



Knowledge Sharing, Individualism, Collectivism, and Organizational Innovative Behaviour in Public Health Organizations

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Abstract

This paper focuses on investigating the more innovative employees, i.e., individualists or collectivists, in the public sector when it comes to knowledge sharing and organizational culture. The study adopted quantitative research technique and data was collected through an online survey. A field study was conducted and data was obtained from 480 employees working in Pakistan's two major public health institutions so as to test the study's hypotheses. A hierarchical linear regression model was used to test the hypotheses. The results show that there is a significant positive influence of organizational-based knowledge sharing, individual-based knowledge sharing, collectivism, and individualism on organizational innovative behaviour in the organizations. This study also found a significant positive impact of collectivism and individualism as moderators on organizational innovative behaviours. The study further concluded that collectivism has a higher positive impact on organizational innovative behaviour in comparison to individualism.

Keywords: Individualism, Collectivism, Individual-Based Knowledge

Sharing, Organizational-Based Knowledge Sharing, Organizational Innovative Behaviour

Abbreviations:

Organizational-based knowledge sharing (OKS), individual-based knowledge sharing (IKS)

Introduction

As economies around the world become more informative, the trend towards knowledge sharing and organizational innovation has become a central component of competitiveness (Teixeira et al., 2019). In any case, an association's ability to develop usually depends on its ability to use its knowledge-based assets to create and use its information skills to produce and sustain inventive abilities (Killingsworth et al., 2016). Experts recognize that an association's ability to express imagination and creativity depends on the exchange of information within and between divisions and departments (Obeidat et al., 2016).

Previous analysts have recognized the enormous influence of association's organizational culture on knowledge sharing (Hong et al., 2018), creativity (Chen et al., 2016), organizational innovation (Kim, 2019), and the performance of the organization (Akhavan & Hosseini, 2016). The current peer reviews perceive organizational culture as the most important and significant enabler of knowledge sharing that further empowers associations to be resourceful, innovative, and creative (Bao et al., 2015). The ability of an organization to create, impart, and influence information depends largely on its practices, the general qualities and beliefs that determine its culture, and the behaviour of the employees for their knowledge sharing (Haq & Anwar, 2016). There is a significant correlation between knowledge sharing and organizational culture because of the cognitive framework. However, the behaviour and attitudes of the organizations' employees are influenced by the organizational culture (Yang et al., 2015).

Tipu and Ryan (2012) conducted a study to estimate the influence of transformational leadership on organizational culture and the behaviour of organizational innovation. Hassan et al. (2012) also conducted a study to assess the relationship between the performance of employees, organizational innovation, and organizational culture in the healthcare sector of Pakistan. On the other hand, Ndubisi and Iftikhar (2012) tried to evaluate the relationship between organizational performance, organizational innovation, and entrepreneurship. Salman et al. (2016) conducted a pilot study to identify the factors for the innovative organizational culture of the public healthcare institutions of Pakistan. According to Shahzad et al. (2017), a study was conducted to estimate the impact of organizational culture on the innovative

performance in the healthcare sector of Pakistan. In addition to this, San et al. (2019) tried to evaluate the performance of the healthcare manufacturing sector of Pakistan through organizational culture and the environmental control management systems. Khan et al. (2020) further conducted a study to assess the performance of the organization through organizational culture and entrepreneurial orientation through the mediation of organizational innovation. Meanwhile, Khan et al. (2020) also carried out a study to estimate the mediating role of organizational innovation on the performance and organizational culture of the organizations in the healthcare manufacturing sector of Pakistan. Hence, this is the first study to be conducted in context of Pakistan's public sector to estimate the impact of knowledge sharing and organizational culture on the organizational innovative behaviour of the employees. This research will be included in those studies that have utilized the behavioural qualities of knowledge while thinking about individual-based knowledge sharing and organizational-based knowledge sharing. The principal reason for this research is to examine the collectivism and individualism role on the organizational innovative behaviour in Pakistan's public sector organizations. Therefore, this study aims to identify the more innovative employees in terms of government organizations with collectivistic organizational culture or those with individualist organizational culture. The major contribution of the research is that it seeks to provide much needed rational facts on knowledge sharing and organizational innovation in public sector organizations. More so, this research will aid scholars to study the behaviour of the employees working in the government sector of Pakistan. This study will also help the employers, managers, and management to practically device the concept of knowledge sharing among government sector employees. Data gathered from this research will be used to show how knowledge sharing is associated with organizational innovation and organizational culture. Below is the research question of the study:

Does organizational innovation evolve more from individualist or collectivist employees in a public organization?

Accordingly, the literature review of this study reveals the information and knowledge required for hypotheses development. Furthermore, in the methodology segment, the method of research is elucidated. The findings also shed light upon the hypotheses results. This leads to the conclusion and a further discussion on the research theme where the future inferences of the findings and limitation of the study will be mentioned.

Knowledge Sharing

Akhavan et al. (2015) characterized knowledge sharing as people who share data, thoughts, ideas, and skills with each other that are important to an organization. Knowledge in contemporary dynamic and competitive era is

considered as the blood vein of an organization and it has been pinpointed as an important factor for an organization's survival. This indicates that knowledge for an organization is as crucial as management of other assets. To gain a competitive advantage and to be a successful, organizations greatly rely on knowledge that has become a resource, which is an important factor of success for organizations (Haq & Anwar, 2016). Therefore, in order to achieve the objectives and goals of the organization and the primary driver to long term success for the organization, managers now consider knowledge management as a crucial component of modern-day technology. The process of knowledge management is multifaceted which is propelled by power equations within the organizations. An underlying part in knowledge management is to disseminate knowledge and make it available and practical between organizational departments and individuals as well (Paulin & Suneson, 2012; Bilginoğlu, 2019).

