 is similar to the practices in Istanbul and Kocaeli. Inclusion of provinces with completely different populations, acreage, economic potential and development levels in a system developed after the example of the western provinces that have the highest levels of development, industrialization and urbanization may cause problems in the long run. This may require the system to renew itself in time.

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Investigation Of Open Green Recreation Spaces' In Urban Environment With The Context Of Healthy City Planning: Case Of Turkey

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Abstract

The importance of the open-green spaces, the indicator of civilization and standard of urban life has been gradually increasing in recent years. In this context, Turkey has been living through this fast urbanization process by significant changes of its social, economical, ecological and cultural structure from 1950s until today. The fast urbanization in Turkey, has especially brought some important changes in social and cultural life of the urban and increased the needs of recreation and green areas. The aim of this study is to analyze urban open spaces planning process and applications in Turkey from the point of view of healthy city planning. For this reason firstly we tried to analyze legal and practice dimensions of green-open urban spaces in Turkey. As the average amount of the active open-green spaces are less than 10 square meters per capita of the healthy cities in Turkey, the planned areas such as playgrounds and gardens for kids, urban parks of Turkey cities in the terms of quality and quantity are inadequate to meet the recreational needs of the inhabitants. It will be possible that city has a healthy, green and modern urban by means of a process to be put into designing, planning and management by taking into consideration the ecological, scientifically, and technical criteria for raising the quality and quantity of the open-green spaces of the urban.

Keywords: Urban Environment, Healthy City Planning, Open-Green Space, Turkey

Introduction

A city is not merely made from houses, workplaces, public buildings, roads and squares. Environmental factors are important and essential components for livable, sustainable and healthy urban centers. Parks, gardens, green areas, as well as clean air and water and an environment that adds a value to the life are among the indispensable factors to have healthy and happy lives for the individuals living in urban centers. Green areas do not

only make the environment more beautiful places, but also clean air and decrease the temperature and thereby affect the urban climate positively. They increase humidity and thereby prevent drought. It decreases noise and contributes an aesthetic value to the urban center. It plays an important role on the physical, mental and psychological health of the individuals living in urban centers. (Aksoy, 2004).

The increase in population as the result of industrialization and urbanization, the increase in the number of buildings bring with themselves detrimental environmental factors and lead to the gradual extinction of open green areas. Concentration of the pressures on the nature, endangerment of ecological balance, in parallel with industrialization, rapid growth of population and uncontrolled urban development, have increased the concerns on protecting natural values day by day (Ergönül et al,2012). It is important to emphasize and signify the environment, health of the citizens and life quality in general. Health is one of the main components of sustainable development and a healthy urban planning seeks for improve the quality of the built environment and the life quality of the urban inhabitants. Having set its hands on green area problem, Turkey's one of the most important problems, most of municipality of Turkey has made many project. Some big and small parks were built in various parts of the cities (Denizli Municipality, 96). As a result of green area work, the amount of green areas in the cities every year. This study is organized within the frame of World Health Organization (WHO) about the projects of healthy cities. The objective of the research is to determine the existing conditions of the open green areas in Turkey and to compare it with the standards that are determined in line with the healthy city planning principles of Healthy Cities Project.

Open Green Area Availability within Municipal Boundaries of Turkey

World Health Organization (WHO) describes the Healthy Cities Project as a means to apply the local level application of the “*Health for Everyone*” principles. This movement which is brought forward in order to show the new approaches to the public health by application method has for the first time started in 11 selected cities of Europe in 1986 and in a short period it was spread to several other cities in many countries and thereby has become a global movement. Main objectives of the movement which was started as “Health for everyone” were as shown below:

- To create an environment where the citizens shall be happy to live by share the experience on the urban center in order to produce healthy, clean, safe residential places.
- By starting from equality basis, to develop projects without discriminating between religion, language, race, culture, class, though differences in order to produce equal and qualified environments. In Turkey

“Turkey Union of Healthy Cities” national network is established parallel to said project. The union currently has 60 members as of 2016 of which 16 are Metropolitan Municipality, 8 Provincial Municipalities and 36 District Municipalities.

In these cities investigations are carried out in order to attain health urban conditions, and an urban health profile is tried to be produced. In the research, these cities are taken as sample in determining the open green areas in these 60 cities mentioned above.

As the open green areas are beneficial in local, national and global scale they are significant in national and international scales. Therefore it is important to do legal arrangements about green areas, to determine the standards and the urban plans should be done according to them. The open green areas standard is generally expressed or defined as the size of the square meters of green areas per person. That is to say it is calculated by dividing the surface area of the areas which lodge green texture on the general population of the urban center. However, this expression is a quantitative approach.

The open-green areas are also important as for the equipment which they donate, their functionality and aesthetic properties. In determining the norms of the open-green areas, the social, cultural, economic factors and the concentration of their utilization by people play important roles in addition to their physical environmental properties of the city, (including climate, topography and location of the urban center). It is essential that the open-green areas, in addition to adequacy as for qualitative and quantitative measures, and to the proximity of residential areas in order to enable ease of access to the regions where they offer service (quarter, vicinity and etc) (Gül and Küçük, 2001).

World Health Organization, states that the green area per person within the city should be at least 9 m² and that 10 to 15 m² shall be an ideal criteria for this. When the green area per person in the developed is approximately 20 m² in the average, it varies between 1-9 m² in Turkey (Doğu, Kesim and Sivrikaya, 2002). In Turkey the norm of green areas per person is proposed as 4 m² (woods, meadow, lake and play grounds) by the urban arrangement plans by the Construction Details Code numbered for the first time 2290 between years 1933 – 1956). However this provision was cancelled by the Public Construction Code which was enforced in plans were attempted to be carried out by own efforts and initiatives of the planner.

The active green areas are determined in the Public Construction plan numbered 3194 which is currently in force that is accepted and enforced at the date of 03.05.1985 to be as 7 m² per inhabitant in the within the borders of the Municipalities and its adjacent areas and as 14 m² per inhabitant in the regions that are located outside the borders of the

Municipalities and its adjacent areas. When applications are considered, the urban land use types, appears to be very inadequate by excluding the houses. It appears that between 1970-1990 40% of the urban land is allocated to houses 6.8% to industry, 8.8% to roads and plazas, 2.2% to trade and commerce and 1.1% to green areas (Tekinbaş, 1995). In our day, these percentages have further become worsened and the urban centers have been transformed to the lands that are predominantly dominated only with houses with restricted areas that are allocated to transportation, trade, recreation and other areas that are open to public.

According to the new regulation of the Public Construction Code numbered 3194 issued at the date of 1999 numbered 23804 the active green areas per person in the municipalities (total surface of the parks, kindergartens and play grounds) is determined as 10 m² irrespective of the actual number of population leaving in these municipal areas. The active green area rate in the planning which are located at outside the borders of the municipal and adjacent areas shall be determined as 14 m² per inhabitant. It is provided in said regulation that in determining the size of the open-green area, as the time needed for access increases, the surface are of the active-green areas as defined in hectares should also increase and its equipment, furnishing and devices should become further complicated. In this regulation no descriptive provision is referred about the distribution, planning and application of the green areas.

In the second annex of the Spatial Plans Construction Regulation dated 14/June/2014 and numbered 29030 in addition to the Education and Health Facility Areas, Social and Cultural Facility Areas, Worshipping Places, Technical Infrastructure (by excluding roads and parking lots) the Social and Open Green Areas are determined as (10 m² / person)

Table 1: The sizes of Social and Open Green Areas according to the Spatial Plans Construction Regulation numbered 29030 in different population groups (m² / person)

INFRASTRUCTURE AREAS	0-75.000	75.001-150.000	150.001-500.000	501.000+
Kids park				
Park				
Botanic Park	10.00	10.00	10.00	10.00
Zoo				
Promenade				
Recreation				

When this is compared with the regulation numbered 23804, it appears that a social and open green area of 10 m² per person is determined and a more detailed arrangement is made about the distribution of the green areas in this regulation.

Method

According to the Healthy Cities project that is prepared by the World Health Organization (WHO) which comprised to the theoretical basis of our research there are altogether 53 indicators which can be used in preparation of the city health profiles. Those that are related with open green areas are specified in Table 2.

Table 2: Healthy City Indicators about the Open Green Areas for WHO.

Indicator No.	Title	Definition	Calculation Method and Measurement Unit	Measurement Frequency as proposed by WHO
C9	Surface area of the green areas within the urban center	Gives an idea about the green areas	Total surface area of the green areas in the city / Total surface area of the City (%)	Annual
C10	Green Areas that are open to public	Green areas that are open to public per person	Dimension of the green areas that are open to public (m ²)	Annual

The open green areas are measured according the periods are shown in the table and the size of the open green areas of a city and open green area size per person is computed from said calculation (Barton and Tsorou, 2000). These indicators give a general idea about the cities and they indicate the health criteria of the urban centers enabling us to do comparisons among the cities. The local administrations that want to be a member of the Healthy Cities Union in Turkey are benefited from these indicators in order to draw a layout of their urban health profile.

It appears that the cities in Turkey are found to have shortcomings or inadequacies as for the availability of sufficient open green areas during the literature survey regarding the health indicators. The Urban Health Indicators of Turkey research has potential to yield significant contributions to the investigations of the local administrations in order to produce high living standards in Turkey which is produced by the Union of Health Cities in 2013 that is planned to repeat in every 5 years is accepted to be the most comprehensive study ever made on this subject.

Health data belonging to 81 cities are collected in the maps that are prepared in line with the data collected from the institutions and organizations in Turkey scale and the health of the cities are tried to be specified in maps that are indicated as for the 91 different indicators. However, it is understood that no data was available about the surface areas of the green areas which are specified as C9, and the green areas that are open to public which is specified as C10. This research study is

carried out in order to meet the gap in this shortcoming and the condition of these two indicators in Turkey are investigated and it is attempted to contribute data to the literature on this matter. The “Green Area Information in Urban Environment Form” which is composed of 5 open-end questions is prepared in order to supply data on this matter. Meetings are held by the municipalities and the form is filled by sending fax and e-mail transmissions to their authorized units. The data obtained are analyzed and evaluated accordingly.

Results

The open-green area sizes are calculated as m² per person at the levels of metropolitan, provincial and district municipalities. In this calculation it is assumed that the open-green areas are distributed within the urban texture homogenously. In doing so, during obtaining the data, 55 out of the 60 municipalities which are members of the Union of the Healthy Cities of Turkey are accessed. However data could be obtained only from 18 of them. Two municipalities stated that they did not have any data at their hands and the other municipalities simply did not return back at all. The surface coverage of the Green Areas that is located within C9 City and the green area coverage that are open to public having C10 indicator are shown in the Table 3 below:

Table 3: Urban Surface coverage of the Green Areas within the Cities and Green area that are open to public per person (m²) in Turkey

MUNICIPALITIES	Surface Area in km ²	Size of the green areas that are open to public (m ²)	Total surface coverage of the green areas within the city / total surface area of the city (%) (C9)	Green area that are open to public per person (m ²) (C10)
METROPOLITAN MUNICIPALITY				
Burdur Metropolitan Municipality	6887	1675682.64	0.02	9.99
Denizli Metropolitan Municipality	11861	6400000	0.05	6.54
Ordu Metropolitan Municipality	5952	352000	0.01	0.49
PROVINCIAL MUNICIPALITY				
Isparta Municipality	8913	1686097	0.02	4.03
Yalova Municipality	847	505752	0.06	2.23
Kırşehir Municipality	6570	294094	0.00	2.19
COUNTY MUNICIPALITY				
Avanos Municipality / Nevşehir	1045	1184630	0.11	34.97
Mudanya Municipality / Bursa	346	2660000	0.77	33.09
Gölcük Municipality / Kocaeli	226	2450000	1.08	16.42
Amasra Municipality / Bartın	115	193143,27	0.17	12.56
Altınova Municipality / Yalova	847	239267	0.03	9.83
Bandırma Municipality / Balıkesir	690	603733	0.09	4.22
Toroslar Municipality / Mersin	1072.45	1000000	0.09	3.60
Karşıyaka Municipality / İzmir	102.4	1134803	1.11	3.48

Mezitli Municipality / Mersin	416.5	349352	0.08	2.12
Çankaya Municipality / Ankara	1157	1100000	0.10	1.20
Osmangazi Municipality / Bursa	1703.7	768372	0.05	1.03
Abana Municipality / Kastamonu	33	4000	0.01	0.96

It is observed in Table 3 that only Amasra, Avanos, Gölcük and Mudanya municipalities satisfied the criteria that is specified in the Regulation and Healthy City criteria of the World Health Organization as for the minimum rating of open-green area requirement per person and the other municipalities have remained severely lower than said criteria. Some municipalities where the ratings indicate as if they have green area rating higher than the standards including the Amasra, Avanos, Gölcük and Mudanya municipalities, it is observed that this appeared to be higher due to the existence of passive green areas (including forests, meadows, nurseries and etc.) When the are evaluated as for the existence of active green areas and , then it can be said that the condition in these municipalities appears to be similar with that of the others.



Figure 1. Green areas within the Burdur city (web1)

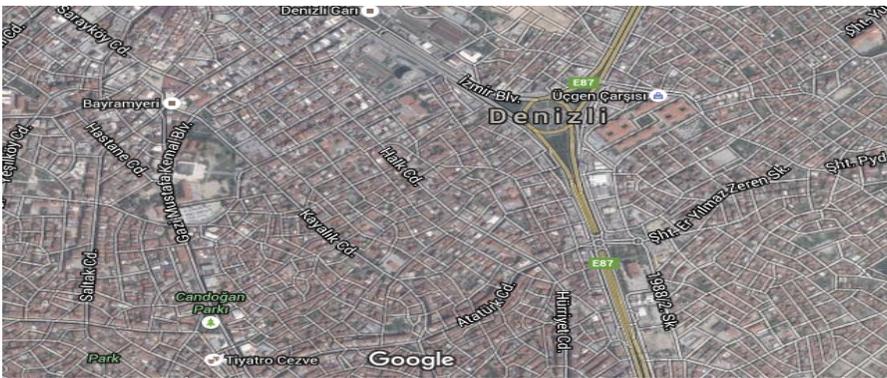


Figure 2. Green areas within the Denizli city (web 2)

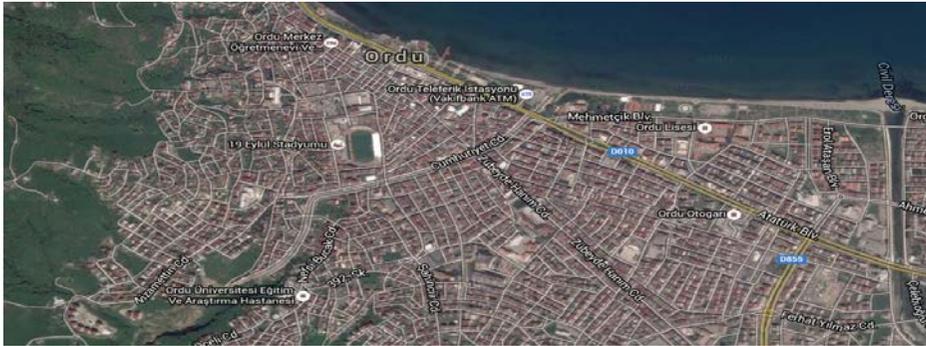


Figure 3. Green areas within the Ordu city (web 3)

Figure 1,2 and 3 shows that the amount of urban green spaces (parks, public gardens, play lots, and playgrounds), which is currently total surface coverage of the green areas within the city / total surface area of the city (%) , is decreasing fast (according to the constitutions and regulations for physical development and planning in Turkey, the amount of urban green spaces per capita is 10 m²)(Altunkasa and Uslu, 2004). According to the data obtained after having interviewed with the municipal posts, the reasons under the failure or disability to acquire adequate active green area ratings as requested can be outlined as below:

“The majority of the areas that are shown as active green area in the public construction plans are under the property of persons, that the local administrations do not have sufficient financial power to pay their expropriation costs, some of the areas that are shown as green areas are constructed by temporary buildings and occupations, however these areas are still shown as green areas in the application public construction plans, that no area have already left within the borders of the municipalities apart from houses and workplaces.”

Conclusion

The research results indicate that the minimum open-green area standard requirements criteria as shown neither in the World Health Organization – Healthy City Project nor in the Spatial Plans Construction Regulation numbered 29030 could be met among the member cities of the Healthy Cities Union.

In order to do healthy urban planning, it is essential that the existing conditions should be determined by taking the primarily the health urban indicators as the bases. It is observed that the municipalities that are interviewed had authority confusion between the municipal units about the green areas and other similar issues, that the Directorate of Parks and

Gardens which is specified to be the unit concerned did not have objective and scientific data. According to the Code dated 2012 and numbered 6360, administrative changes were enforced and the municipalities of 13 provinces were transformed into metropolitan municipalities and 26 new districts were established. It is observed in the research that after this new administrative organization an authority confusion and insufficient information have emerged about the green areas and parks in these municipalities. Already there is a confusion on determining which green areas shall be served by metropolitan municipalities and which ones shall be served by district municipalities. Therefore, not data cannot be obtained.

It is considered that this study in which rough values are indicated is guiding, directing or instructive for the decision-makers and administrators. In order to show the developments throughout years as scientifically and objectively, it is proposed that databases concerning the urban health should be developed first in local scales and then in Turkey scale, to prepare the public construction plans and action plans according to these data and the green area rates per person should be increased not only in plans but in real conditions as well.

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Todim Method For The Selection Of The Elective Courses

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Abstract

The selection of the elective courses considering the undergraduate students' abilities and interests is a crucial decision. This decision also affects their academic career and job proficiency. In this paper it is aimed to guide the students for the elective course selection via TODIM (an acronym in Portuguese of Interactive and Multi Criteria Decision Making) method. TODIM method is one of the MCDM methods which is used to order the alternatives and based on pair comparisons between them. The relative measure of dominance of one alternative over another is found and finally the global values of each alternative are computed to obtain the complete ranking.

Keywords: MCDM, TODIM, Elective courses selection

Introduction

The course selection that occurs in each semester is an important decision for the students. Most programs or departments in the universities have both compulsory and elective courses. In this paper elective courses are handled. Students are interested in some topics because of the different reasons so the universities offer different elective course alternatives to fulfill these requirements. Elective courses are specialized courses that students can get in addition to their compulsory courses. They allow the students to study specialized areas of their needs or interests not extensively covered in the compulsory courses. At the same time they reinforce the compulsory courses in specific skill fields that students want or need to strengthen. By this way students broaden their knowledge, follow their interests through their abilities, specialize and do something they are interested in. Also they transfer this knowledge to their careers. So the course selection for students is an essential decision for their academic careers and job proficiencies (Ersöz et al., 2011). This selection is affected by many conflicting criteria so

it may be handled as multi criteria decision making (MCDM) problem and solved by MCDM methods. Dündar (2008) and Akyol et al. (2014) solved the course selection problem with the AHP method. Ersöz et al. (2011) developed a model based on ANP (Analytic Network Process) and TOPSIS (Technique for Order Preference by Similarity to Ideal Solution) methods for choosing courses of an undergraduate program. The weights of the criteria were determined by ANP and final ranking of the courses were determined by TOPSIS. Keçek and Söylemez (2016) handled the course selection in postgraduate studies with AHP and TOPSIS methods. The literature shows that there are many studies about course selection problem in the MCDM literature but the number of studies about elective course selection problem is limited.

In this paper TODIM (an acronym in Portuguese of Interactive and Multi Criteria Decision Making) method is applied to the elective course selection problem to guide the students. TODIM method is one of MCDM methods and depends on prospect theory. It calculates dominance degrees of each alternative over the remaining alternatives and finally ranks the alternatives (Wei et al., 2015).

The rest of this paper is organized as follows. Firstly the background of TODIM method is presented. Then the application of this method is demonstrated with the elective course selection problem. Lastly the results of the application and the recommendations for future studies are given.

TODIM Method

TODIM method (an acronym in Portuguese for Iterative multi-criteria decision Making) is one of MCDM methods based on prospect theory and it was proposed by Gomes and Lima in 1992 (Krohling & Souza, 2012). The main idea of the TODIM method is measuring the dominance degree of each alternative over the remaining ones by the help of the prospect value function (Wei et al., 2015). The shape of the value function of TODIM is identical to gain and loss function of the prospect theory (Mahmoodi & Jahromi, 2014). Generally TODIM calculates the partial and overall dominance degrees of each alternative over the other alternatives and finally the ranks the alternatives (Ramooshjan et al., 2015). In the literature TODIM method has been employed to solve MCDM problems. Costa et al. (2002) integrated TODIM method with information system planning methodology to assign priorities in information systems. Gomes and Rangel (2009) used TODIM method for evaluating the residential properties and determining a reference value for their rents. Gomes et al. (2009) proposed to use TODIM method for selecting the best option for the destination of the natural gas reserves discovered in Brazil. Gomes et al. (2010) used TODIM and THOR (an acronym for Multicriteria Decision Support Hybrid

Algorithm for Decision Making Processes with Discrete Alternatives) methods for selecting the best natural gas destination. Gomes and González (2012) discussed the role of TODIM method within behavioral decision theory by clarifying cumulative prospect theory and the choice of a reference point. Krohling and Souza (2012a) developed a fuzzy extension of TODIM method for solving multi criteria decision making problems under uncertainty. Krohling and Souza (2012b) used fuzzy TODIM method for rental evaluation of residential properties in Brazil. Krohling et al. (2013) extended fuzzy TODIM method for MCDM problems that contains intuitionistic fuzzy information. Lourenzutti and Krohling (2013) proposed a fuzzy TODIM method that considers intuitionistic fuzzy information and underlying random vectors that affects the performance of the alternatives. Kazancoglu and Burmaoglu (2013) selected enterprise resource planning (ERP) software by using TODIM method. Fan et al. (2013) proposed an extension of TODIM method for solving MADM (Multi-Attribute Decision Making) problems. In this proposed method, differently from classical TODIM, attribute values in terms of crisp, interval and fuzzy numbers are transformed into random variables with cumulative distribution functions. Gomes et al. (2013a) used Choquet integral to measure criteria interaction in TODIM method. By this way they decreased the amount of calculations and also enabled to use interval data. Gomes et al. (2013b) proposed an extended version of TODIM which was based on Choquet integral and applied the method to forecast property values for rent in a Brazilian city. Mahmoodi and Gelayol (2014) integrated DEMATEL and TODIM methods for determining the criteria weights of knowledge management in supply chain networks. Krohling and Pacheco (2014) extended the TODIM method for interval-valued intuitionistic fuzzy environments. Liu and Teng (2014) proposed an extension of TODIM method to handle 2-dimension uncertain linguistic information in the decision process. Uysal and Tosun (2014) used TODIM method to solve residential location choice problem by considering objective and subjective factors. Tseng et al. (2014) evaluated green supply chain practices under uncertainty with TODIM method. Passos and Gomes (2014) integrated TODIM and Fuzzy Synthetic Evaluation (FSE) approach and proposed TODIM-FSE to select the best trainee for an information technology company. Passos et al. (2014) used TODIM-FSE to help potential users to decide upon suitable contingency plans for oil spill situations. Lourenzutti and Krohling (2014) discussed using the Hellinger distance in TOPSIS and TODIM methods to assist the models for dealing with probability distributions without any transformation in the data. Zhang and Xu (2014) extended the TODIM method for the solution of MCDM problems under hesitant fuzzy environment. Wei et al. (2015) extended TODIM method for MCDM problems which include hesitant fuzzy

linguistic term sets by considering the psychological behavior of the decision maker. Salomon and Rangel (2015) compared the results of TODIM method and a fuzzy expert system and they obtained better solutions with TODIM than fuzzy sets. Ramooshjan et al. (2015) used fuzzy TODIM method to select location for the branch of a bank. Sen et al. (2015) proposed TODIM method based on grey numbers and applied it to the robot selection problem. Lourenzutti and Krohling (2015) developed a new approach based on TODIM method to handle heterogeneous data. Gomes et al. (2015) used TODIM and Choquet-extended TODIM methods to determine the ranking of the suppliers in a steel industry and compared the obtained results. Li et al. (2015) proposed Intuitionistic Fuzzy TODIM (IF-TODIM) for the solution of distributor selection problem under uncertainty. Tseng et al. (2015) developed a combined approach based on fuzzy set theory, TODIM method and non-addictive Choquet integral to evaluate service innovation in the hotel industry. Ren et al. (2016) extended TODIM method for MCDM problems that contains Pythagorean fuzzy information and applied the proposed method to the governor selection of Asian Infrastructure Investment Bank. Frigolett and Gomes (2016) proposed a new method for rule extraction in a knowledge based innovation tutoring system and used TODIM method to rank the initial set of rules.

The application steps of TODIM method are presented in the following (Liu and Teng, 2014, Wei et al., 2015):

Step 1. The decision matrix is formed. It is assumed that there is a set of n feasible alternatives, A_i ($i = 1, 2, \dots, n$), against to a finite set of evaluation criteria C_c ($c = 1, 2, \dots, m$). Then the decision matrix X is formed. It shows the performance of different alternatives with respect to various criteria.

$$X = [x_{ic}]_{n \times m} = \begin{bmatrix} x_{11} & x_{12} & \cdots & x_{1m} \\ x_{21} & x_{22} & \cdots & x_{2m} \\ \vdots & \vdots & \ddots & \vdots \\ x_{n1} & x_{n2} & \cdots & x_{nm} \end{bmatrix} \quad (i = 1, 2, \dots, n; c = 1, 2, \dots, m) \quad (1)$$

x_{ic} presents the performance value of i th alternative on c th criterion, n and m are the numbers of alternatives and criteria respectively.

Step 2. The decision matrix is normalized. During the normalization process maximization and minimization criteria are treated separately. Maximization and minimization criteria are normalized by Eq (2) and Eq. (3) respectively:

$$P_{ic} = \frac{x_{ic}}{\sum_{i=1}^n x_{ic}} \quad (2)$$

$$P_{ic} = \frac{1/x_{ic}}{\sum_{i=1}^n 1/x_{ic}} \quad (3)$$

P_{ic} is the normalized value of i th alternative on c th criterion.

Step 3: The importance weight of each criterion (w_c) is determined. In this paper the AHP (Analytic Hierarchy Process) method is used because of its simplicity. It was developed by Saaty (1980) and it depends on pairwise comparison of criteria. More detailed information about the procedure of the AHP method is provided in the paper of Saaty (1980). After obtaining the weight of each criterion, the normalized decision matrix is formed. Then the relative weight (w_{cr}) of the criterion C_c ($c = 1, 2, \dots, m$) to the reference criterion C_r is determined by Eq. (4):

$$w_{cr} = w_c / w_r \quad (4)$$

In this formula w_r is the weight of reference criterion. Reference criterion may be selected as the criterion that the decision maker considers as the most important criterion. In this paper weight of reference criterion is selected as the maximum weights of the all criteria as $w_r = \max \{w_c | c = 1, 2, \dots, m\}$

Step 4: The dominance degree of alternative A_i over alternative A_j , $\delta(A_i, A_j)$, is determined by Eq. (5):

$$\delta(A_i, A_j) = \sum_{c=1}^m \Phi_c(A_i, A_j) \quad \forall (i, j) \quad (5)$$

In this formula the dominance degree of alternative A_i over alternative A_j , $\Phi_c(A_i, A_j)$, concerning criteria C_c ($c = 1, 2, \dots, m$) is determined by Eq. (6):

$$\Phi_c(A_i, A_j) = \begin{cases} \sqrt{\frac{w_{cr}(P_{ic}-P_{jc})}{\sum_{c=1}^m w_{cr}}} & \text{if } (P_{ic} - P_{jc}) > 0 \\ 0 & \text{if } (P_{ic} - P_{jc}) = 0 \\ \frac{-1}{\theta} \sqrt{\frac{(\sum_{c=1}^m w_{cr})(P_{ic}-P_{jc})}{w_{cr}}} & \text{if } (P_{ic} - P_{jc}) < 0 \end{cases} \quad (6)$$

$(P_{ic} - P_{jc}) > 0$ and $(P_{ic} - P_{jc}) < 0$ denote the gain and the loss of the i th alternative over the j th alternative respectively. θ represents the attenuation factor of the losses. Different choices of θ lead to different shapes of the prospect theoretical value function in the negative quadrant (Gomes & Rangel, 2009). Namely the greater θ is, the lower the degree of loss aversion is.

Step 5: Overall dominance degree of alternative A_i (ζ_i) is determined by Eq. (7):

$$\zeta_i = \frac{\sum_{j=1}^n \delta(A_i, A_j) - \min \sum_{j=1}^n \delta(A_i, A_j)}{\max \sum_{j=1}^n \delta(A_i, A_j) - \min \sum_{j=1}^n \delta(A_i, A_j)} \quad (7)$$

Finally alternatives are ranked in descending order according to their overall values (ζ_i) and the alternative with the greatest overall dominance degree is selected as the best one.

Application

Course selection is important for students because it can help them to focus on their interests and learn more about a field that they are interested in studying. In this section, an elective course selection problem is performed to demonstrate the applicability of TODIM method. Firstly, the supervisor has identified five evaluation criteria as suitability of the course to the personal interest or ability (C_1), scheduling time of the course (C_2), lecturer of the course (C_3), applicability of the course content for their future career (C_4) and feedbacks (C_5). The data for all criteria are qualitative. 5 point scale (5: Excellent, 4: Very good, 3: Good, 2: Fair, 1: Poor) is used while evaluating the alternatives with respect to all criteria. Considering these criteria the student has determined 6 different elective courses (A_1, A_2, \dots, A_6) from the elective course catalogue. These elective courses have the same ECTS value. The student has evaluated the alternatives by considering 5 criteria and these evaluations form a decision matrix shown in Table 1. Then decision matrix is normalized by Eq. (2) and shown in Table 2. In this paper all criteria are beneficial criteria where higher values are desirable.

Table 1. Decision matrix

	C_1	C_2	C_3	C_4	C_5
A_1	5	3	4	2	3
A_2	5	4	4	4	2
A_3	5	2	4	3	3
A_4	4	5	4	5	3
A_5	2	5	3	4	4
A_6	3	4	5	3	5

Table 2. Normalized decision matrix

	C_1	C_2	C_3	C_4	C_5
A_1	0,208	0,130	0,167	0,095	0,150
A_2	0,208	0,174	0,167	0,190	0,100
A_3	0,208	0,087	0,167	0,143	0,150
A_4	0,167	0,217	0,167	0,238	0,150
A_5	0,083	0,217	0,125	0,190	0,200
A_6	0,125	0,174	0,208	0,143	0,250

Then weight of each criterion is calculated by the AHP method. While comparing the criteria, Saaty's nine-point scale shown in Table 3 is adopted. The Consistency Ratio (CR) is calculated as 0,015. As a result

of AHP method, the criteria weights (w_c) are found as in Table 4. The criterion with the highest weight is regarded as the reference criterion and the relative weight (w_{cr}) of each criterion to the reference criterion is calculated by using Eq. (4) and shown in the last column of Table 4.

Table 3. Saaty's nine-point scale

Degree preferences	Verbal judgment of preference
1	Equal importance
3	Weak importance of one over another
5	Essential or strong importance
7	Demonstrated importance
9	Absolute importance
2, 4, 6, 8	Intermediate preferences between the two judgments

Table 4. Pairwise comparison matrix for criteria

	C_1	C_2	C_3	C_4	C_5	w_c	w_{cr}
C_1	1	2	3	1/2	4	0,26	0,63
C_2	1/2	1	2	1/3	3	0,16	0,38
C_3	1/3	1/2	1	1/4	2	0,10	0,23
C_4	2	3	4	1	5	0,42	1,00
C_5	1/4	1/3	1/2	1/5	1	0,06	0,15
CR = 0,015						Total:	1
							2,39

The dominance degrees of the each alternative $\Phi_c(A_i, A_j)$ over the alternatives considering each criterion are calculated by Eq. (6). In this paper θ is taken as 1, which means that the losses will contribute with their real value to the global value (Gomes & Rangel, 2009). Then the dominance degree of alternative A_i over alternative A_j , $\delta(A_i, A_j)$, is determined by Eq. (5). In this part dominance degrees of the first alternative over the others considering each criterion are given in Table 5 because of the page constraints. The same procedure is repeated for all alternatives and overall dominance degrees of the each alternative over the others are computed by Eq. (7).

Table 5. Dominance degrees of the first alternative over the others considering each criterion

	$\Phi_1(A_i, A_j)$	$\Phi_2(A_i, A_j)$	$\Phi_3(A_i, A_j)$	$\Phi_4(A_i, A_j)$	$\Phi_5(A_i, A_j)$	$\delta(A_i, A_j)$
(A_1, A_2)	0,000	-0,522	0,000	-0,477	0,056	-0,943
(A_1, A_3)	0,000	0,083	0,000	-0,337	0,000	-0,254
(A_1, A_4)	0,105	-0,738	0,000	-0,584	0,000	-1,217
(A_1, A_5)	0,181	-0,738	0,064	-0,477	-0,898	-1,868
(A_1, A_6)	0,148	-0,522	-0,656	-0,337	-1,271	-2,637
						$\sum_{j=2}^n \delta(A_1, A_j) = -6,919$

Table 6. Overall dominance degrees of the each alternative over the others

	$\sum_{j=1}^n \delta(A_i, A_j)$	ζ_i
A_1	-6,919	0,000
A_2	-4,455	0,400
A_3	-4,570	0,381
A_4	-0,754	1,000
A_5	-4,661	0,366
A_6	-3,103	0,619

According to Table 6 the ranking of the elective courses is $A_4 - A_6 - A_2 - A_3 - A_5 - A_1$. So A_4 is selected as the best elective course by the TODIM method.

Conclusion

The elective course selection is an important part of students' future careers in terms of improving their knowledge associated with their fields of interests. In this paper choosing the most appropriate elective course of a student is handled and this selection problem is solved by TODIM method which is one of the MCDM methods. In this manner firstly the elective course selection problem of the student is structured by defining the evaluation criteria and elective course alternatives. Then the student provides the necessary data namely decision matrix of the problem and the weight of the criteria. The measure of the dominance degree of one elective course over the other elective courses is determined for each pair of elective courses. Finally elective courses are ranked according to their overall degrees of dominance. A_4 is selected as the best elective course for this problem.

TODIM method is suitable for the problems including qualitative and quantitative criteria. It incorporates the expressions of the losses and gains to the multi criteria function (Ramooshjan et al., 2015). It captures the decision maker's psychological behavior (Wei et al., 2015). In this paper TODIM method is applied considering only one student. The same procedure may be repeated for the other students. If the number of criteria and alternatives in the problem increase, the time requiring for the solution may be long. This situation may be overcome by developing a software which performs TODIM method steps.

In future studies, the number of criteria and alternatives may be changed for the same selection problem. The weights of the criteria may be derived from different weighting methods. The ranking of the alternatives may be performed with other MCDM methods and the obtained results may

be compared. Also fuzzy extension of the method may be applied to the same problem or other selection problems.

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Eco-Efficiency: Are We Converging?

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Abstract

Along with the economic and social indicators, environmental issues constitute one important dimension to be taken into account in assessing the social welfare. There has been a lively discussion about measures of social welfare beyond GDP articulated by Stiglitz Report (Stiglitz et al, 2009) which can be viewed as a summation of the earlier efforts to deal with those challenges. This study concentrates on environmental aspects of economic growth in European countries and the changes undergone in the period of 2000 – 2010. Eco-efficiency is evaluated by non-parametric data envelopment analysis method. Time series of obtained eco-efficiency scores from SBM models were used to infer on the σ -convergence analysed in line with the classical econometric approach. Results show that a process of convergence with respect to eco-efficiency has been taking place in European countries.

Keywords: Eco-efficiency, data envelopment analysis, convergence

Introduction

In the practice of economic policy decision making, often the claim for meeting multiple goals occurs, the example being the requirements of the Strategy Europe 2020 defining benchmarks for social and environmental dimensions while keeping the economy on the growth path. Theoretical support for decision making cannot be based on barely proportional indicators relating to goals which may require conflicting actions.

In pursuit of welfare, environmental issues constitute one important dimension to be taken into account in assessing the welfare along with the economic and social indicators. There has been a lively discussion about measures of social welfare beyond GDP articulated by Stiglitz Report (Stiglitz et al, 2009) which can be viewed as a summation of the earlier efforts to deal with those challenges.

In this study, we concentrate on environmental aspects of economic growth in European countries and the changes undergone in the period of

2000 – 2010. There are two main challenges – assessment of eco-efficiency and selecting the measure of intertemporal change.

The method of evaluating country's performance – data envelopment analysis (DEA) – is employed, assessing economic (technical) and environmental performance simultaneously. A number of authors used the non-parametric applied to national economies acting as DMUs. DEA productivity studies date back to Charnes et al. (1978). Since then, the method has developed into a variety of modifications and extensions among which the slack-based measure (SBM) by Tone (2001) is capable of capturing all sources of inefficiency both on the side of inputs and outputs.

Intertemporal changes in productivity has been in the focus of the interest of researchers since the late 80s (Baumol, 1986) represented by later empirical works of Barro (1991) or Sala-i-Martin (1996) came out. These analyses of convergence used econometric approach and production function of a specific form as Solow model implied. Non- parametric approach to convergence can be traced back to Henderson – Russell (2005) who made inferences on convergence from distribution of factors of decomposition obtained by employing frontier approach. Intertemporal approach using Malmquist productivity index was pioneered Färe et al.(1994) with later investigations as Mahlberg et al. (2011). Concentrating on the two-dimensional assessment of economic performance, the aim of the study will be to assess eco-efficiency of European countries and analyse trends in the distribution of eco-efficiency scores over time.

We proceed by establishing measure of eco-efficiency in Section 2 providing theoretical definitions of the concept of efficiency followed by measurement method as application of linear programming. SBM model is particularly paid attention to and the strategy of incorporating undesirable output into the model is presented. Section 3 recalls the standard approach to convergence which is adopted to assessment of the eco-efficiency change over the span of 2000 and 2010. Further, σ - convergence with respect to eco-efficiency is explored. Section 4 concludes.

Measuring eco-efficiency

SBM efficiency measure

The above-mentioned considerations need to be operationalized. First, measurement of efficiency should be introduced. There are several approaches leading to the same evaluation in the form of a linear program. To follow one of them, let's organize data and give some definitions.

Economic subjects under examination be called DMUs (Decision Making Units) to reflect their independent economic behaviour. Let's assume to have n DMUs transforming m inputs into s desirable outputs.

Inputs are organized in the matrix \mathbf{X} , element x_{ij} meaning amount of input i used by DMU j , and the similar way in the output matrix \mathbf{Y} .

To assess technical efficiency, the general formula can be used:

$$\text{efficiency} = \frac{\text{outputs}}{\text{inputs}} \quad (2.1)$$

In classical DEA, every DMU aggregates its inputs and outputs by means of individually set weights so that the ratio 2.1 is maximized. In order to avoid unboundedness of maximization problem, the constraint is imposed so that normalized efficiency cannot exceed unit which also holds in case of using the weights of DMU under consideration (denoted DMU₀) for any other of $n-1$ DMUs. Formally:

$$\max \quad h_0(\mathbf{u}, \mathbf{v}) = \frac{\sum_{r=1}^s y_{r0} u_r}{\sum_{i=1}^m x_{i0} v_i} \quad (2.2)$$

$$\begin{aligned} \text{s.t.} \quad & \frac{\sum_{r=1}^s y_{rj} u_r}{\sum_{i=1}^m x_{ij} v_i} \leq 1 && (j = 1, 2, \dots, n) && (2.3) \\ & u_r \geq 0 && (r = 1, 2, \dots, s) \\ & v_i \geq 0 && (i = 1, 2, \dots, m) \end{aligned}$$

The fractional program can be transformed into the linear one called CCR model (proposed by Charnes et al, 1978) which was first to evaluate performance in a non-parametric way.

