

# Labour Market Dynamics and Labour Market Policies – Case Study Kosovo

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## Abstract

Over the last decades, in Kosovo and in many Western Balkan countries, there have been processes of political, economic and social transformations. The object of this study was to analyse the linear trends, employment and unemployment correlation through Gross Domestic Production (GDP) and its growth, Consumer Prices Index (CPI), Import and the role of employment policies in Kosovo. The methods used for this study were: linear econometric models, correlation, comparative methods ect. Although there have been improvements in socio-economic indicators in Kosovo, the economy still has a higher unemployment rate compared to the countries of the region. The approach of linear relationships for econometric models is usually preferred to research the socio-economic situation and dynamics of labour market trends. Labour market analysis is a measurement unit and assesses the economic forces and demographics such as education and trainings on the one hand and employment on the other. According to the results conducted from the quantitative study, it turns out that the employment variable in Kosovo has a complex relationship with a set of other parameters where GDP and GDP change carries the main weight, etc.

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**Keywords:** Labour market policies, linear econometric model, employment and unemployment.

## Introduction

In order to treat socio-economic problems, studying labour market policies and applying a linear model on the aspect of labour market dynamics is very important and has attracted continuous scientific research. Efficient macroeconomic policy management of labour is a very important component for the dynamics and stability of the labour market of a country.

The purpose of this paper is to study and analyze the manage labour market policies' effect on the improvement of employment rates and analyse

correlations and linear links of employment and unemployment with GDP growth, CPI and Imports.

Efficient management of economic and social policies at a state level will contribute to create a stable labour environment in Kosovo. Almost 66% of Kosovo's population is of working age (15-64 years).

This is expected to grow over the next decade, as Kosovo is known for having one of the youngest populations in Europe. Among those of working age, (62.4%) are not economically active, this means that they are not employed or have not actively pursued employment in the past four weeks (2015 Labour Force Survey).

Of the 37.6% of the economically active population, 32.9% (145,776 people) are unemployed. Suggesting that 67.1% (296,940) of economically active people are employed, resulting in an employment rate of 25.2%. Of the 62.4% of the working age population that is inactive, 22.5% (165,700 people) did not seek a job because they believed that there were no jobs available. Discouraged workers accounted for 14.1% of the working age population, levels for both genders were similar (World Bank and Kosovo Agency of Statistics, 2016, p. 28 ).

As an economic concept, employment appears and occurs in the market, whereas as a social concept, employment is seen as a tool of improving people's needs. Labour market is regulated with a range of norms and rules both inside and outside the work environment, and it is a very important socio-economic factor.

When analyzing the labour market, one has to consider both its social and political sides. Based on the analysis of labour market situations in the Western Balkans, Table 1 shows more specifically data on the rate of employment, rate of unemployment, and labour force participation in the labour market.

**Table 1. Country comparison of key labour statistics**

2015	Labour force participation rate	Employment-to-population ratio(employment rate)	Unemployment rate
COUNTRY			
Kosovo	37.6	25.2	32.9
Albania	64.2	52.9	17.5
FYR Macedonia	64.9	47.8	26.3
Serbia	51.6	42.5	17.7
Montenegro	62.6	51.4	17.8
Bosnia & Herzegovina	44.1	31.9	27.7

Source: Kosovo Agency of Statistics, Results of the Labour Force Survey 2015

Indicators for Serbia refer to population aged 15 and above. The labour force participation rate in Kosovo is 37.6% while the participation rate in Western Balkan countries ranges between 44.1% and 64.9%.

Right now, Kosovo has the highest unemployment rate in the region, followed by Bosnia and Herzegovina. One factor that contributes to this difference is due to the fact that Kosovo has such a young population and many of these young people are still in education (therefore considered as inactive). In Kosovo only 25.2 % of the working age population is employed compared to a 52.9 % in Albania as seen in table 1.

The paper will first focus on literature review on the topic and it will present the methodology used to conduct the study, empirical results, conclusions and recommendations, and the references used in this scientific paper.