As a scientific field of study, knowledge management has increasingly become an interesting research topic. Knowledge sharing is one of the most important parts in knowledge management, which is highly essential to develop in the organizations, specifically between and among teams. Employees in return are given the opportunity to provide, share, and employ knowledge that would help the organization to have better outcomes. Nonetheless, it is also contended that there is a significant difference between communication and knowledge sharing (Pangil & Nasurddin, 2013; Fteimi & Lehner, 2016). This implies that it is impracticable to distribute knowledge effortlessly. Knowledge sharing is established on the association between parties, i.e., one-party having knowledge and the other party obtaining knowledge (Kashari & Taheri, 2019). Knowledge sharing is also essentially a demonstration that knowledge is communicated to others through associations (Teixeira et al., 2019). This means that knowledge sharing is considered to be a positive force in creating associations of inventors, especially when there is a more defined social organizational culture (Obeidat et al., 2016). Similarly, to knowledge management, the process of knowledge sharing is also complicated with respect to the different perceptions of knowledge holders regarding self-ownership or organizational information. This is because they make decisions regarding what knowledge they would share as well as with whom and when (Bilginoğlu, 2019)

Organizational Culture

Although the meaning of organizational culture has long been studied and discussed by anthropologists and sociologists, 'few anthropologists agree as to what to include under the general rubric of culture' (Yang et al., 2015). Organizational culture is identified as a strong enabler of knowledge sharing which further allows organizations to be more creative and innovative (Ahmed

et al., 2016). With a focus on social issues, Haq and Anwar (2016) characterize organizational culture as a collection of collaborative boundaries that are identified with 'patterned ways of thinking, feeling, and reacting that constitutes the distinctive way of life of a group of people' (Bao et al., 2015). In this sense, organizational culture includes 'the collective programming of the mind that distinguishes the members of one group or category of people from others' (Akhavan & Hosseini, 2016), in which the cumulative brain programming and lifestyle are 'handed down from one generation to the next through means of language and imitations' (Kim, 2019). Therefore, it is clear that organizational culture is an unpredictable idea, and there is no generally accepted meaning of organizational culture in the empirical evidences. More generally, 'organizational culture seems to distinguish one group from another based on a certain set of values, beliefs, behaviour, and attitudes which is shared, interpreted, and transmitted over time within a collective. This makes the collective unique and distinguishes that collective from other collectives' (Chen et al., 2016). Thus, people in a particular social climate are inevitably influenced by the social atmosphere in which they live, both at the organizational and social levels. According to Hong et al. (2018), 'the various facets of organizational culture are interrelated and once you touch an organizational culture in one place, everything else is affected'.

Knowledge Sharing and Organizational Culture

The role of organizational culture in promoting knowledge sharing is inevitable and has received considerable attention from various researchers. For instance, Alavi et al. (2006), Al-Alawi et al. (2007), and Gilson et al. (2013) have studied organizational culture, innovation, creativity, and knowledge sharing. Therefore, it is highly important for an organization to foster innovative culture which will encourage employees to share knowledge across the teams and organization. An innovative organizational culture assists the leader to transform the individual and team knowledge of employees as well as their experiences and skills into organizational knowledge through continuous knowledge sharing (Park & Kim, 2018).

It is believed that because of organizational culture, the knowledge sharing process has often encountered difficulties. A study conducted by Khan et al. (2020) reveals that organizational culture was recognized as the greatest obstacle to the flow of information and the inability to change individual practices is seen as the prime hindrance for the management of knowledge (Yang et al., 2015). Another study found that most organizations demonstrated that a hierarchical organizational culture is a significant obstacle for the successful implementation of their initiatives regarding the knowledge management (Tipu & Ryan, 2012). In addition to this, the empirical evidences show that the cultural role in knowledge management has focused on issues

such as the influence of organizational culture on the behaviour of knowledge sharing (Hassan et al., 2012), the influence of organizational culture on the abilities facilitated by knowledge management (Ndubisi & Iftikhar, 2012), and the success on the initiatives of knowledge management (Salman et al., 2016). Organizational culture influences communication practices in four main ways:

- 1) Organizational culture strongly influences what the association considers useful, important or legal information;
- 2) Organizational culture interferes with the relationship between levels of information. This implies that it determines what is connected with the association and what information remains under the control of the individual worker, thereby determining who should control explicit information, as well as who should share it, and with whom it can be hoard;
- 3) Organizational culture produces a subtext for social cooperation as it refers to the guiding principles and practices that define the atmosphere in which people communicate.
- 4) Organizational culture forms the formation and appropriation of new information.

An organizational culture defines a social environment that decides ‘who is expected to control what knowledge, as well as who must share it, and who can hoard it’ (Shahzad et al., 2017, p.12). San et al. (2019) reports that much of the information provided by executives is related to attempts to form established societies that interfere with their understanding of the knowledge management programs (Khan et al., 2020). Various findings from different researches (Khan et al., 2020) show the significant influence that organizational culture can have on leaders’ information and sharing practices, as well as on the urgent work of top management in organizational culture development that promotes these practices (Nguyen, 2020).

Organizational culture influences the degree of coordination of efforts within an association (Yang et al., 2015), and cooperation is a path to a beneficial exchange of information. Killingsworth et al. (2016) explored multifaceted contrasts using examples of communication that depended on three models: ‘individualism versus collectivism, in-group versus out-group orientation, and fear of losing face’. Individualism is the tendency of people to set their own goals in front of the goals of the association, while people from collectivist societies usually propose goals for the majority of the population, groups or organization to which they belong. Collectivists tend to make a clear distinction between people from an out-group and from an in-group. Chen et al. (2016) examined factors influencing information sharing practices and

found that, for example, Chinese citizens are significantly more reluctant to share information with another party than representatives in the United States. Hong et al. (2018) found that individualists are more concerned with acquiring faces (intriguing partners) than collectivists. They also found that people who needed to find a face had to use official channels of correspondence to demonstrate their discernment and ability, while people who were afraid of losing face preferred more casual channels of correspondence.