The basic model had been improved and modified many ways. The slack-based model (SBM) by Tone is one of the powerful developments to capture all sources of inefficiency. The objective function has two important properties: unit invariance and monotonicity.

A function $\rho = \frac{1 - \frac{1}{m} \sum_{i=1}^m s_i^- / x_{i0}}{1 + \frac{1}{s} \sum_{r=1}^s s_r^+ / y_{r0}}$ meets the requirements of the both,

moreover, it can be shown that $0 < \rho \leq 1$ (Cooper et al, 2007, p.100).

Evaluation of efficiency takes the form of a fractional program:

$$\min_{\lambda, s^+, s^-} \quad \rho = \frac{1 - \frac{1}{m} \sum_{i=1}^m s_i^- / x_{i0}}{1 + \frac{1}{s} \sum_{r=1}^s s_r^+ / y_{r0}} \quad (2.4)$$

$$\begin{aligned} \text{s.t.} \quad & \mathbf{x}\hat{\lambda} = \mathbf{X} + \mathbf{s}^- \\ & \mathbf{y}\hat{\lambda} = \mathbf{Y} - \mathbf{s}^+ \end{aligned}$$

$$\lambda \geq 0, \quad \mathbf{s}^- \geq 0, \\ \mathbf{s}^+ \geq 0.$$

Using substitution $t = \frac{1}{1 + \frac{1}{s} \sum_{r=1}^s s_r^+ / y_{r0}}$ one can obtain a linear program:

$$\begin{aligned} \min_{t, \lambda, \mathbf{s}^+, \mathbf{s}^-} \quad & \tau = t - \frac{1}{m} \sum_{i=1}^m t s_i^- / x_{i0} & (2.5) \\ \text{s.t.} \quad & \mathbf{x}_0 \lambda = \mathbf{X} + - \\ & \mathbf{y}_0 \lambda = \mathbf{Y} - + \\ & \lambda \geq 0, \quad \mathbf{s}^- \geq 0, \quad \mathbf{s}^+ \geq 0, \\ & t > 0. \end{aligned}$$

Substituting $t \mathbf{s}^- = \mathbf{S}^-$, $t \mathbf{s}^+ = \mathbf{S}^+$ and $t \lambda = \Lambda$, (2.5) is converted into

$$\begin{aligned} \min \quad & \tau = t - \frac{1}{m} \sum_{i=1}^m S_i^- / x_{i0} & (2.6) \\ \text{s.t.} \quad & t \mathbf{x}_0 \Lambda = \mathbf{X} + - \\ & t \mathbf{y}_0 \Lambda = \mathbf{Y} - + \\ & \Lambda \geq 0, \quad \mathbf{S}^- \geq 0, \quad \mathbf{S}^+ \geq 0, \\ & t > 0. \end{aligned}$$

The dual linear program associated with (2.6) is

$$\begin{aligned} \max_{\xi, \mathbf{v}, \mathbf{u}} \quad & \xi & (2.7) \\ \text{s.t.} \quad & \xi + \mathbf{v} \mathbf{x}_0 - \mathbf{u} \mathbf{y}_0 = 1 \\ & -\mathbf{v} \mathbf{X} + \mathbf{u} \mathbf{Y} \leq \mathbf{0} \\ & \mathbf{v} \geq \frac{1}{m} [1 / \mathbf{x}_0] \\ & \mathbf{u} \geq \frac{\xi}{s} [1 / \mathbf{y}_0] \end{aligned}$$

The first constraint enables to write the objective function as $\max \mathbf{v} \mathbf{x}_0 - \mathbf{u} \mathbf{y}_0$ with the last constraint for \mathbf{u} yielding

$$\mathbf{u} \geq \frac{1 - \mathbf{v} \mathbf{x}_0 + \mathbf{u} \mathbf{y}_0}{s} [1 / \mathbf{y}_0]$$

After solving programs formulated by 2.6 or 2.7, one can go back to \mathbf{s}^{0+} , \mathbf{s}^{0-} , λ as optimal solutions of SBM and determine ρ_0 for DMU₀ under

evaluation. Efficient DMUs will have values of ρ equal unit. Inefficient ones will have $\rho < 1$ due to positive slack variables s^{0+} , s^{0-} which express deviations from the frontier or “potential”.

It obvious from the construction of ρ that it takes into account all the sources of inefficiency and therefore $\rho_{SBM} \leq h_{CCR}$. SBM efficient DMUs are also CCR efficient but not the other way round. It is possible to give model input or output orientation in order to reflect preferences and feasibility of the policy. Input orientation is carried out by omitting output slacks in (2.4):

$$\begin{aligned} \min \quad & \rho = 1 - \frac{1}{m} \sum_{i=1}^m s_i^- / x_{i0} \\ \text{s.t.} \quad & \mathbf{x}\hat{\lambda} = \mathbf{X} + - \\ & \mathbf{y}\hat{\lambda} = \mathbf{Y} - + \\ & \lambda \geq 0, \quad \mathbf{s}^- \geq 0, \quad \mathbf{s}^+ \geq 0 \end{aligned}$$

Output orientation (SBM-O) is achieved in a similar way by omitting input slacks:

$$\begin{aligned} \min \quad & \rho = \frac{1}{1 + \frac{1}{s} \sum_{r=1}^s s_r^+ / y_{r0}} \quad (2.9) \\ \text{s.t.} \quad & \mathbf{x}\hat{\lambda} = \mathbf{X} + - \\ & \mathbf{y}\hat{\lambda} = \mathbf{Y} - + \\ & \lambda \geq 0, \quad \mathbf{s}^- \geq 0, \quad \mathbf{s}^+ \geq 0 \end{aligned}$$

Modelling undesirable outputs

Once the measure of efficiency has been defined, one can proceed to evaluating eco-efficiency. Individual European countries will be considered as 29 DMUs. As the concept encompasses two dimensions, it’s natural to divide the problem of evaluation into two separate parts – economic and “ecological” performance, the former being evaluated using the classical approach described above. In order to assess ecological efficiency, an SBM model can be employed with GDP acting as output and emissions as inputs which is in line with the work of Korhonen and Luptáčík (2004) where such specification is justified along with the assumption of strong disposability of outputs. Thus, model denoted tech gives values of technical efficiency evaluating use of capital and labor for producing output while model eco provides information on the efficient (i.e. as little as possible) “use” of emissions. This is a “pure ecological efficiency” approach of Kuosmanen and Kortelainen (2005). Each model gives values describing the two

dimensions. To obtain the overall indicator, the two values have to be combined in a composite model. Such model is constructed by taking tech and eco scores as outputs for the composite output oriented model, inputs being equal unit. The resulting *eco_tech* score can be considered a measure of eco-efficiency. For the further progress, modelling undesirable outputs as additional inputs (Model B from Korhonen and Luptáčík, 2004) is adopted.

Empirical analysis

Data and models employed

For empirical analysis, two standard technical inputs – capital stock (K) measured in mil. EUR and labour (L) in thousands of workers were used. Units of measurement can be arbitrarily chosen since as has been shown in Section 2 SBM models have unit invariance property. The same applies to technical output GDP (Y) measured in mil. EUR. Emissions come in thousands of ton of greenhouse equivalent acting as undesirable output associated with the production. All data come from European databases AMECO and Eurostat. For intertemporal analysis, data from 29 DMUs (European countries) of 2000 and 2010 have been used. Statistical properties of the data for 2000 and 2010 are displayed in Table 1.

Table 1: Statistics on Input/Output Data

2000					2010				
	K1	L1	E1	Y1		K2	L2	E2	Y2
Max	6012960,0	39382,0	1038999,0	1840730	Max	6466000,0	40603,0	936544,0	2028463
Min	14466,3	156,4	3845,0	7049,8	Min	21078,6	167,2	4542,0	8750,3
Avg	1050117,6	8079,9	191296,3	352374,6	Avg	1288951,0	8494,5	178059,9	409727,7
SD	1454945,8	9769,7	245822,9	487381,2	SD	1705341,9	10264,7	222615,3	540928,3

Correlation					Correlation				
	K1	L1	E1	Y1		K2	L2	E2	Y2
K1	1	0,973	0,975	0,992	K2	1	0,979	0,964	0,994
L1	0,973	1	0,989	0,973	L2	0,979	1	0,989	0,985
E1	0,975	0,989	1	0,971	E2	0,964	0,989	1	0,973
Y1	0,992	0,973	0,971	1	Y2	0,994	0,985	0,973	1

Source: authors' calculation

As could be expected, the data show quite a big variance due to variability in size of individual economies.

Models and eco-efficiency scores

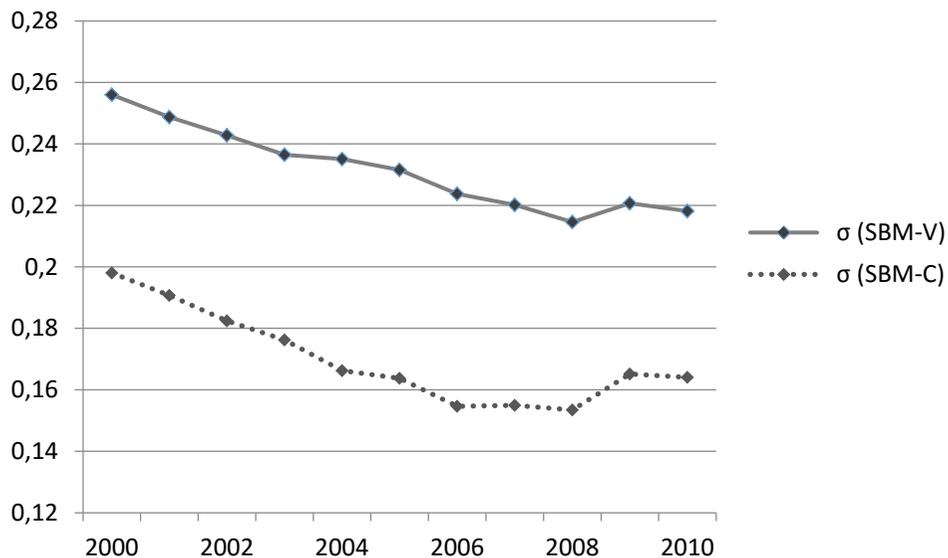
Having selected eco-efficiency measurement method a collected data, one can compute eco-efficiency scores for individual countries for each year from the span 2000 – 2010. Number of DMUs $n = 29$. Two variations of SBM model are run – with constant and variable returns to scale assumption denoted SBM-C and SBM-V. Variable returns to scale presumably better

reflect different size of the economies evaluated. Models are non-oriented to capture all sources of inefficiency both on the part of outputs and inputs. Thus one obtains 11 samples for individual years each containing eco-efficiency scores of 29 DMUs . Results from SBM-V and SBM-C are exhibited in Table A1 and Table A2 in Annex.

Convergence assessment

There are several approaches to investigating convergence with respect to economic performance. Analysing distribution of eco-efficiency scores among countries, we adopt standard approach of second moments in line with classical approach to convergence to establish whether the variance (or standard deviation) of the scores increases over time (σ -convergence). We do not compare two distant periods of time but rather focus on how the variance behaves during the period subject to analysis. Having computed 11 variances of eco-efficiency scores (Table 2), a time series model is selected to describe evolution over time. Time series plot of both CRS and VRS-based standard deviations of the eco-efficiency scores exhibited in Figure 1 suggest that there is a constant decline in time and a simple model with an autoregressive term should be sufficient to describe the change of variance over time. There is also a break in the time series starting in 2009 to be seen.

Figure 1: Time series of standard deviations of EE scores



Source: author's elaboration

Results comprising coefficients and respective p-values of t-statistics are shown in Table 2 as well as some other test statistics. It is clear that the process is sufficiently described by the autoregressive term of order one.

Chow forecast test was carried out to check the 2009 break point which proved to be significant at the 5% level.

Table 2: AR(1) model for standard deviation of EE scores

	SBM-C		SBM-V	
	Coefficient	p-value	Coefficient	p-value
constant	0,16	0,00	0,03	0,01
AR(1)	0,73	0,00	0,83	0,00
Inverted AR Roots	0,73		0,83	
R-squared	0,85		0,93	
AIC	-7,53		-9,57	
Chow forecast	0,02		0,05	

Source: authors' calculations

Conclusion

Eco-efficiency has become part of the decision-making process both on firm and macroeconomic level. Non-parametric approach employed in the analysis is a proper tool to assessing efficiency in case quantities measured in physical units like pollutants are involved. Models identified eco-efficiency frontiers as well as generated eco-efficiency scores. Detailed results of calculations may be useful in providing more insight into the sources of inefficiency. Time series of obtained eco-efficiency scores from SBM models were used to infer on the σ -convergence analysed in line with the classical econometric approach.

Convergence analysis results suggest that despite many differences in economic performance, environmental standards, or access to technology, in the span 2000 – 2010, a process of convergence with respect to eco-efficiency has been taking place in European countries. The results appeared robust as to return of scale assumption staying qualitatively stable for both constant and variable returns to scale. The process appears to have been disrupted in the most severe period of the crisis but is presumably facilitated by European integration contributing thus to raising the standards of living.

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ANNEX Table A1 Eco-efficiency scores from SBM-V model

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Belgium	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Bulgaria	0,377	0,391	0,411	0,423	0,437	0,450	0,467	0,482	0,510	0,499	0,501
Czech Republic	0,462	0,472	0,476	0,489	0,495	0,513	0,541	0,567	0,588	0,585	0,594
Denmark	1,000	1,000	1,000	0,956	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Germany	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Estonia	0,490	0,506	0,534	0,539	0,530	0,545	0,584	0,582	0,555	0,518	0,522
Ireland	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	0,927	1,000	1,000
Greece	0,606	0,630	0,643	0,669	0,673	0,660	0,683	0,694	0,706	0,724	0,693
Spain	0,894	0,903	0,888	0,871	0,848	0,830	0,829	0,809	0,835	0,854	0,858
France	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Italy	1,000	1,000	1,000	1,000	1,000	0,969	0,942	0,914	0,916	0,911	0,918
Cyprus	0,687	0,701	0,698	0,684	0,662	0,653	0,677	0,703	0,735	0,743	0,760
Latvia	0,610	0,627	0,653	0,675	0,686	0,706	0,751	0,778	0,738	0,647	0,621
Lithuania	0,563	0,589	0,611	0,661	0,666	0,681	0,745	0,787	0,799	0,697	0,712
Hungary	0,567	0,577	0,595	0,603	0,610	0,611	0,627	0,629	0,648	0,632	0,633
Malta	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Netherlands	0,899	0,898	0,884	0,867	0,864	0,866	0,872	0,875	0,895	0,890	0,878
Austria	0,911	0,894	0,887	0,861	0,846	0,828	0,837	0,851	0,869	0,881	0,861
Poland	0,578	0,575	0,578	0,586	0,599	0,602	0,616	0,633	0,660	1,000	0,696
Portugal	1,000	0,856	0,740	0,733	0,709	0,686	0,698	0,715	0,725	0,733	0,774
Romania	0,352	0,372	0,391	0,408	0,433	0,443	0,468	0,496	0,530	0,515	0,510
Slovenia	0,671	0,667	0,671	0,683	0,677	0,677	0,705	0,741	0,753	0,720	0,731
Slovakia	0,485	0,488	0,502	0,517	0,526	0,545	0,581	0,644	0,670	0,669	0,697
Finland	0,810	0,802	0,794	0,784	0,797	0,838	0,867	1,000	1,000	0,905	0,916
Sweden	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
United Kingdom	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Island	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Norway	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Switzerland	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000

Source: authors' calculations

ANNEX Table A2 Eco-efficiency scores from SBM-C model

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Belgium	0,866	0,861	0,859	0,856	0,853	0,848	0,869	0,904	1,000	1,000	1,000
Bulgaria	0,376	0,390	0,410	0,422	0,433	0,433	0,467	0,482	0,508	0,497	0,499
Czech Republic	0,462	0,472	0,476	0,487	0,492	0,508	0,535	0,564	0,584	0,578	0,594
Denmark	0,890	0,882	0,890	0,873	0,877	0,888	0,902	0,934	1,000	1,000	1,000
Germany	0,742	0,742	0,736	0,733	0,723	0,718	0,740	0,766	0,782	0,769	0,792
Estonia	0,480	0,500	0,523	0,533	0,529	0,537	0,581	0,579	0,545	0,501	0,508
Ireland	1,000	1,000	1,000	1,000	0,877	0,868	0,887	1,000	0,876	1,000	1,000
Greece	0,589	0,610	0,619	0,644	0,646	0,635	0,668	0,691	0,703	0,706	0,693
Spain	0,798	0,803	0,785	0,783	0,757	0,739	0,750	0,751	0,771	0,795	0,790
France	0,882	0,881	0,870	0,864	0,854	0,840	0,855	0,857	0,860	0,872	0,861
Italy	0,881	0,881	0,863	0,843	0,828	0,813	0,824	0,831	0,834	0,839	0,838
Cyprus	0,652	0,670	0,664	0,657	0,650	0,651	0,662	0,692	0,724	0,734	0,743
Latvia	0,590	0,612	0,632	0,658	0,675	0,701	0,744	0,776	0,710	0,614	0,587
Lithuania	0,554	0,581	0,600	0,655	0,665	0,673	0,715	0,753	0,787	0,679	0,699
Hungary	0,567	0,577	0,594	0,603	0,610	0,611	0,627	0,627	0,646	0,632	0,629
Malta	0,801	0,772	0,772	0,753	0,737	0,734	0,742	0,746	0,781	0,791	0,806
Netherlands	0,818	0,816	0,800	0,795	0,788	0,790	0,812	0,839	0,860	0,844	0,859
Austria	0,879	0,857	0,846	0,823	0,815	0,804	0,829	0,851	0,868	0,880	0,860
Poland	0,535	0,536	0,542	0,556	0,563	0,561	0,585	0,614	0,648	0,685	0,696
Portugal	0,802	0,776	0,731	0,726	0,704	0,683	0,697	0,714	0,724	0,732	0,774
Romania	0,352	0,372	0,391	0,408	0,433	0,432	0,468	0,495	0,529	0,514	0,509
Slovenia	0,657	0,655	0,658	0,671	0,669	0,671	0,694	0,726	0,738	0,702	0,707
Slovakia	0,483	0,486	0,499	0,515	0,525	0,544	0,579	0,641	0,667	0,664	0,689
Finland	0,809	0,800	0,792	0,783	0,797	0,830	0,835	0,895	0,946	0,891	0,916
Sweden	1,000	1,000	0,970	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
United Kingdom	0,877	0,889	0,907	0,927	0,901	0,891	0,918	0,958	0,984	1,000	1,000
Island	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Norway	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Switzerland	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000

Source: authors' calculations

What Croatian farmers think about situation in agriculture?

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Abstract

Analysis of the attitudes of the Croatian agricultural producers on the situation in agriculture was obtained through a survey carried out in the framework of IPA project “Contribution of agriculture to a clean environment and healthy food”. The aim of the study was to investigate the individual attitudes of agricultural producers about the basic problems and the situation in the agriculture of Croatia. The study involved 57 agricultural manufacturers from the area of Osijek-Baranja and Vukovar-Srijem County. Respondents are primarily registered as family farms (70%) and crafts (16%). 81% of producers are inscribed in the Register of agricultural producers, 68% are in the VAT system, and 72% receive agricultural subsidies in the form of direct payments. Although general attitudes in Croatian society regarding cooperation in agriculture are pretty complicate and divided, farmers are aware of its benefits (evaluated better than problems). According to them, the main problem in Croatian agriculture are high input prices, slow administration and low market food price. Although farmers blame government and its ministries the most for unfavorable situation in agriculture, in the same time they expect the most improvement driven by government decisions. Farmers see themselves primarily as hardworking, dedicated to their job, nature loving people, but at the same level they are disappointed and underestimated due to current long-standing problems in agriculture.

Keywords: farmers, attitudes, agriculture, cooperation, EU funds

Introduction

After the proclamation in 1990, the Republic of Croatia turned to an open market model and an integration process of transition. Today Croatian economic development is based on export orientation with and important

role of agriculture due to the limited domestic market and a loss of traditional markets. The transition from central planned to the market economy caused many difficulties in agricultural sector: loss of tradition markets, war destructions, failure in privatization of state-owned land, unorganized market and sale problem, high input prices, technological and educational production limits, producers insolvency causing lower inputs and lower yields, agricultural and vegetable export-import deficit etc. (Lončarić et al., 2005.)

Croatia, as well as most of Western Balkan countries, has quite high but unused potential for agriculture, characterized by small-scale and fragmented nature of private farming, a long-term decline in the volume of agricultural production, rather low yields that still lag behind the EU average and rather high agricultural producer prices, mostly above the EU average, indicating weak price competitiveness (Volk et al., 2012). However, agriculture and food production are of exceptional importance for Croatia and constant work on production competitiveness are necessary for successful integration of Croatian agricultural sector in EU market (Gelo and Gelo, 2008).

Since Croatian self-sufficiency in food products is still very low, the first policy objective is to increase domestic supply with high quality products at reasonable prices. However, in Croatia there is no sufficient demand to motivate domestic producers to increase their production, and domestic policy makers to present the policy of geographical indications as a key to solve the problems of small producers. Within the EU context, agrifood sector is of little importance with a share of only about 1% in main economic indicators. Despite favorable natural resources, historical, organizational, economic and institutional reasons explain difficult situation in agriculture and in rural areas. Policy makers are trying to resolve these issues, now by available CAP mechanisms of income support and rural development. Despite considerable financial resources available for Croatian farmers, there is fear that the funds will not be adequately utilized (Franić et al., 2014.). Franić et al. (2003) investigate Croatian agricultural policy in its elements (policy objectives, measures and methods, stakeholders, results). The authors evaluate foreign trade protection and domestic support by state intervention indicators. Although the nominal indicators point out a relatively highly protected agricultural sector, effective protection of domestic producers has been considerably lower, due to high costs of agricultural inputs and the influence of world prices.

Župančić (2009) researches farms structure in Croatia, trying to explain differences between farms types. The author stated that a traditional type of family farming holdings existed for a long time in Croatia, although in the last 25, 35 years under the influence of different factors, a modern

agricultural holding is being born, capable of sustaining the market competition and to some extent compatible with the European surrounding.

One of the concepts of the modern agriculture is a larger and technologically better equipped farm. The efforts of the state policy during the transition and privatization process, which led to a new structure of the Croatian agriculture, have taken that course. A bigger polarization in the ownership structure of the family agricultural holdings has occurred, within which a smaller number of larger and market oriented holdings has been singled out, co-existing at the same time with a huge majority of small and tiny holdings, who still maintain many traditional characteristics. Numerous issues have yet to be resolved and the overall situation in agriculture is stagnating and potentially very conflicting.

Croatia's share of agriculture in GDP is about 5.1% in 2011 (Eurostat 2012). For comparison, the share of agriculture in GDP of the EU-27 amounts to 1.7%. In Croatia, as much as 13.8% of the working population is employed in the agricultural sector while in EU-27 only 4.7% in 2010 (Eurostat 2011). According to the research on the agricultural farms structure, spent 2010 by Croatian bureau of statistics (2010), agricultural production in the Republic of Croatia was taking place at 233.280 agricultural farms which cultivated 1.316.000 hectares of agricultural land. Family farms makes 99% of the total number of farms or 231.070, while only 1% or 2.210 farms acts as a legal entity. The average farm size is about 5,6 ha, while in EU the average farm size is 14,5 ha. According to the land use, fields and gardens participate the most (67,1%), permanent grassland - meadows and pasture (26,9%), orchards (2,2%), vineyards and olive groves (1,4%) of utilized agricultural land.

In Croatian crop production, the importance of cereals in agricultural production is indisputable, participating with 67.6% in arable land sown. Traditionally, our most important cereals are maize (49% of all cereals sown) and wheat (31%). Nevertheless, joining the European Union and exit from CEFTA did not endanger the balance of agricultural and food products because the recorded increase in exports value was 20% and in import 18% (Lončarić et al., 2014.). The average unemployed rate in 2013 amounted 20,2% in Croatia, while in EU 10,4%. According to CBS data, average net paid wage per employee in 2013 was around 5.515 kn (1 € is about 7,6 HRK). The average net salary paid per employee in agricultural activity in 2013 is less than the average net salary in Croatia and it amounts 77% of the average net wages paid per employee in the Republic of Croatia.

In these circumstances, Croatian agricultural producers are demotivated, insolvent and disappointed. The aim of paper was to investigate the individual attitudes of agricultural producers about the basic problems and the situation in the agriculture of Croatia by using the questionnaire.

Material and Methods

Analysis of the attitudes of the Croatian agricultural producers on the situation in agriculture was obtained through a survey carried out in the framework of IPA Croatia-Serbia project “Contribution of agriculture to a clean environment and healthy food”.

Other than the economic issues, this extensive survey also involved issues related to fertilization and protection of agricultural production. The study involved around 56 agricultural manufacturers from the area of Osijek-Baranja and Vukovar-Srijem County. These two counties are the most important agricultural areas in Croatia. The research was conducted in 2014. The questionnaire was consisted of questions regarding:

- socio-demographic characteristics of farmers/respondents,
- farm legal and administrative features,
- attitudes regarding bad situation in agriculture, adjustment in the EU and EU funds involvement,
- farmers data about agricultural production (size, fragmentation of farm land, crops and livestock production),
- farmers attitudes about cooperation in agriculture,
- the most significant problems of Croatian agriculture, who is responsible for that and who can improve situation in agriculture
- personal characteristics of Croatian farmers

Socio-economic part of questionnaire was consisted of 26 questions.

Most of the questions were two or multiple answer questions and three questions were open-ended questions. Some answers were measured by means of five-point Likert scale anchor when 1=low or bad degree of the characteristic and 5=high of good degree of the characteristic (Likert, R., 1932).

The data obtained from the survey were analyzed with PC applications SA for Windows (SAS Institute Inc., Cary, NC, USA), StatSoft Statistica and Excel for determination of variance analysis (ANOVA) and correlations dependences.

Results

Socio-demographic characteristics of farmers/respondents

Respondents were mostly from rural areas (75%). The average age of respondents were 41,8, what is very good because the average age of Croatian farmer is 59,8 (Horvat, 2014). Regarding farmers education level (Table 1), significantly better situation is among farmers covered by survey compared to average Croatian agricultural producer. Major differences in favor to farmers/respondents is higher levels of high school degree (56,14 vs. 29,07%) and university degree (26,32 vs. 2,14%).

Table 1. Comparison between farmers/respondents and average Croatian farmer educational structure (%)

Education level	Farmers/respondents	Average Croatian farmer
Incomplete elementary school	0,00	9,33
Not updated educational background	1,75	30,62
Elementary school	10,53	26,40
High school	56,14	29,07
College	1,75	2,44
University	26,32	2,14
PhD	3,51	Not researched

But when farmers/respondents were asked about their agricultural education, the most frequent answers were high agricultural school diploma (28,07%) or family tradition (21,05%), while 14,03% have university degree in field of agriculture. Less frequent answers were: long-life learning (10,53%), no education in agriculture (8,77%), specialized courses (7,02%), college (5,26%) and incomplete faculty of agriculture (3,51%). The average number of farm employees is 2,48 while month income per farm was 2.073 € Their income mostly come from agricultural activities (51%) or agricultural mixed with non-agricultural activities (31%), while share of income based on non-agricultural activity amounts 15,79%.

Farms' legal and administrative features

Respondents involved in this study are farmers who had a will to participate in this research and have previous contacts with Faculty of agriculture. So, these farmers take serious their business. In Croatia the most common ways to register farm is: family farm, craft registered for agricultural activity, holding and cooperation registered for agricultural activity. The observed data set showed that family farms participated the most (70%), followed by crafts (16%), holding company (5,26%), cooperation (1,75) and other (5,26%). Most of them are members of Croatian farm register. Croatian farm register is a database that contains information about the farms and their resources and is characterized by a higher level of seriousness of the business. So, it is not surprise that mostly farmers/respondents are involved in VAT system too (68%), what amounts 25% in Croatia and involves farms who earn more than 230.000 HRK/year. Farmers can be involved in VAT if their incomes are more than 80.000 HRK. If it is more than 230.000 HRK they must be in VAT system. Involvements in Croatian farm register and VAT significantly positively correlate ($r= 0,30^*$; $n=56$; $df=55$).

In this survey, 71,93% of respondents are users of agricultural subsidies and the most of them are users of Croatian extension service (71,93%), while 22,81% think they do not need their advices or they use services but do not listen advices (3,51%). Involvement in Croatian

extension service positively correlate with respondents engage in Croatian farm register ($r=0,61^{**}$), VAT system ($r=0,44^{**}$) and taking agricultural subsidies ($0,50^{**}$). Hadelan et al. (2012) conducted the similar survey which included 34 family farms in Croatia and summarizes the main features of business decision making of farmers, with emphasis on information basis, risk aversion, participants and goals. The authors presented similar results claiming that the most often used information sources are the professional journals and the agricultural extension service. According to that research, only 29.4% of respondents use the Internet as an information source.

Attitudes regarding situation in agriculture, adjustment in the EU and EU funds involvement

Taking into consideration bad situation on Croatian agriculture, generally, farmers think that responsibility for that goes to unfavorable conditions for agricultural entrepreneurship (47,37%), followed by bad policy of agricultural subsidies (26,32%) and poor economic situation in the country (22,81%), while 1,75% of respondents do not know the answer.

Prediction of EU joining effects on agriculture gave many Croatian authors. Franić et al. (2012) stated that Croatian accession to the European Union updated the readiness of Croatian agricultural producers to a market that soon awaits them. They reexamined the goals and results of agricultural policy measures, but also the policy's development concerning the harmonization of entire rural areas with the Common Agricultural Policy of the EU. The socio-economic changes haven't significantly altered the main objectives of agricultural policy (providing enough food for consumers at reasonable prices, and an equal standard of living for farmers), but they have just changed the instruments and measures of the states with regard to the economic conditions and political circumstances. The authors also gave a review of scientific paper themes in the field of agriculture, so they state that papers of the late 20th century emphasize the impossibility of mapping individual solutions from the EU to the Croatian situation.

Farmers/respondents' attitudes regarding situation in Croatian agriculture after joining EU are quite pessimistic because 47,37% of them think joining the EU did not help, 26,32% of them think it help, while 24,56% do not know. So, it is not surprising that 85,96% farmers covered by survey believe that Croatia was not good prepared for joining EU. The farmers think the main reasons for fear of joining the EU is that they will not meet EU standards (42,11%), fear of unknown (35,09), and lower prices in the EU (17,54%), and the rest of them do not know the answer (3,51%). Although farmers haven't got a good general opinion regarding joining EU, they still believe that Croatian food can be successfully marketed to the EU (54,39% of respondents).

Božić et al. (2009) point out the necessity of taking advantage of the EU pre-accession funds as most favorable external help instruments for the adjustment process, and the importance of the challenge and the opportunities such activities bring. Croatian unpreparedness for joining the EU can be drawn from fact that we could use 858 millions of EU funds euros in period 2006-2013, but we used only 186 million. Only 10,53% of farmers/respondents participated in EU project fund applications, but positive data is 83,28% of that number is financed. Expectedly, there is a positive correlation between submitted and financed projects ($r=0,49^{**}$).

Farmers data about agricultural production (size, fragmentation of farm land, crops and livestock production)

After transition to market oriented economy, family farms in Croatia are mostly private. Farmed land mostly is in private ownership (70%), land in a lease amounts 15,45% and land taken into concession amounts 14,55%. Interestingly, private ownership is in negative correlation with a number of employees ($r=-0,31^*$) but number of employees is in positive correlation with land in concession ($r=0,30^*$). It can be explained that private family farms mostly have a small farm size so they do not have a high demand for extra work in relation to big agricultural holding companies that have more land so they take land into concession and employ more workers.

The average farm size in survey is 18,91 ha, fragmented in average on 4,23 particles. Fragmentation of farms is a big problem for Croatian farm efficiency and competitiveness. Respondents have in average 11,66 pieces of big livestock and 7,05 pieces of little livestock. A relatively small number of livestock is logic, because the farmers from researched area of East Croatia are mostly crop producers, less livestock breeders. Mostly, farmers grow corn (34 out of 56 respondents), wheat (33), soybean (25) and sunflower (18). Barley, sugar beet, rapeseed and sunflower are less frequent. Expectedly, crop production is in strong correlation to all crops, while livestock production correlate to fodder crops ($r=0,62^{**}$), barley ($r=0,48^{**}$) and corn production ($r=0,28^*$).

Considering small average farm size, completed farm machinery is often a problem for continuous production, so only 33,93% have all machinery they need, but the rest of them addresses to friends/neighbors/cousins for borrowing (32,14), mechanization service agencies (28,57) or they are involved into hardware rings (5,36%).

Farmer's attitudes about cooperation in agriculture

Attitudes regarding cooperation in agriculture are pretty complicate and divided. On the one hand, producers are familiar with benefits arising from cooperation, but on the other side, they are still reluctant to involve.

The primary reason is a bad experience from the past, because during socialism farmers are involuntarily associating into agricultural cooperatives.

Matijašević (2009) explore legislation regulating the registration, activities and structure of co-operatives, primarily the agricultural ones, in Croatia. The analysis of regulations from the socialist period between 1945-1990 shows that the co-operative was an instrument servicing the state interests and not the interests of its own members. This is obvious from the standardized goals among which the first one was the nationalization i.e. the socialization of the agriculture (following the breakdown of its concept and the campaign of collectivization in 1953). Nevertheless, after 1974 and the reform, the co-operatives became an important economy subject. The author has given special attention to the current Law on co-operatives of the Republic of Croatia. New legislation on co-operatives and other measures of economy policy should provide quality incentives for the co-operatives in Croatia in order for them to become more competitive.

Božić, 2009 also addressed to the importance of cooperatives in joining EU process and stated that they will play a significant role in the adjustment process, since the EU gives particular attention to them in the new member countries as well.

Farmers/respondents were asked to evaluate the importance of problems as well as positive effects of agricultural association in Croatia (Table 2). The respondents highly evaluated problems, as well as the positive effects of cooperatives, so the average values range from 3,98 to 4,46. Due to small differences in responses there were not estimated statistically significant differences between the answers. However, farmers evaluate better the effects (average value of all effects is 4,32) than the problems connected with associations (4,03).

Table 2. Average value of association problems and effects in Croatia

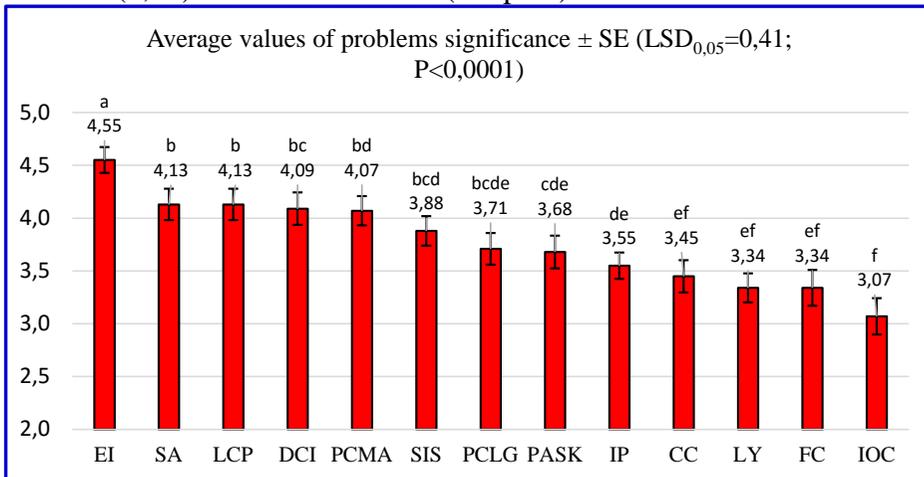
Problem	Average value (1=strongly disagree, 5=completely agree)
Investments and profit distribution issues	4,11
Lack of trust	4,11
Inadequate legislation	4,11
Lack of information and farmers knowledge	3,96
Bad experiences in the past	3,98
Average	4,03
Effect	Average value (1=strongly disagree, 5=completely agree)
Better connections with the market	4,46
The acquisition of new knowledge and education	4,30
Better information and assistance	4,29
Easier to financial compensations and subsidies	4,21
Average	4,32

The most significant problems of Croatian agriculture, who is responsible for that and who can improve situation in agriculture

According to farmers opinion, the most important and first problem in Croatia agriculture is high level of input prices (the average value from 1 to 5 is 4,55).

On the second level of statistical importance ($P < 0,0001$) is slow administration (4,13), low market price (4,13), problem of debt collection (4,09), poor cooperation with Ministry of agriculture (4,07), small and irregular subsidies (3,88) and poor cooperation with local government (3,71).

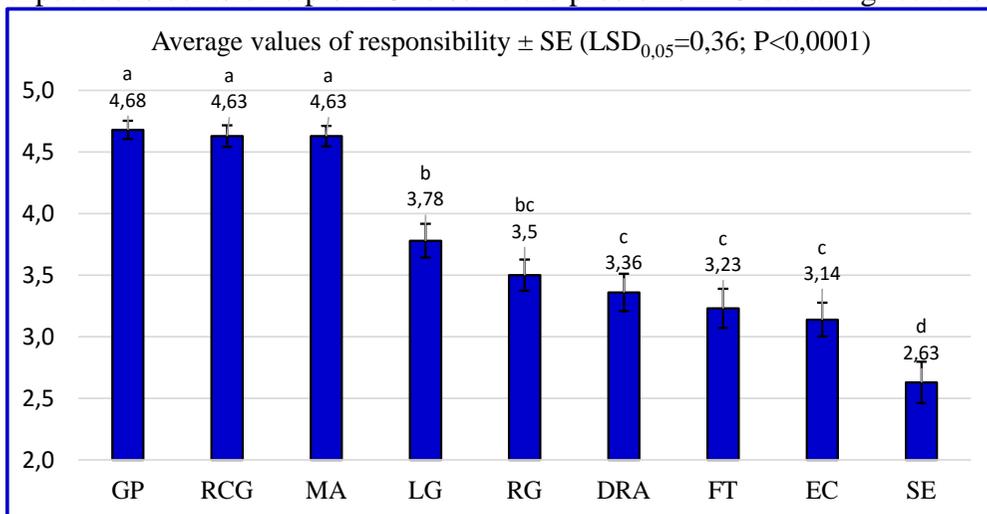
The less important problems are poor application of scientific knowledge (3,68), inefficient production (3,55), climatic changes (3,45). Farmers rate low yield (3,34), foreign competition (3,34) and inability to obtain credit (3,07) with lowest scores (Graph 1).