### **Literature review**

The purpose of the literature review is to firstly give some theoretical evidence regarding the management of the labour market in general and secondly to review the causal link between employment and macroeconomic indicators specifically.

When discussing about the labour market, both its social and political sides are considered. For this reason, research in this field are influenced by dynamic complications, thus, mathematical models are only descriptive. Studies are mostly based on a link between Gross Domestic Production GDP or Gross National Production GNP and the level of employment based on Okun's Law. However, this link may be only a correlation as in many econometric models that try to establish a linear causal link.

Employment has these two sides: social and political, that make econometric evaluation more difficult. This literature review will be helpful not only to extract theoretical definitions of causal links and their critical evaluations, but also to be a basis for the empirical analysis that will be focused mainly on the causality between employment and GDP.

The first part explores causality from a theoretical perspective, whereas the second part focuses on empirical studies that have analyzed the relationship of employment with GDP and manage labour market policies.

One of the most well noted modern studies on the causal links in the economy has been done by Granger in his "Investigating Causal Relations by Econometric Models and Cross-spectral Methods" in 1969. Another important analysis on causal links was also conducted by (Ashley et al 1980, p. 1143), which investigated the causal link between marketing and aggregate consumption. It is known in economics that the existence of a relationship between two variables does not prove the causal link.

However, in the context of time series data this may be possible due to the concept of the 'arrow of time' and irreversibility. This is based on the

assertion that the future cannot cause the past and it is an a priori and essential feature of the way in which one orders its experience and not as an observed consistency or an analytic truth (Gilbert, 2004, p. 15).

In this way, in the labour market there is a series of limitations and barriers that make the situation more complex. Lastly, there is always a partial regulator that needs to be considered, such as the informal economy that imposes an informal market that aligns the situation with a free market. The high level of unemployment in Kosovo has damaged the macroeconomic level, leading to a lower demand in the economy, hence a lower economic growth and loss of productive potential.

The use of independent analytical force, will enable the understanding of important theoretical and empirical evidence, the use of statistical indicators of the labour market and the ability to analyze them from a critical perspective.

### Methodology and data

The study will be conducted through the usage of statistical data regarding labour market indicators and labour market policies. Study methods used to conduct this research will be as follows:

Analysis of statistical labour market indicators through the usage of Ordinary Least Square Regression methods. Analysis of the labour market policies through using SWOT analysis and a group of adequate models. The study relies on the existence of the aforementioned remarks using the dynamic panel model to prove the sustainability of the above mentioned relationship between employment and labour market policies. There is a difficulty in approximating due to the lack of complete evidence. However, we can write a general model as follows:

$$P = (k_e \dots k_s \dots k_q) \begin{pmatrix} f_e(v_E) \\ \dots \\ f_s(v_S) \\ \dots \\ f_q(v_Q) \end{pmatrix} + \varepsilon = \left( \sum_{i=1}^n k_i f_i(v_i) \right) + \varepsilon \tag{3.1}$$

In the column vector are included functions of: econometric indicators (numerical), social indicators that should be derived from an adequate pattern, and indicators of governmental performance versus employment which also cannot take a numerical form. The additional term is related to deviations from the dynamic rule, in order to avoid the approximation of the analytical equation with reality.

This can be a hidden variable in the system, and should contain a stochastic term related to stochastic oscillations in the labour market. Tray 3.1 can be reduced to its shape until a parameter is reduced. In this case it could be written as:

$$P = kf(x, p) + b \quad (3.2)$$

where  $f(x)$  could initially be assumed to be a power function or a linear function. The nature of these functions can be specified with a close approximation, following the orders and correlations. Of course, this technique will lose much information as the additional term will overlap with other waste, but the closer to the stochastic behavior this additional term is, the closer to the solution we are going to be. In absence of dense evidence this term can only be theoretically studied. The study will be referring to function (3.2) for economic indicators, while function (3.1) will be treated with deduction and only qualitatively.