Organizational Innovation

As in the case of culture, ‘there are many different definitions of organizational innovation in current research. However, the number and diversity of definitions leads to a situation in which there is no clear and authoritative definition of organizational innovation’ (Akhavan et al., 2015, p.34). In addition, the current empirical evidences make extensive use of the promotion mediator to assess development. These intermediaries for promotion include new creative thoughts (Akhavan & Hosseini, 2016) and new innovations or strategies (Obeidat et al., 2016). Organizational innovation is the most important aspect of organizational capacities to achieve and keep competitive advantage. More so, it is conditional on knowledge sharing between the employees.

Regardless of the reason for the organizational innovation proposed by various scholars, there are two clear point of views. From one point of view, organizational innovation includes an era of new thoughts and is a multi-step measure by which associations transform thoughts into new or improved goods, services or measures (Yang et al., 2015). On the other hand, organizational innovation involves the use of a sequence of new things such as new elements or controls, new hierarchical structures or management structures, and new plans and new projects which is completely aimed at expanding organizational performance and growth, maintaining intelligent communication, and making organizational progress (Obeidat et al., 2016)

Knowledge Sharing and Organizational Innovation

The factor supporting organizational innovation is the exchange of knowledge and information. It is considered unlikely that organizational innovation occurs without knowledge sharing (Kim, 2019). Acquisition of knowledge and skills through collaboration has been a viable and active method of effective organizational innovation (Akhavan & Hosseini, 2016). In terms of organizational innovation, sharing knowledge is trading in abilities that allow you to produce or upgrade services and goods that are of significant value. Imparting knowledge is also an important asset in promoting fundamental subjects (Bao et al., 2015). The findings of Haq and Anwar (2016), depending on meta-analysis, reveal that communication can anticipate

group work. Lack of knowledge and information is a major barrier for organizational innovation (Yang et al., 2015). Knowledge sharing is an important factor that encourages innovation and it is doubtful that innovation can happen in the absence of knowledge sharing (Kremer et al., 2019). In many organizations, knowledge and skills are acquired and shared mostly in teams and it has been considered as an effective way towards successful innovation. Additionally, Magnus and DeChurch (2009) observed that the performance of a team is predicted by knowledge sharing among team members, while the lack of knowledge is considered as a primary barrier to innovation (Castaneda & Cuellar, 2020). Darroch and McNaughton (2002) expressed that an organization is likely to nurture its innovative culture where knowledge sharing among employees is encouraged so as to generate new ideas and assist innovative capabilities (Castaneda & Cuellar, 2020).

According to Aljuwaiber (2016), an association that facilitates the exchange of knowledge and information can generate new thoughts and work with inventive ability. Akhavan et al. (2015) also found that organizations that increase their participation in information networks tend to expand their innovative capabilities. Several studies have analyzed the relationship between knowledge sharing and organizational innovation, but so far none have considered the chronic stages of improvement of these both ideas. Furthermore, several authors have noted the importance of jointly reviewing knowledge sharing and organizational innovation. Chen et al. (2016) found that the more attention a measure of inferred information attracts, the higher the organization's growth potential. The implicit exchange of knowledge and information is fundamental to ingenuity as it is difficult for others to replicate. Knowledge and information exchange is the component that converts inferred information into unambiguous, and two types of information drive progress. Based on the study findings of Aljuwaiber (2016), the exchange of information and knowledge strongly influences the organizational innovation of associations. This was also noted by Chen et al. (2016), where information and knowledge sharing expanded inventive abilities of the organizations. Hong et al. (2018) found that casual exchange of information and knowledge is the most productive developmental pathway. In addition to this, the practice of sharing information and knowledge is critical to the resourcefulness of those sharing information and knowledge in terms of their inclination and ability to promote and implement new thoughts. According to Obeidat et al. (2016), communication is an arbiter between organizational performance and collective organizational innovation. It is also a mediator between individual organizational innovation and collective well-being (Teixeira et al., 2019). Similarly, there is evidence that collective communication between organizations can drive organizational innovation (Killingsworth et al., 2016). Also, the study carried out by Akhavan et al. (2015) indicate that exploitative

organizational innovation is influenced by the collective knowledge sharing at in-group level.

Individualism & Collectivism

Individualism and collectivism are cultural constructs that illustrate the extent to which individuals are autonomous or embedded in their groups (Gelfand et al., 2004; Triandis & Gelfand, 2012).

In psychology, one of the first operationalizations of individualism was offered by Hofstede (1980, 1991) who used the terms of individualism and collectivism to describe possible forms of relationships between individuals and the groups to which they belong. According to him, individualism pertains to a society in which the ties between individuals are loose and everyone is expected to look only after himself or herself and his or her immediate family. Individualists aspire to achieve self-satisfaction and reach one's full potential (Berry et al., 1997; Triandis, 1995). Consequently, individualists maintain an internal locus of control by assuming personal responsibility for their actions and well-being. In order to attain such goals, individualists deny rigid standards and avoid social pressures of conformity. Hence, it is likely that individualists maintain looser connections to people in their immediate group and larger society.

Collectivism is regarded as a core construct in analyzing cultural effects on human relationship. Hofstede and Bond (1984) defined collectivism as "a psychological tendency that places collective interests above individual interests". Triandis (1996) considered collectivism as an important cultural feature. House et al. (2004) defined cultural characteristics in nine dimensions such as uncertainty avoidance, institutional collectivism, and in-group collectivism. Many scholars in China have explored the connotation of collectivism in Chinese context. For example, Fan et al. (2014) defined collectivism as the psychological tendency reflecting the degree of individual's concern for others and the collective. With this tendency, one's behaviour should and must meet the expectations of role norms. Li and Chen (2015) stated that the core of collectivism was the mutual obligation between group and individuals, which focuses on the collective goals and the desire to get along with others.