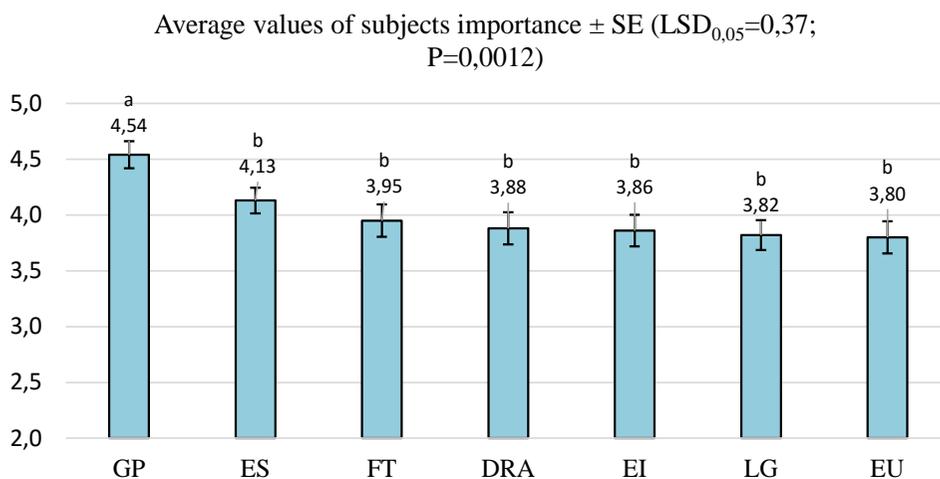
Graph 1. Farmers' evaluation of significance of the main problems in Croatian agriculture (EI=expensive inputs; SA=slow administration; LCP=low cost of products; DCI=debt collection issue; PCMA=poor cooperation with the Ministry of Agriculture; SIS=too small and irregular subsidies; PCLG=poor cooperation with local governments; PASK=poor application of scientific knowledge; IP=inefficient production; CC=climatic conditions; LY=low yields; FC=foreign competition; IOC=inability to obtain credit)

Very interesting results are obtained by evaluation responsibility of some subjects regarding unfavorable situation in agriculture (Graph 2). According to farmers' view, the most responsible entities are Government (4,68), Republic of Croatia in general (4,63) and Ministry of agriculture (4,63). Less responsible are local (3,78) and regional (3,50) governments. The least evaluated responsibility takers are development & regional agencies (3,36), farmers (3,23), entrepreneurialship agencies (3,14) or someone else (2,63). So, farmers think level of responsibility goes from the highest institutions, via regional institutions to the micro institutions and themselves. Differences between the answers mostly are statistically significant ($P < 0,0001$).

But, when farmers are asked what entities can improve the situation, on the top is government as well (4,54), extension service (4,13) and farmers themselves (3,95). The second group of data makes development & regional agencies (3,98), educational institutions (3,86), local governments (3,82) and EU (3,80). There is statistically significant difference ($P = 0,0012$) between these two sets of answers (Graph 3). It is interesting that farmers do not expect considerable help of EU to solve the problems in Croatian agriculture.



Graph 2. Farmers' value of responsibility degree for the situation in in Croatian agriculture (GP=Government and Parliament; RCG=Republic of Croatia in general; MA=Ministry of Agriculture; LG=Local government; RG=Regional government (Counties); DRA=Development & Regional Agency; FT=Farmers themselves; EC=Enterpreunership centers; SE=Someone else)

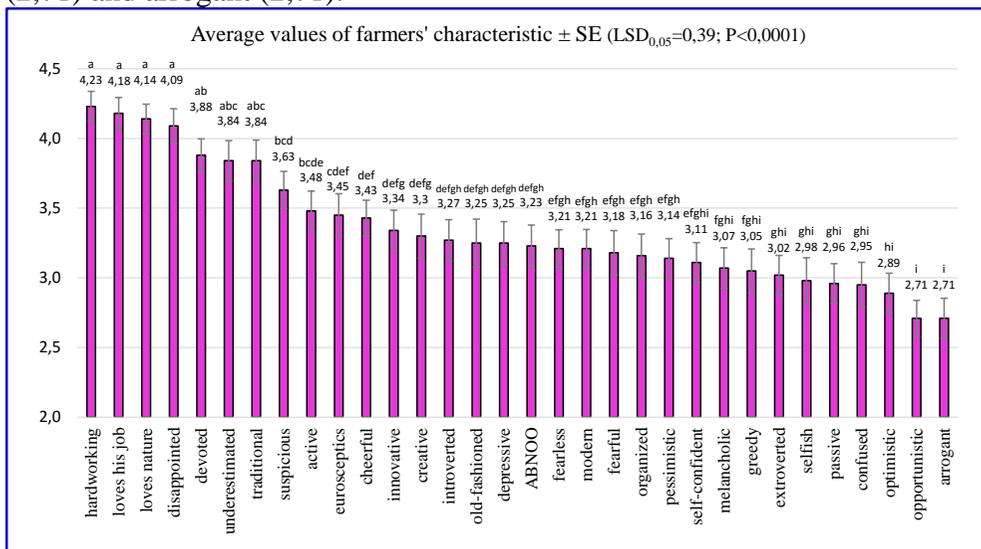


Graph 3. Farmers' evaluation of the importance of individual subjects for improving the situation in agriculture

(GP=Government and Parliament; ES=Extension Service; FT=Farmers Themselves; DRA=Development & Regional Agency; EI=Educational Institutions; LG=Local government; EU=European Union)

Characteristics of Croatian farmers

In the last question farmers were supposed to evaluate the characteristics that describe Croatian farmer the best (Graph 4). The highest rates were given to following characteristics: hardworking (4,28), loves his job (4,18), loves the nature (4,14) but disappointed (3,88) in the same time. The average farmers is also devoted (3,88), underestimate (3,84), traditional (3,84), suspicious (3,68), active (3,48), eurosceptical (3,45), cheerful (3,43), innovative (3,34) etc. The farmers don't see themselves as opportunistic (2,71) and arrogant (2,71).



Graph 4. Farmers' answer the question: "To what extent do the following characteristics describe farmers in Croatia?" (ABNOO=in agriculture because (s)he has no other optinos)

Conclusion

Croatia didn't used ten years of preparations for accession to the EU in an optimal way to improve the competitiveness of the food sector, but in the same time there were delays in attracting pre-accession funds. Now, Croatia is in a large, well-organized market with a very strong competition. Farmers younger and better educated than Croatian average participated in a survey. 70% of farmers legalized their business as family farms. These farmers take serious their business because they are members of Croatian farm register, VAT system and they receiving services of Croatian extension service. Inadequate preparation causing joining the EU didn't help situation in agriculture, but farmers still have faith in quality of food they produce

because more than a half believe Croatian food can be successfully marketed to the EU. Although general attitudes in Croatian society regarding cooperation in agriculture are pretty complicate and divided, farmers are aware of its benefits (evaluate better than problems). According to them, the main problem in Croatian agriculture are high input prices, slow administration and low market food price. Although farmers blame government and its ministries the most for unfavorable situation in agriculture, in the same time they expect the most improvement driven by government decisions. Farmers see themselves primarily as hardworking, dedicated to their job, nature loving people, but at the same level they are disappointed and underestimated due to current long-standing problems in agriculture. However, there is a hope that a new system of support for farmers and Rural development program 2014-2020 will help.

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The Qualiflex Method For The Insurance Company Selection Problem

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Abstract

Insurance is a tool for the process of protecting the people against the uncertainty and the loss of their life and property. This process is operated by an insurance company under a contract between insurance holder and insurance company. The contract may be signed for life, automobile, house etc. and the coverage of the contract may change from insurance company to company. So the selection of the most appropriate insurance company is not easy task. This selection may be handled as a MCDM (Multi Criteria Decision Making) problem. MCDM problems refer to make a decision for the alternatives characterized by multiple, usually conflicting, criteria. There are several methods for solving MCDM problems. In this paper, QUALIFLEX (QUALItative FLEXible) method, one of the MCDM methods, is applied to the insurance company selection problem. This method is based on the evaluation of all possible rankings (permutations) of alternatives in terms of concordance and discordance indices. The insurance company alternatives are ranked by this method and finally the results are discussed.

Keywords: MCDM, QUALIFLEX, insurance company selection

Introduction

Insurance is the protection against financial loss arising on the happening of unexpected events (Vaughan & Vaughan, 2009). Both individuals and businesses have significant needs for various types of insurance to provide protection for their health care, property and legal claims made against them by others (Mayer et al., 2012). They get insurance services through insurance companies which are financial institutions provide services as financial intermediaries of financial markets. In this manner insurance companies provide the coverage in the form of compensation resulting from loss, damages, injury, treatment or hardship in exchange for premium payments (Tadesse, 2014). Getting insurance

services is a technical and complex task because of the various criteria that influence the businesses to make this decision. So it's important to choose the right insurance company for businesses as well as individuals.

In the literature, multiple criteria decision making methods have been widely applied in the domain of insurance decision making. Amiri et al. (2011) applied balanced scorecards and VIKOR method in rating of insurance companies. Doumpos et al. (2012) used PROMETHEE II method and regression analysis for the performance of nonlife insurers. Yücenur and Demirel (2012) analyzed five Turkish insurance companies for a foreign investor who wants to purchase a local insurance company and selected the most appropriate alternative with the extended VIKOR method. Alenjagh (2013) used ANP and PROMETHEE methods for financial performance evaluation and ranking of insurance companies in Tehran Stock Exchange. Akhisar (2014) obtained the financial performance ranking of Turkish Insurance companies for the period 2006-2010 with ANP method. Khodamoradi et al. (2014) combined DEMATEL and PROMETHEE II methods for rating of Iranian insurance companies listed in Tehran Stock Exchange for a period of 2010–2012. Sehhat et al. (2015) ranked the insurance companies in Iran with AHP and TOPSIS methods. Kirkbesoglu et al. (2015) used AHP method for testing the effectiveness of insurance companies to provide information to current and prospective policyholders in two separate international markets; United Kingdom (UK) and Turkey. Although a considerable numbers of MCDM methods have been employed to solve insurance company selection problems, QUALIFLEX (QUALitative FLEXible) method has not been applied to these problems. In this paper QUALIFLEX method is used for selecting the most appropriate alternative insurance company. It is one of the outranking methods and it depends on the pairwise comparisons of alternatives with respect to each criterion under all possible permutations of the alternatives and identifies the optimal permutation that maximizes the value of concordance/discordance index (Martel & Matarazzo, 2005; Zhang and Xu, 2015).

The rest of this paper is organized as follows. The background of QUALIFLEX method is presented. Then the application of this method is demonstrated with the insurance company selection problem. Lastly the results of the application and the recommendations for future studies are given.

QUALIFLEX Method

QUALIFLEX (QUALitative FLEXible) method is one of the outranking methods for solving MCDM problems. It was developed by Paelinck (1976, 1977, 1978) and Paelinck (1976) generalized Jacquet-Lagreze's permutation method to develop a flexible method (Chen et al.,

2013, Wang et al., 2015). Its flexibility comes from the ability of handling cardinal and ordinal information simultaneously in the decision making process (Zhang & Xu, 2015). The QUALIFLEX method is based on a metric procedure namely the method performs the pairwise comparisons of alternatives with respect to each criterion under all possible permutations (rankings) of the alternatives. Then a concordance and discordance indices are computed for each couple of alternatives of permutations. Finally optimal permutation of the alternatives that maximizes the value of concordance/discordance index and the most preferred alternative among alternatives are determined (Martel & Matarazzo, 2005; Alinezhad & Esfandiari, 2012).

In the literature QUALIFLEX method and its extensions have been employed to solve MCDM problems. Alinezhad and Esfandiari (2012) solved suitable site selection problem for building a dam with QUALIFLEX and VIKOR methods. The authors developed the sensitivity analysis of these methods and proposed a method based on changes in the weights. Chen and Tsui (2012) performed a multi criteria decision analysis related with medical decision making problem by combining optimistic and pessimistic estimations with intuitionistic fuzzy QUALIFLEX method. Chen et al. (2013) developed an extended QUALIFLEX method based on interval type-2 trapezoidal fuzzy numbers and applied the extended QUALIFLEX method to a medical decision making problem. Wang et al. (2015) proposed a likelihood-based QUALIFLEX method for handling multi criteria decision making problems within the interval type-2 fuzzy decision environment. The proposed method was applied to a medical decision making problem. Zhang and Xu (2015) proposed a hesitant fuzzy QUALIFLEX method with a signed distance-based comparison method for solving a green supplier selection problem of an automobile manufacturing company. Zhang (2015) combined the QUALIFLEX method with interval-valued hesitant fuzzy decision environment then the new method was called interval-valued hesitant fuzzy QUALIFLEX method. They applied the new method to the problem of Zhang and Xu (2015). Xue et al. (2016) solved robot selection problems by a new integrated linguistic MCDM approach using hesitant 2-tuple linguistic term sets and an extended QUALIFLEX method.

The application steps of QUALIFLEX method are presented in the following (Chen & Tsui, 2012; Alinezhad & Esfandiari, 2012; Xue et al., 2016):

Step 1: A multiple criteria decision making problem is formulated. It is assumed that there is a set of m feasible alternatives, A_i ($i=1,2,\dots,m$), against to a finite set of j evaluation criteria C_j ($j=1,2,\dots,n$). Then the decision matrix X is formed. It shows the performance of different alternatives with respect to various criteria.

$$X = [x_{ij}]_{m \times n} = \begin{bmatrix} x_{11} & x_{12} & \cdots & x_{1n} \\ x_{21} & x_{22} & \cdots & x_{2n} \\ \vdots & \vdots & \ddots & \vdots \\ x_{m1} & x_{m2} & \cdots & x_{mn} \end{bmatrix} \quad (i = 1, 2, \dots, m; j = 1, 2, \dots, n)$$

(1)

x_{ij} presents the performance value of i th alternative on j th criterion, m and n are the numbers of alternatives and criteria respectively.

Step 2: All possible permutations of ranking of the alternatives are listed. The number of these permutations is $m!$. Let P_l denote the l th permutation as:

$$P_l = (\dots, A_i, \dots, A_{i'}, \dots) \quad l = 1, 2, \dots, m!$$

(2)

where the alternative A_i is ranked higher than or equal to $A_{i'}$.

Step 3: For each couple of alternatives of permutations, a concordance and discordance indices are computed which reflects the concordance and discordance of their ranks and their evaluation preorder derived from the decision matrix. This index is firstly computed at the level of single criterion and then at a comprehensive level with respect to all possible rankings. The concordance/discordance index $I_j^l(A_i, A_{i'})$ for each pair of alternatives $(A_i, A_{i'})$ at the level of preorder with respect to j th criterion and the ranking corresponding l th permutation is computed as:

$$I_j^l = \sum_{A_i, A_{i'} \in A} I_j^l(A_i, A_{i'})$$

(3)

where

$$I_j^l(A_i, A_{i'}) = \begin{cases} 1 & \text{if there is concordance} \\ 0 & \text{if there is aequo} \\ -1 & \text{if there is discordance} \end{cases} \quad (4)$$

There are concordance and discordance if A_i and $A_{i'}$ are ranked or not ranked in the same order within the preorder and permutation respectively. If they have the same rank, then the situation is ex aequo.

Step 4: Sometimes decision makers want to give more importance to a criterion than the others. If the importance weight of a criterion is taken into account, in this step the weighted concordance/discordance is calculated as:

$$I_j^l = \sum_{A_i, A_{i'} \in A} I_j^l(A_i, A_{i'}) w_j \quad (5)$$

w_j denotes the weight of j th criterion.

Step 5: The overall concordance/discordance index (I^l) for the permutation P_l is computed as:

$$I^l = \sum_{j=1}^n \sum_{A_i, A_{i'} \in A} I_j^l(A_i, A_{i'}) w_j \quad (6)$$

The final ranking order of all alternatives is obtained from the overall concordance/discordance index of each permutation. The bigger the overall concordance/discordance index value, the better ranking of the alternatives.

Application

In this section, an insurance company selection problem in a textile company is performed to demonstrate the applicability of QUALIFLEX method. The textile company has purchased automobiles for their managers. The models and features of the automobiles are same. The company wants to have their new automobiles insured so the company searches the best insurance company. A committee from the purchasing department is interested in this task as a decision maker. Firstly the committee identifies the evaluation criteria as C_1 (insurance premium in TRY), C_2 (insurance coverage in TRY), C_3 (discounts in %), C_4 (reputation) and C_5 (service quality). The data for C_1 , C_2 and C_3 are quantitative whereas data for the C_4 and C_5 are qualitative. 5 point scale (5: Excellent, 4: Very good, 3: Good, 2: Fair, 1: Poor) is used while evaluating the alternatives for C_4 and C_5 . Also C_2 , C_3 , C_4 and C_5 are beneficial criteria where higher values are desirable; C_1 is non-beneficial criterion where smaller value is always preferred. Considering these criteria the committee determines 4 different insurance company alternatives (A_1 , A_2 , A_3 , A_4) for their automobiles and receives insurance proposals from these insurance company alternatives. The decision matrix shown in Table 1 is formed by these proposals.

Table 1. Decision matrix

	A_1	A_2	A_3	A_4
C_1	921,82	966,11	1.067,89	918,11
C_2	112.500	113.000	111.500	110.750
C_3	40	30	35	40
C_4	5	3	5	4
C_5	3	5	5	4

Considering the data in Table 1, the ranking of alternatives with respect to each criterion is given in Table 2.

Table 2. Rank evaluation of alternatives

	A_1	A_2	A_3	A_4
C_1	2	3	4	1
C_2	2	1	3	4
C_3	1	3	2	1
C_4	1	3	1	2
C_5	3	1	1	2

The QUALIFLEX method begins with listing all possible permutations of ranking of the alternatives. 4! permutations of alternatives ranking are possible for this problem. “>” sign in the permutations means “is preferred to”. The permutations are generated as:

$$\begin{array}{lll}
 P_1 = A_1 > A_2 > A_3 > A_4 & P_9 = A_2 > A_3 > A_1 > A_4 & P_{17} = A_3 > A_4 > A_2 > A_1 \\
 P_2 = A_1 > A_2 > A_4 > A_3 & P_{10} = A_2 > A_3 > A_4 > A_1 & P_{18} = A_3 > A_4 > A_1 > A_2 \\
 P_3 = A_1 > A_3 > A_2 > A_4 & P_{11} = A_2 > A_4 > A_1 > A_3 & P_{19} = A_4 > A_2 > A_3 > A_1 \\
 P_4 = A_1 > A_3 > A_4 > A_2 & P_{12} = A_2 > A_4 > A_3 > A_1 & P_{20} = A_4 > A_2 > A_1 > A_3 \\
 P_5 = A_1 > A_4 > A_2 > A_3 & P_{13} = A_3 > A_2 > A_1 > A_4 & P_{21} = A_4 > A_3 > A_2 > A_1 \\
 P_6 = A_1 > A_4 > A_3 > A_2 & P_{14} = A_3 > A_2 > A_4 > A_1 & P_{22} = A_4 > A_3 > A_1 > A_2 \\
 P_7 = A_2 > A_1 > A_3 > A_4 & P_{15} = A_3 > A_1 > A_2 > A_4 & P_{23} = A_4 > A_1 > A_2 > A_3 \\
 P_8 = A_2 > A_1 > A_4 > A_3 & P_{16} = A_3 > A_1 > A_4 > A_2 & P_{24} = A_4 > A_1 > A_3 > A_2
 \end{array}$$

The concordance/discordance index for each pair of alternatives at the level of preorder with respect to j th criterion and the ranking corresponding l th permutation is computed by Eq. (3) –(4). For instance the necessary operations are presented for the first permutation (P_1):

$$P_1: A_1 > A_2 > A_3 > A_4$$

C_1	C_2	C_3	C_4	C_5
$A_1 > A_2 \Rightarrow$	$A_1 < A_2 \Rightarrow \lrcorner$	$A_1 > A_2 \Rightarrow$	$A_1 > A_2 \Rightarrow$	$A_1 < A_2 \Rightarrow \lrcorner$
$A_1 > A_3 \Rightarrow$	$A_1 > A_3 \Rightarrow$	$A_1 > A_3 \Rightarrow$	$A_1 = A_3 \Rightarrow \lrcorner$	$A_1 < A_3 \Rightarrow \lrcorner$
$A_1 < A_4 \Rightarrow \lrcorner$	$A_1 > A_4 \Rightarrow$	$A_1 = A_4 \Rightarrow \lrcorner$	$A_1 > A_4 \Rightarrow$	$A_1 < A_4 \Rightarrow \lrcorner$
$A_2 > A_3 \Rightarrow \lrcorner$	$A_2 > A_3 \Rightarrow$	$A_2 < A_3 \Rightarrow \lrcorner$	$A_2 < A_3 \Rightarrow \lrcorner$	$A_2 = A_3 \Rightarrow \lrcorner$
$A_2 < A_4 \Rightarrow -1$	$A_2 > A_4 \Rightarrow 1$	$A_2 < A_4 \Rightarrow -1$	$A_2 < A_4 \Rightarrow -1$	$A_2 > A_4 \Rightarrow 1$
$A_3 < A_4 \Rightarrow \lrcorner$	$A_3 > A_4 \Rightarrow$	$A_3 < A_4 \Rightarrow \lrcorner$	$A_3 > A_4 \Rightarrow$	$A_3 > A_4 \Rightarrow$

Only the computational results of the concordance and discordance indices for the first permutation are presented in Table 3 because of the page constraint. Then the weighted concordance and discordance indices are computed by Eq. (5). In this paper it is assumed that criteria are weighted equally as 1/5.

Table 3. The concordance and discordance indices for the first permutation

P_1	C_1	C_2	C_3	C_4	C_5
$I_j^1(A_1, A_2)$	1	-1	1	1	-1
$I_j^1(A_1, A_3)$	1	1	1	0	-1
$I_j^1(A_1, A_4)$	-1	1	0	1	-1
$I_j^1(A_2, A_3)$	1	1	-1	-1	0
$I_j^1(A_2, A_4)$	-1	1	-1	-1	1
$I_j^1(A_3, A_4)$	-1	1	-1	1	1

Table 4. The weighted concordance and discordance indices for the first permutation

P_1	$I_1^1(A_i, A_i')$	$I_2^1(A_i, A_i')$	$I_3^1(A_i, A_i')$	$I_4^1(A_i, A_i')$	$I_5^1(A_i, A_i')$
P_1	0	0,8	-0,2	0,2	-0,2

Table 5. The overall concordance and discordance indices for the all permutations

	P_1	P_2	P_3	P_4	P_5	P_6	P_7	P_8
I^1	0,6	0,2	0,6	1	0,6	0,6	0,2	-0,2
	P_9	P_{10}	P_{11}	P_{12}	P_{13}	P_{14}	P_{15}	P_{16}
I^1	-0,6	-0,6	-0,2	-1	-0,6	-0,6	-0,2	0,2
	P_{17}	P_{18}	P_{19}	P_{20}	P_{21}	P_{22}	P_{23}	P_{24}
I^1	-0,2	0,2	-0,6	0,2	-1,4	-0,2	0,6	0,6

Finally the overall concordance/discordance index for the permutation P_l is computed by Eq. (6) and results are given in Table 5. According to Table 5, permutation 4 (P_4) is greater than the others so A_1 is the best alternative.

Conclusion

Although automobile insurance is made optionally, companies want to get the automobile insurance for their automobiles in order to protect themselves against the potential risks that may arise. In this paper, choosing the right insurance company of a textile company is examined regarding the important criteria influencing the decision and QUALIFLEX method, which is one of the outranking methods, is applied. The objective of this paper is to find out overall ranking of automobile insurance companies alternatives under the evaluation criteria. In this manner firstly the insurance company selection problem of the textile company is defined by determining the

criteria and alternatives. Then the necessary data are gathered. After forming all permutations of alternatives ranking, a concordance and discordance indices are computed for each couple of alternatives of permutations at the single criterion level and the comprehensive level. Finally the best permutation of alternatives ranking and the best alternative are determined according to the overall concordance/discordance indices. Permutation 4 (P_4) and also A_1 are the best for this problem.

The QUALIFLEX method provides some advantages to the decision makers. Firstly the mathematical background of QUALIFLEX method is not complex so it is easy understandable and applicable. The method is flexible in terms of handling both cardinal and ordinal data of the problem. The method is suitable for the problems where the number of criteria exceeds the number of alternatives (Chen et al., 2013). But the number of permutations increases when the number of alternatives increases. In this situation the computational procedure becomes time consuming and tedious. This is the main disadvantage of the method. This situation may be overcome by developing a software which performs QUALIFLEX method steps.

This paper shows that the QUALIFLEX method is performed efficiently for the insurance company selection problem. In future studies, the number of criteria and alternatives may be changed for the same selection problem. The weights of the criteria may be derived from different weighting methods. The ranking of the alternatives may be performed with other MCDM methods and the obtained results may be compared. The QUALIFLEX method may also be applied to other selection problems. Also fuzzy extension of this method may be applied to the same problem or other selection problems.

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The Conception Of Balkanization Within The East-West Axis

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Abstract

Balkanization, at first glance, is perceived as a conceptualization referring to Balkan geography. This perception is partly valid. Because, the concept is constructed to define the Balkans by the West and it reflects the perception of the West about Balkans. But in the historical process, Balkanization is separated from Balkans and it becomes a way to define any fragmented state or region, especially in the political literature. In a more detailed explanation, the Balkanization conception becomes a division of any multinational state into smaller ethnically homogeneous entities. From this aspect, Balkanization or Balkanist discourse goes beyond the Balkan borders. The main theme of this paper is the construction process of the Balkanization conception.

Keywords: Balkans, Balkanization, Orientalism, East-West Axis

Introduction

A multidimensional analysis of the conception of balkanization that derived from the Balkans is required since it has certain intrinsic problems. This is due to the fact that the meaning and the references made on Balkans have a complex structure. In this context, the most important issue is that Balkan borders are determined geographically. This problem has two dimensions. The first one is whether the Balkans belong to the West or the East. The second is that it is not clear which countries form the Balkan Countries. But, the focus of the present study is the first dimension. Currently, one of the problems is what is the meaning of Balkans. The uncertainty around the concept of Balkans effects the conception of balkanization directly. Furthermore, it goes beyond the Balkans. It becomes a situation that could not be defined geographically. It turns into a concept construction. In this framework, the conception of Balkanization from the first perspective to its expansion process will be evaluated with a critical viewpoint within the East-West axis. During this evaluation, the process of the concept of Balkans and balkanism will be a tool of analysis in terms of

determining how to deal with its negative meaning that separates it from the geographical meaning. The etymological process will be followed within the historical and social perspectives.

Conceptual and Etymologic Framework

The geographical name Balkans is a relatively new product. Two hundred years earlier the area was not called Balkans. It was called Rumeli, which was conquered from Byzantine Empire by the Ottomans. The Ottomans ruled Christian Orthodox subjects that referred themselves as Romans or Christians (Mazower, 2003:1). But “it has been widely accepted that “Balkan” is a word and name that entered the peninsula with the Ottoman Turks” (Todorova, 2009: 27). Through the eighteenth and nineteenth centuries, the name European Turkey was used for Balkans. But by the 1880s, it had become clear that “Ottomans in Europe” were living on borrowed time. Greece, Bulgaria, Serbia, Romania and Montenegro had emerged during the nineteenth century as new states. In this process, diplomatic conferences were arranged to whittle away Ottoman territory and to increase the control of the Great Powers. Western travelers, journalists and propagandists went to the region and expanded the use of the new Balkan concept (Mazower, 2003:2). So, Balkans has always been more than a geographical concept. The conception was loaded with negative connotations like violence, savagery, and primitivism (Mazower, 2003: 4). In other words, “by the end of the nineteenth century, Balkans began to be increasingly used with a political connotation, rather than in a purely geographical sense” (Todorova, 2009:32).⁴⁸

While Balkans is a relatively new word and is loaded with negative connotations, balkanization, deriving from it, must be newer and loaded with more negative connotations than Balkan logically. In this framework, some questions can come to mind: ‘When did the conception of balkanization emerge/occur?’, ‘what was the original meaning?’ and ‘when did it derive from the term of Balkan?’

First, it should be repeated that the most important word or concept that derived from Balkans, is Balkanization (Todorova, 2009:32). But the conception of balkanization increasingly obtained a political dimension and transcended geographical borders such as the balkanization of Sudan (Nazemroaya, 2014) or the Middle East. Furthermore, during more recent years, the balkanization metaphor has become increasingly decontextualized, removed not only from its geographical roots but also from any association with *territorial* fragmentation (Ellis and Wright, 1998: 690). For example, in

⁴⁸ Agatha Christie’s *Murder on the Orient Express* (1934) is a typical example. See Goldsworthy (2002:33) for detailed analyze.

the title of books or papers balkanization seems to refer to education (Hargreaves and Macmillan, 1995), labor markets (Kerr, 1977), demographic studies (Frey, 1996). “In some works, balkanization acts as a dead metaphor, one that defines a negative form of fragmentation. In other cases, balkanization is more like a metaphor that acts as a relatively value-free synonym for finer social and territorial distinctions” (Ellis and Wright, 1998: 690).

As it is seen, the balkanization conception has a wide range of meanings. But, it is especially prevalent in political and sociological framework. And the political and sociological framework is consistent with the objectives of the present study. Because, the analysis of balkanization within the east-west axis requires the geopolitical, imperial, discursive etc. perspectives. The extent of this study is not enough to discuss the conception of balkanization with all its aspects. So, I attempted to evaluate it in general with an emphasis on the discursive level. Balkanism is a convenient means for such an analysis as a discourse related to Orientalism but different from it. Balkanism is related to political, sociological and ideological research in several respects and it especially contributes to the context from the years of 50's and on.

Balkanism and Orientalism

Balkanism as a rhetoric or discourse refers to Balkanization and it is investigated in this context. Bjelic, considers balkanism in interchangeable meanings. Accordingly, sometimes it corresponds to the body of knowledge about the Balkans, and sometimes to the critical study of Balkanism (Bjelic, 2000:5). Mocnik “analyze balkanism as an ideology of domination, demonstrating that within Balkanism, two types of relations of domination are articulated: the relations of geo-political and economic hegemony, and the relations of internal domination within the societies geo-politically stigmatized as Balkan” (Mocnik, 2002: 79). In the academic literature on balkanism, which has emerged the recent years, was inspired and referred by Edward Said's *Orientalism*, first published in 1978. Most of the Balkan authors have observed that balkanism and orientalism are similar or close, at least at related intellectual category level, although they differ from each other on certain issues. Maria Todorova, MilicaBakic- Hayden, Vesna Goldsworthy and Dusan I. Bjelic can be regarded among these authors. Few others have evaluated balkanism as a highly different category from orientalism. For example, Andrew Hammond, and K.E. Fleming.

According to Bjelic, balkanism, similar to orientalism⁴⁹, “has been organized around a sense of binaries (rational/irrational, center/periphery, civilization/barbarism) arranged hierarchically so that the first sign (“Whiteness or Europe”) is always primary and definitional of the second (“Blackness” or “Balkans”), and so that the second is always a grammatical, internal effect of the first. For example, “Byzantium” (referring to the Byzantine church) is not represented today in the same way as Protestantism and Catholicism” (Bjelic, 2000: 3). Bjelic, after his superficial evaluation points out that Balkan scholars agree with Said’s political humanism and at the same time the consideration that “Balkanism is not a subspecies of orientalism”. By following this direction Todorova summarizes the reasons for the differences between orientalism and balkanism. She emphasizes that the balkanism doesn’t deprived from the Saida’s orientalism:

Balkanism evolved to a great extent independently from orientalism and, in certain aspects, against or despite it. One reason was geopolitical: the separate treatment, within the complex history of the Eastern question, of the Balkans as a strategic sphere distinct from the Near or Middle East. The absence of a colonial legacy (despite the often exploited analogies) is another significant difference. In the realm of ideas, balkanism evolved partly as a reaction to the disappointment of the West Europeans “classical” expectations in the Balkans, but it was a disappointment within a paradigm that had already been set as separate from the oriental. The Balkans predominantly Christian character, moreover, fed for a long time the crusading potential of Christianity against Islam. Despite many attempts to depict its (Orthodox) Christianity as simply a subspecies of oriental despotism and thus as inherently non-European or non-Western, still the boundary between Islam and Christianity in general continued to be perceived as the principal one (Todorova, 2009:20).

Indeed, the expression of the differences themselves indicates Said’s Orientalism. Bakic-Hayden and Hayden are closer than the others on the similarity of Orientalism and balkanism. He thinks that Orientalism can be adapted within Europe, between Europe proper and the rest of the continent that were under Ottoman rule. Thus, in the level of rhetoric, the dichotomy can be applied to Balkans in various manners: Balkan mentality, Balkan primitivism, Balkanization, Byzantine, Orthodoxy (Bakic-Hayden and Hayden, 1992:3). As Fleming asserted Bakic-Hayden and Hayden viewed orientalism as a cultural and geographical category (Fleming, 2000:1224).

⁴⁹ According to Said, orientalism refers to pervasive patterns of representation of cultures and societies that privilege a self-confidently "progressive," "modern" and "rational" Europe over the putatively "stagnant," "backward," "traditional" and "mystical" so-called cities of the Orient (Bakic-Hayden and Hayden, 1992:1).

As I mentioned above, Fleming does not agree with the premise that orientalism and balkanism are similar categories. Balkans as a whole has a different historical background when compared to that of Said's Orientalism. The political and historical conditions in the Balkans, especially as it has been influenced by external powers, have been shaped by factors unlike those at play in the Orient mentioned in Said 's Orientalism (Fleming, 2000:1222). Balkans under the Ottoman rule for four centuries could not be compared to the historical circumstances that provide the substantial basis for Said's argument. Balkans had distinctive imperialistic characteristics as Catholicizing Habsburgs and the laissez-faire Ottomans shaped different Balkan territories in different ways and dimensions (Fleming, 2000:1222-1223). Goldsworthy, in this framework, situates the Balkans closer to imperialism and "seeks to explore the way in which one of the world's most powerful nations [Britain] exploited the resources of the Balkans to supply its literary and entertainment industries" (Goldsworthy, 1998: 2). At that instance, Goldsworthy's approach reminds of Said's Orientalism. The last point about the relationship between Orientalism and balkanism could be put using Flemings' words:

"...may not lie in any interpretive contribution to Balkan study per se, but rather in the possibility that through testing (and perhaps ultimately rejecting) Said's model, Balkan historiography will be brought into dialogue with other, more established and dominant fields. In the process, the case of the Balkans may prove uniquely equipped to interrogate, expand, and elucidate the theoretical categories of inquiry first developed by those fields" (Fleming 2000: 1220).

No matter how Balkanism affected the conception of Balkanization and its load of negative connotations in a discursive, ideological or hegemonic level, these negative connotations have widened within the east-west axis.

The Balkans and the East-West Axis

President of the US Clinton, in his speech on March 24, 1999, urged the American people about the Kosova war in the Balkans, "Kosova is a small place, but sits on a major fault line between Europe, Asia and the Middle East, at the meeting place of Islam and both the Western and Orthodox branches of Christianity" and he continued in his speech: " To the south are our allies, Greece and Turkey; to the north, our new democratic allies in Central Europe" (From Goldsworthy, 2002:25). This speech contains highly meaningful expressions in terms of Balkanization, especially related to the East-West Axis. Balkanization is not only a concept that belonged to the World War I and Balkan Wars years and depended on Great Powers, but it also penetrated to the Great Powers led by America currently.

Balkans, undoubtedly, since the late 18th century, under either Byzantine or Ottoman rule, emerged as a cultural and religious “other” to Europe “proper.” This older symbolic geography strengthened after the cold war within the context of an ideological and political geography of the democratic, capitalist west versus the totalitarian, communist east. And no matter how different the historical processes were, it is striking to observe that a continuity in the nature and rhetoric of the concept, as well as the images and terminology used to represent that dichotomy was prevalent (Bakic- Hayden, 1992:3-4). In other words, “in this century, an ideological “other”, communism, has replaced the geographical/cultural “other” of the Orient. The symbolic geography of eastern inferiority, however, remain” (Bakic- Hayden, 1992:4).

These axes of European symbolic geography form a hierarchy, revealed also in terms of relative values of religions. Thus, at the most general level, the division between the east and the west is symbolized by the distinction between the eastern Orthodox churches and the western ones. Within these two different parts, hierarchy is again revealed by religion: in the east, Islam is viewed generally less favorably than Orthodox Christianity; while in the west, the Protestant tradition is generally considered more positively than Catholicism. The entire hierarchy may be seen in terms of symbolic geography as a declining relative value from the north-west (highest value) to the south-east (lowest value) axes (Bakic- Hayden, 1992:3-4). In this direction, it’s noteworthy to mention Huntington’s striking article titled the “Clash of Civilizations?” authored in 1993. He explained that political and ideological boundaries replaced cultural boundaries after the cold war: “As the ideological division of Europe between Western Christianity, on the one hand, and Orthodox Christianity and Islam, on the other has reemerged” (Huntington, 1993:29-30). he continues,

...in the Balkans this line, of course, coincides with the historic boundary between the Hapsburg and Ottoman Empires. The peoples to the North and West to this line are Protestant and Catholic; they shared the common experiences of European history- feudalism, the Renaissance, the Reformation, the Enlightenment, the French Revolution, the Industrial Revolution; they are generally economically better off than the peoples to east; and they may now look forward to increasing involvement in a common European economy and to the consolidation of democratic political systems (Huntington, 1993:30).

Although Huntington claimed that the division of civilizations are based on cultural differences in general, such as Todorova’s fair interpretation, he went on to compose economic and political boundaries between the civilizations (Todorova, 2009). These orientalist dichotomy distinctions could also be stated equivalently as being between “western” and

“eastern” republics. These are not neutral distinctions culturally or politically (Bakic- Hayden and Hayden, 1992:5).

In other words, Balkan is a bridge between east and west and so it's always in- between (Todorova, 2009:18). Perhaps, Balkanization could improve in uncertain context and go beyond the Balkans.

Conclusion

After the fall of communism and Yugoslavian war, the world, especially US led West fixed their attention on Balkans. Similar to the 18th and 19th centuries, during the last years of 20th Century, new articles, publications and travels about Balkans resurfaced. However, during the historical process, several conditions had changed. But, the perception of Balkans has generally remained the same. Through the history, Balkans has represented the marginal or the “others” of Europe. One indicator of this perception is the conception of Balkanization. Balkanization is loaded with negative connotations, especially in political literature. Despite the changes in historical circumstances, the understanding related to Balkans has not changed. Authors have attempted to explore this understanding with various factors. Some authors blamed the Balkans on Western capitalism. Some of them explored balkanism or orientalism. Some authors evaluated Balkans within the colonial discourse. Of course, these explanations differ from each other. But the source of the problem remains whether the Balkans are in the East or in the West or whether the Balkans are in Europe. This uncertainty provides a convenient atmosphere for the conception of Balkanization as a construction process. Consequently, the conception of Balkanization is the result of this main problem and hence, occupies such a wide range.

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Institutionalization Of Sport Clubs: Case Study Of Sport Managers

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Abstract

The place of sport is increasing day by day in our life and therefore to manage institutions well in the sport industry with its sub-sectors is important. Institutionalization process is composed of “formal operations structure”, “formal organizational structure”, “professionalism”, delegation of authority”, “cultural structure”, “compliance with the institutional environment”, “corporate social responsibility”, “compliance with social values and norms”, “transparency and accountability” and “compliance with the formal structure” elements. The aim of this study is to examine the institutionalization of sport clubs, how the managers and workers evaluate their clubs under these 10 elements. The data was collected from 10 managers from Super League and PTT 1. League clubs, which are the top level organizations of Turkish football system. The survey data obtained from the Super League and 1. League clubs managers and interview data by content analysis with the N Vivo9 program were evaluated. As a result, the elements of institutionalization are not completely available in sport clubs in Turkey yet and in addition to this elements providing institutionalization in the literature, “amateur/development level (grass roots)” should be taken into consideration covering its budget, physical plant, psycho-social support etc.