The Okun's Law on linking Employment and GDP in a direct or logarithmic form will give only the trend since deviations are always present. To verify a wider connection e.g. employment dependency on GDP or growth, inflation and salary level  $P = f(\text{GDP}, \text{CPI}, W)$  under the conditions of active population for zero work, the correlation of the employment level with one of the parameters should first be considered. Thus, if the correlation between Employment  $\rightarrow$  GDP is high ( $> 0.7$ ), it can be argued that an empirical linear dependence is present. Of course, this assertion will not be taken as proof that verifies the linear relationship, but only a linear trend exists between these parameters.

Afterwards it should be seen how (Residual R2) behaves. If, over the years, it tends to increase, this means that the link is increasingly deviating from the linear form. In any case, the connection assessment is a residual process. Considering a number of points in the presence of residues, the following equation is presented:

$$p_i = \alpha \text{GDP}_i + \beta + \varepsilon \quad (3.3)$$

This function is a predefined system (there are many more equations than variables) and the solution is done using the standard method of OLS-Ordinary Least Square, minimizing R2 residuals.

If the dependence 3.3 is characteristic for the connection between the two parameters then minimization is required

$$\sum_{i=1}^n (p_i - (\alpha \text{GDP}_i + \beta))^2 \rightarrow \min$$

The econometric techniques as a rule prefer the logarithm of parameters in equations and this paper will test the two cases, thus 3.3 will also consider logarithmic form of the equation.

In a Scaling manner, there will also be considered the presence of other terms. If the residues are correlated with another parameter, it is likely that the term will be included in a wider equation. It is clear that with an error made, a number of functions can match the data series, consequently subjectivism will be avoided by attempting to detect the presence of the connection rather than its suggestion. While more complex correlations may be present, in this case the very small number of variables and points makes the tendency to test in the higher orders unhelpful.

In the preliminary tests it was also considered the employment relationship with macro parameters for various groups. The reason comes from the fact that Kosovo's economy is in a dynamic transition and the exposure of groupings to macroeconomic behaviors of the economy and society is different. Thus, manufacturing sectors can be directly linked to economic growth while services sectors are limited.

Finally, using the empirical results, a critical summary and analysis of the findings in relation to the economic theory of the issue in question will be done, implications and recommendations for labour market policies are shown.

Following the time progress of parameters such as employment, unemployment based on gender and the age group of 15-24 years, it is indicated that the trends represent a complex process and a dependence that is not evident. Initially, the treatment of this study was built up under the paradigm that "employment must be interdependent with overall production in the country or with its growth.

### **Management of Labour Market Policies**

Developing labour market policies at the right level in order to mitigate unemployment, with particular focus on alleviating youth unemployment, women's unemployment and long-term unemployment, should be the main goal of the Government of Kosovo, namely the Ministry of Labour and Welfare Social (MLSW).

According to the SWOT analysis conducted it was concluded that in Kosovo's labour market one of the strengths is that Kosovo has a young and motivated population. Whereas one of the weaknesses is the high unemployment rate of over 30% and the provision of professional services at a level that is inappropriate according to market needs. As far as labour market opportunities are concerned, one of the opportunities is the development of small and medium-sized enterprises as well as investments in the field of production, while one of the risks that the labour market in Kosovo can face is the rapid changes in the socio-economic environment and unfavourable policies.

Active labour market policies play an important role in alleviating unemployment, creating a motivating environment for existing businesses and opening up new businesses, raising the capacity to the appropriate level according to the market economy trends, financing the programs that affect in creating new jobs, etc.

The total number of unemployed people registered by public employment services in Kosovo at the end of 2015 was 112,179 persons, of which 48,960 were women and 63,219 men (MLSW, 2016, p. 30). Unemployment continues to be a major challenge, and based on the analysis it is shown that there is a large discrepancy between revenue and labour market outcomes. Although, according to Ministry of Labour and Social Welfare, during year 2015 there were 11,506 vacancies registered, but this number is still small if compared to the number of people entering the labour market which in Kosovo is about 25,000 people per year (Bellaqa, B., 2016).