Although a clear definition of collectivism is still debatable, research on the impact of collectivism on individual behaviour has been growing rapidly. For example, Jiang et al. (2016) concluded that collectivism could influence employees' cognitive and behavioural tendencies and affect their behavioural outcomes as well, of which knowledge sharing and innovative behaviour were two prominent outcomes.

Hypotheses of the Study

The study generated the following hypotheses based on the past literature:

- H1:** Individual based knowledge sharing has positive impact on organizational innovative behaviour in the organizations.
- H2:** Organizational based knowledge sharing has positive impact on organizational innovative behaviour in the organizations.
- H3:** Individualism has positive moderating impact on organizational innovative behaviour in the organizations.
- H4:** Collectivism has positive moderating impact on organizational innovative behaviour in the organizations.
- H5:** Positive impact of moderating individualism on organizational innovative behaviour is greater than the moderating collectivism on organizational innovative behaviour.

Methodology

Data Collection

The convenient sampling technique was applied to collect data. The survey was conducted through online google form and it was shared to the individuals employed within the two main public health institutions of Pakistan, i.e., National Institute of Health (NIH) and Pakistan Institute of Medical Sciences (PIMS). The survey was shared with 700 employees and 540 responses were returned to the researcher. Out of 540 surveys, 60 surveys were excluded because of missing values from the analysis. Thus, 480 employees were selected as a sample size for final analysis. The data study was cross sectional, and it was conducted within six months.

Measurements

The data was collected through survey questionnaire. The items of the survey were adapted from the past empirical evidences. After going through vast literature, the items of the variables were selected and adapted according to the context of Pakistan. Five-point Likert scale was used to measure the items and they were scored as '1=Strongly Disagree, 2= Disagree, 3=Neutral, 4= Agree, 5= Strongly Agree'.

The variable organizational-based knowledge sharing (OKS) and individual-based knowledge sharing (IKS) were adapted from Pian et al. (2019), Xie and Ma (2007), and He et al. (2009). The OKS was based on four items: "I exchange and share my experience and knowledge with the team (organization). I share my knowledge to promote the development of the team (organization). I exchange and share knowledge needed or beneficial to the development of the team (organization). I share my experience and knowledge through the organization website, database, and other public platforms". The IKS was based on these four items: "I share my experience and knowledge

with colleagues. I share my knowledge to complete my own work or that of a colleague. I exchange and share knowledge that is conducive to completing a certain task of myself or my colleagues. I spread and share knowledge through non-public channels such as chats, discussions, etc.”

The organizational innovative behaviour was adapted from the study of Pian et al. (2019) and Liu et al. (2016). The organizational innovative behaviour was based on these five items: “I often generate some creative ideas or thoughts at work. I market my new ideas to colleagues or leaders to get their support and recognition. To realize my ideas or organizational innovations, I try my best to obtain the resources I need. I actively formulate appropriate plans or projects to implement my innovative ideas. I always provide recommendations to help my colleagues realize their innovative ideas”. The individualism and collectivism were adapted from the study of Van and De Jong (2009). The four items of individualism were: “I tend to do my own thing, and others in my organization do the same. It is important to me that I perform better than others on a task. I would rather work alone than do a group task. If I have a difficult problem, I rather decide by myself than consult with others”. The four Items of collectivism were: “I make an effort to avoid disagreements with my group members. How I behave depends on who I am with, where I am, or both. I would rather do a task in a group than do one alone. Before making a decision, I always consult with others.”

Sampling

After confirming the reliability, validity, and normality of the data, the descriptive analysis was carried out. It was found that, out of 480 respondents, 338 male respondents had a ratio of 70.4 percent, while 142 female respondents had a ratio of 29.6 percent. There is a large difference between the male and female respondents because of the gender diversity in employment in Pakistan. This is due to a deficiency of female working group in Pakistan’s community especially in the public sector. Another reason for less involvement by the women is the lack of female interest in the research participation.

While identifying the age group, 312 participants were within the age range of 18-24 years with a ratio of 65 percent. On the other hand, 122 participants were within the age range of 32-38 years with a ratio of 25.6 percent. 46 participants, within the age range of 39-44 years, had a ratio of 9.4 percent. However, it was observed that there was no participant within the age range of 25-31 years or older than 44 years.

While estimating the working period of the respondents, 48 participants had a ratio of 10 percent from the group of employees whose working period was less than 1 year with their organization. Subsequently, 94 participants had a ratio of 19.6 percent with 1 year working period, 197

participants had a ratio of 41.0 percent from 1-2 years working period, and 141 participants had a ratio of 29.4 percent from the 2-3 years working period (Table 1).

Table 1. Sampling

Variable	Frequency	Percentage
Gender		
Male	338	70.4
Female	142	29.6
Age		
18-24 years	312	65.0
32-38 years	122	25.6
39-44 years	46	9.4
Working Period		
Less than 1 year	48	10.0
1 Year	94	19.6
1-2 Years	197	41.0
2-3 Years	141	29.4

Source: Author

Results and Analysis

Reliability and Validity

The data was analysed through SPSS version 26. After cleaning the data, it was inserted in SPSS. Thereafter, the data was validated by confirming its Cronbach's Alpha. The Cronbach's Alpha for organizational innovative behaviour was $\alpha=0.758$, the value of IKS was $\alpha=0.775$, the value of OKS was $\alpha=0.766$, the value of collectivism was $\alpha=0.772$, and the value of individualism was $\alpha=0.799$. According to Hair (2009), the acceptable range for Cronbach's Alpha is above $\alpha=0.50$ (Table 2). Hence, every variable is in the acceptable range. Data was also found to be normally distributed since the normal range for skewness is between -2 to +2, and the normal range for kurtosis is between -7 to +7 (Blanca et al., 2013; Hair, 2009) (Table 2). Furthermore, the common method bias for variables was checked by the application of the Harman's single factor method. The data indicated 39.614 percent of the variance, which is in the acceptable range since it is less than 50 percent.