Keywords: Institutionalization, Professional football clubs, sport, sport management

Introduction

The importance of institutionalization is well-known and most mentioned issue recently because of its benefits as legitimacy, consistency, foreseeability, providing fund and accommodate to the environment. Also organizations aimed to institutionalization can develop original goods and products and so they can find the opportunities of differentiation and organizational value creation.

The output in sport is not only goods and services but also sportive performance. Therefore sport organizations need financial power, profitability, sustainability, professional employee/managers and athletes depending on the organization.

Sports industry in the world is larger than Hollywood industry and health industry with 1,6 trillion dollars. The transfer payments for athletes find 500 billion dollars per year. Also sport industry has sub-sectors like clothing, education, tourism and gambling (<http://www.cumhuriyet.com.tr>). Indeed there are ongoing crises between the Spanish government and Spanish sport clubs on broadcasting rights for nearly 20 years (<http://tr.eurosport.com>).

UEFA (the Union of European Football Associations) has criteria in five area. This criteria are sportive, financial, personnel and administrative, legal and amateur/development level (grass roots). Firstly the sport clubs which are competing in UEFA have to fulfill financial criteria which called "financial fair play". Sport clubs also in particular football clubs have trouble fulfilling the conditions. When football clubs are competing in UEFA they are also representing their country internationally. UEFA's criteria are based on institutionalization and sport clubs need to become institutionalized organizations because of their management system as businesses in today's economic conditions. In the same time institutionalization ensures a systematic and based on cause and effect relation structure and culture.

There are no studies in Turkey evaluating the institutionalization of sport organizations especially sport clubs, this study is an initial study in the area.

Institutionalization and Sport

Institutional theory holds the organization with its individuals together. It highlights values, norms, rules, beliefs, assumptions, formal structures and cultural influences on decision making (Barley and Tolbert, 1997: 93). Institutionalization is understood in Turkey as managerial efforts which takes sustainability in front, far from individual behaviors when running the organization and defining the responsibilities. Therefore the assumption is that institutional organizations do not go into an uncertain condition, do effective activities, and run the works systematically (Ulukan, 2005: 31-32).

Sport is a social institution in modern society and this condition of sport can be explained by the size and prevalence of frequent interactions with institutions such as policy, economy, education and family. According to MacPherson et al institutionalization is a global process as associated forms of social units and activities which are organized permanent and continuous. From this perspective sport has undergone a process of

rationalization with institutionalization of the elements and activities of the game. Indeed the activities designed for entertainment converted to utilitarian activities, such as commercialized sports leagues over time (Yetim, 2006:9). When technical requirements, organizations are exposed to achieve the efficiency, are shaping the business units and core functions such as coordination arrangements, institutional coercions shape organizational structures as management and control related to the environment (Scott, 2004: 4-15). Institutional environment includes structures, rules, beliefs, norms and legends formed by the interaction of organizations with regulatory bodies such as state, trade associations, trade unions.

Organizations often arrange their core activities according to accepted models and templates in their field. These templates are patterns for arranging organizational behavior that specify organizational structure and goals and reflect a distinct set of beliefs and values (D'Aunno et al., 2000:679). Also the organizations which get into the act in the same environment tend to resemble one another because of normative, mimetic and coercive pressures from the regulatory bodies in their institutional environment.

Football is a difficult job in terms of balancing the desire for achieving success on the pitch and job requirements. While coping up with these difficult challenges, the clubs should be equipped with the best management applications (Michie and Oughton, 2005: 529). Majority of football clubs that has gone public as joint stock company in public or private sector aims to improve football as sports activities and to sustain their activities as an enterprise (Hamil et, al. 2004: 45-46).

Elements of Institutionalization

While evaluating elements of institutionalization in sports clubs in this study, the literature in this field has generally evaluated it as ten sub aspects, same headings that are determined as elements of institutionalization. These aspects which are basis to the field study of this study are examined on the basis of sports clubs. The figures which composed via NVivo9 program is given with the element's explanation.

Formal Operations Structure:

Formal operations structure is defined as written job descriptions, rules and procedures in an organization (Wallace, 1995: 241). Organizational activities are determined with standards and systematical procedures. Providing functional coordination is possible with determining employees' duties, roles, authorities and responsibilities. Formal structure foresees keeping in the forefront the interests of the organization rather than individual priorities (Apaydın, 2009: 11).

Since sports organizations are associated with establishments and stakeholders of different levels and features rather than diversity of functions based on operations, there might be difficulties in terms of determining formal activity structure. Thus, the formal operations structure should be evaluated by taking into consideration the fact sports organizations operate under the impact of unique elements related to the sport.

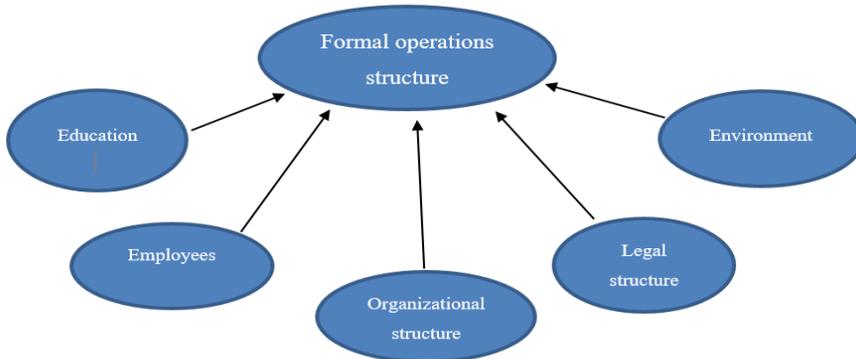


Figure 1. Formal operations structure

Formal Organizational Structure:

Organizations having formal organizational structure indicate an organizational chart and written job descriptions with defining superior-subordinate relationship. Activities are recorded and reporting system works properly.

As the activity areas and diversity of the organizations increases, organizational structure gets more complicated. Formal organizational structure is needed to manage this complication and provide the coordination between the functions. Otherwise because of the interrupted communication or the lack of communication occur conflicts, ineffectiveness and failures. Hence communication is an essential element in organizations (Elving, 2005: 131).

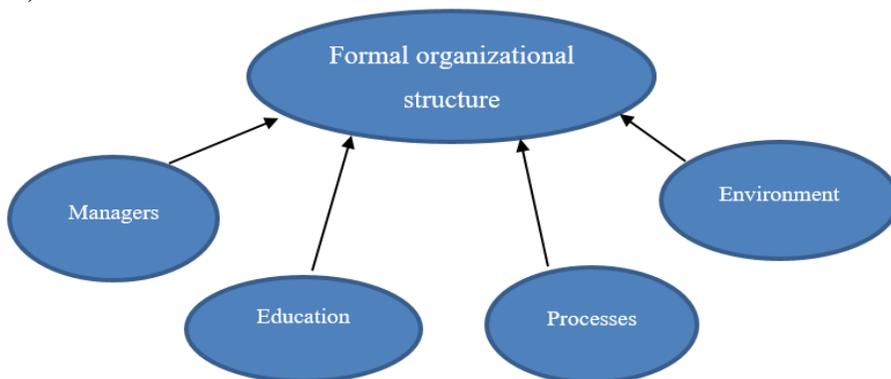


Figure 2. Formal organizational structure

Professionalism

According to Weber; professionalism contributes to the rationality of organizations. Also the rationality of organizations contributes to the development of the professions and so that it contributes to increased professionalism (Özkara and Özcan, 2004: 201). By Wallace (1995: 231-232) the professional authority usually has the right to decide about the evaluation of professional standards due to appear in the recruitment and promotion. Being the decision makers and legal experts carrying on tasks of professions increases their commitment to the organization.

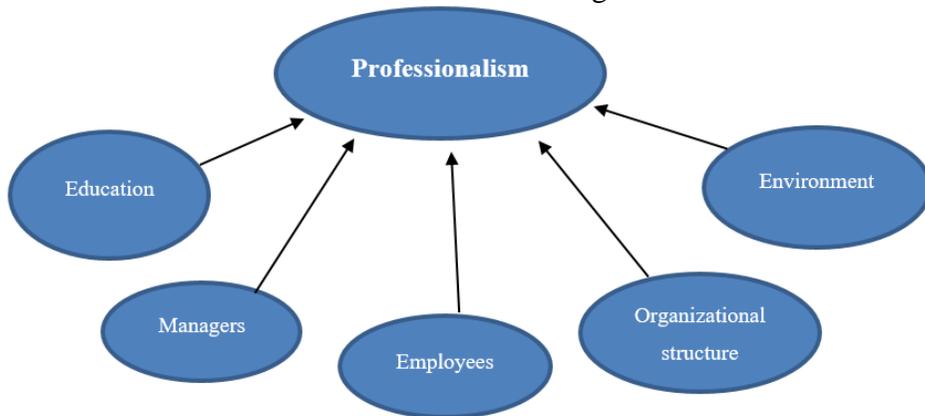


Figure 3. Professionalism

Delegation of Authority

Employee performance often being dependent on the level of trust between managers and their subordinates is important for an organization's success. Cooperative and altruistic behaviors provides trusting to the managers and in this way reducing organizational transaction costs (Pech, 2009: 27). However managers want to trust their subordinates while they are delegating their authority. Delegation of the authority is needed to run the business effective, fast and flexible.

It is explained that formal operations and organizations structure of sports organizations are created not completely but at a certain level. However, harmony to this structure has not been fully assured, yet. This harmony will reach up to the desired level in parallel to professionalization. The delegation of authority will be realized when superior – subordinate relation is experienced as due and managers have a say in the decision making process of the department they are responsible for.

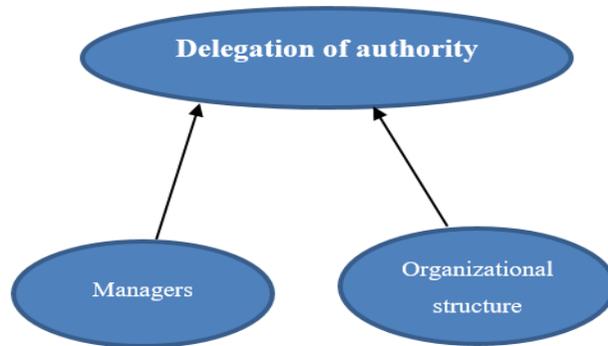


Figure 4. Delegation of authority

Cultural Structure

Organizational culture is often defined as a set of shared basic assumptions. Two points are important at organizational culture's processes of formation. First one is the critical incidents that develop norms, second one is the identification with leaders. Founders and the subsequent leaders will strengthen their own values and beliefs. If the leaders are powerful enough, their values and beliefs will have a dominant impact on organizational culture. Also the shared expectations among organizational members and the organizational culture forms by this way (Yin et al., 2014: 975).

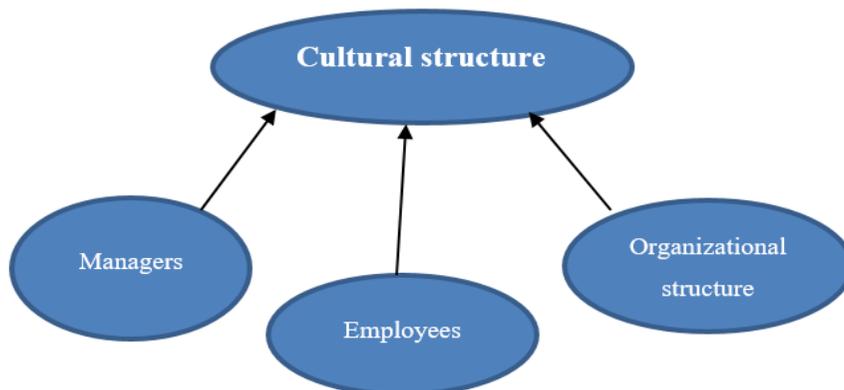


Figure 5. Cultural structure

Compliance with the Institutional Environment

By observing to the expectations of regulatory actors in the corporate environment, organizations reach the legitimate structure approved by the community. Legitimization supports organizations to request their products or services, to increase the brand value and to ensure the continuity of assets.

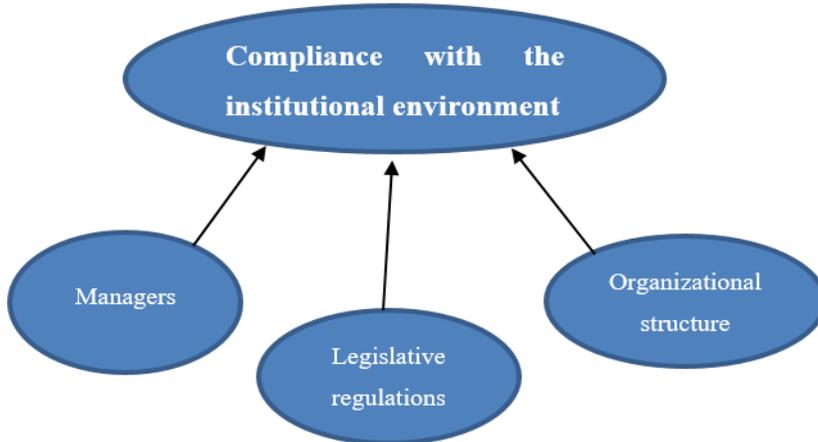


Figure 6. Compliance with the institutional environment

Corporate Social Responsibility:

According to Carroll (1979: 500), corporate social responsibility can be defined as economic, legal and ethical approaches expected by society from corporations and philanthropist activities. These activities to be performed by organizations, as expected by the society and environmental actors, facilitate the legitimatization of organizations.

It is argued that sports organizations use corporate social responsibility projects with social participation for organizational legitimatization and thus they are involved in trendy social responsibility activities that are similar to each other; ones focusing on product prefer sustainable environment activities, ones focusing on service prefer labor rights and voluntary works whereas clubs tend to establish charitable societies. Besides, sports organizations share these projects regularly on their websites in order to assure transparency of these projects and to prove realization of reporting system (Walker and Parent, 2010: 210).

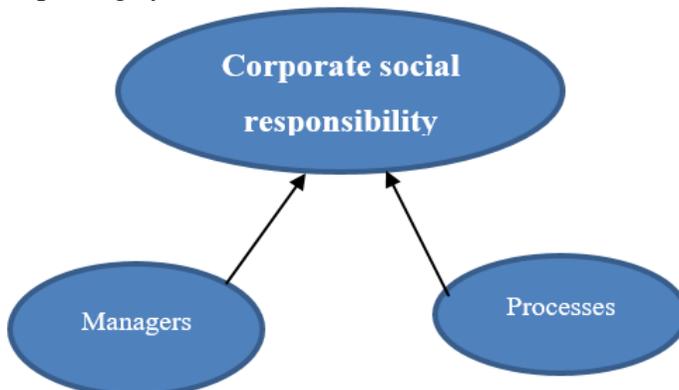


Figure 7. Corporate social responsibility

Compliance with Social Values and Norms

Social values are criteria and standards that determine ideal thinking patterns and that are embraced by the majority. Besides, they are approved by all and not subject to personal ideas and beliefs. The social norms are rules, standards and ideas that help to know right from wrong (Tavşancı, 2009:20).

Organizations, which are social structures, are accepted provided that they take into consideration and act according to values and norms their corporate surroundings and society they live in.

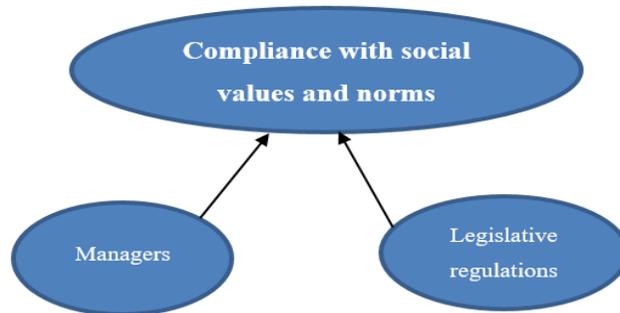


Figure 8. Compliance with social values and norms

Transparency and Accountability

Shareholders and stakeholders are entitled to have certain financial and legal information about the company and the principle of transparency and accountability makes sure that such information (such as partnership and board of directors structure, human resources policy) can be provided timely, accurately, fully in a cost efficient and understandable manner (Capital Markets Board, 2005: 20).

It is a known fact that sports and football which has the largest share in sports sector have been commercialized day by day. This increases the importance of relationships between sports clubs and their stakeholders. The supporters have been demanding transparency and accountability from clubs if their shares are traded on the stock exchange and all activities are covered by the media. The clubs should be clear to their stakeholders and media should be precise when investigating matters related to the football industry (Dinan et al., 2002: 177-178).



Figure 9. Transparency and accountability

Compliance with the Formal Structure

Establishing addressing and greeting procedures, rewarding and punishment methods, decision making methods and such other actions in manner reflecting the structure of that organization is significant in terms of institutionalization of that organization. The institutionalization process mentioned herein means that these actions are ethical and have become habits through repetition (Ulukan, 2005: 31-32). These repeated actions which should be performed will be recognized as standard actions and compliance with these actions means compliance with the formal structure.

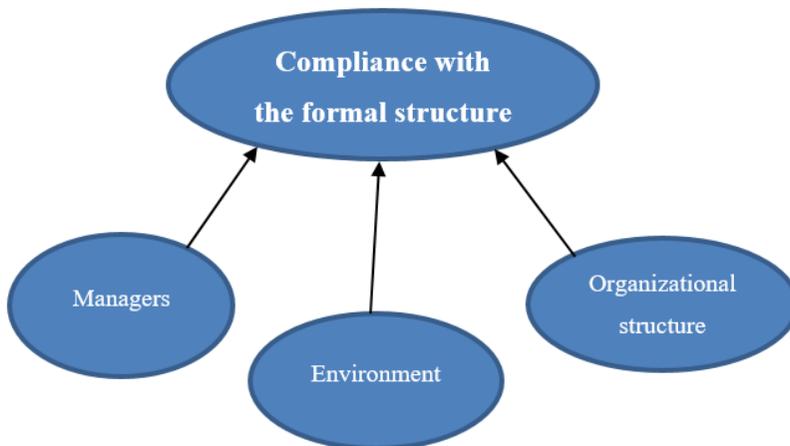


Figure 10. Compliance with the formal structure

Method

According to the law of autonomy of Turkish Football Federation (TFF), teams on the First League, Second League, and Third League should be managed professionally. Thus, the main focus of this study is the football clubs of the 3rd League in Turkey.

The study has used interviews and document analysis as qualitative research techniques. The goal is to get information from mid-level and senior managers of football clubs about management structures and processes of sports clubs. “NVivo 9 Program” is used at the stage of evaluating content analysis and data of the interviews are coded based on elements of institutionalization (sub aspects – themes), sub categories highlighted in the assessment of these elements and interviewer discourses making up these categories.

We were able to contact and interview ten mid-level and senior managers from Spor Toto Super League and PTT 1st League at the stage of data collection. The interviews took place at locations and hours agreed by them, as requested by the managers in question.

The goal of qualitative study made tried to answer three essential questions.

- How do club staff / managers see elements of institutionalization?
- How do staff / managers see implementation of factors mentioned at clubs?
- What are the other elements specified by staff / managers for institutionalization of sports clubs?

Results and Conclusion:



Figure 11. Institutionalization of sport clubs

Majority of managers states that there are problems related to existence of written documents and compliance to those when it comes to formal operation structure and formal organization structure.

A review of official club websites reveals that their organizational charts are not on the websites. However, review of each club’s website (Barcelona, Dortmund and FC Köln), which are defined as institutional and example by the interviewers, confirmed that their organizational charts are on the websites. The interviewers explained this difference with the new

implementation of the reporting system, external interventions to the clubs (from the managers who are politically or financially influential), jobs not completed duly due to change of related management or managers, not having a written job description and regular supervision system as well as the fact that only the Super League is considered as professional and enforcement of decisions made depend on the resources.

One of the most important issue experienced by the sports clubs is the intention of trainers, technical directors to organize their teams and tendency to work with that team and thus the former staff is dismissed even if they were previously hired by the clubs and they are real experts.

According to the statements of interviewers, the concept of trust is directly proportional to success in sports. In other words, income of clubs that do not achieve success in sport is reduced or they fail to collect some payments and they cannot make payments to the staff which impairs the feeling of trust. The supporters' trust and commitment of the club, having shared values and having strong communication with the stakeholders are important in terms of establishing cultural power. For example, FC Barcelona club selects % 50 of its players from Catalonia and combines the social culture with organizational culture. Borussia Dortmund has the highest number of spectators and uses the largest stadium of Germany for the games. Also, the fact that FC Köln team has the highest number of members in Germany is not only associated with its success in sports, it is a result of established club culture.

The vital aspect of institutionalization is to implement the plans rather than creating strategic plans. Smith (2009; 163-186) argued that strategies should comply with the structures but this compliance cannot be observed even in case of profit making sports organizations. Particularly, the goals that will improve social welfare such as constructing facilities, offering employment opportunities, finding talents and improving sports facilities cannot be completed within agreed periods.

The fact that clubs which are also companies are audited and thus have a more transparent structure in comparison to foundations but the clubs having a structure of a company use different methods and it confirms that a common method has not been adopted yet.

The data obtained from the study confirms that amateur/development level (grass roots) is one of elements that have impact of institutionalization of sports organizations. The amateur/development level (grass roots) is a system trains athletes within the sports club starting at an early age and the trained athletes play for adult teams or transferred to other clubs for generating income. The athletes who are trained on the amateur/development level (grass roots) program before playing for the club offer cultural power and financial advantages to the club and the amateur/development level

(grass roots) should have necessary investments, sufficient budget and the amateur/development level (grass roots) should be managed professionally in terms of expertise amateur/development level (grass roots) staff, payment and psycho-social support.

Besides amateur/development level (grass roots), elements that influence the institutionalization process of sports organizations are distribution of resources, psycho-social support, sponsorship and payment-trust relationship.

The suggestions made based on these results are as follows:

- The sports clubs should be familiar with elements influencing the institutionalization, including sub aspects.
- They should acknowledge that assuring these elements in any organization is a long and challenging process. Besides, this process should involve all departments of an organization, including the subordinates.
- Frequent replacement of staff, especially managers, challenges establishment and transfer of cultural values. Thus, the recruitment procedures applicable to the staff should be followed unless it is necessary to do otherwise and the focus should be on long term employment.
- Coming up with temporary solutions in order to offer short term solutions rather than sustaining the workflow as is should be avoided. The values to be achieved in the long run should not be disregarded.
- Human resource is the intellectual capital of any enterprise. So, personnel and athletes are the intellectual capitals of any sports organization. However, analytical methods should be used while deciding on whether or not amounts paid to the athletes accurately reflect this capital and this capital should be used at the optimum level for efficiency, just like it is used by enterprises.
- Written job descriptions, documents describing the flow of activities, organizational charts, reporting system and operations should be documented and recorded. This will allow transferring institutional activities to the future studies in a manner not depending on the individuals.
- Establishing standard criteria for the recruitment and promotion process and complying with such criteria are important in terms of achieving organizational trust.
- Increased number of supporters coming to watch a game is an indicator that increases the revenues and verifies existence of cultural power. The European clubs have proved their success in this aspect.
- One of the benefits of institutionalization is its contribution to the organizational prestige. Organizations should have an image to assure and sustain commitment of the supporters' and institutionalization can achieve this goal.

- Transparency and accountability aspects of institutionalization prevent organizations from being involved in unethical and illegal activities and enable organizations to easily defend themselves against such accusations.
- Sports clubs should focus on hiring people who are trained and experienced in the field of sport science for achieving professionalism.
- It is observed that different legal structures (such as company, association) increase unfair competition between organizations competing on the same platform. Turkish Football Federation is the foremost regulating authority of this field and it should implement supporting policies.
- This study can be considered as the first step of studies to be made in the future about institutionalization of sports organizations in Turkey. The sub aspects of institutionalization should be discussed at the Ministry and federation level which are the actors managing sports, especially in Turkey.

Acknowledgments

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Forming The Quality Of Life In Slovakia After Entering The EU

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Abstract

Quality of life is one of the most frequent notions of today in European space. It is used primarily as a target value of economic development of the society, but has also become a new challenge to ensure a dignified life of EU citizens. Quality of life can be considered as the holistic category, but can be analyzed also as a fragment in the meaning of orientation only in terms of the individual, respectively partial areas (domains) of human life. One of the important components of quality of life is consumption. From a microeconomic perspective consumption not only speaks about the degree of satiation of human needs but its structure and level is an important factor in shaping the quality of life. If the quality of life in terms of consumption is monitored, its existential side is evaluated using three spheres, namely sphere of non-working time, leisure time and cross-cutting areas. The present contribution focuses on the analysis of these spheres and assessment of the quality of life of Slovak households after joining the EU in terms of changes in consumption. The aim of this paper is to create a picture of the formation of quality of life after joining the EU, while providing a prediction of possible developments in this area.

Keywords: Qquality of life, consumption, model of consumption, model of quality of life, spheres of quality of life

Introduction

The current quality of life of Slovak households is the result of a long-term process of creating socio-economic, social, political and other conditions in society. Slovakia is a country that has undergone in the past two decades significant political and economic changes, and these have a significant impact on the quality of life of our residents. The most significant

changes can be considered the transformation process, entering the EU and entering the EMU.

Transformation of the Slovak economy to a market economy started the process of significant stratification of our society, started the process of significant differentiation of Slovak households, though many of them have moved from the established forms of life and standard of status in low positions. Most of Slovakia's population got into such a socio-economic situation, which meant a significant reduction in quality of life.

Slovakia's entering the EU, the quality of life of our households began to be assessed and evaluated in wider European context, which indicated that the Slovak households by their standard of living and living standards lag far behind the developed countries of the EU. The integration process has created for us a path of shaping the quality of life in terms of copying, respectively approaching the trend in developed countries, where the level of quality of life is founded on the basis of technological innovation and higher economic performance is mainly influenced by the material level, which in these countries reflects a high degree of material security. This trend in Slovakia is not fully implementing, it takes place in differentiated and not planary, or even homogenized image.

Current quality of life of larger Slovak population is a compromise between a relatively small real possibilities and relatively large life aspirations and needs. Discrepancies between possibilities and aspirations are indeed getting smaller, which can be assessed as a positive phenomenon, but the structure of consumption and the level of quality of life for the greater part of our population lags far behind the developed countries.

Definition of the definition of quality of life

A systematic review of quality of life falls into the second half of the last century, when economists, sociologists and politicians started to show an interest in this concept. Snoek (2000) attributed the introduction of quality of life in professional discussions to Ordwayovi and Osborn, who used the term in 1953 in the context of highlighting the ecological dangers of unlimited economic growth [Snoek, FJ, 2000].

Great role in close attention to this concept played Galbraith that used quality of life as a counterweight to the explicit consumer orientation of American society, respectively as a counterbalance to mass consumption of abundant society in the 60s of last century, thus highlighting the importance of this concept [Galbraith, JK, 1967]. He responded to mass consumption, which diverts man from the activities contributing to his development and orients him to purposeless consumption.

Quality of life was at that time used in relation to the criticism of mass consumption but also in relation to the evolution of society, i.e. the

anticipated shift from materialist to post-materialist values and the search for meaning of life with self-reflection priority. In connection with the stages of economic growth of the society Rostow ideas are known, whereby after the stage of high mass consumption stage should follow a searching for a new quality of life [Rostow, WW, 1971]. The concept of quality of life in this context has not been fulfilled; considerations about the importance with focusing on content determination, however, continued and continue until now.

Although the debate about the meaning and content of this concept have their justification in theoretical and empirical area, by today has not sounded adequate response to mass consumption, in contrast with which was this phenomenon created as its positive alternative. This does not mean that the problem of mass consumption and its impact on quality of life in advanced economies does not exist. It has just acquired new forms and is accompanied by new challenges of today.

One of such challenges, we could consider a new concept of consumption, so called productive consumption, and its role in meeting the needs to develop personal and professional skills of a person. In this context, the productive components of consumption could play an important role in shaping the quality of life in terms of sustainable development of developed countries but also in terms of ensuring a certain level of quality of life for the rest of the world in order to that achieved quality of life could become a sign of a decent life for the entire population in the World.

With the deepening knowledge about quality of life and its diverse perception created a wide variety of content definition of quality of life from which we select several definitions ranging from subjective feelings of experiencing life to understanding the quality of life as a set of objective criteria for the life of an individual or of a social group.

In the broadest meaning quality of life can be defined as specific, achieved level domains of human life, which take into account important social values and goals. According to experts of WHO quality of life is defined as "the perception of one's own position in life in the context of culture and value judgments with regard to life goals, expectations, standards and concerns" [WHO QoL, 1997]. Quality of life is defined as individual perception of one's own life situation in relation to certain cultures, value systems, expectations.

Quality of life is often characterized as a multidimensional notion, because it captures the material, spiritual, cultural, social, political, family and other aspects of life, and also has its internal dimension. In this context, Massam indicates the quality of life as a product of the interplay between social, health, economic and environmental conditions that affect human and social development [Massam, BH, 2002].

Thirion understands the quality of life as a result of interrelated conditions which are fair and equal access to available social resources, recognition of human dignity, with recognition of diversity, personal and collective autonomy and responsible participation [Thirion, S., 2004].

By Tokárová quality of life can be established and interpreted by means of three groups of indicators (social indicators, economic indicators and indicators so called subjective psychological well-being (well-being) that apply to the respective sub-domains of quality of life and are connected by economic, socio-psychological, sociological, environmental and other bonds [Tokárová, A., 2005].

Laluha defines quality of life as historically contingent upon the level of life processes in which a person or society reproduces and develops its existence. This view comes from the fact that man is biosocial entity that has an (individual) structure of needs and value orientations [Laluha, I., 2008]. Since life processes (work, family, leisure activities, etc.) of every individual go on in specific opportunities and living conditions, which may be more or less favourable, very important part plays an active life attitude of a man.

Significant shift in opinions on the quality of life brought the Commission report on the measurement of economic performance and social progress by Stiglitz, Sen and Fitoussi, which speaks about the need for better interpretation of statistical data and indicators of quality of life. Quality of life is defined in terms of those aspects of life that make up human prosperity using available economic resources. According to these authors, quality of life depends on objective conditions and capabilities of people [Stiglitz, JE, Sen A, Fitoussi, JO, 2009].

Compendium of OECD about indicators of economic and social progress (2011) also deals with quality of life, according to which it is necessary to distinguish between material conditions and quality of life. Material conditions of life are seen as economic well-being and quality of life is defined as a set of non-financial non-monetary attributes of individuals that determine their life opportunities and life chances, and has its own value in different cultures and contexts.

At the OECD conference in Paris (October 2011) was presented the definition of quality of life through eight following dimensions: material well-being, health, education, personal activities, political opinion and governance, social relationships and boundaries, environmental conditions and personal and economic uncertainty.

Very close look at the dimensions of quality of life also applies Eurostat, which states the following structure: material standard of living, health, education, personal activities, political opinion and ruling power, social connections, environmental conditions, personal insecurity, economic uncertainty.

Although in the present structures of dimensions of quality of life we find some conformity of views, a problem and an open issue still remains scales and criteria for evaluation of each dimension in the overall model quality of life.

Currently there is no uniform opinion on the content of the concept of quality of life. Quality of life is still an abstract and complex concept which definition requires a multidisciplinary approach and the cooperation of several disciplines. Research in quality of life from the point of view of single sciences leads to the fact that the theoretical definition of that category, as well as chosen methods its examination are fundamentally different. Partial approaches to examination of the quality of life caused that quality of life has many interpretations, so that its content is not particularly clearly and uniformly defined.

Diversity of opinions on the definition of the quality of life and different methodological approaches to the quantification come mainly from the selected point of view in this category. Scientific studies offer different methods of examining the quality of life and its measurement tools. Their selection and use depends on the content of this concept, selected domains (dimensions, respectively components) quality of life, as well as the purpose to which the results will serve.

Quality of life and consumption

If the quality of life is linked with innovation and modernization of structure of needs, with the possibility of their saturation in society, it means that the quality of life is analyzed in terms of consumption. Examining the quality of life in the context of consumption has its historical and inner justification - from the 60s of the last century, the quality of life is associated with consumption.

Quality of life is perceived on the one hand as an expression of the desires of man for a better and fairer life, and on the other hand the consumption as its part and fulfilling. Although consumption is an important component and a natural part of quality of life, it cannot replace it. Between the consumption and quality of life operates very important, interact relationship. Consumption speaks not only of the degree of satiation of needs but its structure and level is an important factor in forming the quality of life. In terms of quality of life and achieving its effective forms should be the relationship between consumption and quality of life in a balanced relationship. Focusing only on material side of consumption as well as on trend towards purposeless consumption can be described as an adverse development.

The basis of the solution of mentioned relationship should be the achievement of such consumption patterns and quality of life contributing to

the achievement not only reproductive but mainly developing needs and human values. This trend in the real life activities of our households is not well contained. In certain extreme situations, for example in emergencies or wealth, consumption can perform a distorting role. In general terms, the optimal condition is considered a functional balance between consumption and quality.

If we look at the quality of life through its five components, we are taking into account when examining the quality of life the needs, living conditions, social environment, value orientations and life activities [Laluha, I., 2008]. The starting point for any life process is particularly needs, from the satisfaction of which emerge impulses for the emergence of new needs of a diverse nature. Meeting needs is one of the main priorities of human existence but also the functioning of the economy. Achieved level of meeting needs speaks about the economic maturity of the society, standard of living of its individual members and also reflects in the quality of their lives.

In relation to quality of life, consumption is irreplaceable because it speaks about the material meet of the needs and desires of a man. Collating data on the quality of life of households in relation to their consumption creates an image of the existential quality of life. For this purpose, monetary expenditures of households are used, according to the basic spheres of lifestyle, i.e. in division into work time, leisure time and other expenditures [Holková, V., Laluha, I., 2009].

The structural composition of spending on leisure time is dominated by activities that are focused on meeting the basic material and reproductive needs. These consist of expenditure on food and non-alcoholic beverages, alcoholic beverages and tobacco, clothing and footwear, housing, water, gas and electricity, furniture and household equipment as well as health. The second sphere of quality of life is leisure time generally seen as a time of day when a person pays its attention to matters of his choice and options in such activities, which contribute to its relaxation, self-realization and self-improvement. Expenditure patterns consist of recreation and culture, education, hotels, cafes and restaurants. The third sphere of quality of life is made of cross-sectional areas that are diffusing other activities overlapping spheres of living and contributing to the modernization of lifestyle. In terms of expenditures, this area comprises expenditures on transport, communications and various services.

On the basis of expenditures by those spheres quality of life we distinguish three models of consumer behaviour of our homes, namely economical, luxurious and restorative model of consumption [Holková, V., Laluha, I., 2009]. Majority of Slovak households is characterized by economical patterns of consumption and the resulting reproductive model of quality of life, which is aimed at meeting the basic needs and requirements,

is a manifestation of postponed consumer aspirations and lack of personal development of household's members. This model of consumption limits the improving of the quality of life of our households, evidenced by a relatively high proportion of expenditure on leisure time.

To measure the quality of life we have quite a large number of indicators, which have different explanatory value. The best known and most widely used indicator is the Human Development Index (HDI), which allows us to express the quality of life in a broader context, to monitor its objective side.

Another possibility is the assessment of quality of life is Happy Planet Index (HPI), which involves the measurement of the effectiveness of welfare level obtained per unit of environmental impact. It shows development of a country in the context of real ecological limits. Index contains three separate indicators, namely ecological footprint, life satisfaction and life expectancy. Increasing the value of HPI means that the country is able to use limited natural resources to the welfare of the people better. If the well-being of the country achieved high costs to the environment, HPI value is low.

Assumptions and starting points of improving the quality of life in Slovakia

One of the trends in changes in the quality of life in the long run could be the Slovak population trend to spread desired changes in consumption patterns, which would lead to an improvement in the quality of life and overall development of man, thus to the development of elemental and spiritual forces. Realistic prospect of fulfilling this trend is to create economic conditions that ensure dynamic growth in household income. Coming the trend true we could expect the following changes:

- reproduction model of quality of life will no longer be dominant, gradually elements of development model will be progressively expanded, the model that binds predominantly to the middle and upper part of the middle class,
- social basis of restorative consumption pattern will be narrower, part of the population will move into standby consumption model,
- social basis of prestigious and luxury models and consumer activities will broaden.

From the viewpoint of improving the quality of life, the formation of consumption should therefore take place that would contribute to meeting the material and spiritual needs in relations and structure leading to the development of creative potential of man, his self-realization and would contribute to its well-being and happiness.

A key prerequisite for this vision in area of the quality of life of the population of the Slovak Republic is in our opinion economic growth and increasing household incomes, which would lead to the creation of real material conditions for the gradual transfer of the population from reproductive model of quality of life and temporary preferences of the consumer trends to so-called development model of quality of life.

Focusing on the development model of quality of life also assumes:

- changes in value orientations,
- balance between materialist and post-materialist values,
- penetration of technology into everyday life activities and streamline the necessary non-working time,
- Changes in the scope and content of free time, increased spending on education and culture,
- rational healthy lifestyle,
- greening quality of life.

The interplay between these elements of quality of life is a motivational impulse for the momentum of the whole society. For the Slovak society, it follows that, despite various current assessment of its condition, it is able to adapt and incorporate into those transformations, because the current potential of quality of life for Slovak households creates the preconditions. That alone is not sufficient. For the practical realization of the trend of improving quality of life in terms of approaching the level of quality of life in developed EU countries is first necessary to substantially increase investment in science and research, to significantly increase investment in all forms of education, increased demands on human resources development and human capital in terms of global competition, which requires a comprehensive infrastructure improvement, which is everyday way of life of our population takes place.

Foregoing essays on improving the quality of life and the transition from the reproductive to the development model of quality of life based on the basic premise and dynamic economic growth which would enable growth of jobs, income growth, reducing social inequalities. In the selection of specific measures of economic and social policies aimed at ensuring the growth of the quality of life of our population, it is important to take into account the current state of the economy, financial and capital positions of our households as well as positive and negative expectations of the future development of the Slovak economy. Due to the global crisis and its negative impact on the Slovak economy, we can assume that the process of overall quality of life of our household is likely to be subdued for a transitional period.

Conclusion

Quality of life of Slovak society is essentially part of European civilization traditions, where humanistic traditions of the European model paved the way for multicultural coexistence. We can conclude that it is indeed in tune with the fundamentals of the European model of quality of life that applies and specifies the subtype of the variety, but in terms of comparing the level of quality of life among the developed countries of EU fails to meet the required expectations. This follows from our analysis, according to which expenses of Slovak household in unacceptably high level link to the sphere of non-working time. About 61% of total expenditures are spent on non-work time, reflecting high cost of meeting their basic needs. They spend only about 16% of total expenditures on leisure time activities. This means that the majority of Slovak households are located in the reproductive model of quality of life, which is a manifestation of protracted consumer aspirations and lack of personal development of members of our population. Meeting the needs of everyday life takes a lot of space, physically exhausts, so in the sphere of free time people are more oriented towards leisure and less intensive forms of time spending.

In the process of improving the quality of life we must consciously strive for trend of orientation on development model of quality of life of most of our households, focusing on the material and spiritual needs of contributing not only to satisfy the basic, respectively prestigious needs, but also to the improvement of a man and his way of life. Practical meet of this challenge implies change in the composition of spending of our households in the direction of significant reduction in expenditures on non-work time and increase expenditures on leisure time but primarily on cross-sectional areas. Quality of life cannot therefore be merely a reflection of changes in the economy, but has to itself by composition of life activities contribute to the development of human capital potential and thus contribute to the development of the economy.

Enhancing the quality of life for Slovakia is a challenge that must be associated with the need to settle complex socio-economic problems both at the micro as well as macro level. Our policy and practice yet pays this problematic issue little attention despite the fact that in the EU quality of life is declared as a criterion value of success of economic and social policies, serves as the target of economic development of the society, and has become a new challenge to ensure a dignified life for people in the EU.

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Measuring Internet Service Quality Of E-Commerce Web Sites By Using E-S-Qual In Turkey

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Abstract

All firms in the service sector are required to have better service quality in order to accomplish a superior position in competition in the market economy. This need is also valid for firms which are involved in e-commerce. They also need to measure their own service quality to acquire better service quality.

The purpose of this study is to review kpe internet service quality of e-commerce web sites in Turkey. There are many methods in the literature which are used to measure internet service quality. E-S-Qual model is one of these methods and it will be used for this survey.

This research study shall be carried out by using a structured questionnaire based on E-S-Qual model. The survey shall also attempt to find a relationship between the effects of E-S-Qual dimensions on customer perceived value, e-customer satisfaction, and e-loyalty.

Keywords: Internet Service Quality, E-S-Qual, Customer Perceived Value, E-customer Satisfaction, E-loyalty.

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Review of Literature

Measuring service quality is very important for all service organizations. By the development of technology and using internet as the way of selling goods and services, the measuring of the service quality for these companies that are selling goods and services via internet has become crucially important. When online retailing trade was introduced for the first time, the presence of a web and lower prices were key factors of success. But after the increase of competition in online retailing, service has become essential for improving customer satisfaction and creating customer loyalty (Kim et, al.,2006:51).

Some companies like Amazon sell their products only through internet. And many other companies are preparing web sites for giving

information about their products and services, as an alternative to buy products from shops, for expanding services, and for saving time (e.g. e-banking) (Parasuraman, et al, 2005:1). For this reason service quality can be analysed in two means: traditional service quality and electronic service quality (e-service quality). Traditional service quality refers the quantity of all non-internet-based customer interactions and experiences with companies. The studies about traditional service quality has started with Parasuraman, et al (1988) with servqual scale (Parasuraman, et al.,2005:2, Parasuraman, et al., 1988).

According to Johnson (2005), over the past years, the business to customer online shopping market has grown rapidly and changed the business pattern. To obtain a superior advantage in competition, marketers have adopted electronic business in order to provide superior service quality that satisfies customers, creates customer value and ultimately develop customer loyalty (Lee, Petrick Crompton, 2007).

With a growing interest in service in online shopping, the number of research studies about understanding the online service quality has been increased. Most of these studies are summarised in Table 1.

Table 1: Online Attributes Investigated by Various Scholars

Article	Dependent variable(s)	Independent variable(s)
Alpar (2001)	Satisfaction with website	Ease of use, info content, entertainment, interactivity
Chen and Wells (1999)	Attitude toward the site	Entertainment, informativeness, organization
Childers et al (2001)	Online shopping attitudes	Navigation, convenience, substitutability of personal examination
Dabholkar (1996)	Intention to use	Speed of delivery, ease of use, reliability, enjoyment, control
Eroglu, Machleit, and Davis (2001)	Approach/avoidance	High task relevant info, low task relevant info
Koufaris, Kambil, and LaBarbera (2001-2002)	Website success	Info and service quality, system use, playfulness, system design quality
Loiacono et al. (2002)	Intention to purchase, intention to revisit	Ease of understanding, intuitive operation, information quality, interactivity, trust, response time, visual appeal, innovativeness, flow,
Montoya-Weiss, Voss, and Grewall (2000)	Online channel use	Navigation structure, info content, graphic style
Muyllie Moenaert, and Despontin (1999)	Satisfaction	Info relevancy, info accuracy, info comprehensibility, info comprehensiveness, ease of use, layout, entry guidance, website structure, hyperlink connotation, website speed, language customization, marketplace anchorage,
Rice (2002)	Intent to return	Design and technical evaluation, emotional experience
Schlosser and Kanfer (2001)	Attitudes toward site, intentions to buy	Person interactivity (customer service), machine interactivity (navigation and role playing), traditional marketing content
Yoo and Donthu	Overall site quality,	Ease of use, design, speed, security.

(2001)	attitude toward site, online purchase intention, site loyalty, site equity	
Novak et al. (2000)	Compelling online experience	Easy to conduct, easy ordering, easy payment, easy returns, easy to cancel, quick delivery, customer support, cutting edge, variety, quality info, reliability, security, low prices.
Srinivasan et al. (2002)	Customer loyalty	Customization, contact interactivity, care, community, cultivation, choice, character
Szymanski and Hise (2000)	Satisfaction	Convenience, merchandising, site design, financial security
Yang, Peterson, and Huang (2000)	Satisfaction/dissatisfaction	Product cost and availability, customer service, online info systems quality.
Zeithaml et al. (2002)	Quality	Efficiency, reliability, fulfillment, privacy, customer service (responsiveness, compensation, contact).
Francis and White (2002)	Intentions	Web store functionality, product attribute description, ownership conditions, delivered products, customer service, security.

Source: Wolfinbarger and Gilly, 2003:184.

And many different scales which are used for measuring the online service quality have been developed (Kim, et al, 2006:51). Those that are most frequently used among them are as shown below:

Webqual (Barnes and Vidgen, 2001): They develop ten sub-categories to evaluate the quality of the web sites. These are aesthetics, navigation, reliability, competence, responsiveness, access, credibility, security, communication, understanding the individual aspects. Then they aggregated these categories into five main categories as shown below: tangibles, reliability, responsiveness, assurance, and empathy.

Webqual (Loiacono and et al, 2002): According to Loiacono and et al, web sites are both information systems and also a marketing interaction means. And they use twelve distinct constructs in their scale to measure online service quality. These are: informational fit-to-task, tailored communications, trust, response time, ease of understanding, intuitive operations, visual appeal, innovativeness, emotional appeal, consistent image, on-line completeness, and relative advantage. They analysed the effects of these factors as for their impact on intention to purchase and intention to revisit the sites.

Sitequal (Yoo and Donthu, 2001): Ease of use, aesthetic design, processing speed, and security are four dimensions to measure online service quality according to Yoo and Donthu. They try to measure overall site quality attitude toward site; online purchase intention; site loyalty; site equity by these factors.

eTailQ (Wolfinbarger ve Gilly 2003): Their scale includes four factors: website design, fulfillment/reliability, privacy/security and customer service.

E-S- Qual (Parasuraman et al., 2005): E-S-Qual scale is consists of 22 items on four dimensions. These dimensions are as follows:

- Efficiency: Using the site easily, the speed of accessing and using the site.
- Fulfillment: The degree of what the site promises about the service and how the service is fulfilled.
- System availability: The exact technical functioning of the online site.
- Privacy: The safety of the site in the mean of protecting customer information.

This model is also includes e-recovery service scale (E-RecS-Qual), a scale which is used for problem resolution. E-RecS-Qual has three dimensions. These are:

- Responsiveness: Getting the problems and product returns in hand effectively through the site.
- Compensation: The degree to which the site compensates customers for the problems they face with.
- Contact: The availability of the site through telephone or online representatives.

The Impact of E-Service Quality Dimensions On Perceived Value And Loyalty Intentions

Creating customer loyalty via internet is both difficult and expensive process. Service quality is very important for the satisfaction of customers (Cristobal ve Guinaliu, 2007). It can also be said that loyal customers buy more products than the customers who are not loyal. But it is not easy to gain loyal customers via internet (Gommans, Krishnan ve Scheffold, 2001). On the other hand in many studies the important effect of service quality on e-loyalty and perceived value is observed (Wolfenbarger ve Gilly, 2003; Yen ve Lu, 2008; Yoon ve Kim, 2000).

Method

Research strategy

E-s-qual scale which is developed by Parasuraman et al., 2005 is used in order to measure the service quality of e-commerce web sites and to measure the effect of service quality on perceived value and loyalty intentions. According to this scale there four dimensions of E-S-Qual scale and three dimensions of E-RecS-Qual scale. These are the independent dimensions of this research study. And two dependent dimensions are the perceived value and loyalty intentions. This survey consisting of E-s-Qual

scale is used. This Research survey is carried out in three parts. These are as follows:

1. Demographic Information: This section contains 5 questions. These questions were used to define the sample.
2. E-Service quality scale: For this section the E-S-Qual scale developed by Parasuraman et al (2005) is used. The scale contains 4 dimensions and 17 questions:
 - a. Efficiency: 5 questions
 - b. System availability: 4 questions
 - c. Fulfillment: 5 questions
 - d. Privacy: 3 questions
3. Quality of recovery provided by web sites scale: For this section the E-RecS-Qual scale developed by Parasuraman et al (2005) is used. The scale contains 3 dimensions and 11 questions:
 - a. Responsiveness: 5 questions
 - b. Compensation: 3 questions
 - c. Contact: 3 questions
4. The scale for perceived value and loyalty intentions: Again for this section the scale developed by Parasuraman et al (2005) is used. According to these scales the dimensions are:
 - a. Perceived value: 4 questions
 - b. Loyalty intentions: 5 questions

Sample Selection

The sample is selected among the academicians and university students. The reason of this selection is isolate the tendencies of young and highly educated people to do shopping from internet (Dündar and Yörük, 2009). Because of the limited time, the sample selection is made by at convenience sampling method. The sample is selected from the students and academicians of Pamukkale University. 340 surveys were made face to face. 314 surveys were found to be viable.

Results

Table 2: Demographic Variables

	Frequency	%		Frequency	%		Frequency	%
Gender			Age			Annual Income (TL*)		
Female	174	55,4	Below 20	64	20,4	0-599	138	43,9
Male	140	44,6	21-29	219	69,7	600-1199	111	25,4
			30-39	20	6,4	1200-2999	28	8,9
Education			40-49	10	3,2	3000-4999	24	7,6
Associate degree	79	25,1	50-59	1	0,3	5000-9999	10	3,2
Graduate degree	206	65,6	59 and above	0	0	10000 and above	3	1,0
Postgraduate degree	13	4,1	Occupation					
Doctoral degree	16	5,1	Student	283	90,1			
			Academician	31	9,9			

*TL is shortly denoted to indicate the Turkish Lira currency

The percentages of female and male participants in Table 2 have become 55,4% and 44,6% respectively. The highest percentage for education is culminated among the graduate degree participants which were 65,6%. The distribution of the occupation of the sample is 90,1% student and 9,9% academician. As for the age distribution of the sample the highest percentage which is 69,7% is between 21-29 years of age and the remaining 20,4% is under 20 years of age. As for the distribution of income within the sample, the percentage of who gained monthly income between 0-599 TL is 43,9% and the percentage who gained between 600-1199 TL per month is 25,4%.

Reliability Analyses

The reliability test was made for all the variables of the survey and Cronbach's Alpha value is found as 0,939. Because said value is calculated as above 0,70, we can assert that the reliability of the survey is very high.

Normality Test

To decide the methods for analysing the survey one sample Kolmogorov Smirnov test was applied. After the analyses it is found that all the given answers for the questions are not normally distributed (for all question $p=0,000$). For this reason non-parametric tests are used for the assumptive statistics which are use to test the hypotheses.

Testing The Hypothesis and Statistical Analyses

Table 3: The Effect of Service Quality Attributes on Loyalty Intentions

	Perceived Value						
		Not Agree	Have no idea	Agree	Total	Chi-Square	p
Efficiency	N	27	10	183	220	46,699	0,000**
	Mean Rank	40,59	61,30	123,50			
System Availability	N	23	40	102	165	12,619	0,002*
	Mean Rank	61,98	69,05	93,21			
Fulfillment	N	23	40	102	165	13,512	0,001**
	Mean Rank	54,15	75,36	92,50			
Privacy	N	23	40	102	165	17,158	0,000**
	Mean Rank	51,33	73,70	93,79			
Responsiveness	N	23	40	102	165	11,904	0,003*
	Mean Rank	56,17	75,50	91,99			
Compensate	N	23	40	102	165	3,024	0,220*
	Mean Rank	67,11	85,64	85,55			
Contact	N	23	40	102	165	15,446	0,000**
	Mean Rank	68,89	62,26	94,31			

According Table 3 “H1: Service quality dimensions have effect on perceived value” hypothesis is accepted for all the variables except compensate. Because p value for all these dimensions is below 0,05. However for compensate said value is taken as above 0,05.

Table 4: The Effect of Service Quality Attributes on Loyalty Intentions

	Loyalty Intentions						
		Not Agree	Have no idea	Agree	Total	Chi-Square	p
Efficiency	N	12	30	123	165	27,037	0,000**
	Mean Rank	35,46	57,42	93,88			
System Availability	N	12	30	123	165	21,392	0,000**
	Mean Rank	46,46	57,02	92,90			
Fulfillment	N	12	30	123	165	27,208	0,000**
	Mean Rank	42,46	53,22	94,22			
Privacy	N	12	30	123	165	21,438	0,000**
	Mean Rank	41,71	59,80	92,69			
Responsiveness	N	12	30	123	165	19,959	0,000**
	Mean Rank	53,25	55,18	92,69			
Compensate	N	12	30	123	165	6,497	0,039*
	Mean	54,50	74,83	87,77			

	Rank						
Contact	N	12	30	123	165	11,128	0,004**
	Mean Rank	51,79	67,13	89,91			

According Table 4 “H2: Service quality dimensions have effect on loyalty intentions” hypothesis is accepted. Because p value for all the dimensions is below 0,05. So we can say that all service quality dimensions have effect on loyalty intentions.

Table 5: The effect of demographic variables on perceived value and loyalty intentions

Perceived Value			Loyalty Intention		
	Pearson Chi-Square			Pearson Chi-Square	
	Value	p		Value	p
Gender	1,484	0,476	Gender	1,937	0,380
Income	19,119	0,039	Income	19,257	0,083
Age	9,007	0,342	Age	5,295	0,507
Education	16,289	0,038	Education	13,247	0,104
Occupation	13,463	0,036	Occupation	3,775	0,437

According to Table 5 “H3: Demographic variables have effect on perceived value” is rejected for gender and age. In other words, no significant correlation is observed between gender and age on the perceived value.

Also “H4: Demographic variables significantly correlated with the perceived value” is rejected for all demographic variables. This indicates that demographic variables do not have any effect on loyalty intentions.

Factor Analyses

Table 6: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		,849
Bartlett's Test of Sphericity	Approx. Chi-Square	2825,721
	Df	171
	Sig.	0,000

According to Table 6, the KMO value is 0,849. Therefore we can conclude that the size of the sample is sufficiently big for the factor analyses. Because according to Sharma (1996:116) KMO value of 0,80 is very good.

Table 7: Eigenvalues and Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	6,736	35,452	35,452	6,736	35,452	35,452	4,260	22,422	22,422
2	1,919	10,101	45,553	1,919	10,101	45,553	2,801	14,740	37,163
3	1,636	8,610	54,163	1,636	8,610	54,163	2,444	12,865	50,027
4	1,198	6,305	60,468	1,198	6,305	60,468	1,984	10,441	60,468
5	,999	5,259	65,727						
6	,915	4,816	70,543						
7	,776	4,086	74,629						
8	,674	3,548	78,178						
9	,629	3,309	81,486						
10	,610	3,210	84,696						
11	,536	2,822	87,519						
12	,481	2,533	90,052						
13	,408	2,145	92,197						
14	,378	1,989	94,186						
15	,319	1,677	95,863						
16	,278	1,464	97,327						
17	,218	1,145	98,472						
18	,194	1,021	99,493						
19	,096	,507	100,000						

Consequently, four factors are obtained after the factor analyses which is made to statements. These four factors can explain the 60,468 of the total variance as seen in Table 7.

Table 8: Information About the First Factor

First Factor: Fulfillment				
Reliability 0,880	Mean 3,7334	Median 3,8571	Standart deviation: 0,9585	Factor loading
1	It loads its pages fast.			0,736
2	This site is always available for business.			0,761
3	This site launches and runs right away.			0,844
4	This site does not crash.			0,792
5	Pages at this site do not freeze after I enter my order information.			0,793
6	It has in stock the items the company claims to have.			0,522
7	This site handles product returns well.			0,493

According to the factor analyses the seven statements are defined as first factor which is defined as fulfillment as seen in Table 8.

Table 9: Information About Second Factor

Second Factor: Responsiveness and Compensation				
Reliability 0,772	Mean 3,3822	Median 3,400	Standart deviation: 0,8581	Factor loading
1	It does not share my personal information with other sites.			0,569
2	It takes care of problems promptly.			0,509
3	This site compensates me for problems it creates.			0,788
4	It compensates me when what I ordered doesn't arrive on time.			0,800
5	It picks up items I want to return from my home or business.			0,585

According to the factor analyses the five statements are defined as second factor which is defined as responsiveness and compensation as seen in Table 9.

Table 10: Information About Third Factor

Third Factor: Contact				
Reliability 0,819	Mean 3,6947	Median 3,8333	Standart deviation: 1,049	Factor loading
1	This site provides a telephone number to reach the company.			0,770
2	This site has customer service representatives \available online.			0,842
3	It offers the ability to speak to a live person if there is a problem.			0,725

According to the factor analyses the three statements are defined as third factor named as contact as seen in Table 10.

Table 11: Information About Fourth Factor

Fourth Factor: Reliability				
Reliability 0,881	Mean 3,9602	Median 4,00	Standart deviation: 2,508	Factor loading
1	It is truthful about its offerings.			0,936
2	This site protects information about my credit card.			0,921

According to the factor analyses, the two statements are defined as fourth factor are defined as reliability as seen in Table 11.

Conclusion

The study is carried out in order to evaluate the effect of service quality on perceived value and loyalty intentions. The sample is selected among the academicians and students of Pamukkale University. A survey is administered after having developed from E-s-Qual scale of Parasuraman et al (2005). Variable that are collected are analysed with SPSS Sttistics 22 demo version. The effects of dependent variables (efficiency, system

availability, fulfillment, privacy, responsiveness, compensate, and contact) on perceived value and loyalty intentions are analysed according to the existence of a significant correlation between the independent and dependent variables.

The results indicated that the efficiency, system availability, fulfillment, privacy, responsiveness, and contact have effect on perceived value. Degree of their effect is same to each other except responsiveness. Only compensate dimension has no effect on perceived value. Efficiency, system availability, fulfillment, privacy, responsiveness have more effect on perceived value than responsiveness.

All the dimensions have effect on loyalty intentions. Efficiency, system availability, fulfillment, privacy, and responsiveness have the same effect to each other and their correlation is found to be more significant than that of the compensate and contact.

The effect of demographic variables on loyalty intentions and perceived value is also analysed. The results indicated that all the demographic variables have no effect on loyalty intentions. On the other hand income, occupation, and education appear to be significantly correlated with the perceived value. However gender and age do not significantly correlate with the perceived value.

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Formal Education Of Administrative Officials In The Republic Of Croatia Article

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Abstract

It is an indisputable fact that the administrative officials are a key factor for quality, efficient and good administration. Administrative officials are educated in-service also but in this paper we will focus on formal training programs for potential candidates for state and public administration.

Binary system of higher education is established in accordance with the Bologna process. The professional study should, through their study programs, train students for specific skills and competences required in the labor market.

The best ways to acquire certain skills are the practical work and learning.

For the purpose of this paper the authors compare eight existing professional programs of administrative studies, in particular by analyzing the way of implementation and length of professional practice. Professional practice is one of the fundamental subjects where students are trained for specific tasks.

Keywords: Education, administrative officials, specialist graduate professional study, study of administrative law

Introduction

In all reforms and changes that are a constant feature of functioning of the public administration, the key focus is always on the issues of quality of work of the administrative staff. Issues related to the type and qualities of formal education of public officials are the subject of numerous scientific and professional papers and research. On this path every country is trying to find a model that is most appropriate for its administrative culture and tradition. Lately, especially during the enlargement of the European Union, there are attempts to find common models and standards for public officials that are applicable in all member states.

The key emphasis within these standards is on professionalization and de-politicization of the civil service and actions in the public interest (Koprić et al, 2012).

The Republic of Croatia (Croatia) is no exception to these trends. In the early nineties, Croatia has undergone a process of transition from a communist to a democratic, liberal political environment and gained independence. Also, it is faced with globalization issues and challenges. An additional problem is definitely a management and officers remaining from the previous regime. In solving the accumulated problems (which are inherent in all transition countries) Croatia needs and is trying to find ways to strengthen the administrative capacity and change for the better. One possible solution offers a special kind of administrative education. Students are educated about the fundamental values of the legal system, in particular respect for the public interest in procedure.

This paper analyses the professional three-year study programs of administrative education which we consider excellent for professional training of administrative officials. In addition, in the paper we analyse the four specialist professional studies that are intended precisely to persons who have previously completed professional administrative studies. Analyse was done by reviewing available data from the official website of performers. Special emphasis is placed on determining the ratio of theoretical and practical training in the total teaching load.

Education of officials

When we talk about education of public servants we should note that it is carried out on several levels. The first is the question of formal education required for employment in the public service, then the acquisition of specific knowledge and skills necessary for the concrete work place and there are various specific exams at the end. Also there are all forms of post-training and training of civil servants. All these forms of formal education of civil and public servants are regulated differently in different countries. It is known that the German public administration long preferred the legal profession as the most appropriate for public officials.

This is partly offset by the last decade of the establishment and functioning of special study programs of public administration. In addition to the basic legal, on that study are other related disciplines as political science, economics, sociology and so on. A similar attitude is known in Italy and Hungary, while in the Nordic and Anglo-Saxon countries, the impact of the legal profession is significantly lower (Koprić, Marčetić, 2002).

In recent years, the concept of public administration is attached to the status of interdisciplinary areas and study programs of public administration are characterized by a combination of collegium from the fields of law,

economics, sociology, political science and related social sciences, in different proportions (Koprić, Marčetić, 2002). On the other hand, there is an example of France and its National School of Administration (ENA). There are enrolling people with a degree in which they prefer to managerial positions in the administration (Koprić et al., 2014). The specificity and advantage of this school's program is that students get both; a practical and theoretical part (Šimac, 2002).

As a result of the harmonization of legal systems of the European Union Member States there are specific trends in the development of administrative education. Regarding this, there are vertically passable studies with specific administrative directions which are characterized by a multidisciplinary approach with an emphasis on managerial skills. Study programs are tailored for a wide range of jobs, from the simplest to the most complex. In addition, it is important to emphasize that the study programs of the administrative direction are becoming independent and they stand out from the pale of law faculties and they are usually held at schools of professional higher education and polytechnics (Koprić et al., 2014).

Formal education of officials in the Republic of Croatia started with the reforms introduced by the Empress Maria Theresa (then Croatia was part of the Habsburg monarchy) by the establishment of the Political cameral studies in Varazdin in 1769. From these beginnings, there was formed Faculty of Law in Zagreb in which they performed a cameral study and legal studies (Pavic, 2002). Specific administrative education at first was provided at the School of professional study of Administration (from 1956) that had been integrated into the composition of the Faculty of Law. It is important to emphasize that the specific administrative education in Croatia exists for sixty years without interruption (Koprić et al., 2014).

Apart from the Faculty of Law in Zagreb, Faculty of Law in Osijek also had performed two-year administrative studies from 1980. The tradition of special administrative two-year studies continued until the adoption of the Act on Scientific Activity and Higher Education in 2003 (Official Gazette 123/03). With that Act binary system was introduced in Croatian education system conducted of professional and university studies. The duration of professional studies has been extended to three years, after which there is specialized graduate programs. The original intention of the legislator was to completely isolate professional studies from universities and organized them in polytechnics and schools of professional higher education. That was not successful⁵⁰.

⁵⁰ Constitutional Court found unconstitutional the legal provision of Article 114/8 of the Act which determine the deadline by which the universities could admit students to professional studies. Indirectly it prohibit universities to establish professional studies, Croatian

Today in Croatia professional studies are performed at the universities and polytechnics. Table 1 shows the institutions, title of study, duration, ECTS and professional titles on existing professional studies of administrative orientation in Croatia.

Table 1. Performers of professional studies of administrative orientation

Institutions	Title of study	Duration in years	ECTS	Professional titles
Polytechnics in Vukovar	Administrative study	3	180	bacc.admin.publ.
Polytechnics in Pozega	Administrative study	3	180	bacc.admin.publ.
University in Rijeka, Faculty of Law	Administrative study	3	180	bacc.admin.publ.
University in Split, Faculty of Law	Administrative study	3	180	bacc.admin.publ.
University in Osijek, Faculty of Law	Administrative study	3	180	bacc.admin.publ.
Polytechnics in Gospić	Administrative study	3	180	bacc.admin.publ.
Polytechnics in Sibenik	Administrative study	3	180	bacc.admin.publ.
University in Zagreb, faculty of Law	Administrative study	3	180	bacc.admin.publ.

Source: List of professional titles and their abbreviations of Rectors' Conference of Croatia, Official Gazette 50/15

After completing three years of professional studies (or university undergraduate studies), students should have the ability to upgrade the acquired knowledge and competences with additional specialized professional programs. Although this system in the Republic of Croatia is in the application for 12 years, there is a very few specialist graduate studies in this area. Table 2 shows the institutions, title, duration, ECTS and professional titles on existing specialist graduate programs in Croatia. As may be seen from their name (or the content of the program), they are very similar. The justification for this situation lies in the fact that Croatia is a relatively small country and it is unprofitable to establish and organize some specific, specialized programs that would be deeply engaged in certain administrative areas or acquiring any special competence. In this way, practice deviate from specialization. Students at these professional graduate studies are studying a wider range of different areas that cannot provide the required specialist skills. On the other hand, the problem of acquisition of specific skills is neglected. In the theory there is emphasize for the need to

Constitutional Court Decision No. UI-1707/2006 from 20th December 2006., Official Gazette 2/07

find better ways of teaching that would enable students to put the knowledge into concrete skills (Marčetić, 2005).

Table 2. Institutions that performs specialist graduate study of administrative direction

Institution	Title of study	Duration in years	ECTS	The abbreviation title
University in Osijek, Faculty of Law	Public Administration	2	120	struč.spec.admin.publ.
University in Split, Faculty of Law	Public Administration	2	120	struč.spec.admin.publ.
University in Rijeka, Faculty of Law	Public Administration	2	120	struč.spec.admin.publ.
University in Zagreb, Faculty of Law	Public Administration	2	120	struč.spec.admin.publ.

Source: List of professional titles and their abbreviations of Rectors' Conference of Croatia, Official Gazette 50/15

System of civil servants in the Republic of Croatia

In accordance with the current Civil Servants Act (Official Gazette 92/2005, 140/2005, 142/2006, 77/2007, 107/2007, 27/2008, 34/2011, 49/2011, 150/2011, 34/2012, 37/2013, 38/2013, 1/2015 i 138/2015, hereinafter: CSA) in Croatia civil service system is based on the version of the classification of workplaces. According such a system, positions are classified by the degree of complexity of operations with prescribing additional criteria related to the level of education (Koprić et al, 2014). Civil servants are persons in governmental bodies as their regular profession carry out activities within the scope of these bodies and persons engaged in IT, general and administrative tasks, planning, material-financial tasks and similar tasks in State bodies (Article 3, paragraph 2 and 3 of CSA). The system of classification of positions includes three categories: positions of managerial civil servants, positions of senior civil servants and positions of junior civil servants (Article 74, paragraph 3 of CSA). Positions within in each category are determined by a directive of the Government of the Republic of Croatia. Positions shall be classified in compliance with the standards, and these are: necessary expertise, complexity of tasks, independence in work, level of cooperation with other State bodies and communication with parties and degree of accountability and influence on decision-making (Article 74, paragraphs 1, 4 and 5 of CSA). The titles and descriptions of positions in State bodies shall be determined by internal organisational rules adopted by the chief executive with the prior consent of the central State authority responsible for civil service affairs (Article 75 of CSA).

In general, for the positions of managerial civil servants it is required to complete a university or specialist graduate study (five years), for the positions of senior civil servants it is required to complete undergraduate

university or professional study lasting three years while the positions of junior civil servants normally are reserved for persons with secondary education. Persons can be accepted in the civil service through a public tender with different professions and educational levels, depending on the specification of positions. All persons in that are accepted in the civil service for the first time, after completing trial work, are required to take the state exam, which consists of two parts. The first part is general and the other part is special, consisting of written and oral part of the specific tasks to which the employee worked (Article 56 and 57 of CSA). It is interesting to note that all new civil servants, regardless of the type and degree of their professional training and background knowledge (especially juridical) take identical, unique general part of the exam. This part consists of the basic provisions of the constitutional and administrative law, civil service system, the system of state administration and local self-government, office operations and basis of the European Union. State exam is a requirement to remain in the civil service. As we can see, the regulations do not distinguish between people who already have received a legal or administrative training of those who do not have. We consider that illogical. Therefore, this kind of unified examination partly devalues the need for special administrative education. As mentioned above, a prerequisite for entry into the civil service is not a legal or administrative education. However, there is a significant part of the positions that are at the description and content best suited for people with legal or administrative education, especially positions in the services and departments of general administration. For such positions are ideal candidates who have completed three years of professional studies of administrative direction (bacc.admin.publ.). In the continuation of this paper we provide a view of the study programs of the administrative directions that are currently structured in Croatia.

Study programs of the administrative direction in the Republic of Croatia – results

For the purposes of this paper, data was collected through review of official web sites of institutions and their study programs or of curricula. The study was not without challenges, for one higher education institution there is no complete and usable data. Further difficulties we found in the inequality of the evaluation of certain collegium, in particular the final work and professional practice. So some institutions final work does not express with the hours, in which case the final semester have less hours than other semesters. There are cases in which other semesters hours are "build up" to provide adequate total number of teaching hours (that is rare). Final work is valued differently, there is no uniform criterion, somewhere it counts as

lectures, exercises, sometime as a seminar and sometimes it is not evaluated through the hours, but only carries a certain number of points.

With this research we wanted to determine the real possibility for the students to be competitive for administrative organizations seeking employees after completing the program of administrative direction. In order to determine the correlation we placed hours of practical and theoretical education in the total teaching load, with special emphasis on professional practice as well as practical work in one of the partner institutions. The assumption is that quality practical education provides an appropriate level of knowledge for specific tasks. Table 3 shows the numerical ratios hours of theory (lectures) and practical training (this include professional practices, exercises and courses of seminar).

Table 3. The numerical ratio of hours of theoretical and practical education

Institution	Hours total	Hours			Exercises in %	Seminar in %	Total practical education in %
		lectures	exercise	seminar			
Faculty of Law in Rijeka	1395	1065	240	90	17,20	6,45	23,65
Faculty of Law in Zagreb	1285	1030	215	40	16,73	3,11	19,84
Faculty of Law in Osijek	1710	1320	210	180	12,28	10,52	22,80
Faculty of Law in Split	2325	1620	-	705	-	30,32	30,32 ⁵¹
Polytechnics in Vukovar	1785	1080	525	180	29,41	10,08	39,49
Polytechnics in Pozega	1785	1185	525	75	29,41	4,2	33,61
Polytechnics in Gospic	There is no available data on their web site						
Polytechnics in Sibenik	1725	1230	-	495	-	28,7	28,7 ⁵²

Source: research of authors

As shown, the share of practical education varies from 20 to 40% which is not a bad ratio. However, for the real situation it is necessary to analyze what is included in these numbers. First of all, we said that practical education includes the creation of seminar papers. This is a practical and independent student work but it consists of collecting and summarizing various sources about a topic. Under that we definitely cannot talk about acquiring of any specific job competencies and skills. Further, in all study programs teaching of foreign languages are performed as exercises but it cannot be considered as exercise for acquiring specific skills. As part of the study programs in Osijek, Vukovar and Pozega physical education is also listed as exercise. Finally, the teaching of statistics and informatics is also carried out through exercise and enters the sum total of hours of practice.

⁵¹ According to the study program, professional practice is planned in the VI semester but is not expressed in teaching load schedule. Therefore, this institution has a share of practical education greater than shown.

⁵² The same as footnote 2

Excluding all of the above, Table 4 shows the number of hours and the ratio of practical exercises that acquire specific administrative skills and competencies. A relatively large percentage of the exercises shown in the third column are the result of physical education, language and statistics as exercise.

Table 4. The ratio of hours of professional practice and exercise in relation to the overall hours

Institutions	Hours total	Total exercises in %	Specific exercises through classes in %	Professional practice in hours	Professional practice in %
Faculty of Law in Rijeka	1395	17,20	4,3	30	2,15%
Faculty of Law in Zagreb	1285	16,73	2,72	40	3,11%
Faculty of Law in Osijek	1710	12,28	-	-	-
Faculty of Law in Split	2325	-	-	There is, but not expressed in hours	
Polytechnics in Vukovar	1785	29,41	14,29	90	5%
Polytechnics in Pozega	1785	29,41	-	360	20,17%
Polytechnics in Gospic	There is no available data				
Polytechnics in Sibenik	1725	-	-	There is, but not expressed in hours	

Source: research of authors

At the end we should mention data on specialist graduate studies. A review of study programs has shown that in two studies (Zagreb and Split) has no professional practice, program in Osijek has 19.76% of professional practice in the total hourly rate while program in Rijeka has no professional practice but every college has a number of exercises and they carry 21.85% of the hourly rate. Given that these are "specialist" study we believe it is necessary that proportion of practices and exercises is higher.

Conclusion

Special administrative education in Croatia has an tradition of over 70 years. A large number of people was educated through programs of administrative studies. That people have devoted their working life (or still do) in the state or local public administration. Crucial paradigm that administrative officials must adopt is the respect for the public interest, democratic institutions and the social dimension of the country. Through programs of administrative studies, students gain basic knowledge about the meaning and role of government in society and the role of employees in the practical implementation of management responsibilities. Therefore, we believe that people who have completed administrative studies are well prepared for work in public administration. New specialist graduate degrees

in public administration are the perfect upgrade for professional studies and starting point for recruiting people for managerial positions in administrative organizations. What the research shows is definitely too small proportion of practical training during studies. The reasons are numerous: from the relatively complicated techniques of changing study programs, inertia, lack of ideas to the overall "climate" in the academic community that the professional studies looks with the underestimation. Some, not too big, intervention in the study programs could quickly solve the problem. It would be good that the procedures of changing and adaptations of existing study programs is slightly liberalized. In this way, the study programs will be more easily adapted to constant changes in the environment. Professional practice should be define in the study program clearly and precisely, with clear and measurable learning outcomes and acquired competences. Performance of practices should be designed appropriately to administrative studies. Putting practice at first, or even at the second year of study is not effective. Given the nature of the study and the necessary theoretical background knowledge, it is much more appropriate to organize practice after the courses. The practice should consist of concrete work (circulation file, making administrative decisions, making proposals for regulations etc.) and of planning and strategic decision-making at the specialist graduate studies. It is certainly necessary to increase the hourly rate of practical training, especially professional practice which should do a minimum of 1/3 of the total hourly rate. In this way, the students, after graduation, would be competitors in the labor market.

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Answer From Entities Of The Public Finance Sector To The Idea Of New Public Governance – The Bsc In The Public Sector

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Abstract

The idea of new public governance puts emphasis on the proper determination of objectives and the monitoring of results, the effective management of finances, the determination of service standards, the use of benchmarking or human resources management. Such approach requires the implementation of appropriate tools supporting management processes. Therefore, it is very important to extend the accounting system of the entities from the public sector with methods and tools of management accounting. This article focuses on finding the answer to the question which tools of management accounting may be helpful and may support managing in entities from the public sector. First, we made a short review of previous research on the application of management accounting instruments in entities from the public sector. Next, we examined which tools and methods of management accounting intend to support the examined entities when they implement integrated IT systems and thus we learned which tools they use. Then, we paid special attention to the use of BSC in a public entity, namely a hospital.

Keywords: New Public Management, Balanced Scorecard, public sector

Introduction

The concept of new public governance has been evolving (New Public Management) since the 1980s (first of all, in Anglo-Saxon countries). Its creation and development was inspired by the private sector. New public management (NPM) as a collection of practices that involve structural reforms to promote an entrepreneurial spirit amongst providers of State-funded services, measurement of the provision of those services using accounting techniques and subsequent evaluation of the value of those services by regulators [Ashworth et al., 2002; Lapsley, 2008]. The postulated

and observed changes in the public sector included a gradual replacement of the bureaucratic model with modern management methods. New public governance amounts to seven basic features [Hood 1991]:

- the introduction of managerial management in the public sector,
- clearly defined standards and measures of activities,
- greater emphasis on control over an entity's results,
- focus on the disaggregation of entities from the public sector,
- the introduction of competition into the public sector,
- the use of management techniques and methods used in the private sector,
- focus on greater discipline and savings in using possessed resources.

For simplicity's sake: the basic assumptions of this idea involve the use of market mechanisms towards the public sector, the promotion of competition between service providers, the transfer of control to the local community, the decentralization of competences and the introduction of participatory governance [Hoggett 1991]. According to this concept, administration should focus on results and not on outlays, as well as on objectives and the mission rather than on rules and regulations. The idea of new public governance puts emphasis on the proper determination of objectives and the monitoring of results, the management of finances (effectiveness), the determination of service standards, the use of benchmarking and modern human resources management. Such approach requires the implementation of appropriate tools supporting management processes. Therefore, it is very important to extend the accounting system with methods and tools of management accounting.

The changes in the approach to management in the public sector described above were firmly emphasized in Poland by the Polish Act on public finance [Act of August 27, 2009] which introduced numerous elements of this new concept and used instruments making it possible to improve the effectiveness of the execution of public tasks. The Act included, e.g. the obligation to exercise management control and new organizational forms of entities from the public finance sector.

This article focuses on finding the answer to the question which tools of management accounting may be helpful and may support managing in entities from the public sector. First, we made a short review of previous research on the application of management accounting instruments in entities from the public sector. Next, we examined which tools and methods of management accounting intend to support the examined entities when they implement integrated IT systems and thus we learned which tools they use. Then, we paid special attention to the use of BSC in a public entity, namely a hospital.

Instruments of managerial accounting in entities from the public sector

Managerial accounting has many instruments making it possible to support management of a company as a whole and its particular function areas. It may be assumed that its modern solutions adapted to the current requirements and needs of the management staff are particularly significant. Therefore, it is not surprising that its tools and methods are widely applied in entities from the public sector.

The literature on the subject contains many instances of research on the implementation of managerial accounting methods in entities from the public finance sector. These include, among others: the suitability of the system for reporting achievements [e.g. Pettersen 2001, Carlin, Guthrie 2001], the selection of financial and non-financial measures of achievements [among others Spiegelman 2001, Lee 2008]; the use of relative methods of measuring achievements, e.g. benchmarking [Johansson, Siverbo, 2009]; the impact of the acceptance of new legal solutions on changes in management accounting systems [Cavalluzzo, Ittner 2004]. Examples of such research in Polish literature include: on the tools of managerial accounting that may be used on managing a commune's finances [Mikulska, 2011], the application of controlling to build trust towards a self-government territorial entity and inside [Marzec, 2011].