Table 2. Cronbach's Alpha, Skewness, and Kurtosis

Variable	Cronbach's Alpha	Skewness	Kurtosis
Organizational Innovative Behaviour	0.758	0.522	-0.549
Organizational Knowledge Sharing	0.766	0.416	-0.782
Individual Knowledge Sharing	0.775	0.527	-0.582
Collectivism	0.772	0.473	-0.688
Individualism	0.799	0.386	-0.870

Pearson Correlation

Table 3 shows the Pearson Correlation test results. The analysis of correlation shows that there was significantly positive relationship among the variables.

Table 3. Pearson Correlation

		OIB	IKS	OKS	C	I
OIB	Pearson Correlation	1	.680**	.683**	.664**	.615**
	Sig. (2-tailed)		.000	.000	.000	.000
	N	480	480	480	480	480
IKS	Pearson Correlation	.680**	1	.634**	.613**	.563**
	Sig. (2-tailed)	.000		.000	.000	.000
	N	480	480	480	480	480
OKS	Pearson Correlation	.683**	.634**	1	.615**	.564**
	Sig. (2-tailed)	.000	.000		.000	.000
	N	480	480	480	480	480
C	Pearson Correlation	.664**	.613**	.615**	1	.546**
	Sig. (2-tailed)	.000	.000	.000		.000
	N	480	480	480	480	480
I	Pearson Correlation	.615**	.563**	.564**	.546**	1
	Sig. (2-tailed)	.000	.000	.000	.000	
	N	480	480	480	480	480

** . Correlation is significant at the 0.01 level (2-tailed).

Source: Author

Hypotheses Testing

In order to test the hypotheses, the Hierarchical Regression Analysis was carried out with the help of SPSS version 26. This study has adopted 3 steps model of Hierarchical Regression Analysis. In the first step, the control/demographic variables were inserted in the model. In the second step, the independent variables, i.e., individual-based knowledge sharing and individualism were inserted, while organizational innovative behaviour was inserted as the dependent variable. In the third step, the moderating variable (individualism × IKS) was inserted. A positive significant relationship was found between IKS and organizational innovative behaviour ($\beta=0.491$, $P=0.00$). In the same way, individualism was found to be positively significant with organizational innovative behaviour ($\beta=0.340$, $P=0.00$). Furthermore, the moderating effect of individualism was also found to be positively significant with the organizational innovative behaviour ($\beta=1.464$, $P=0.00$). Thus, this study supports hypothesis 1 and 3 simultaneously (Table 4).

Table 4. The Hierarchical Regression Analysis for Hypothesis 1 and 3

Model	Beta	Sig.	F	R ²	ΔR^2	
1	(Constant)	.000	0.001	0.029	0.036	
	Gender	-.119				.019
	Age	-.107				.029
	Working Period	-.066				.178

2	(Constant)		.001	0.00	0.538	0.507
	Gender	-.009	.795			
	Age	.022	.522			
	Working Period	-.048	.155			
	IKS	.491	.000			
	I	.340	.000			
3	(Constant)		.000	0.00	0.616	0.078
	Gender	.062	.060			
	Age	-.079	.017			
	Working Period	-.026	.404			
	IKS	-.349	.000			
	I	-.451	.000			
	individualism*IKS	1.464	.000			

Dependent Variable: Organizational innovative behavior
Source: Author

In order to test hypothesis 2 and 4, 3 steps model of Hierarchical Regression Analysis was conducted. In the first step, the control/demographic variables were inserted in the model. In the second step, the independent variables, i.e., organizational-based knowledge sharing and collectivism were inserted, while organizational innovative behaviour was inserted as the dependent variable. In the third step, the moderating variable (collectivism × OKS) was inserted. A positively significant relationship was found between OKS and organizational innovative behaviour ($\beta=0.439$, $P=0.00$). In the same way, collectivism was found to be positively significant with organizational innovative behaviour ($\beta=0.391$, $P=0.00$). Furthermore, the moderating effect of collectivism was also found to be positively significant with the organizational innovative behaviour ($\beta=1.364$, $P=0.00$). Therefore, this study supports hypothesis 2 and 4 (Table 5).

Table 5. The Hierarchical Regression Analysis for Hypothesis 2 and 4

Model	Beta	Sig.	F	R ²	ΔR^2	
1	(Constant)		0.001	0.029	0.036	
	Gender	-.119				.019
	Age	-.107				.029
	Working Period	-.066				.178
2	(Constant)		0.00	0.558	0.527	
	Gender	-.007				.839
	Age	-.010				.754
	Working Period	-.013				.705
	OKS	.439				.000
	C	.391				.000
3	(Constant)		0.00	0.631	0.073	
	Gender	.057				.074
	Age	-.104				.001
	Working Period	.001				.987
	OKS	-.322				.000

	C	-.339	.000			
	collectivism*OKS	1.364	.000			

Dependent Variable: Innovative Behavior

Source: Author

In addition to this, hypothesis 5 is tested on the basis of the results obtained through Table 4 and 5. The result of this study shows that individualism has a positive and significant impact on organizational innovative behaviour ($\beta=0.340$, $P=0.00$). In the same way, collectivism also has a positively significant impact on organizational innovative behaviour ($\beta=0.391$, $P=0.00$). However, collectivism is found to have higher impact in comparison to individualism. Hence, this study does not support hypothesis 5.

Discussion

It is indicated by the estimated results of the study that there is a significant role of knowledge sharing on the organizational innovative behaviour of the employees in an organization. This study has categorised knowledge sharing into two categories: individual-based knowledge sharing (IKS) and organizational-based knowledge sharing (OKS). The results of the study have estimated both forms of knowledge sharing as positively significant with organizational innovation. For the first time, knowledge sharing was categorised on the basis of behaviour before it was implied as a characteristic of knowledge. In this way, it is one of the pioneer studies to apply knowledge sharing as behavioural characteristics. It is also the first study in the context of Pakistan to use the behavioural characteristics of the knowledge sharing behaviour.