Tools of managerial accounting that self-government territorial entities wish to use – overview of research

The tools used by entities from the public sector were examined by analyzing contracts for integrated IT systems with which they wish to support the implemented tools of managerial accounting. Each time we examined the descriptions of subjects of the contracts, namely the appendix to SIWZ (the Terms of Reference). We found these elements of the description of the subject of the contract interesting that refer to the possibility to implement tools of managerial accounting in entities from the public sector.

The conducted research was mainly aimed at recognizing the situation in entities from the sector public by:

1. obtaining the answer to the question: how do the tools and methods of managerial accounting intend to support the examined entities by implementing integrated IT systems,
2. the determination of information needs in the examined entities, resulting in ensuring an effective implementation managerial and operational tasks the entities face.

The research was conducted in the form of an analysis of appendices to SIWZ ⁵³ randomly selected from ones published in the Public Procurement Bulletin [<http://bzp1.portal.uzp.gov.pl>]. The following inquiry was introduced into the search engine: services (type of contract), open tender (mode of contract), announcement on awarding the contract (type of announcement), subject of contract: software. 30 announcements meeting the basic condition were selected – they were related to the purchase of integrated management systems. The methods and tools of managerial accounting the examined entities have and they wish to support with an IT system were determined on the basis of the description of the contract (Table No 1).

Table No 1. Methods and tools of managerial accounting required as system functionality

Methods, tools	Included in the requirements as system functionality	
	1	3
Analysis of costs and benefits for making short-term decisions	5	16.67%
Analysis of deviations of actual amounts from budget amounts	18	60%
Analysis of the profitability of investment projects	6	20%
Analysis of incurred costs and earned revenues	11	36.67%
Activity-based budgeting	4	13.33%
Budgeting of revenues and expenses	21	70%
Calculation and analysis of the unit cost	7	23.33%
Measurement of achievements using measures of a financial nature	17	56.67%
Measurement of achievements using measures of a non-financial nature	7	23.33%
Variable cost account	4	13.33%
Balanced scorecard	5	16.67%

It is not surprising that the tool most often required in the description of the subject of the contract was the option to conduct operational budgeting, the analysis of the deviations of actual amounts from budget amounts, the analysis of incurred costs and earned revenues. With regard to the Polish Act on public finance referred to above, it is surprising that the tool to analyze cost drivers and to measure achievements with the use of measures of a non-financial nature was not indicated. It should be emphasized that the ordered systems provide the possibility to easily implement subsequent tools and methods of managerial accounting.

⁵³ SIWZ – the Terms of Reference, is the main document during a procedure for awarding a public contract. It contains, first of all: the conditions to be met by the contractor, the list of elements that should be included in the tender as well as the basic data on the contract.

Implementations of the balanced scorecard in a public hospital

The strategic balanced scorecard is a tool aimed at translating an organization's vision and strategy into a set of measures classified into four perspectives: financial, customer, internal processes and development. The financial perspective indicates whether and to what extent the implementation of the organization's strategy contributes to the growth in the company's value. In the customer's perspective, the management defines the actual and potential recipients of services and segments of the market in which the entity will compete as well as the related measures of efficiency and effectiveness. The internal processes perspective identifies the key innovative and operational processes. The fourth perspective – development, identifies the resources the organization needs to develop to create the grounds for long-term development and improvement. It is clear that conceptualization locates the financial objectives as the final point of BSC efficiency management purposes which appears in conflict with the objectives of the majority of public sector organizations. In turn, Kaplan and Norton (2001) suggest that even though BSC was originally intended for commercial companies, it may be easily adapted to use in organizations from the public sector by changing the priorities in the scorecard's perspectives. In the event of entities from the public sector, we may identify all perspectives of result measurement, while the financial perspective in this case may be not so much the objective but rather a limitation. These organizations need to limit their expenses to the amount planned in the budget following, at the same time, the principle of savings and thrift.

The balanced scorecard has been the tool used to assess an organization's achievements in the healthcare system for two decades. In the healthcare area, for example, studies of BSC implementation have been conducted in a variety of countries, including the UK, Canada, the USA, Australia, Sweden, The Netherlands, Singapore, Afghanistan, and New Zealand (Chang et al., 2002; Chow-Chua, Goh, 2002; Zelman et al., 2003; Peters et al., 2007; Aidemark, Funck, 2009). It is used by hospitals, clinics and other entities operating in this system. The first publications which suggested the use of the balanced scorecard in management of a hospital appeared as early as in the middle of the 1990s, shortly after the presentation of this concept by its creators Kaplan and Norton in 1992 (Baker and Pink 1995, Zelman 2003; Griffith et al. 2002; Auger and Roy 2004; Young and Tung 2006). In the articles, the authors presented the application of BSC in hospitals and benefits resulting from this application.

Hospitals are a specific group of entities in the healthcare system. Treatment in hospitals is the basic element of the healthcare system. The majority of resources, both tangible and personal ones, present in the healthcare system is involved in medical activities conducted by hospitals.

Consequently, almost half of all cash funds spent by the payer annually on purchasing medical benefits is directed to hospitals. Additionally, these entities and strongly diversified in terms of their size, the scope of provided services, their legal form.

Taking into account the specific nature of the operation of hospitals, the measurement of achievements should be adapted to the implemented objectives and the conditions in which the hospitals function.

The balanced scorecard proposal by Kaplan and Norton presents the organization's achievements in four perspectives: financial, customer, internal processes and development. It uses not only traditional financial indexes but combines them with non-financial indexes. The implementation of BSC in hospitals has many common points with BSC in other sectors of the economy. However, due to the specific nature of the functioning of hospitals, there are areas characteristic of this type of organizations. For example, the strong diversity of key stakeholders is a troublesome issue. Employees, families of patients, doctors, the founding authority, the payer, suppliers, local communities and state authorities are distinguished apart from the group of patients. The achievement of the assumed objectives by all groups is difficult for a hospital and results from the conflict of interest between these groups. The patients expect high quality of provided services with the use of the latest diagnostic and medical solutions. Such approach is in conflict with the expectations of the founding authorities putting pressure on the rational use of a hospital's limited resources.

In addition, hospitals today need to deal with numerous unfavorable factors, such as the growth in the demand for medical services resulting from the growth in the number of the elderly or the development of civilization diseases. This leads to rapidly growing costs of treatment.

Hospitals are not focused on profit but new regulations (in Poland: the Polish Act on Medical Activities) oblige hospitals to earn profit. Losses incurred by a hospital lead to the commercialization of hospitals which, as commercial companies, are obliged to generate positive financial results. The valid legal regulations force them to rationally conduct their activities and oblige them to avoid financial losses.

Therefore, the measurement of a hospital's achievements is a multi-faceted measurement. This results from the specific nature of hospitals. Thus, the customer's perspective is dominant in the hospital's BSC. The priority is the implementation of the mission and the satisfaction of stakeholders. The financial perspective is of secondary importance. Although it is not key today, positive financial results are a necessary condition for the survival of hospitals from the long-term perspective.

BSC in Kraków Specialized Hospital– case study

The Rydygier Specialized Hospital in Kraków was established in 1986 and is one of the largest hospitals in Małopolska in terms of the number of beds, the number of staff and the number of hospitalized people. Several years ago, the hospital prepared and developed BSC. The main strategic objective of the hospital was and is the desire to confirm its position as one of the most important providers of medical services in Małopolska. The hospital prepared the BSC distinguishing four basic perspectives typical of this tool.

Table No 2. BSC of the Rydygier Hospital in Kraków

STAKEHOLDER PERSPECTIVE	
Objectives	Measures
Build the satisfaction of patients and their families	<ul style="list-style-type: none"> - number of complaints from patients and their families - percentage of patients hospitalized for whom individual treatment and care plans were developed, - test results of patients' satisfaction
Improve the availability of medical services, especially highly specialized and unprofitable ones	<ul style="list-style-type: none"> - number of patients awaiting unprofitable medical services, - number of new specializations and medical technologies, <ul style="list-style-type: none"> - bed occupancy rate, - shortening the time of waiting for highly specialized services - test results of patients' satisfaction
Strengthen the reputation of the Hospital	<ul style="list-style-type: none"> - number of publications on the Hospital and its employees (building the Hospital's positive image), - test results of patients' satisfaction, - number of press publications on the hospital, - receiving the CMJ and ISO certificate, - place in the Polish ranking of hospitals, <ul style="list-style-type: none"> - number of treated patients
Perform statutory tasks in conditions of financial stability	<ul style="list-style-type: none"> - financial result, - level of debt
Provide medical services of the required quality for a moderate price	<ul style="list-style-type: none"> - percentage index of meeting the payer's detailed requirements - price offer at the level +/-10% of the average for the products of comparable hospitals
Adjust the scope and number of medical services to the needs of the regional community and the payers	<ul style="list-style-type: none"> - level of contract implementation, - degree of shortening the waiting list

INTERNAL PROCESSES PERSPECTIVE	
Objectives	Measures
Improve and simplify regulatory internal processes	- percentage of positions with access to the Internet
Create conditions for the formation and implementation of innovations	- number of reported/implemented innovations, - number of implemented (3-year cycle) new medical technologies
Implement programs for quality improvement	- received certificates - index of the implementation of accreditation standards
Perfect and standardize healthcare	- number of developed standards of clinical conduct, - index of the implementation of accreditation standards
Simplify the delivery management process	- number of business partners, - quantity of purchased assortment
Improve the effectiveness of using resources	- average time of hospitalization (at wards/in the Hospital), - bed occupancy level, - number of surgery procedures, - surgery rooms usage index, - stock level of the Dispensary

DEVELOPMENT PERSPECTIVE	
Objectives	Measures
Perfect the employees' skills	- number of trainings annually (index per employee and training cost index per employee)
Build satisfaction employees	- the level of the employees' satisfaction (survey), - staff turnover index
Provide leadership on various levels of management	- level of the Managers' preparation for human resources management (survey)
Improve organizational culture	- level of the employees' identification with the Hospital, - level of the employees' awareness of the Hospital's mission and objectives
Build a comprehensive IT system supporting management	- number of key areas of management in a hospital covered by computerization, - level of integration of IT systems, - index of software integration (percentage of integrated programs to the total number of programs used in the hospital x 100%)
Develop highly specialized medical technologies	- number of highly specialized medical technologies
Reward effectiveness and innovativeness	- number of outstanding employees

FINANCIAL PERSPECTIVE	
Objectives	Measures
Achieve and maintain a positive profitability of revenues	- revenue profitability index (sales)
Optimize financial liquidity	- liquidity index
Improve the efficiency of operation	- operational index, - administrative costs control index, - turnover, current assets, fixed assets index
Improve the efficiency of managing resources	- work efficiency/1 employee, - productivity of fixed assets, - level of financing growth in assets from cash flow
Maintain the ability to service debt	- debt and debt service level
Increase relations of the strategic budget to the operational budget	- relation of modernization and development costs (including training) to current costs

Source: Prepared by the author on the basis of the Strategy of the Rydygier Specialized Hospital in Kraków

The hospital presented strategic objectives and measures to which it suggested actions making it possible to achieve the assumed objectives in the prepared BSC. Then, after one year, the hospital conducted an assessment of the degree of the implementation of the adopted strategic objectives on the basis of the prepared BSC. The majority of the assumed objectives was completed. The majority of the formulated objectives was implemented in the stakeholders' perspective. Access to medical services was improved, the hospital's position and reputation was consolidated. With regard to the internal processes perspectives, the hospital simplified and improved its regulatory internal processes. In the development perspective, the hospital improves the qualifications of employees, conducts assessments of the employees' qualifications and applies a remuneration system related to the evaluation of positions and the effects of work through the proposed actions.

The hospital managed to work out a large success in the financial perspective. The hospital obtained a stable financial situation, obtained a positive financial result.

Conclusion

According to the idea of modern management in the public sector, public entities successfully implement modern management methods applied in the practice of private business entities. One of the contemporary tools of managerial accounting, which were immediately applied in the public sector, is the Balanced Scorecard. The application of this solution allows entities to translate their strategy into objectives the implementation of which is confirmed by measures grouped in four perspectives. Actions are subordinated to objectives and measures.

BSC was introduced in the hospital presented in the article. Strategic objectives were defined, measures were assigned to objectives and actions through which the hospital should achieve the intended objectives were indicated. The conducted assessment of the implementation of the adopted strategy based on BSC confirms the achievement of the majority of assumed objectives, particularly those presented in the stakeholders' perspective and the financial perspective.

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CSR Disclosure: A Temporal Analysis of Italian Listed Companies Websites

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Abstract

The aims of this paper is to analyze the information in the field of Corporate Social Responsibility (CSR) available by reading the companies' websites. In this sense, we propose an empirical approach with a temporal analysis of the websites of a group of Italian listed companies and of the information in the field of CSR. Websites are evaluated on the basis of the structure (languages, map site, specific section on the CSR) and the content both for the general aspect and with specific reference to environmental responsibility and relationships with the community This methodology puts in evidence the important use of the Internet as a communication tool, especially in recent years. Many international researches on the topic are a key starting point for this paper. The present research intends to work on in the path outlined by the international studies mentioned in order to develop the analysis with reference to Italian companies, listed on the Italian Stock Exchange, characterized by large size.

Specifically, we arise the following research questions:

RQ1: Do Italian companies communicate information about their commitment to CSR on their websites, fully exploiting the potential offered by the Internet?

RQ2: Do companies that have a specific section devoted to CSR communicate a larger amount of information than companies that offer information in a less structured mode?

RQ3: Are there differences in the CSR information provided in the web in different periods of time (2013 and 2016)?

Keywords: Corporate social responsibility, disclosure, website, Italian companies

Introduction

Corporate Social Responsibility Disclosure (CSR/D) is the process of communicating the social, ethical and environmental effects of companies'

economic actions with regard to the interest of all stakeholders. The formal commitment to inform and involve stakeholders necessitates an adequate flow of communication through suitable channels, focusing on relevant content.

In recent years, the recognition of a large and various group of stakeholders has required the use of new media and the use of technological platforms and evolved. Internet is, in this sense, the best channel and it is used since 1990.

Several studies have sought to demonstrate the importance of the internet platform for the dissemination of information. The present research intends to work on in the path outlined by several international studies in order to develop a temporal analysis with reference to Italian companies, listed on the Italian Stock Exchange, characterized by large size.

The research examines the websites of a group of Italian listed companies and analyzes the information in the field of CSR. Websites are evaluated on the basis of the structure (languages, map site, specific section on the CSR ...) and the content, both for the general aspect both with specific reference to environmental responsibility and relationships with the community. The research compares the data at two different times (March 2013 and March 2016), highlighting the evolution of CSR' information sharing by web over the period.

Specifically, we arise the following research question:

RQ1: Do Italian companies communicate information about their commitment to CSR on their websites, fully exploiting the potential offered by the Internet?

RQ2: Do companies that have a specific section devoted to CSR communicate a larger amount of information than companies that offer information in a less structured mode?

RQ3: Are there differences in the CSR information provided in the web in different periods of time (March 2013 and March 2016)?

Theoretical framework

Corporate Social Responsibility Disclosure (CSRSD) can be defined as “the process of communicating the social, ethical and environmental effects of organizations’ economic actions to particular interest groups within society and to society at large” (Gray et al., 1987. See also Campbell 2004; Gray et al. 2001; Mathews 1997). The formal commitment to inform and involve stakeholders necessitates an adequate flow of communication through suitable channels, focusing on relevant content. CSRSD plays a key role in this commitment, and transparent reliable information is also widely considered important for legitimacy.

Corporate Social Responsibility, in fact, has become a key issue in recent times and the increased consideration for stakeholders implies a change in attitude and communication with them. The commitment to formal involvement by all stakeholders necessitates an adequate flow of communication in terms of channel and information relevance. In other words, disclosing social responsibility involves two key aspects; on one hand the firm meets commitments made to its stakeholders and on the other hand ensures a wider legitimacy through clear and reliable communication (Campbell, 2004; Cho et al., 2010; Deegan and Gordon, 1996; Gray et al., 2001; Hess, 2008; Kaptein, 2007; Morhardt, 2010; Roberts, 1992). Full and reliable information is in fact a basic condition for development of the firm; profits and losses as well as how these are reached are made public knowledge and this creates the consensus necessary for the firm to flourish (Balluchi and Furlotti, 2013).

Companies have always used financial statements and traditional media (press announcements, advertising campaigns on television and radio, newspaper and magazine trailers, bill boards and conferences) as communication channels.

In recent years, the recognition of a large and various group of stakeholders has required the use of new media and the use of technological platforms and evolved. Internet is, in this sense, the best channel and it is used since 1990. Internet has been used in order to make the companies able to meet the needs of the stakeholders in an efficient way, providing great flexibility in the presentation and quality of the information (Bolívar 2009).

The last few years, have also been marked by the notable diffusion of technologies that will support sociability and relationship: social networks, aggregators multimedia content created by users and blogs.

Several studies (i.e.: Porter and Kramer, 2006; DiPiazza and Eccles, 2002) have sought to demonstrate the importance of the internet platform for the dissemination of information. Other studies have focused on the limitations of the instrument; for example, Esrock and Leichty in 1998 revealed how the websites are not being used fully exploiting the their possibility: although 80% of Fortune 500 companies have webpages that deal with at least one CSR question, sites are not used fully exploiting the potential of communication, in particularly with regard to CSR issue (Esrock and Leichty, 1998). In 2000, another survey by the same authors showed that this percentage has risen to 85% (Esrock and Leichty, 2000). On the same topic, a study of Coope (Coope, 2004), which highlighted how useful information are often hidden in the webpages and they are hard to find for the reader. Other studies have attempted to correlate some company characteristics (such as size, sector of activity, profitability, ownership structure, etc.) to CSR disclosure and, in particular, CSR by the web.

With reference to the general aspects of social communication on the web, very interesting are the contributions of Sousa Filho and Wanderley (2007) and Morsing and Schultz (2006). There are also studies specifically dedicated to the identification of some key variables that inspire the scope and content of CSR information on company websites (Tagesson et al., 2009). We recall, in this sense, Ersrock and Leichty (1998) and Adams (2002) with reference to companies' size; Knox et al. (2006), Zeghal and Ahmed (1990) and Xiao et al. (2004) for the sector of activity to which companies belong; Belkaoui and Karpik (1989), Inchausti (1997) and Ng and Koh (1994) for companies' profitability; Adrem (1999) and Secci (2005) with reference to the ownership structure of the companies.

In the light of this brief literature review, the present research intends to work on in the path outlined by the international studies mentioned in order to develop a temporal analysis (years 2013 and 2016) with reference to Italian companies, listed on the Italian Stock Exchange, characterized by large size which will be analyzed.

Empirical research

Aims and methodology

The empirical research aims to analyze the information in the field of Corporate Social Responsibility (CSR) available by reading the companies' websites. Specifically, we arise the following research questions:

RQ1: Do Italian companies communicate information about their commitment to CSR on their websites, fully exploiting the potential offered by the Internet?

RQ2: Do companies that have a specific section devoted to CSR communicate a larger amount of information than companies that offer information in a less structured mode?

RQ3: Are there differences in the CSR information provided in the web in different periods of time (2013 and 2016)?

The starting universe consisted of firms quoted on the Milan Stock Exchange, belonging to the STAR segment on 28 December 2012 and present also in March 2016, as listed on the website www.borsaitaliana.it. Firms suspended from quotation and firms quoted on overseas markets were excluded and this yielded a sample of 64 firms, signed in the follow table (see Table 1).

Table 1 – Listing of companies.

1	ACOTEL GROUP	33	FALCK RENEWABLES
2	AEFFE	34	FIDIA
3	AMPLIFON	35	FIERA MILANO
4	ANSALDO STS	36	GEFRAN
5	ASCOPIAVE	37	MUTUIONLINE
6	ASTALDI	38	IGD – IMMOBILIARE GRANDE DISTRIBUZIONE
7	BANCA FINNAT	39	IMA
8	BANCA IFIS	40	INTERPUMP GROUP
9	BANCA POP ETRURIA E LAZIO	41	IRCE
10	BIANCAMANO	42	ISAGRO
11	BIESSE	43	IT WAY
12	BOLZONI	44	LA DORIA
13	BREMBO	45	LANDI RENZO
14	CAD IT	46	MARR
15	CAIRO COMMUNICATION	47	MONDO TV
16	DAMIANI	48	NICE
17	CEMBRE	49	PANARIAGROUP INDUSTRIE CERAMICHE
18	CEMENTIR HOLDING	50	POLIGRAFICA S.FAUSTINO
19	CENTRALE DEL LATTE TORINO	51	PRIMA INDUSTRIE
20	DADA	52	RENO DE MEDICI
21	D'AMICO INTERNATIONAL SHIPPING	53	REPLY
22	DATALOGIC	54	SABAF
23	DEA CAPITAL	55	SAES GETTERS e SAES GETTERS RSP
24	DIGITAL BROS	56	SERVIZI ITALIA
25	EI TOWERS	57	SOGEFI
26	EL.EN.	58	TAMBURI INVESTMENT PARTNERS
27	ELICA	59	TERNIENERGIA
28	EMAK	60	TESMEC
29	ENGINEERING	61	TXT
30	ESPRINET	62	VITTORIA ASSICURAZIONI
31	EUROTECH	63	YOOX
32	EXPRIVIA	64	ZIGNAGO VETRO

We have to observe that in 2013 the group of examined companies was composed by 66 companies, but in 2016 Cobra and Poltrona Frau are not present in the list of company belonged to STAR Segment of Borsa Italiana, so the final group of companies analyses is composed by these 64 firms.

Data collection

The research examines the websites of the 64 companies on February 2013 and March 2016. The time is an important aspect of the research for the

strong dynamics and for the immediacy of information and updates. Data was surveyed using the grid shown in Table 2

Table 2 – Survey grid for the analysis of the companies websites.

WEBSITE STRUCTURE

Information in different languages
Site map
Navigation panel
CSR section
Direct link to the CSR section on the home page (among the companies that have a specific section)
Number of clicks to access the CSR section
Operating hyperlinks
Format of presentation about CSR (text, audio, video, interactive resources)
Mistakes

WEBSITE CONTENTS

General aspects

Codes of ethic or guidelines
Social, environmental sustainability or intangible reports (social report)
Social performance indicators
Awards
FAQS section on CSR
Collaborations with external parties on CSR projects
Establishment of organizations that are dedicated to social responsibility in general
Projects about CSR (success or failure)
Commitments of social responsibility for the future

Environmental Responsibility

Environmental unit
Environmental Performance Indicators
Environmental Policy statement
Certification (ISO 14000, other)

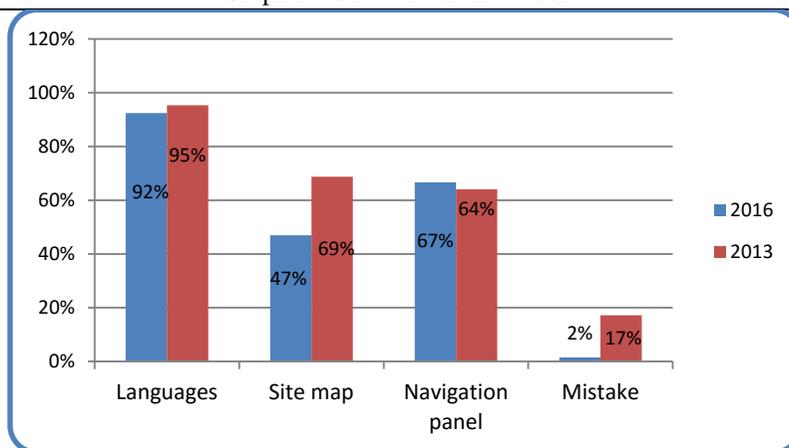
Responsibility towards community

Welfare Policies
Document statement of ethics policy

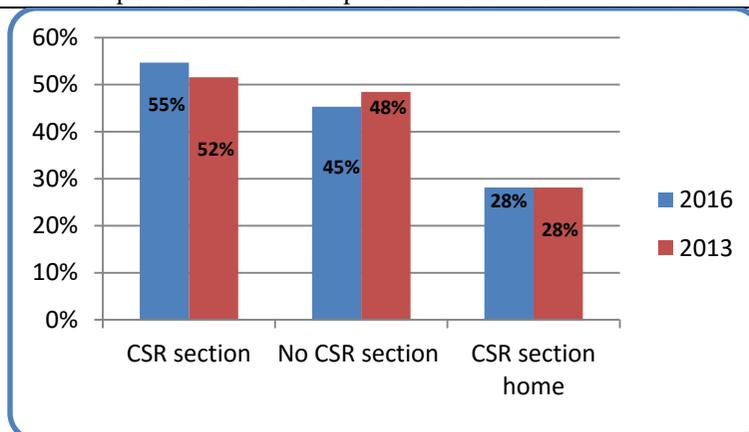
Results

As far as RQ1 (Do Italian companies communicate information about their commitment to CSR on their websites, fully exploiting the potential offered by the Internet?) is concerned the data show (see Graph 1) that companies exploit the website tools in order to communicate to their stakeholder: almost all the companies use multiple languages (only the 8% have a single language (Italian or English) and the 34% in 2016 and 30% in 2013 make available information in more than 2 languages). In a relevant majority of the companies' websites (67% in 2016 and 64% in 2013) is available a navigation panel and there are few mistakes in websites operating link (2% in 2016 and 17% in 2013).

Graph 1 - Structure of the website.



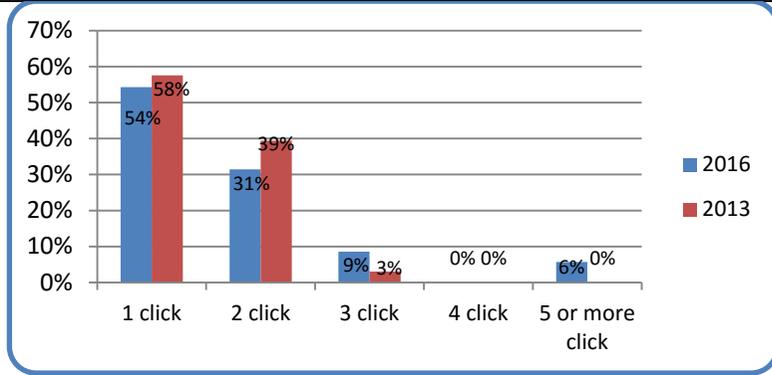
Graph 2 - Presence of a specific section dedicated to CSR.



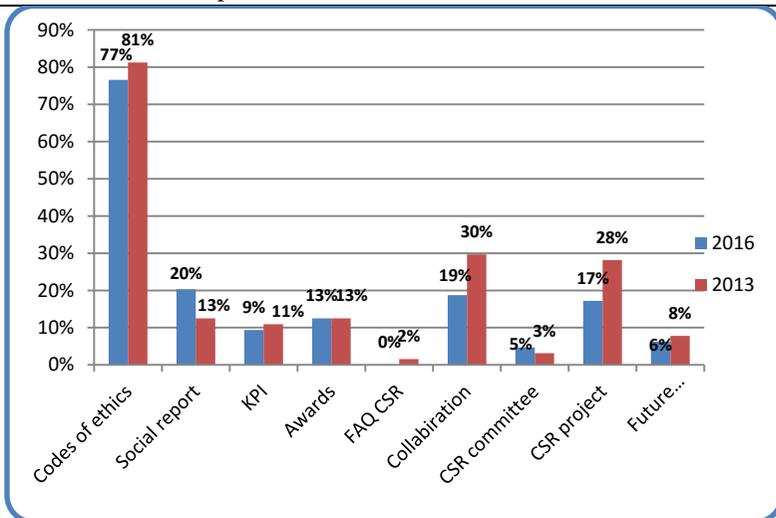
With regard to the CSR disclosure, however, only about 50% of the companies has a specific section devoted to CSR in the website (see Graph 2).

Usually, when a section focusing on CSR is present, the page devoted to CSR is right in the homepage of the website or the number of clicks to reach the information is 1 or 2 (see Graph 3).

Graph 3 - Number of click to reach CSR information.



Graph 4 - General CSR information.

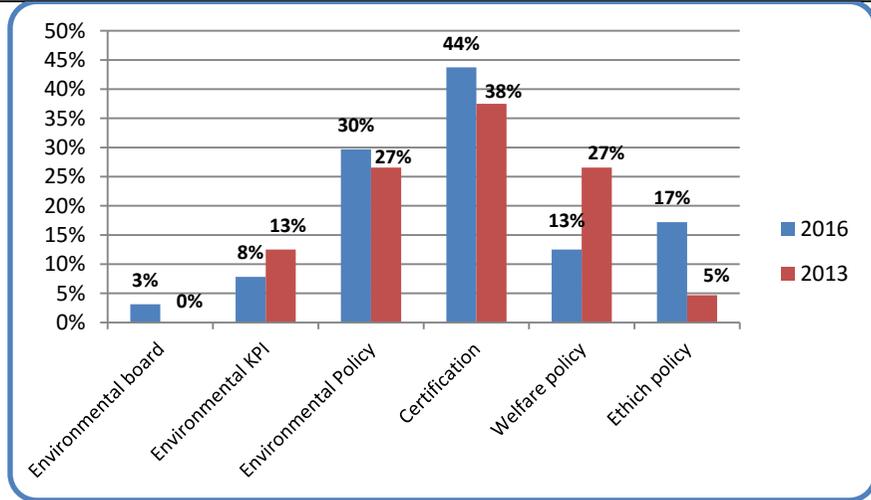


Regarding CSR information presented by the companies, the data show (see Graph 4) that almost all companies have a Code of Ethics, while a much smaller number of companies provides other kind of information such as CSR KPI, awards, collaboration, presence of CSR committee, or information about CSR project or future commitment on CSR.

As far as responsibility towards environmental and community is concerned, we observe (see Graph 5) that many companies have a certification (44% in 2016 and 38% in 2013, usually the certification is related to environment such as the ISO 14000) and declaration of policy with regard to environmental and community, but usually they don't have a

specific board or committee devoted to these topics (only 3% in 2016 and no one in 2013).

Graph 5 - Responsibility towards environmental and community.

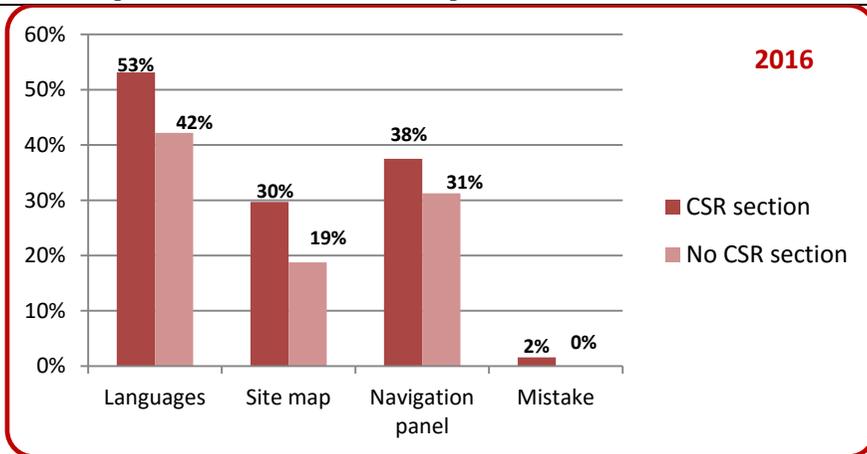


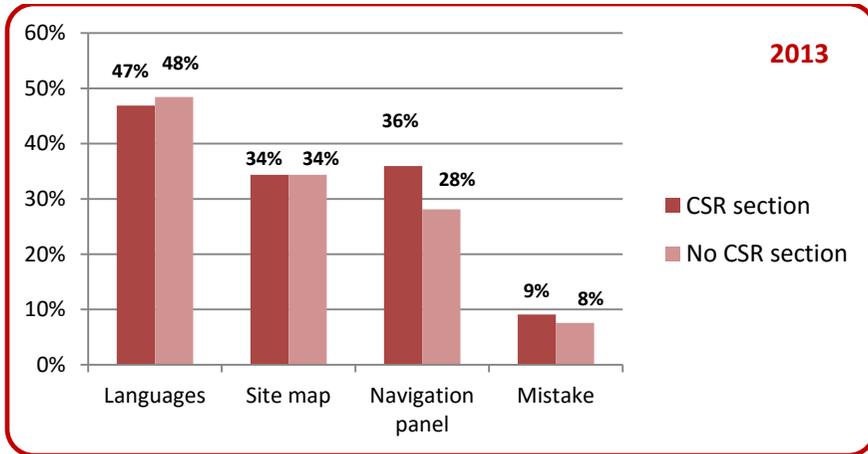
The analysis carried out in the two years does not identify material and significant differences with regard to the observations before exposed.

With regard to RQ2 (Do companies that have a specific section devoted to CSR communicate a larger amount of information than companies that offer information in a less structured mode?) the data are analysed in order to compare the quantity and quality of CSR information between websites with specific section dedicated to CSR and websites without a CSR section, as well as the differences in the two periods 2013 and 2016.

The following graphs (Graph 6, 7 and 8) show the data collected during the two periods analyzed.

Graph 6 - Structure of the website: presence/absence of CSR section.

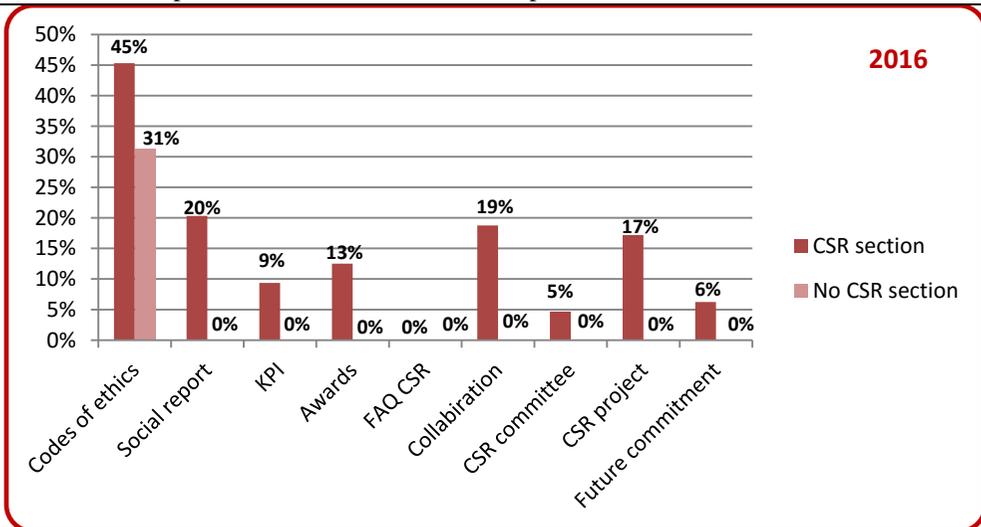


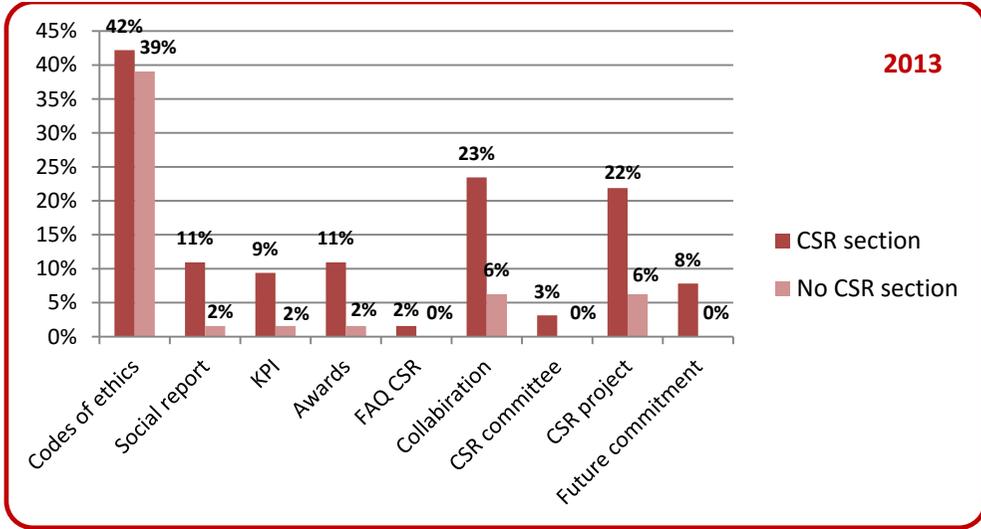


By comparing website with and without CSR section, small differences are notable, in both the years, with regard to the structure and to the functionality of the website; we note, in 2016, a reduction almost total of operating mistakes (see Graph 6). However the websites with a specific CSR sections provide more information regarding both general aspects of CSR both information about environment and community.

Furthermore, in 2016 the amount of general information decreases compared to 2013 (see Graph 7). In particular we can note that, in 2013, when there isn't a CSR section, websites offers more information compared with the same websites in 2016. The disclosure, instead, improves in 2016 compared to 2013 in cases in which there is a CSR section, cases which increase from 52% in 2013 to 55% in 2016 as we observed in Graph 2.

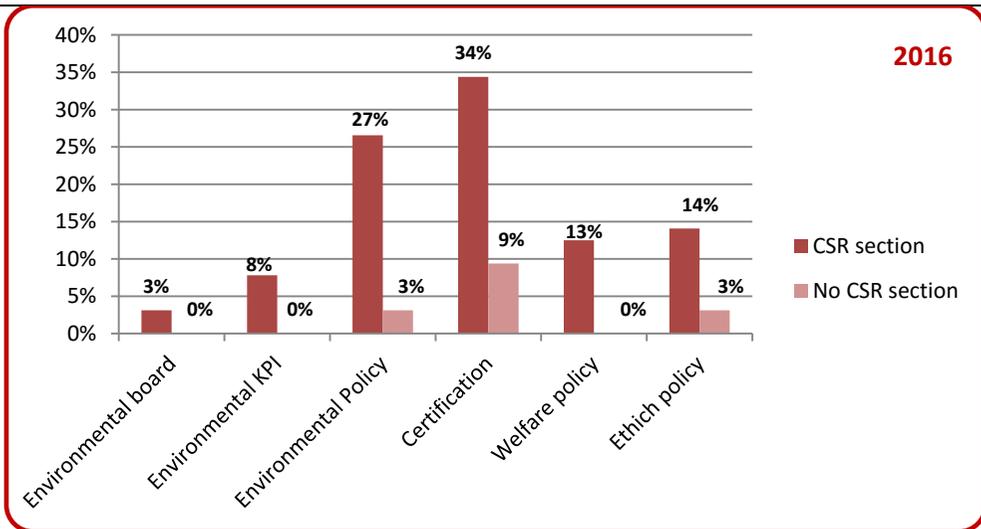
Graph 7 - General CSR information: presence/absence CSR section.

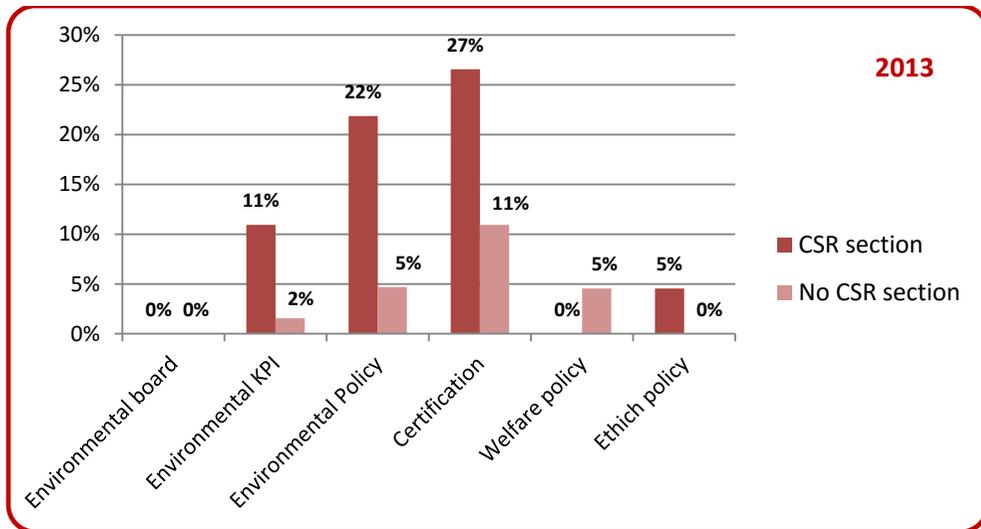




As far as information about environment and community is concerned, we note that (see Graph 8) in 2016 the disclosure of companies with a CSR specific section in the website enhances, in particular with regard to welfare and ethic policy (13%-14% in 2016 and 0%-5% in 2013).

Graph 8 - Responsibility towards environmental and community: presence/absence CSR section.





Conclusion

The aims of this paper is to analyze the information in the field of Corporate Social Responsibility (CSR) available by reading the companies' websites.

Regarding RQ1 is possible to underline a relevant availability of information regarding the CSR. The majority (92% in 2016 and 95% in 2013) of the companies offers information in both Italian and English language. The simplicity and speed of navigation is accurate in the websites analyzed: 69% in 2013 and 47% in 2016 of the companies contains a site map and 64% in 2013 and 67% in 2016 offers a panel of navigation to facilitate the search of information. Only 2% of website presents mistake in the operating link (17% in 2013).

More than half of websites (52% in 2013 and 55% in 2016) present a special section dedicated to CSR, a relevant percentage (28% both in 2013 and 2016) has a CSR section on the home page and when the section is not in the home are necessary 2 or 3 click to reach the CSR information.

In terms of responsibility towards environmental and community, there are few websites that express these topics in detail. The most significant data are related to the presence of information on the certification (such as ISO 14001) (38% in 2013 and 44% in 2016), environmental policy (27% - 30%) and welfare policies (27% - 13%).

As far as RQ2 is concerned, we can observe that it is fully confirmed. There is clear evidence that the websites that contain a specific section dedicated to social responsibility provide more information. This is because the companies that give much importance to CSR disclosure, usually submit information as complete as possible and easily detectable by the user.

With reference to RQ3, we can note a positive development in 2016 with regard to quantity and quality of information about environment and community in particular in the companies with a specific CSR section in the website and with specific reference to information about environment and ethic policy. In cases in which there is not a specific section we note a small reduction of disclosure.

The research can be developed considering a larger number of companies (for example considering all the listed companies and not only the ones belonging to the STAR sector of Borsa Italiana) and a greater number of information (for example with regard to the relationships between company and different stakeholders such as employees, customers or consumers, and so on). Furthermore, the time variable represents an important limitation of the research. The data, in fact, are related to the month of March 2013 and March 2016; the discussed results are usable for a specific period of time, since the information available can change very quickly with the risk of damaging the conclusions reached. This limit, however, it is difficult to eliminate because of the intrinsic characteristics of the object of analysis.

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Enhancing Interprofessional Relationships Between Nurses And Resident–Physicians In Graduate Medical Education

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Abstract

The culture of medicine in the United States has undergone and continues to experience substantial change. Those who provide medical education are being challenged to modify curricula and educational activities to engage residents and fellows in this new culture. In his 2007 Presidential Address to the Association of American Medical Colleges, Darrell Kirch, MD, spoke of the culture changes in medicine that are affecting the profession and the educational training programs. Academic medicine was historically defined as individualistic, autonomous, scholarly, expert-centered, competitive, focused, high-achieving, and hierarchical. The culture must now evolve to reflect collaboration, transparency, outcomes-focus, mutually accountable, team-based, service-oriented, and patient-centered. Knowing this, the culture of graduate medical education is now focusing on interprofessional skill building with its residents and fellows.

Keywords: Interprofessional Care, Collaboration, Nurses–Physicians, Graduate Medical Education

Introduction

In the United States, the Accreditation Council for Graduate Medical Education (ACGME) is responsible for accrediting post–medical school training programs (Graduate Medical Education or GME), including internships, residencies, and subspecialty fellowship programs. The ACGME has identified core requirements for educational programs (General Competencies) that include medical knowledge, patient care, practice-based learning and improvement, interpersonal and communication skills, professionalism, and system-based practice. Although the areas of medical knowledge and patient care are traditional areas of educational focus, the remaining four areas are challenging medical educators and their institutions to educate residents and fellows in these non-traditional areas.

The culture of medicine in the United States has undergone and continues to experience substantial change. Those who provide medical education are being challenged to modify curricula and educational activities to engage residents and fellows in this new culture. In his 2007 Presidential Address to the Association of American Medical Colleges, Darrell Kirch, MD, spoke of the culture changes in medicine that are affecting the profession and the educational training programs. Dr. Kirch noted that the culture of academic medicine was historically defined as individualistic, autonomous, scholarly, expert-centered, competitive, focused, high-achieving, and hierarchical. But this culture, he observed, has evolved to one that is collaborative, transparent, outcomes-focused, mutually accountable, team-based, service-oriented, and patient-centered. As he stated, “To put it in simplest terms, when most of us entered academic medicine it was about achieving your ‘personal best.’ Now it has become the quintessential ‘team effort’” (Kirch, 2007). In summary, the concept of teamwork and the development of collaborative relationships are of utmost importance.

Many studies in medical education confirm Dr. Kirch’s concept of the changing culture in academic medicine, especially in the areas of teamwork and the physician–nursing relationship. Indeed, involving nursing in the education of physicians seems like a logical step to enhance both teamwork and the relationships among nursing and physicians. These relationships are nuanced, and educators do well when they are sensitive to the factors that facilitate communications and collaborations among nursing and physicians. For example, Howe *et al.* (2000) found that although nursing can be an integral facet of the education of physicians, the differences in the hierarchies of nursing and physicians can raise concerns about the role of nursing in the educational setting. McCaffrey *et al.* (2010) explored the notion of interdisciplinary collaboration and found that effective communication among all members of the health care team are essential and that educational programs on communication can facilitate better interactions among the members of healthcare teams. Similarly, Muller-Juge *et al.* (2013) observed that one of the most critical aspects for healthcare teams to manage is interprofessional collaboration. Walsh *et al.* (2014) found that the resident physicians in their study were unclear about the scope of practice of Nurse Practitioners. They surmised that if physicians understood the scope of practice of Nurse Practitioners, they would better understand the constructive role Nurse Practitioners play in patient care. Research supports the importance and utility of interprofessional care, which has been defined as “nurses and physicians working together, sharing responsibilities for solving problems, and making decisions to formulate and carry out plans for patient care” (Baggs *et al.*, 1997).

The ACGME has responded to this changing culture and increasing need for interdisciplinary healthcare by revising and enhancing their accreditation requirements; to these ends, ACGME has added the Clinical Learning Environment Review (CLER). The CLER is a key component of the revised Next Accreditation System with the aim of promoting safety and quality of care. The CLER activities focus on engaging residents and fellows in patient safety, quality improvement, care transitions, supervision, fatigue management and mitigation, and professionalism (Nasca *et al.*, 2012; Weiss *et al.*, 2012). The CLER initiative is directly related to the cultural elements described by Kirch (Kirch, 2007).

Interprofessional relationships are closely linked to the focus areas of patient safety, quality improvement, and professionalism. Healthcare professionals are challenged to work within interprofessional teams, but essential elements such as high quality and safe patient care often are not formally addressed in medical curricula. When interprofessional skills are mentioned, sometimes they are presented with little formal, explicit direction about how to develop and apply the skills necessary to work in teams and to develop collaborative relationships. In this paper, we will share how Eastern Virginia Medical School, in collaboration with our primary teaching hospital, Sentara Norfolk General Hospital, collaborated on development and implementation of educational programs and activities to enhance the interprofessional collaboration between nurses and resident physicians.

Interprofessional medical education and activities

Eastern Virginia Medical School (EVMS) is a community based institution that partners with local and regional hospitals to provide the clinical learning environment. In academic year 2015–2016, EVMS reported 26 ACGME-accredited programs. Fourteen of these are residency training programs with approximately 290 trainees and 12 fellowships with 25 trainees.

Sentara Norfolk General Hospital (SNGH) serves as the primary teaching hospital and provides the clinical learning environment for EVMS residents and fellows. SNGH is a 525-bed tertiary care facility that serves the region with a Level-1 trauma center (the top level in the United States), a burn unit, and a nationally ranked heart program. SNGH was the first hospital in southeastern Virginia to be named a Magnet Hospital by the American Nurses Credentialing Center (American Nurses Association, 2016). Fewer than 5% of U.S. hospitals have earned this credential, and research indicates that Magnet hospitals consistently outperform their peers in recruiting and retaining nurses, which leads to high-quality care, lower recruitment, training, and temporary labor costs, and more stable institutions (Kelly *et al.*, 2011).

In August 2012, EVMS and SNGH participated in the beta testing of the ACGME's CLER. The CLER reports describe the integration of the residents and fellows into the hospital's formal systems of care but do not provide an assessment or recommendations for change. The findings of the 2012 report prompted discussion between EVMS and SNGH regarding several areas for corrective action and improvement. Members of both institutions agreed that one of the areas in which their activities would have the most impact was enhancing the relationships between nursing and physicians.

Before the collaborative planning and resulting activities, SNGH nurses and EVMS resident physicians functioned in what could be described as typical communication transactions. In this model, typical transactions involved the physician writing an order for a patient and the nurse following through with the order. Sometimes there may have been brief conversations related to clarifying orders, but in reality there were few discussions related to patient issues or hospital quality improvement initiatives. Accordingly, the leadership of EVMS and SNGH joined together to emphasize and enhance interprofessional collaborations among nurses and resident physicians. A CLER Executive Council was formed and included leadership from both EVMS and SNGH. The CLER Executive Council was charged with oversight of the CLER enhancement activities. The EVMS members included the Vice Dean for Graduate Medical Education and the Assistant Dean for Graduate Medical Education. The Sentara members included the President of SNGH, Vice President for Medical Affairs, and the Director of Accreditation, Patient Safety, Quality Management, and Infection Prevention and Control. The Council identified several opportunities for enhancing the relationships and promoting interprofessional activities, including development of the EVMS/SNGH Resident Patient Safety and Quality Improvement Council, Nursing Professional Development Programs, an orientation for residents when first assigned to a hospital ward service, an orientation for fourth-year medical students regarding the roles of nursing and methods for developing collaborative interprofessional relationships, and the appointment of the Assistant Dean for Graduate Medical Education on the SNGH Nurse Residency Program Advisory Council. Following is a description of each of these activities and contributions to cultivating interprofessional quality medical care.

EVMS/SNGH Resident Patient Safety and Quality Improvement Council. The EVMS/SNGH Resident Patient Safety and Quality Improvement Council (Council) consists of 46 residents and fellows from 14 specialty training programs. The Council includes no faculty members, but the SNGH Vice President for Medical Affairs and the SNGH Director of Accreditation, Patient Safety, Quality Management, and Infection Prevention

and Control (a nurse), as well as the EVMS Assistant Dean for Graduate Medical Education and the EVMS Risk Manager attend and facilitate the meetings. The Council meets monthly at SNGH to discuss and share concerns related to patient safety and quality improvement and to identify, discuss, and implement potential solutions. The Vice President for Medical Affairs and the other SNGH leadership staff provide feedback regarding hospital-based patient safety and quality improvement initiatives and share strategies to encourage residents and nurses to collaborate and enhance existing patient quality care. As residents began to engage in the quality improvement and patient safety processes, they requested that nursing leadership also attend the Council meetings. As a result, the SNGH Director of Clinical Area Services (nursing), the SNGH Chair for Advanced Nursing Practice Council (nursing), and the SNGH Quality Improvement Coordinator (nursing) were invited to attend the Council meetings. The addition of nursing leadership led to enhanced dialog about patient-care issues and the implementation of processes for improving bedside care of the patients.

Nursing Professional Development: Novice Nurse Orientation.

During the 2012 CLER visit, it became evident that nursing was sub-optimally integrated into the educational processes for the resident physicians, and some of the novice nurses were not aware they were working at a teaching hospital. To enhance the knowledge base of the novice nurses, the EVMS Assistant Dean for Graduate Medical Education developed an orientation for novice nurses. This orientation included an introduction to the educational pathway for physicians, discussions about the role of the physician in the care of patients, and communication skills. The EVMS Assistant Dean for Graduate Medical Education and resident physicians provide the orientation. The inclusion of the resident physician provides an opportunity for the novice nurses to gain experience in communicating directly with the resident physicians. Orientation topics include: Longitudinal Progression from Medical Student to Resident/Fellow, Defining the Accreditation Council for Graduate Medical Education, its Next Accreditation System and Clinical Learning Environment Reviews, Explaining the Core Education Program Requirement for Residents, Role of Nurses as Teachers to Residents, and Faculty Supervision Requirements of Residents. The Orientation involves both lectures and communication simulation experiences.

Nursing Professional Development Clinical Leadership Training: Nurses as Teachers to Residents. When the interprofessional quality initiative began, the clinical nursing leadership at SNGH was already providing quarterly lectures on nursing and teaching. After discussions between EVMS and SNGH leadership, one of the quarterly lectures was dedicated to educating nursing about their roles as teachers to resident

physicians. As with the orientation for novice nurses, the session is presented by the EVMS Assistant Dean of GME and a resident physician. The new lecture includes teaching and learning principles from the nursing perspective, along with teaching case discussions, and video vignettes that illustrate teaching situations relevant to nurses.

Video Vignettes on Nursing and Resident Communication. A 5-part video vignette series was developed at the Sentara Center for Simulation and Immersive Learning at Eastern Virginia Medical School. The video vignettes were authored by EVMS residents and SNGH nurses and simulate conversations that identify common communication barriers that could potentially affect patient care. As the videos progress, viewers see typical exchanges that highlight shortcomings in communications and then model ways in which both nurses and interns can collaborate to improve patient care. The video vignettes are presented in coordination with lectures and discussion about effective communication. Each video vignette is less than 4 minutes long and stimulates conversations on how to overcome communication barriers. Topics include:

Nurse calls intern to see the patient:

<https://connect.evms.edu/vignette1/>

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Nurse calls chief resident: <https://connect.evms.edu/vignette2/>

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Interns Rechecks Patient: <https://connect.evms.edu/vignette3/>

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Nurses talks with charge nurse: <https://connect.evms.edu/vignette4/>

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Chief Resident and intern see the patient:

<https://connect.evms.edu/vignette5/>

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Resident Ward Orientation. When residents and fellows are initially assigned to a hospital ward service, it is frequently the first time they have been on that unit. They may not be aware of where supplies are located, who is in charge, how patients are admitted to the unit, or other items necessary for successful patient care. The EVMS Assistant Dean for GME and the SNGH nursing leadership collaborated to develop a ward-specific orientation that is provided by the ward nursing leadership to new residents and fellows assigned to the unit. Information presented includes an orientation to the

specific unit's patient safety and quality improvement initiatives, identification of the nursing leadership team for the particular nursing unit, any specialty services specific for that nursing floor, specialty training that nurses have received to enable them to carry out any patient bedside orders unique to that unit, emergency nursing contact information, and location of the equipment and supply closet. The orientation is welcomed by residents and fellows both for the substantive and useful information provided and for the opportunity to meet and begin working with nursing staff who are a key part of the interprofessional care on the ward.

Orientation for Fourth-Year Medical Students Transitioning to Residency. EVMS provides its fourth-year medical students with a course that prepares them for the transition from medical school to residency. The EVMS Office of Graduate Medical Education was asked to participate in designing the course and to address various topics related to what rising interns needed to know related to residency training. The topics included tips from current residents, working with your program director and coordinator, and working within inter-professional team of nurses. Pereira *et al.* (2016) explored the skills and expertise that residents believe to be necessary for their initial year of residency. One of the most frequently cited skills was the ability to communicate with other providers during patient care transitions. With this knowledge, a session to foster the interprofessional roles of nursing and residents, particularly the skills for developing collaborative relationships is included.

SNGH Nurse Residency Program Advisory Council. The SNGH Nurse Residency Program Advisory Council (Council) was established to identify skills that novice nurses need as they transition into practice. The Council's charge is to oversee and make recommendations about the curriculum for the novice nurses. The Assistant Dean for GME was asked to serve on the Council, which currently is identifying interprofessional educational needs related to nurses and resident physicians.

Conclusion

The culture of medicine in the United States is changing, and medical education institutions are being challenged to ensure that resident physicians and fellows develop the skills necessary to work effectively within this emerging and evolving culture. With the shift toward interprofessional team approaches to patient care, residents and fellows are entering into a clinical system in which collaboration and teamwork skills are essential to safely manage the care of the patient. At EVMS and SNGH, we are actively preparing our resident physicians for this cultural shift. Interprofessional care is no longer an option, but a necessity.

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The Bible As A Green Text?

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Abstract

With an increasing debate over human impact on the environment, can we look at how the environment can be treated through a Christian perspective? Pope Francis, in the Roman Catholic tradition, has paved the way with *Laudato Si* and given much to think about. Is the Bible fundamentally a 'Green' text? Have people been misinterpreting the message on how to care for the environment? This essay will examine what theologians have said in regards to the Bible and the environment and conclude that in the Bible we can find it to be a 'Green' text.

Keywords: Bible, Green, Environment

Introduction

There has been much debate on about the environment and over Pope Francis' encyclical *Laudato Si*. A fundamental question needs to be asked: Is the Bible fundamentally a 'green' text?

299 Because God creates through wisdom, his creation is ordered: "You have arranged all things by measure and number and weight." The universe, created in and by the eternal Word, the "image of the invisible God," is destined for and addressed to man, himself created in the "image of God" and called to personal relationship with God. Our human understanding, which shares in the light of the divine intellect, can understand what God tells us by means of his creation, though not without great effort and only in a spirit of humility and respect before the Creator and his work. Because creation comes forth from God's goodness, it shares in that goodness – "And God saw that it was good...very good." – for God willed creation as a gift addressed to man, an inheritance destined for and entrusted to him. On many occasions the Church has had to defend the goodness of creation, including that of the physical world.⁵⁴

⁵⁴ *Catechism of the Catholic Church*, 2nd ed., 299.

What does it mean that the Church⁵⁵ has had to defend the goodness of creation, which includes the physical world? For many years I have heard sermons/homilies proclaiming “man’s”⁵⁶ superiority over all of God’s creation and how “man” has been put on this earth to subdue the earth and to have dominion over it.⁵⁷ Has that been taken out of context or misinterpreted?

This essay will address whether or not the Bible is fundamentally a ‘green’⁵⁸ text by examining different arguments regarding God’s intention for His creation.⁵⁹ This can be hard for many people, myself included, especially when one is raised with the typical image of man being put on this earth to subdue and dominate it. It becomes a little easier when one starts to think outside what one has typically been taught especially when listening to Walter Brueggemann.

I.

Brueggemann once wrote, “Biblical interpretation, done with imagination willing to risk ideological distortion, open to the inspiring spirit, is important. But it is important not because it might allow some to seize control of the church, but because it gives the world access to the good truth of the God who creates, redeems and consummates.”⁶⁰ So what is God really telling us about the environment and creation?

Jonathan Clatworthy wrote a piece on the implications of the doctrine of the fall, in which he pointed out that there have been many people who have blamed God for things that have gone wrong in nature. He points out

⁵⁵ In this essay, as a note, when I refer to the term “Church” I am referring to the Roman Catholic Church. I do not mean to insult anyone with this term who may refer to the term “Church” as the greater Christian community.

⁵⁶ With the term, “man’s” here I am also referring to all of humanity not just men.

⁵⁷ Gen. 1.28 (New American Bible): “God blessed them; and God said to them, “Be fruitful and multiply, and fill the earth, and subdue it; and rule over the fish of the sea and over the birds of the sky and over every living thing that moves on the earth.”

⁵⁸ The term ‘green’ here I am referring to refers to environmental issues that are prevalent today. To use the bible as a ‘green’ text means that one is recognizing that the bible is centered on preventing exploitation of all of creation.

⁵⁹ Another short note for this essay: out of respect for the Deity and the persons of the Trinity, I capitalize all references to God and members of the Trinity including pronouns. These are not typos. When they are not capitalized, it is only because I quote directly from texts and leave the words as they have been printed. Additionally, for a number of reasons, but mainly readability and convenience, I use the masculine pronouns to refer to God. This is not done to offend any readers who may prefer gender-neutral language. Also all biblical citations, unless otherwise noted, come from the New American Bible.

⁶⁰ Walter Brueggemann, “*Biblical Authority.*” in *Doing Right and Being Good: Catholic and Protestant Readings in Christian Ethics*, eds. David Oki and Peter R. Gathje (Collegeville: Liturgical Press, 2005), 46.

“Natural disasters are explained as God’s just punishment of human sin.”⁶¹ He also then goes on to point out that humanity should not blame God for disasters that happen or put any blame on God’s creation because the order of God’s creation was “good” and the cause of the problems can only lie in human sin or in what we have done to the earth.⁶² If this is the case, why is it that people have been taught that it is humanity that is and can do whatever it wants to the earth?⁶³ This has been a problem because of the current effects to our ecosystems and earth in general. It is important, then, to re-examine scripture to see that the Bible can be seen as promoting a ‘green’ balance with all of God’s creation.

When thinking of God’s creation, one can immediately jump to the creation stories found in the book of Genesis. It is in the book of Genesis that one first starts to see God’s intention for His creation as well as an inclination towards the Bible being a ‘green’ text. It is interesting to note that when one looks at the order of creation, one can start to see where God might be addressing the ranking of importance in creation.

Ellen Davis once made the point that it was the land that came first in God’s plan of creation. She also made the point that it is humanity that needs both God and the land in order to survive and it is when that balance is upset, there are dire consequences, for example when humanity over uses land for farming humans suffer from land degradation and crops yield little harvest and there is not enough food for people etc.⁶⁴ In one of the Old Testament stories of creation, one can see that God puts great emphasis on His creation where He sees what He has created and calls it Good. God is pleased with the way in which creation is unblemished and preserved. That is why God intended for “mankind” to be stewards of the land and not just people to dominate and do what it pleases with the land.

If one examines the second creation story found in the Genesis account, one can see not only the order of creation but also that God had

⁶¹ Jonathan Clatworthy, “Let the Fall Down: the environmental implications of the Doctrine of the Fall,” *Ecotheology*, vol. 4 (1998): 32.

⁶² Ibid.

⁶³ As a note: This concept of doing whatever one wants to the earth or the interpretation of “subduing” the earth can be found in many communities in the US. I am not claiming that it is an official teaching that is sanctioned by the Roman Catholic Church or other Christian denominations, but only that it has been taught in various ways over the years. An example of this can be seen in the US Mormon faith tradition and can be seen in a piece written by Brigham Young academic Hugh Nibley and his experience with the concept of subduing the earth and its meaning. For more information please see: Hugh W. Nibley, *Man’s Dominion, or Subduing the Earth*, <http://maxwellinstitute.byu.edu/publications/books/?bookid=49&chapid=301>

⁶⁴ Ellen F. Davis, *Scripture, culture, and agriculture: an Agrarian reading of the Bible* (New York: Cambridge University Press, 2009), 28-33.

made Adam from the earth. In *The Oxford Companion to the Bible*, it shows that the second Genesis creation story was one that deals primarily with humanity and sustaining humanity through agricultural environment.⁶⁵ God creates man out of the earth, the earth that is to sustain him. God makes Adam part of the natural order but it is not until God gives Adam the divine breath that he becomes a living being and is given dominion over the creation which, according to the *Oxford Companion*, in Genesis 1 Man being made in the Image of God signifies Man as a caretaker in the Garden and being responsible for creation and to the Maker.⁶⁶ The story stresses that man, earth, God, and all of creation have a mutual, complementary need to live in unity. One cannot dominate the other and vice versa. Adam is to be a steward of the land and creation since he is made in the image and likeness of God and God cares for His creation.

Calvin B. DeWitt makes the case that Adam was to be a steward of the Garden in the Genesis account. Using the Genesis 2.15 account, he explains that the words to “till” and “keep it” conveyed a meaning of serving in the garden since the Garden had been planted by the Creator and not Adam. As a result, the garden was to serve as a biosphere to reciprocate being served by Adam by also serving mankind.⁶⁷ There is a harmony that is seen in the Genesis account, a give and take relationship that is taking place. This can also be seen in the Genesis 1 command by God to “be fruitful and multiply.”

There are quite a few people, that I have encountered, that have used the argument that God told humanity that it should “be fruitful and multiply” and that because of this humanity had a special role in creation. This, however, according to DeWitt was not what God had intended. It is important to note, according to DeWitt, that God had not given this command to humans first but in fact given to the fish and birds in Gen. 1:20-22.⁶⁸ It is not until several verses later, more specifically verse 28, where God finally tells humanity to “be fruitful and multiply and replenish the earth, and subdue it: and have dominion.”⁶⁹

It is this quote, in my experience, that has caused much misinterpretation over what the Bible was actually saying. DeWitt points out that God had blessed the earth so that all of His creation would flourish with abundance and diversity and more specifically he points out that the word “fill” did not mean what is traditionally thought to mean, i.e. for humanity to

⁶⁵ Bruce M. Metzger and Michael D. Coogan, eds., *The Oxford Companion to the Bible*, s.v. “Creation.” (Oxford: Oxford University Press, 1993), 140-141

⁶⁶ Ibid

⁶⁷ Calvin B. DeWitt, “Biodiversity and the Bible,” *Global Biodiversity* 6, no. 4 (1997): 14.

⁶⁸ Ibid.

⁶⁹ Ibid. & Genesis 1:28 (New American Bible)

dominate and take over.⁷⁰ It had in fact been used in regards to flourishing instead of overpopulation and is part of fulfilling God's plan for creation. Humanity is placed in the garden, and on the earth, to take care of the balance that is formed by God because all things are related together and to the creator.

Bauckman also makes that point clear, in regards to stewardship that it was when man decided to disobey God's plan and harmony that things started to go awry. It was when man decided to not exercise its role of responsible care for all of God's creation that the harmony in the Garden started to break down and get worse.⁷¹ God had given man all the food it needed in the Garden, which was primarily a vegetarian diet.⁷² It wasn't until after the fall that man needed to kill for food and thereby bring violence into God's creation.⁷³ God created harmony out of chaos in the Garden and it was man who brought chaos back into creation.

Sean McDonagh also writes about the role that humanity is to play in God's creation. He points out "many modern biblical scholars insist that the Divine command cannot be interpreted as a licence for humans to change and transform the natural world according to any human whim or fancy."⁷⁴ Humans are to be good stewards of the earth, taking care of God's creation making sure that there is a healthy balance. Using Ted F. Peters he writes "that originally the commission was, in fact, a challenge to human beings to imitate God's loving kindness and faithfulness and act as is viceroy in relationship with the non-human component of the earth."⁷⁵ Those who are viceroys are to be honest and just and not exploit the subjects of the King.

Even the psalms point out how a just King is to act where in Ps 72:4-7 (New American Bible) a King must defend the poor, and in verse 6-7 one can see that the King has to be in union with the whole of creation. Verses 6-7 state, "May he be like the rain coming down upon the fields, like showers watering the earth, that abundance may flourish in his days, great bounty, till the moon be no more."⁷⁶ A good King is to have a reciprocal relationship with creation in order for it to yield abundance for the people.

⁷⁰ Ibid.

⁷¹ Richard Bauckham, *Bible and Ecology: Rediscovering the community of Creation* (Waco: Baylor University Press, 2010), 23-24.

⁷² This image of humans being primarily vegetarian and eating a vegetarian diet is also held by Sean McDonagh where he makes the point that "at the dawn of creation humans were expected to be vegetarian; plants are the only food permitted to both animals and humans (Gen 1:29)." For more on this please see Sean McDonagh, *The greening of the Church* (London: Orbis Books, 1990), 119.

⁷³ Bauckham, *Bible and Ecology: Rediscovering the community of Creation*, 23-24.

⁷⁴ Sean McDonagh, *The greening of the Church* (London: Orbis Books, 1990), 119

⁷⁵ Ibid.

⁷⁶ Psalm 72. 4-7 (New American Bible)

The earth is to be protected by the King, as well as the people. He is to mimic the good Sheppard who cares for his flock in Ezekiel 34.⁷⁷

In addition to the creation accounts in the Old Testament, there are several other parts that can be seen as showing the bible as being a 'green' text. The book of Deuteronomy speaks, in several places, in regards to taking care of God's creation. In Deuteronomy chapter 22, there are several verses that speak of taking care of animals. In Deuteronomy 22: 1-4 (New American Bible) one can see reference to caring for various parts of creation. In verses 1-4 one can see that one is not allowed to simply leave an animal alone once it has gone astray or even become injured. One is to take it in and take care of it, until the rightful owner comes to claim it. "You shall not see your kinsman's ox or sheep driven astray without showing concern about it...you shall not see your kinsman's ass or ox foundering on the road without showing concern about it; see to it that you help him lift it up."⁷⁸ Many today would simply leave the animal to die without thinking twice, yet one can see that that goes against what one should do.

One can also see care for animal through the concept of fruitfulness, written about by DeWitt, in Deuteronomy 22:6 (New American Bible). This passage shows that, in order for the animals to be "fruitful and multiply," humans or humanity must do what it can to protect them and help them fulfil that command by God. "If, while walking along, you chance upon a bird's nest with young birds or eggs in it, in any tree or on the ground, and the mother bird is sitting on them, you shall not take away the mother bird along with her brood; you shall let her go..."⁷⁹ DeWitt points out that this passage speaks of preserving the lineage of species. The mother is not to be harmed so that she may produce more offspring and therefore continue with God's call/command to "be fruitful and multiply."⁸⁰

DeWitt also points out that fruitfulness can be seen in the Psalms as well as Ezekiel. In Psalms, particularly Psalm 23 where one can see in verses 1-2 that there is reference made to man being given permission to use the land by God. "The Lord is my shepherd; there is nothing I lack. In green pastures you let me graze; to safe waters you lead me."⁸¹ The fact that one is allowed to graze implies that one does not have ownership and therefore must take care or be careful of what one is being allowed to do. Just like when a colleague would ask to borrow a power tool, one would expect it to be taken care of and returned in the condition that it was lent. The same can

⁷⁷ McDonagh, *The greening of the Church*, 119

⁷⁸ Deuteronomy 22. 1 & 4 (New American Bible)

⁷⁹ Deuteronomy 22.6 (New American Bible)

⁸⁰ Calvin B. DeWitt, "Biodiversity and the Bible," 15.

⁸¹ *Ibid.*, & Psalm 23.1-2 (New American Bible)

be said for God and this passage; we are to take care of the land that we are allowed to graze through.

The book of Ezekiel also makes reference to how the land is to be treated. If one examines Ezekiel 34.18 (New American Bible) one can see how responsibility has to play a role in preserving what we have in creation. “Was it not enough for you to graze on the best pasture, that you had to trample the rest of your pastures with your feet? Was it not enough for you to drink the clearest water, that you had to foul the remainder with your feet?”⁸² DeWitt points out that this passage means that people are to be responsible when they feed and or use creation, to be responsible so as to not destroy the fruitfulness of creation.⁸³ One can even see how this could disregard for God’s creation could anger God. In Ezekiel 36 verse 5 it is written, “Truly, with burning jealousy I speak against the rest of the nations who with wholehearted joy and utter contempt have considered my land their possession to be delivered out to plunder.” Here one can see that God does not approve of His creation being taken and used in ways that He does not approve of.

The final point of this essay, to show that the bible can be used as a ‘green’ text, makes reference to the use of the Sabbath. The Sabbath was given, according to DeWitt, “to protect the land from relentless exploitation, to help the soil, the heart of the land, rejuvenate. The law allows nature to restore itself. The scriptures warn that failure to give the land its rest will result in the land no longer supporting people and they will be driven off.”⁸⁴ There are many instances where similar practices take place throughout the world. In the United States, this has been an issue that many do not truly accept and has been a tradition that is no longer being supported by biblical citation, due to the false understanding of separation of church and state.⁸⁵ Despite this, it is evident throughout the Old Testament that humanity is to take care of the land and not abuse it.

Conclusion

Walter Brueggemann once wrote, “The Bible is not a fixed, frozen, readily exhausted read; it is rather, a “script,” always reread, through which

⁸² Ezekiel 34.18 (New American Bible)

⁸³ DeWitt, “Biodiversity and the Bible,” 15.

⁸⁴ Ibid. & Leviticus 26.34-35 (New American Bible)

⁸⁵ I make reference here to several U.S. States’ hunting laws which prohibit hunting and farming on Sunday. The laws date back to colonial times and the bible is not cited as being the source which has led to people disagreeing with the law and wanting it abolished. Please see Richard G. Vaught, *Getting the facts on prohibition of hunting on Sundays*, <http://www.tidewaternews.com/2011/07/02/getting-the-facts-on-prohibition-of-hunting-on-sundays/>.

the Spirit makes all things new.”⁸⁶ By focusing on the environment and how the Bible can help us see that we really need to be stewards of the land, the Catechism quote #299 can start to make sense. Humanity has abused the text and the land as a result; it is only now that one can see how the Church⁸⁷ has started to show that the text can be seen as a ‘green’ text.

Bradley wrote, “Once we really grasp this idea of the Pleroma or fullness of God’s creation and the significance of every part of it to him then we can surely no longer go on destroying the whales, cutting down the tropical rain forests or turning the good earth into dust bowls and deserts.”⁸⁸ God has intended for humanity to see His creation as a good and beautiful creation, one that needs to be respected and protected. It is a reciprocal relationship that must be understood and that can be done by looking to the scriptures. “The bible writers envisaged the whole creation – the visible natural world, human society and the invisible world of the angels – bound in a network of bonds known as the ‘eternal covenant’, where ‘covenant’ means binding together, and ‘eternal’ has its original meaning as the timeless but constant presence of God.”⁸⁹

God is not just the God of humanity but of all of creation. It is humanity that has caused great tragedies in the environment not God for God sees all His creation as good. If we are to live in accordance with God’s plan, we need to re-examine the bible as a ‘green’ text and accept that it promotes protecting creation so that all may live in harmony. It is only then that we will be able to see that God has intended for all to live in unity and embrace the diverse creation, which God proclaimed good.

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⁸⁶ Brueggemann, “*Biblical Authority*.” 41.

⁸⁷ In 1993 a partnership among several religious denominations in the US was made in which the US Catholic Church was a part of. They came together to address the state of the environment and to recognize the responsibility that they share as being stewards of the earth and people of the book. For more on this note see: Calvin B. DeWitt, “Biodiversity and the Bible,” 13.

⁸⁸ Ian Bradley, *God is Green* (Darton: Longman & Todd, 1990), 32.

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Aras Method For Performance Evaluation Of Students Based On Talent Identification Measurements In Sport

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Abstract

Sport has an important role to play in both the physical and mental development of students. Students who participate in any kind of sports are not only healthy, but they also develop motor abilities. Besides, their character becomes stronger. Sport can prevent students from having bad habits, and they can also gain some traits like punctuality and discipline. Today, in advanced countries, sport is a regular feature of the school curriculum. For this reason, it will be necessary to evaluate the performance of students based on their talents before participating in sporting activities. The aim of this study is to obtain a ranking of 62 students between the ages of 8-10 based on their 10 talent identification measurements in sport by using ARAS (Additive Ratio Assessment) method. This method is a relatively new MCDM (Multi-Criteria Decision Making) method. In this study, this method is applied to a different area.

Keywords: ARAS method, MCDM, sport, talent identification

Introduction

Talent identification is the process of recognizing participants with the potential to excel in a particular sport. Measuring the elements correctly according to talent identification – measurement, analysis, and evaluation of physical and motor skills – provides information of the athlete's ability (Wiseman et al., 2014). Talent identification is an essential component in developing sport for a team, for a sport branch, and for all sport branches in a country. Sport is important for physical, spiritual, and mental health in a society. The discovering of talents helps in counseling adolescents in making the right decision when directing them to sport particularly.

Consequently, a variety of tests including physical, physiological, motor, and skill tests were determined in the literature. These tests aimed to assess the physical and motor abilities of athletes, but there was no uniformly

accepted theoretical framework yet. Therefore, the task of selecting or not to select an athlete for a team is a difficult one for coaches. As such, a lot of search and study on talent identification elements is being carried out by institutes and national governing bodies in recent years (McDermott et al., 2015). Ko (2014) grouped talent identification tests as compulsory, common, and optional. However, the compulsory tests consist of physique factors such as physique height, weight, and chest circumference. The common standard tests consist of items based on physical strength such as 50m running, standing long jump, grasping power (left and right), sit-up, long-distance running, sit and reach and shuttle run etc. In this study, similar measurement tests are used for evaluating adolescence students. On the other hand, the optional test are composed of more detailed measurements such as chest circumference, thigh circumference, upper arm circumference, and forearm circumference etc. for particularly sport branches. The aim of this study is to obtain the ranking of 62 adolescent students based on ten talent identification measurements which were defined in the literature with a multi criteria decision making method.

Multi Criteria Decision Making (MCDM) is the process of selecting the best alternative from a set of available alternatives. Furthermore, it is a process of determining the ranking of alternatives, based on multiple criteria, which usually have different importance weights. In the literature, many MCDM methods have been proposed by various authors. Also, they were applied to different areas. There are also MCDM applications in sport. For instance, Sinuany-Stern (2006) evaluated and determined the ranking of 11 Israeli basketball teams with AHP (Analytic Hierarchy Process) method. Soltanhosseini et al. (2012) evaluated and prioritized the social and economic effects of sport places on the urban environment by using AHP, SAW (Simple Additive Weighting), and TOPSIS (Technique for Order Preference by Similarity to Ideal Solutions) methods. Oludayo & Thiruthlall (2012) evaluated 10 popular sports in South Africa with TOPSIS method. Wang et al. (2013) developed a performance evaluation model for Taipei City Sports Centre with the help of fuzzy AHP, fuzzy ANP (Analytic Network Process), and DEMATEL (Decision-Making Trial and Evaluation Laboratory) methods. Dadelo et al. (2014) used TOPSIS method to assess the performance of basketball players and develop a ranking system for sport team formation. Furthermore, Ballı & Korukoğlu (2014) selected skillful basketball players by integrating fuzzy AHP and TOPSIS methods.

In this study, the ranking of 62 students between the ages of 8-10 based on their 10 talent identification measurements in sport by using ARAS (Additive Ratio Assessment) method was obtained. ARAS method was chosen because it can be applied easily to MCDM problems including many criteria and alternatives.