Based on the results of this study, individualism has a positive and significant impact on the organizational innovative behaviour of the public healthcare organization. These findings are empirically supported by Pian et al. (2019), Bradley et al. (2013), Griffith and Rubera (2014), and Engelen et al. (2014). It is stated by Bradley et al. (2013) that the people from individualist organizational culture are solely responsible for their decisions. Therefore, they tend to take more risks in order to accomplish their goals. This is why individualists are considered to be more innovative. Furthermore, Erez and Nouri (2010) mentioned that individualists are more important for the creation and generation of innovative ideas, which ultimately leads towards organizational innovative behaviour (Desmarchelier & Fang, 2016). Conversely, there are some studies (Engelen et al., 2014; Kaasa & Vadi, 2010) that could not estimate any significant relationship between the individualism and innovative behaviour. One of the major reasons the individualists are more innovative is the reception of reward, appraisal, and promotion at their jobs. Nonetheless, this study has found that there is significantly positive relationship between collectivism and organizational innovative behaviour of

the employees in a public healthcare organization. This finding is supported by Tian et al. (2018), Pian et al. (2019), and Engelen et al. (2014). Meanwhile, it is widely accepted that collectivists are innovative and collectivism leads to organizational innovative behaviour. This is because individuals are expected to share their knowledge and skills with their colleagues, which becomes a major reason for the development of new ideas, products, and services. While making a comparison between individualism and collectivism, this study has also identified that collectivism has more impact on the organizational innovative behaviour of the organization. The same finding has been suggested by previous scholars (Yang et al., 2015; Bao et al., 2015; Akhavan & Hosseini, 2016; Kim, 2019). One of the major reasons collectivists are more innovative is because they share their ideas, knowledge, and experiences, which minimises the chances of failing and increases the chances of being more successful. This is the reason why in most public healthcare organizations, the research and development department is established to enhance organizational innovation in their organizations. However, some studies established that individualists are more innovative because they handle their responsibility while taking risks and they try to do their best in order to receive reward from their senior management. Therefore, it can be stated that the role of individualism and collectivism is yet contradictory because of the mixed findings in the literature.

Accordingly, this study has found significantly positive impact of individualism moderation with organizational innovative behaviour. The moderation of individualism is applied through individual-based knowledge sharing in the organizations. The individual-based knowledge sharing is a behaviour in which knowledge is shared with an individual to complete his task or to correct his mistakes. In this way, people learn and improve their skills and they also tend to innovate new things at their jobs. Similarly, this study revealed the moderation impact of collectivism significantly positive with the organizational-based knowledge sharing behaviour. In this behaviour, the particular knowledge is shared with everyone or the organization arranges training sessions for its employees to increase their skills and performance, which tends them towards organizational innovative behaviour.

Conclusion

In this competitive era, knowledge sharing has been considered as the most important factor for the sustainability of the organizations in the competitive market. Knowledge sharing is considered to be an integral part of knowledge management system. This is because knowledge sharing leads to organizational innovative behaviour of the organization's employees and innovation in the organization as well. Therefore, in present times, the area of knowledge sharing and organizational innovation has become the central

focus of the researchers. However, most of the studies have only focused on the characteristics of knowledge. Therefore, this study is included in the foundations of those few studies that have utilised the behavioural characteristics of knowledge, while considering the individual-based knowledge sharing and organizational-based knowledge sharing. In addition, this is the first study to be conducted in the context of Pakistan's government sector. The purpose of this study was to compare the individualism and collectivism role on organizational innovative behaviour of organizations. Conclusively, this study affirms that there is a positively significant role of individualism, collectivism, individual-based knowledge sharing and organizational-based knowledge sharing on organizational innovative behaviour. Furthermore, this study also found the significantly positive impact of collectivism and individualism's moderation on organizational innovative behaviour. After comparing the data, it is evident that collectivists are more innovative in comparison to the individualists in public sector organizations.

Implications of the Study

The cultural dynamics of Pakistan are quite diverse. This is possibly the main reason why individualism and collectivism, as moderating variables, have significant impact on the organizational innovative behaviour of the employees in the organizations. Therefore, it is more important for the managers, senior managers, and entrepreneurs to be more vigilant about their cultural contexts and adopt strategies accordingly to make their employees more innovative. The findings of the study further showed that collectivists are more innovative in comparison to the individualists. Therefore, it is opined that the senior management should encourage a sharing attitude of organizational level knowledge. Also, during the promotion process, they should assess the behaviour of the individuals so that the individuals with collectivism approach should be given leadership roles to improve the organizational performance and also enhance innovation in the organization.

Limitations of the study

Every study has its strengths and limitations. Therefore, this study faced some limitations also. One of the major limitations of this study is the small sample size. Secondly, this study only focused on the Pakistan's public healthcare sector. As a result, future studies can be added from different South Asian countries to have better and generalized results. Thirdly, the study comprised of few variables which particularly ignored the characteristics of the knowledge to be included and only considered the behavioural characteristics of knowledge. Thus, future studies can include more variables in the model to estimate improved results. The future studies can also adopt mixed method approach with focus group and face to face interviews to have

better results. Fourthly, this study adopted cross sectional data collection technique due to time constraint issues. Therefore, future studies can adopt longitudinal data collection technique to have improved results over a longer period of time. Lastly, the study only adopted the moderating role of individualism and collectivism. Nevertheless, future studies can assess them as mediating role or they may include other mediating variables to have better findings.

References:

1. Ahmed, F., Shahzad, K., Aslam, H., Bajwa, S., & Bahoo, R. (2016). The role of collaborative culture in knowledge sharing and creativity among employees. *Pakistan Journal of Commerce and Social Sciences*, 10 (2), 335-358.
2. Akhavan, P. & Hosseini, M.S. (2016). Social capital, knowledge sharing, and innovation capability: an empirical study of R&D teams in Iran. *Technology Analysis & Strategic Management*, 28(1), 96-113.
3. Akhavan, P., Hosseini, S. M., Abbasi, M., & Manteghi, M. (2015). Knowledge-sharing determinants, behaviours, and innovative work behaviours. *Aslib journal of information management*.
4. Alavi, M., Kayworth, T., & Leidner, D. (2006). An Empirical Examination of the Influence of Organizational Culture on Knowledge Management Practices. *Journal of Management Information Systems*, 22. 191-224.
5. Alawi, A., Al-Marzooqi, N.Y., & Mohammed, Y.F. (2007). Organizational culture and knowledge sharing: critical success factors. *Journal of Knowledge Management*, 11, 22-42.
6. Aljuwaiber, A. (2016). Communities of practice as an initiative for knowledge sharing in business organisations: a literature review. *Journal of Knowledge Management*.
7. Bao, G., Zhang, Z., & Chen, J. (2015). The mediation of in-group identification between collectivism and knowledge sharing. *Innovation*, 17(3), 341-363.
8. Berry, J. W., Segall, M. H., & Kagitcibasi, C. (1997). Handbook of Cross-Cultural Psychology: Social Behavior and Application, Vol. 3.
9. Blanca, M. J., Arnau, J., López-Montiel, D., Bono, R., & Bendayan, R. (2013). Skewness and kurtosis in real data samples. *Methodology: European Journal of Research Methods for the Behavioral and Social Sciences*, 9(2), 78–84.
10. Bilginoğlu, E. (2018). Knowledge Hoarding: A Literature Review. *Management Science Letters*, 9.

11. Bradley, F., Gao, Y., & Sousa, C. M. (2013). A natural science approach to investigate cross-cultural managerial creativity. *International Business Review*, 22(5), 839-855.
12. Castaneda, D. & Cuellar, S. (2020). Knowledge sharing and innovation: A systematic review. *Knowledge and Process Management*, 27.
13. Chen, S., Zhang, G., Zhang, A., & Xu, J. (2016). Collectivism-oriented human resource management and innovation performance: An examination of team reflexivity and team psychological safety. *Journal of Management and Organization*, 22(4), 535.
14. Darroch, J. & McNaughton, R. (2002). Examining the Link between Knowledge Management Practices and Type of Innovation. *Journal of Intellectual Capital*, 3,210-222.
15. Desmarchelier, B. & Fang, E. S. (2016). National culture and innovation diffusion. Exploratory insights from agent-based modeling. *Technological Forecasting and Social Change*, 105, 121-128.
16. Engelen, A., Schmidt, S., Strenger, L., & Brettel, M. (2014). Top management's transformational leader behaviours and innovation orientation: A cross-cultural perspective in eight countries. *Journal of International Management*, 20(2), 124-136.
17. Erez, M. & Nouri, R. (2010). Creativity: The influence of cultural, social, and work contexts. *Management and Organization Review*, 6(3), 351-370.
18. Fan, Y., Zhang, K.Q., & Yan, L. (2014), "Impact of organizational culture sociability and solidarity on employee silence: the moderation of employee's collectivism", *Chinese Journal of Management*.
19. Gelfand, M.J., Bhawuk, D.P.S., Nishii, L.H. & Bechtold, D.J. (2004) Individualism and collectivism, in *Culture, Leadership and Organizations: The GLOBE Study of 62 Societies*, Sage Publications.
20. Gilson, L., Hyoun S., & Choi, J. (2013). Unpacking the cross-level effects of tenure diversity, explicit knowledge, and knowledge sharing on individual creativity. *Journal of Occupational and Organizational Psychology*,86.
21. Griffith, D. A. & Rubera, G. (2014). A cross-cultural investigation of new product strategies for technological and design innovations. *Journal of International Marketing*, 22(1), 5-20.
22. Hair, J. F. (2009). *Multivariate data analysis. A Global Perspective*. 7th (Ed.), Upper Saddle River: Prentice Hall.
23. Hassan, M., Shaukat, S., Shakeel, M., & Imran, M. (2012). Interrelations between organizational culture, Innovation and employee performance: Evidence from banking sector of Pakistan. *Pakistan Journal of Social Sciences*, 32(2), 339-355.

24. Haq, A.M. & Anwar, S. (2016). A systematic review of knowledge management and knowledge sharing: Trends, issues, and challenges. *Cogent Business & Management*, 3(1), 1127744.
25. He, H., Peng, J., & Yuan, Y. (2009). Research among relationship between perceived organizational support, the ways of knowledge sharing behaviour and sharing effectiveness. *Science of Science and Management of S. & T*, 11.
26. Hofstede, G. & Bond, M.H. (1984). "Hofstede's culture dimensions: an independent validation using Rokeach's value survey", *Journal of Cross-Cultural Psychology*.
27. Hofstede, G. (1991). *Cultures and Organizations: Software of the Mind*. McGraw-Hill: London.
28. Hong, J., Hou, B., Zhu, K., & Marinova, D. (2018). Exploratory innovation, exploitative innovation and employee creativity. *Chinese Management Studies*.
29. House, R.J., Hanges, P.J., Javidan, M., Dorfman, P.W., & Gupta, V. (2004). *Culture, Leadership, and Organizations: The GLOBE Study of 62 Societies*, Sage.
30. Jiang, X., Flores, H.R., & Leelawong, R. (2016). "The effect of team empowerment on team performance: a cross-cultural perspective on the mediating roles of knowledge sharing and intra-group conflict", *International Journal of Conflict Management*.
31. Kaasa, A. & Vadi, M. (2010). How does culture contribute to innovation? Evidence from European countries. *Economics of innovation and new technology*, 19(7), 583-604.
32. Kasharia, Z. & Taheri, F. (2019). The Role of Knowledge Sharing in Organizational Performance. *American Scientific Research Journal for Engineering, Technology, and Sciences*, 62(1), 30-38
33. Khan, W. A., Hassan, R. A., Arshad, M. Z., Arshad, M. A., Kashif, U., Aslam, F., & Wafa, S. A. (2020). The effect of entrepreneurial orientation and organisational culture on firm performance: The mediating role of innovation. *International Journal of Innovation, Creativity and Change*, 13(3), 652-677.
34. Khan, W. A., Wafa, S. A., Hassan, R. A., & Kashif, U. (2020). The Mediating Effect of Innovation on The Relationship Between Organizational Culture and Performance of Large Manufacturing Firms in Pakistan. *Malaysian Journal of Business and Economics*, 229.
35. Killingsworth, B., Xue, Y., & Liu, Y. (2016). Factors influencing knowledge sharing among global virtual teams. *Team Performance Management*.
36. Kim, S. S. (2019). The effect of social contexts and formation of individualism–collectivism orientation on knowledge sharing