This study is organized as follows. In the second section, ARAS method was explained and the steps of the method were summarized. In the same section, a comprehensive literature review of ARAS method was also given. In the third section, an application of ARAS method was presented to demonstrate the details of the proposed method. Finally, the findings were interpreted and suggestions for future research were offered in the last section.

ARAS Method

ARAS method is a relatively new multi criteria decision making method in which the alternatives are ranked according to their utility function value under various criteria. In this method, the ratios of utility function scores of the alternatives are compared with optimal alternative's utility function score. So, ARAS method does not only evaluate the performance of alternatives, but it also determines the ratio of each alternative to the ideal one (Shariati et al., 2014). Although ARAS method is newly proposed, it has been applied to different areas because of its simplicity.

ARAS method was first proposed by Turskis & Zavadskas (2010) to proffer the solution to MCDM problems. They applied the method to the evaluation of microclimate in office rooms. Later, ARAS method was applied to different areas in the literature. Zavadskas et al. (2010) used ARAS method for the selection of the foundation installment alternative. Hence, this has to be the most appropriate and safe for building which stands on the aquiferous soil. Stanujkic & Jovanovic (2012) evaluated the faculty web site with ARAS method. Balezentiene & Kusta (2012) used ARAS method for the assessment of sustainable fertilizers for reducing greenhouse gas emissions in grassland ecosystems of central Lithuania. Kaklauskas et al. (2013) proposed a knowledge-based model for housing renovation, and used ARAS method to select the best renovation project. Kutut et al. (2013) used ARAS method to determine the most suitable method for the management of real estate objects and for assessing the priority options for the preservation of historic city centre buildings. Shariati et al. (2014) proposed a novel ARAS based group decision making method (GARAS) for waste dump site selection. Yıldırım (2015) solved house purchasing problem using ARAS method. Furthermore, Paul et al. (2016) used ARAS method to evaluate the performance of Indian state police forces in minimizing criminal activities.

In the literature, there are studies that combine ARAS method with other MCDM methods. For instance, Sliogeriene et al. (2013) combined AHP and ARAS method for evaluating Lithuania's energy generation technologies. Reza & Majid (2013) used ANP and ARAS methods to rank the financial institutions based on trust in online banking. Kutut et al. (2014)

combined AHP and ARAS methods for the evaluation of alternatives for the preservation of historic buildings. Firstly, they used AHP method to assess the significance of expert estimations. After then, they applied ARAS method in determining the best alternative. Karabašević et al. (2015) developed a model based on the combination of SWARA and ARAS methods for personnel selection. Also, Medineckiene et al. (2015) integrated AHP and ARAS methods to select the criteria for building sustainability assessment.

The comparison between ARAS methods with other MCDM methods were given in some studies. For example, Baležentis et al. (2012) compared the efficiency of Lithuanian economic sectors with a new approach based on fuzzy VIKOR (Vise Kriterijumska Optimizacija I Kompromisno Resenje), TOPSIS, ARAS methods, and financial ratios. Chatterjee & Chakraborty (2013) solved gear material selection problem with COPRAS and ARAS methods, and they made a comparison of the obtained results. Stanujkic et al. (2013) proposed different MCDM methods for ranking Serbian banks. Therefore, they compared the results obtained by SAW, ARAS, COPRAS (Complex Proportional Assessment), MOORA (Multi-Objective Optimization on the basis of Ratio Analysis), CP (Compromise Programming), GRA (Grey Relational Analysis), VIKOR and TOPSIS methods. Darji & Rao (2014) used extended TODIM (an acronym in Portuguese of Interactive and Multi-Criteria Decision Making), ARAS, OCRA (Occupational Repetitive Actions) and EVAMIX (Evaluation of Mixed Data) methods for material selection of pipes in sugar industry. Also, they made a comparison of the results obtained.

ARAS method was subsequently extended into fuzzy environment and applied to different areas. Keršulienė & Turskis (2014) proposed to use AHP and fuzzy ARAS method for the selection of most adequate chief accountant. Ghadikolaei & Esbouei (2014) combined fuzzy AHP and fuzzy ARAS methods to evaluate the financial performance of companies in the automotive and parts manufacturing industry of Tehran Stock Exchange (TSE). Furthermore, Zavadskas et al. (2015) integrated fuzzy AHP and fuzzy ARAS methods for the site selection of a deep-water port in the Eastern Baltic Sea.

The procedure of solving problems with ARAS method can be described by using the following steps (Turskis & Zavadskas, 2010):

Step 1. Firstly, decision matrix X is formed.

$$X = \begin{bmatrix} x_{01} & x_{02} & \cdots & x_{0n} \\ x_{11} & x_{12} & \cdots & x_{1n} \\ \vdots & \vdots & \ddots & \vdots \\ x_{m1} & x_{m2} & \cdots & x_{mn} \end{bmatrix} \quad i = 0, 1, \dots, m \quad j = 1, 2, \dots, n \quad (1)$$

Here, x_{ij} indicates the value of i^{th} alternative based on j^{th} criterion, while x_{0j} shows the optimal value of j^{th} criterion. These optimal values can be determined by using Eq (2). Also, they can be determined by the decision maker.

$$\begin{aligned} x_{0j} &= \max_i x_{ij}, \text{ if } \max x_{ij} \text{ is preferable} \\ x_{0j} &= \min_i x_{ij}^*, \text{ if } \min x_{ij}^* \text{ is preferable} \end{aligned} \quad i = 1, \dots, m \quad j = 1, 2, \dots, n \quad (2)$$

Step 2. Then, decision matrix is normalized. Normalization formula for maximization criteria is given in Eq (3):

$$\bar{x}_{ij} = \frac{x_{ij}}{\sum_{i=0}^m x_{ij}} \quad i = 0, 1, \dots, m \quad j = 1, 2, \dots, n \quad (3)$$

Normalization formula for minimization criteria is given in Eq (4):

$$\bar{x}_{ij} = \frac{1/x_{ij}}{\sum_{i=0}^m 1/x_{ij}} \quad i = 0, 1, \dots, m \quad j = 1, 2, \dots, n \quad (4)$$

Obtained normalized decision matrix can be seen in Eq. (5):

$$\bar{X} = \begin{bmatrix} \bar{x}_{01} & \bar{x}_{02} & \cdots & \bar{x}_{0n} \\ \bar{x}_{11} & \bar{x}_{12} & \cdots & \bar{x}_{1n} \\ \vdots & \vdots & \ddots & \vdots \\ \bar{x}_{m1} & \bar{x}_{m2} & \cdots & \bar{x}_{mn} \end{bmatrix} \quad i = 0, 1, \dots, m \quad j = 1, 2, \dots, n \quad (5)$$

Step 3. Weighted normalized decision matrix is formed as seen in Eq. (6) by using Eq. (7).

$$\hat{X} = \begin{bmatrix} \hat{x}_{01} & \hat{x}_{02} & \cdots & \hat{x}_{0n} \\ \hat{x}_{11} & \hat{x}_{12} & \cdots & \hat{x}_{1n} \\ \vdots & \vdots & \ddots & \vdots \\ \hat{x}_{m1} & \hat{x}_{m2} & \cdots & \hat{x}_{mn} \end{bmatrix} \quad (6)$$

$$\hat{x}_{ij} = w_j * \bar{x}_{ij} \quad i = 0, 1, \dots, m \quad j = 1, 2, \dots, n \quad (7)$$

Here, w_j indicates the weight of the j^{th} criterion. Hence, the sum of the weights must be equal to 1 as seen in Eq. (8):

$$\sum_{j=1}^n w_j = 1 \quad j = 1, 2, \dots, n \quad (8)$$

Step 4. Then, optimality function is determined with the help of Eq. (9).

$$S_i = \sum_{j=1}^n \hat{x}_{ij} \quad i = 0, 1, \dots, m \quad j = 1, 2, \dots, n \quad (9)$$

Here, S_i indicated the value of the optimality function of i^{th} alternative. The greater value of optimality function S_i , better the alternative.

Step 5. Then, for each alternative, utility degree K_i is calculated by using Eq. (10). Utility degree is determined by comparing the S_i values of alternative with the ideally best one S_0

$$K_i = \frac{S_i}{S_0} \quad i = 0, 1, \dots, m \quad (10)$$

Here, S_i and S_0 are optimality criterion values obtained with Eq. (9).

Step 6. Finally, ranking of the alternatives are determined by descending order of K_i values.

Application

In this section, ranking of 62 students between the ages of 8-10 based on their 10 talent identification measurements in sport were determined by using ARAS (Additive Ratio Assessment) method. Firstly, decision matrix was formed via Eq. (1) as seen in Table 1. There are ten criteria in the columns of this decision matrix, and there are 62 students in the rows. The criteria were determined by 3 experts who are studying on Movement and Training Department at the university. These ten criteria were defined as C_1 Jump, C_2 10m Run, C_3 Agility, C_4 Balance – double fault, C_5 Balance – single fault, C_6 Medicine ball toss, C_7 Standing long jump, C_8 Sit and reach, C_9 Grasping power - right, and C_{10} Grasping power – left. The experts have obtained the measurements of 62 student based on ten criteria. Thus, by this way the data of decision matrix were obtained and given in Table 1. In this table, A_0 values in the first row were determined by using Eq. (2) and indicate the optimal values for each criterion.

Table 1. Decision matrix

	Criteria									
	C_1	C_2	C_3	C_4	C_5	C_6	C_7	C_8	C_9	C_{10}
Students	Max	Min	Min	Min	Min	Max	Max	Max	Max	Max
A_0	38.608	2.16	5.37	25	28	310	160	35.00	28.56	21.10
A_1	30.480	2.18	6.18	35	41	200	150	21.40	12.10	11.70
A_2	28.956	2.21	6.48	41	47	190	130	19.70	12.20	10.80
A_3	22.860	2.62	6.64	45	53	142	100	16.10	8.60	8.50
A_4	29.972	2.41	6.59	37	43	130	120	15.90	7.10	7.50
A_5	25.908	2.28	5.62	31	42	187	140	20.80	10.70	10.10
A_6	23.876	2.16	5.79	37	45	198	140	23.40	10.40	12.10
A_7	23.876	2.44	6.31	33	47	260	138	26.40	18.40	14.00
A_8	24.130	2.60	6.72	33	45	160	140	25.10	8.60	8.20
A_9	20.828	2.61	6.33	38	43	190	130	21.10	9.30	11.10
A_{10}	22.860	2.90	7.25	39	48	162	91	14.80	8.40	9.00

A ₁₁	24.130	2.58	6.46	38	45	184	100	30.90	13.40	10.50
A ₁₂	25.400	2.37	5.81	27	38	200	102	25.60	12.60	11.60
A ₁₃	23.876	2.63	6.28	47	48	175	100	28.30	7.00	11.50
A ₁₄	24.892	2.53	6.31	42	47	200	118	20.00	13.30	11.40
A ₁₅	27.686	2.47	6.08	37	41	172	111	25.30	10.40	10.50
A ₁₆	32.766	2.50	6.75	28	37	100	116	27.40	14.90	12.30
A ₁₇	38.608	2.38	6.14	38	42	180	115	24.10	12.20	15.50
A ₁₈	31.750	2.45	6.19	32	39	180	142	23.30	7.30	7.70
A ₁₉	30.480	2.17	5.44	31	38	220	144	21.30	12.10	11.50
A ₂₀	25.400	2.49	6.43	40	45	170	114	17.20	10.00	8.80
A ₂₁	36.576	2.22	5.99	36	41	200	148	26.70	10.00	9.70
A ₂₂	23.114	2.49	6.54	40	47	130	107	11.20	11.60	12.50
A ₂₃	19.558	2.64	6.57	35	42	100	96	20.20	10.00	9.00
A ₂₄	29.718	2.41	6.14	32	43	190	137	35.00	11.60	11.40
A ₂₅	22.098	2.77	6.82	35	45	110	83	17.40	8.50	7.30
A ₂₆	24.892	2.50	6.47	38	47	155	116	18.10	11.60	12.90
A ₂₇	27.432	2.44	6.08	38	41	130	104	11.60	12.30	4.10
A ₂₈	18.796	2.80	6.95	41	48	127	118	12.50	11.60	11.00
A ₂₉	22.860	2.88	7.39	35	40	130	84	31.40	11.20	9.50
A ₃₀	19.558	2.67	6.78	36	43	134	117	16.90	10.07	7.10
A ₃₁	20.574	2.68	7.13	37	48	140	98	27.30	14.00	12.00
A ₃₂	29.718	2.42	6.74	38	45	190	92	18.20	7.50	8.60
A ₃₃	26.162	2.54	6.42	37	47	200	116	11.80	16.40	14.80
A ₃₄	22.860	2.79	6.78	33	45	200	114	23.50	11.80	11.10
A ₃₅	25.908	2.32	6.10	28	32	230	141	20.00	14.90	16.20
A ₃₆	36.576	2.19	5.61	25	28	200	158	11.80	13.60	18.10
A ₃₇	25.654	2.44	5.82	25	29	140	146	21.00	11.60	13.60
A ₃₈	26.416	2.59	6.71	25	28	163	104	20.04	12.70	13.20
A ₃₉	20.320	2.61	6.84	27	33	200	122	24.80	10.10	10.00
A ₄₀	24.384	2.58	6.55	35	49	200	118	17.30	11.10	10.60
A ₄₁	26.670	2.27	6.19	25	28	195	113	14.30	11.60	11.40
A ₄₂	24.384	2.52	6.24	32	47	210	124	15.50	12.20	12.90
A ₄₃	27.432	2.41	5.88	27	38	165	109	20.90	9.90	11.50
A ₄₄	23.876	2.22	5.83	29	39	260	128	5.40	14.70	13.70
A ₄₅	23.368	2.76	7.33	33	48	226	118	29.10	10.60	11.10
A ₄₆	17.272	2.81	7.07	41	55	181	98	21.10	13.90	8.00
A ₄₇	22.352	2.46	5.93	35	43	220	97	9.20	12.90	11.80
A ₄₈	29.464	2.38	7.17	38	39	157	114	4.70	12.10	19.00
A ₄₉	23.114	2.46	5.67	37	46	202	110	12.10	16.00	12.10
A ₅₀	28.194	2.39	5.37	39	48	245	140	21.90	12.50	9.50
A ₅₁	21.082	2.51	6.75	37	43	215	95	15.40	10.80	11.40
A ₅₂	17.780	2.73	6.58	41	47	228	105	9.80	14.20	13.70
A ₅₃	32.258	2.28	6.00	31	41	275	151	20.00	17.40	12.30
A ₅₄	14.732	2.77	7.41	38	45	20	90	13.60	20.50	18.60
A ₅₅	25.654	2.51	6.49	33	40	210	135	16.20	11.40	9.70
A ₅₆	32.258	2.46	6.20	38	43	310	150	11.10	28.56	21.10
A ₅₇	21.082	2.70	6.38	32	43	20	91	9.40	14.80	8.60
A ₅₈	25.654	2.63	5.91	33	45	209	160	20.80	11.60	13.20
A ₅₉	26.924	2.25	6.38	35	43	180	140	27.10	15.20	12.10
A ₆₀	27.686	2.28	5.65	32	38	180	150	24.70	9.60	8.80

A ₆₁	24.892	2.27	6.25	32	43	200	109	6.00	13.70	14.90
A ₆₂	24.892	2.49	6.53	31	42	170	138	16.20	12.70	13.60

Then, decision matrix was normalized by using Eq. (3) for maximization criteria and Eq. (4) for minimization criteria. Through this way, normalized decision matrix was formed via Eq. (5) as seen in Table 2.

Table 2. Normalized decision matrix

Students	Criteria									
	C ₁	C ₂	C ₃	C ₄	C ₅	C ₆	C ₇	C ₈	C ₉	C ₁₀
A ₀	0.0238	0.0182	0.0187	0.0215	0.0235	0.0271	0.0211	0.0286	0.0363	0.0286
A ₁	0.0188	0.0180	0.0162	0.0153	0.0160	0.0175	0.0198	0.0175	0.0154	0.0159
A ₂	0.0179	0.0178	0.0155	0.0131	0.0140	0.0166	0.0171	0.0161	0.0155	0.0147
A ₃	0.0141	0.0150	0.0151	0.0119	0.0124	0.0124	0.0132	0.0131	0.0109	0.0115
A ₄	0.0185	0.0163	0.0152	0.0145	0.0153	0.0113	0.0158	0.0130	0.0090	0.0102
A ₅	0.0160	0.0172	0.0179	0.0173	0.0156	0.0163	0.0185	0.0170	0.0136	0.0137
A ₆	0.0147	0.0182	0.0173	0.0145	0.0146	0.0173	0.0185	0.0191	0.0132	0.0164
A ₇	0.0147	0.0161	0.0159	0.0163	0.0140	0.0227	0.0182	0.0216	0.0234	0.0190
A ₈	0.0149	0.0151	0.0149	0.0163	0.0146	0.0140	0.0185	0.0205	0.0109	0.0111
A ₉	0.0128	0.0150	0.0159	0.0141	0.0153	0.0166	0.0171	0.0172	0.0118	0.0151
A ₁₀	0.0141	0.0135	0.0138	0.0138	0.0137	0.0141	0.0120	0.0121	0.0107	0.0122
A ₁₁	0.0149	0.0152	0.0155	0.0141	0.0146	0.0161	0.0132	0.0252	0.0170	0.0142
A ₁₂	0.0157	0.0166	0.0173	0.0199	0.0173	0.0175	0.0134	0.0209	0.0160	0.0157
A ₁₃	0.0147	0.0149	0.0160	0.0114	0.0137	0.0153	0.0132	0.0231	0.0089	0.0156
A ₁₄	0.0154	0.0155	0.0159	0.0128	0.0140	0.0175	0.0156	0.0163	0.0169	0.0155
A ₁₅	0.0171	0.0159	0.0165	0.0145	0.0160	0.0150	0.0146	0.0207	0.0132	0.0142
A ₁₆	0.0202	0.0157	0.0149	0.0192	0.0178	0.0087	0.0153	0.0224	0.0189	0.0167
A ₁₇	0.0238	0.0165	0.0163	0.0141	0.0156	0.0157	0.0152	0.0197	0.0155	0.0210
A ₁₈	0.0196	0.0160	0.0162	0.0168	0.0168	0.0157	0.0187	0.0190	0.0093	0.0104
A ₁₉	0.0188	0.0181	0.0185	0.0173	0.0173	0.0192	0.0190	0.0174	0.0154	0.0156
A ₂₀	0.0157	0.0158	0.0156	0.0134	0.0146	0.0148	0.0150	0.0140	0.0127	0.0119
A ₂₁	0.0226	0.0177	0.0168	0.0149	0.0160	0.0175	0.0195	0.0218	0.0127	0.0132
A ₂₂	0.0143	0.0158	0.0153	0.0134	0.0140	0.0113	0.0141	0.0091	0.0147	0.0170
A ₂₃	0.0121	0.0149	0.0153	0.0153	0.0156	0.0087	0.0127	0.0165	0.0127	0.0122
A ₂₄	0.0183	0.0163	0.0163	0.0168	0.0153	0.0166	0.0181	0.0286	0.0147	0.0155
A ₂₅	0.0136	0.0142	0.0147	0.0153	0.0146	0.0096	0.0109	0.0142	0.0108	0.0099
A ₂₆	0.0154	0.0157	0.0155	0.0141	0.0140	0.0135	0.0153	0.0148	0.0147	0.0175
A ₂₇	0.0169	0.0161	0.0165	0.0141	0.0160	0.0113	0.0137	0.0095	0.0156	0.0056
A ₂₈	0.0116	0.0140	0.0144	0.0131	0.0137	0.0111	0.0156	0.0102	0.0147	0.0149
A ₂₉	0.0141	0.0136	0.0136	0.0153	0.0164	0.0113	0.0111	0.0256	0.0142	0.0129
A ₃₀	0.0121	0.0147	0.0148	0.0149	0.0153	0.0117	0.0154	0.0138	0.0128	0.0096
A ₃₁	0.0127	0.0146	0.0141	0.0145	0.0137	0.0122	0.0129	0.0223	0.0178	0.0163
A ₃₂	0.0183	0.0162	0.0149	0.0141	0.0146	0.0166	0.0121	0.0149	0.0095	0.0117
A ₃₃	0.0161	0.0155	0.0156	0.0145	0.0140	0.0175	0.0153	0.0096	0.0208	0.0201
A ₃₄	0.0141	0.0141	0.0148	0.0163	0.0146	0.0175	0.0150	0.0192	0.0150	0.0151
A ₃₅	0.0160	0.0169	0.0165	0.0192	0.0205	0.0201	0.0186	0.0163	0.0189	0.0220
A ₃₆	0.0226	0.0179	0.0179	0.0215	0.0235	0.0175	0.0208	0.0096	0.0173	0.0246
A ₃₇	0.0158	0.0161	0.0172	0.0215	0.0227	0.0122	0.0192	0.0172	0.0147	0.0185
A ₃₈	0.0163	0.0152	0.0150	0.0215	0.0235	0.0142	0.0137	0.0164	0.0161	0.0179
A ₃₉	0.0125	0.0150	0.0147	0.0199	0.0199	0.0175	0.0161	0.0203	0.0128	0.0136
A ₄₀	0.0150	0.0152	0.0153	0.0153	0.0134	0.0175	0.0156	0.0141	0.0141	0.0144
A ₄₁	0.0164	0.0173	0.0162	0.0215	0.0235	0.0170	0.0149	0.0117	0.0147	0.0155
A ₄₂	0.0150	0.0156	0.0161	0.0168	0.0140	0.0183	0.0163	0.0127	0.0155	0.0175
A ₄₃	0.0169	0.0163	0.0171	0.0199	0.0173	0.0144	0.0144	0.0171	0.0126	0.0156

A ₄₄	0.0147	0.0177	0.0172	0.0185	0.0168	0.0227	0.0169	0.0044	0.0187	0.0186
A ₄₅	0.0144	0.0142	0.0137	0.0163	0.0137	0.0197	0.0156	0.0238	0.0135	0.0151
A ₄₆	0.0107	0.0140	0.0142	0.0131	0.0119	0.0158	0.0129	0.0172	0.0177	0.0109
A ₄₇	0.0138	0.0160	0.0169	0.0153	0.0153	0.0192	0.0128	0.0075	0.0164	0.0160
A ₄₈	0.0182	0.0165	0.0140	0.0141	0.0168	0.0137	0.0150	0.0038	0.0154	0.0258
A ₄₉	0.0143	0.0160	0.0177	0.0145	0.0143	0.0176	0.0145	0.0099	0.0203	0.0164
A ₅₀	0.0174	0.0164	0.0187	0.0138	0.0137	0.0214	0.0185	0.0179	0.0159	0.0129
A ₅₁	0.0130	0.0156	0.0149	0.0145	0.0153	0.0188	0.0125	0.0126	0.0137	0.0155
A ₅₂	0.0110	0.0144	0.0153	0.0131	0.0140	0.0199	0.0138	0.0080	0.0181	0.0186
A ₅₃	0.0199	0.0172	0.0167	0.0173	0.0160	0.0240	0.0199	0.0163	0.0221	0.0167
A ₅₄	0.0091	0.0142	0.0135	0.0141	0.0146	0.0017	0.0119	0.0111	0.0261	0.0252
A ₅₅	0.0158	0.0156	0.0155	0.0163	0.0164	0.0183	0.0178	0.0132	0.0145	0.0132
A ₅₆	0.0199	0.0160	0.0162	0.0141	0.0153	0.0271	0.0198	0.0091	0.0363	0.0286
A ₅₇	0.0130	0.0145	0.0157	0.0168	0.0153	0.0017	0.0120	0.0077	0.0188	0.0117
A ₅₈	0.0158	0.0149	0.0170	0.0163	0.0146	0.0182	0.0211	0.0170	0.0147	0.0179
A ₅₉	0.0166	0.0174	0.0157	0.0153	0.0153	0.0157	0.0185	0.0221	0.0193	0.0164
A ₆₀	0.0171	0.0172	0.0178	0.0168	0.0173	0.0157	0.0198	0.0202	0.0122	0.0119
A ₆₁	0.0154	0.0173	0.0161	0.0168	0.0153	0.0175	0.0144	0.0049	0.0174	0.0202
A ₆₂	0.0154	0.0158	0.0154	0.0173	0.0156	0.0148	0.0182	0.0132	0.0161	0.0185

In this study, it was supposed that all criteria have equal weights as seen in Table 3. This is because the criteria here were not selected to evaluate the performance of students at any sport branch. Subsequently, the criteria were determined to measure the talents of students between ages of 8-10 in sport generally. If the aim is to evaluate the students' talents according to a specific sport like basketball, football, swimming etc., the weights of the criteria will be different.

Table 3. Weights of the criteria

	C ₁	C ₂	C ₃	C ₄	C ₅	C ₆	C ₇	C ₈	C ₉	C ₁₀
Weights	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1

Then, the weighted normalized decision matrix was formed with the help of Eq. (7) as shown in Table 4. From the weighted normalized decision matrix, S_i and K_i values of each alternative were calculated with Eq.(9) and (10), respectively. These obtained values can be seen in the last two columns of Table 4.

Table 4. Weighted normalized decision matrix

Students	Criteria										S _i	K _i
	C ₁	C ₂	C ₃	C ₄	C ₅	C ₆	C ₇	C ₈	C ₉	C ₁₀		
A ₀	0.0024	0.0018	0.0019	0.0021	0.0023	0.0027	0.0021	0.0029	0.0036	0.0029	0.0247	1.0000
A ₁	0.0019	0.0018	0.0016	0.0015	0.0016	0.0017	0.0020	0.0017	0.0015	0.0016	0.0170	0.6890
A ₂	0.0018	0.0018	0.0015	0.0013	0.0014	0.0017	0.0017	0.0016	0.0016	0.0015	0.0158	0.6396
A ₃	0.0014	0.0015	0.0015	0.0012	0.0012	0.0012	0.0013	0.0013	0.0011	0.0012	0.0130	0.5246
A ₄	0.0018	0.0016	0.0015	0.0015	0.0015	0.0011	0.0016	0.0013	0.0009	0.0010	0.0139	0.5627
A ₅	0.0016	0.0017	0.0018	0.0017	0.0016	0.0016	0.0018	0.0017	0.0014	0.0014	0.0163	0.6595
A ₆	0.0015	0.0018	0.0017	0.0015	0.0015	0.0017	0.0018	0.0019	0.0013	0.0016	0.0164	0.6625
A ₇	0.0015	0.0016	0.0016	0.0016	0.0014	0.0023	0.0018	0.0022	0.0023	0.0019	0.0182	0.7352
A ₈	0.0015	0.0015	0.0015	0.0016	0.0015	0.0014	0.0018	0.0021	0.0011	0.0011	0.0151	0.6097
A ₉	0.0013	0.0015	0.0016	0.0014	0.0015	0.0017	0.0017	0.0017	0.0012	0.0015	0.0151	0.6106

A ₁₀	0.0014	0.0014	0.0014	0.0014	0.0014	0.0014	0.0012	0.0012	0.0011	0.0012	0.0130	0.5259
A ₁₁	0.0015	0.0015	0.0016	0.0014	0.0015	0.0016	0.0013	0.0025	0.0017	0.0014	0.0160	0.6475
A ₁₂	0.0016	0.0017	0.0017	0.0020	0.0017	0.0017	0.0013	0.0021	0.0016	0.0016	0.0170	0.6884
A ₁₃	0.0015	0.0015	0.0016	0.0011	0.0014	0.0015	0.0013	0.0023	0.0009	0.0016	0.0147	0.5937
A ₁₄	0.0015	0.0016	0.0016	0.0013	0.0014	0.0017	0.0016	0.0016	0.0017	0.0015	0.0155	0.6278
A ₁₅	0.0017	0.0016	0.0017	0.0015	0.0016	0.0015	0.0015	0.0021	0.0013	0.0014	0.0158	0.6381
A ₁₆	0.0020	0.0016	0.0015	0.0019	0.0018	0.0009	0.0015	0.0022	0.0019	0.0017	0.0170	0.6864
A ₁₇	0.0024	0.0016	0.0016	0.0014	0.0016	0.0016	0.0015	0.0020	0.0016	0.0021	0.0174	0.7017
A ₁₈	0.0020	0.0016	0.0016	0.0017	0.0017	0.0016	0.0019	0.0019	0.0009	0.0010	0.0159	0.6415
A ₁₉	0.0019	0.0018	0.0018	0.0017	0.0017	0.0019	0.0019	0.0017	0.0015	0.0016	0.0177	0.7138
A ₂₀	0.0016	0.0016	0.0016	0.0013	0.0015	0.0015	0.0015	0.0014	0.0013	0.0012	0.0144	0.5808
A ₂₁	0.0023	0.0018	0.0017	0.0015	0.0016	0.0017	0.0020	0.0022	0.0013	0.0013	0.0173	0.6979
A ₂₂	0.0014	0.0016	0.0015	0.0013	0.0014	0.0011	0.0014	0.0009	0.0015	0.0017	0.0139	0.5624
A ₂₃	0.0012	0.0015	0.0015	0.0015	0.0016	0.0009	0.0013	0.0016	0.0013	0.0012	0.0136	0.5499
A ₂₄	0.0018	0.0016	0.0016	0.0017	0.0015	0.0017	0.0018	0.0029	0.0015	0.0015	0.0176	0.7136
A ₂₅	0.0014	0.0014	0.0015	0.0015	0.0015	0.0010	0.0011	0.0014	0.0011	0.0010	0.0128	0.5173
A ₂₆	0.0015	0.0016	0.0016	0.0014	0.0014	0.0014	0.0015	0.0015	0.0015	0.0018	0.0151	0.6087
A ₂₇	0.0017	0.0016	0.0017	0.0014	0.0016	0.0011	0.0014	0.0009	0.0016	0.0006	0.0135	0.5475
A ₂₈	0.0012	0.0014	0.0014	0.0013	0.0014	0.0011	0.0016	0.0010	0.0015	0.0015	0.0133	0.5393
A ₂₉	0.0014	0.0014	0.0014	0.0015	0.0016	0.0011	0.0011	0.0026	0.0014	0.0013	0.0148	0.5996
A ₃₀	0.0012	0.0015	0.0015	0.0015	0.0015	0.0012	0.0015	0.0014	0.0013	0.0010	0.0135	0.5464
A ₃₁	0.0013	0.0015	0.0014	0.0015	0.0014	0.0012	0.0013	0.0022	0.0018	0.0016	0.0151	0.6111
A ₃₂	0.0018	0.0016	0.0015	0.0014	0.0015	0.0017	0.0012	0.0015	0.0010	0.0012	0.0143	0.5781
A ₃₃	0.0016	0.0015	0.0016	0.0015	0.0014	0.0017	0.0015	0.0010	0.0021	0.0020	0.0159	0.6431
A ₃₄	0.0014	0.0014	0.0015	0.0016	0.0015	0.0017	0.0015	0.0019	0.0015	0.0015	0.0156	0.6291
A ₃₅	0.0016	0.0017	0.0016	0.0019	0.0021	0.0020	0.0019	0.0016	0.0019	0.0022	0.0185	0.7480
A ₃₆	0.0023	0.0018	0.0018	0.0021	0.0023	0.0017	0.0021	0.0010	0.0017	0.0025	0.0193	0.7808
A ₃₇	0.0016	0.0016	0.0017	0.0021	0.0023	0.0012	0.0019	0.0017	0.0015	0.0018	0.0175	0.7081
A ₃₈	0.0016	0.0015	0.0015	0.0021	0.0023	0.0014	0.0014	0.0016	0.0016	0.0018	0.0170	0.6863
A ₃₉	0.0013	0.0015	0.0015	0.0020	0.0020	0.0017	0.0016	0.0020	0.0013	0.0014	0.0162	0.6561
A ₄₀	0.0015	0.0015	0.0015	0.0015	0.0013	0.0017	0.0016	0.0014	0.0014	0.0014	0.0150	0.6064
A ₄₁	0.0016	0.0017	0.0016	0.0021	0.0023	0.0017	0.0015	0.0012	0.0015	0.0015	0.0169	0.6822
A ₄₂	0.0015	0.0016	0.0016	0.0017	0.0014	0.0018	0.0016	0.0013	0.0016	0.0018	0.0158	0.6381
A ₄₃	0.0017	0.0016	0.0017	0.0020	0.0017	0.0014	0.0014	0.0017	0.0013	0.0016	0.0161	0.6530
A ₄₄	0.0015	0.0018	0.0017	0.0019	0.0017	0.0023	0.0017	0.0004	0.0019	0.0019	0.0166	0.6722
A ₄₅	0.0014	0.0014	0.0014	0.0016	0.0014	0.0020	0.0016	0.0024	0.0013	0.0015	0.0160	0.6465
A ₄₆	0.0011	0.0014	0.0014	0.0013	0.0012	0.0016	0.0013	0.0017	0.0018	0.0011	0.0138	0.5594
A ₄₇	0.0014	0.0016	0.0017	0.0015	0.0015	0.0019	0.0013	0.0008	0.0016	0.0016	0.0149	0.6033
A ₄₈	0.0018	0.0016	0.0014	0.0014	0.0017	0.0014	0.0015	0.0004	0.0015	0.0026	0.0153	0.6202
A ₄₉	0.0014	0.0016	0.0018	0.0015	0.0014	0.0018	0.0015	0.0010	0.0020	0.0016	0.0155	0.6287
A ₅₀	0.0017	0.0016	0.0019	0.0014	0.0014	0.0021	0.0018	0.0018	0.0016	0.0013	0.0166	0.6732
A ₅₁	0.0013	0.0016	0.0015	0.0015	0.0015	0.0019	0.0013	0.0013	0.0014	0.0015	0.0146	0.5919
A ₅₂	0.0011	0.0014	0.0015	0.0013	0.0014	0.0020	0.0014	0.0008	0.0018	0.0019	0.0146	0.5906
A ₅₃	0.0020	0.0017	0.0017	0.0017	0.0016	0.0024	0.0020	0.0016	0.0022	0.0017	0.0186	0.7531
A ₅₄	0.0009	0.0014	0.0014	0.0014	0.0015	0.0002	0.0012	0.0011	0.0026	0.0025	0.0142	0.5724
A ₅₅	0.0016	0.0016	0.0015	0.0016	0.0016	0.0018	0.0018	0.0013	0.0014	0.0013	0.0157	0.6334
A ₅₆	0.0020	0.0016	0.0016	0.0014	0.0015	0.0027	0.0020	0.0009	0.0036	0.0029	0.0202	0.8180
A ₅₇	0.0013	0.0015	0.0016	0.0017	0.0015	0.0002	0.0012	0.0008	0.0019	0.0012	0.0127	0.5145
A ₅₈	0.0016	0.0015	0.0017	0.0016	0.0015	0.0018	0.0021	0.0017	0.0015	0.0018	0.0168	0.6777
A ₅₉	0.0017	0.0017	0.0016	0.0015	0.0015	0.0016	0.0018	0.0022	0.0019	0.0016	0.0172	0.6973
A ₆₀	0.0017	0.0017	0.0018	0.0017	0.0017	0.0016	0.0020	0.0020	0.0012	0.0012	0.0166	0.6710
A ₆₁	0.0015	0.0017	0.0016	0.0017	0.0015	0.0017	0.0014	0.0005	0.0017	0.0020	0.0155	0.6273
A ₆₂	0.0015	0.0016	0.0015	0.0017	0.0016	0.0015	0.0018	0.0013	0.0016	0.0018	0.0160	0.6483

Finally, the ranking of the students with ARAS method by considering K_i values was given in Table 5 below. According to Table 5, A_0 has a utility degree of 1 and it indicates the optimal score. On the other hand, the student that has the best score is A_{56} with utility degree 0.8180. The A_{57} take place at the end of the ranking with a utility degree 0.5145. These utility degrees of students determined by a comparison of them with the ideally the best one and indicates their performances according to the optimal score.

Table 5. Ranking of the students

Ranking	Students	K_i	Ranking	Students	K_i
1	A_{56}	0.8180	32	A_{15}	0.6381
2	A_{36}	0.7808	33	A_{55}	0.6334
3	A_{53}	0.7531	34	A_{34}	0.6291
4	A_{35}	0.7480	35	A_{49}	0.6287
5	A_7	0.7352	36	A_{14}	0.6278
6	A_{19}	0.7138	37	A_{61}	0.6273
7	A_{24}	0.7136	38	A_{48}	0.6202
8	A_{37}	0.7081	39	A_{31}	0.6111
9	A_{17}	0.7017	40	A_9	0.6106
10	A_{21}	0.6979	41	A_8	0.6097
11	A_{59}	0.6973	42	A_{26}	0.6087
12	A_1	0.6890	43	A_{40}	0.6064
13	A_{12}	0.6884	44	A_{47}	0.6033
14	A_{16}	0.6864	45	A_{29}	0.5996
15	A_{38}	0.6863	46	A_{13}	0.5937
16	A_{41}	0.6822	47	A_{51}	0.5919
17	A_{58}	0.6777	48	A_{52}	0.5906
18	A_{50}	0.6732	49	A_{20}	0.5808
19	A_{44}	0.6722	50	A_{32}	0.5781
20	A_{60}	0.6710	51	A_{54}	0.5724
21	A_6	0.6625	52	A_4	0.5627
22	A_5	0.6595	53	A_{22}	0.5624
23	A_{39}	0.6561	54	A_{46}	0.5594
24	A_{43}	0.6530	55	A_{23}	0.5499
25	A_{62}	0.6483	56	A_{27}	0.5475
26	A_{11}	0.6475	57	A_{30}	0.5464
27	A_{45}	0.6465	58	A_{28}	0.5393
28	A_{33}	0.6431	59	A_{10}	0.5259
29	A_{18}	0.6415	60	A_3	0.5246
30	A_2	0.6396	61	A_{25}	0.5173
31	A_{42}	0.6381	62	A_{57}	0.5145

Conclusion

Sport has an important place in the development of adolescence students not only in terms of physical health but also improved academic achievement, higher self-esteem, fewer behavioral and psychosocial problems. On the other hand, with the help of sport they can gain discipline, learn teamwork, and learn to win or lose.

In this paper, the performance of adolescence students based on talent identification measurements in sport are evaluated with ARAS method and a ranking is obtained. The result of this ranking provides a framework on the performance of students based on talent identification measurements in sport to the experts. After that, experts will evaluate the students according to their talents to specific sports and they would also guide them according to the obtained results. In this process, the sport branches that students interested in, social and economic status of students, environmental factors (sport facilities, instructor etc.) have to be considered.

ARAS method was selected because it is simple and does not contain complex calculations. Also, it is easy to apply to real life applications. On the other hand, it is very useful when the number of alternatives and criteria are very high. This is because it does not need pair-wise comparisons like ELECTRE (Elimination and Choice Expressing Reality), PROMETHEE (Preference Ranking Organization Method for Enrichment Evaluations) methods. In addition, it provides a complete ranking of alternatives. Consequently, it is convenient to evaluate and rank students with ARAS method.

In this paper, it is aimed to obtain a ranking of students according to their talents in sport generally. In future studies, different rankings can be obtained according to the talents of students in specific sports like basketball, volleyball, football, swimming etc. by using different criteria weights. Also, the ranking of students can be determined with other MCDM methods and the obtained results can be compared.

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