- intention: the case of workers in *Korea. Journal of Knowledge Management.*
37. Kremer, H. & Villamor, I. (2018). Innovation leadership: Best-practice recommendations for promoting employee creativity, voice, and knowledge sharing. *Business Horizons*,62.
 38. Li, Z.B. & Chen, H. (2015). “The impact of Supervisor-Subordinate Guanxi on employees’ knowledge sharing behavior: the role of organizational identification and collectivism orientation”, *Journal of Industrial Engineering and Management (China).*
 39. Liu, L.L., Du, R., & Ai, S.Z. (2016). Impact of culture on the relationship between knowledge sharing and innovative behaviour in IT services industry. *Chinese Journal of Management Science*, Vol. 24 No. 4, pp. 159-166.
 40. Markus, H. & Kitayama, S. (1991). Culture and the self: Implications for cognition, emotion, and motivation. *Psychological Review*, 98, 224–253.
 41. Mesmer, M., Jessica & Dechurch, L. (2009). Information Sharing and Team Performance: A Meta-Analysis. *The Journal of applied psychology*, 94. 535-46.
 42. Nadason, S., Ram Al Jaffri, S., & Ahmi, A. (2017). Knowledge Sharing and Barriers in Organizations: A Conceptual Paper on Knowledge-Management Strategy. *Indian-Pacific Journal of Accounting and Finance.*
 43. Ndubisi, N. O. & Iftikhar, K. (2012). Relationship between entrepreneurship, innovation and performance. *Journal of Research in Marketing and entrepreneurship.*
 44. Nguyen, T. M. (2020). Four-dimensional model: a literature review in online organisational knowledge sharing. *VINE Journal of Information and Knowledge Management Systems.*
 45. Obeidat, B. Y., Al-Suradi, M. M., & Tarhini, A. (2016). The impact of knowledge management on innovation: An empirical study on Jordanian consultancy firms. *Management Research Review*
 46. Park, S. & Kim, E. J. (2018). Fostering organizational learning through leadership and knowledge sharing. *Journal of Knowledge Management.*
 47. Paulin, Dan & Suneson, Kaj (2012). Knowledge Transfer, Knowledge Sharing and Knowledge Barriers – Three Blurry Terms in KM. *Electronic Journal of Knowledge Management*, 10. 82-92.
 48. Pian, Q. Y., Jin, H., & Li, H. (2019). Linking knowledge sharing to innovative behaviour: the moderating role of collectivism. *Journal of Knowledge Management.*

49. Realo, A., Koido, K., Ceulemans, E., & Allik, J. (2002). *Three components of individualism. European Journal of Personality*, 16(3), 163–184.
50. Salman, R., Arshad, D., & Abu Bakar, L. J. (2016). Factors contributing to SMEs innovative culture in Punjab, Pakistan: a pilot study. *International Journal of Academic Research in Business and Social Sciences*, 6(8), 54-64.
51. San Ong, T., Magsi, H. B., & Burgess, T. F. (2019). Organisational culture, environmental management control systems, environmental performance of Pakistani manufacturing industry. *International Journal of Productivity and Performance Management*.
52. Shahzad, F., Xiu, G., & Shahbaz, M. (2017). Organizational culture and innovation performance in Pakistan's software industry. *Technology in Society*, 51, 66-73.
53. Teixeira, E. K., Oliveira, M., & Curado, C. (2019). Linking knowledge management processes to innovation. *Management Research Review*.
54. Tian, M., Deng, P., Zhang, Y., & Salmador, M. P. (2018). How does culture influence innovation? A systematic literature review. *Management Decision*.
55. Triandis, H. C. (1995). Individualism and Collectivism: New Directions in Social Psychology. *Boulder, CO*.
56. Triandis, H.C. (1996). "The psychological measurement of cultural syndromes", *American Psychologist*.
57. Triandis, H.C. & Gelfand, M.J. (2012). A theory of individualism and collectivism, in *Handbook of Theories of Social Psychology*, Vol., *Sage Publications*
58. Tipu, S. A. & Ryan, J. (2012). Transformational leadership in Pakistan: an examination of the impact of transformational leadership on organizational culture and innovation propensity. *Journal of Management & Organization*, 18(4).
59. Van Hooft, E. A. & De Jong, M. (2009). Predicting job seeking for temporary employment using the theory of planned behaviour: The moderating role of individualism and collectivism. *Journal of Occupational and Organizational Psychology*, 82(2), 295-316.
60. Xie, H. F. & Ma, Q. G. (2007). The influence of organizational atmosphere on employee informal knowledge sharing. *Studies in Science of Science*, 25, 306-311.
61. Yang, Z., Zhou, X., & Zhang, P. (2015). Discipline versus passion: Collectivism, centralization, and ambidextrous innovation. *Asia Pacific Journal of Management*, 32(3), 745-769.