Understandably, the high level of unemployment in Kosovo is an inherited issue of Kosovo's economic development, so one of the key issues is creating a productive and efficient policy at the country level. The drafting of labour market policies for the reduction of youth unemployment should be oriented to the net income in the labour market in Kosovo, as the revenues are much higher when compared to the labour market outcomes (Bellaqa, B., 2012, p.180).

Active labour market policies for young people should focus on improving the education system, support for policies that encourage self-employment, and policies that increase the level of knowledge transfer. Furthermore, there should be more capacity building trainings according to market economy trends. Active labour market measures respond to changes in the labour market that can lead to increased or reduced demand for job types, access and employment opportunities, and relevant jobs and vocational trainings. One of the measures that we can mention is measures aimed at increasing job search efficiency, such as employment and monitoring guidelines, and job search assistance (Data/EU, Support, 2010). Measures for general and vocational training programs are needed, they essentially comprise all measures that improve the knowledge of the workforce by raising their skills at the right level. Private sector incentive schemes, such as salary subsidies for the private sector, should be used to encourage employers to recruit or maintain staff positions. There should also be more grants to help the opening of new businesses. Direct employment in the public sector such as public affairs \ services \ community programs – are also used to help the disadvantaged groups to keep in touch with the labour market and to avoid social exclusion. It is important to note that most of the active labour market programs in EU countries are targeting the youth Active labour market programs are provided by public employment services in Kosovo.

Unemployed persons enroll in regional and municipal employment offices and for those who assistance, they are provided with information on vacancies and information on programs and services available. The basic starting point to enable proper assistance to unemployed clients is to register and make an accurate assessment of customer needs to ensure that employment services can identify and provide the most appropriate form of assistance. However, the Public Employment Service (PES) office needs improvement since it faces many issues. One example is the fact the counselor to job seeker ratio is 1: 1600, which means that there is not enough capacity. In addition, the Active Labour Market Programs (ALMPs) have no comprehensive legal framework (Aylin I.D., et al., 2010, p.5).

**Empirical Results and Discussion**

In the econometric sense we should expect that the level of employment depends on a number of factors such as economic growth, capital structure, labour cost, technical specialization, average salary, foreign investment, etc. In social terms, employment and the growth of active power depend on social structure, age distribution, social psychology or affinity for employment, internal migration, and emigration. In the political sense, it is difficult to identify a simple structural linkage, since the harmonization through the manage of socio-economic policies encompass all of the above elements. Therefore, sustainable management plays an essential role in improving the labour market, since unfortunately these policies are not in an appropriate level in Kosovo.

**Table 2: Correlations of Kosovo’s Employment and Unemployment Indicators with GDP for years 2002-2009**

	Year	2002	2003	2004	2005	2006	2007	2008	2009	KorrGDP
<b>Employment Rate</b>										
M	%	39.41	42.81	46.42	45.79	46.08	40.11	37.74	39.66	<b>-0.8</b>
	Num	260115	230149	237240	244543	251929	194861	201302	198002	<b>-0.9</b>
F	%	8.82	8.3	9.88	11.75	11.76	12.68	10.52	12.51	0.28
	Num	48329	45964	53028	64518	65700	63095	56009	62784	-0.4
T	%	23.75	25.3	27.7	28.53	28.73	26.23	24.15	26.05	-0.7
	Num	308444	276114	290269	309061	317630	257957	257311	260787	-0.9
<b>Unemployment Rate</b>										
M	%	45.22	40.25	31.5	32.93	34.61	38.48	42.66	40.69	<b>0.71</b>
	Num	170144	155065	109071	120056	122022	121881	149751	135817	0.26
F	%	74.45	71.86	60.72	60.46	61.63	55.23	59.63	56.36	<b>-0.9</b>
	Num	140836	117391	81989	98666	106470	77840	82729	81099	<b>-0.9</b>
T	%	55	49.67	39.69	41.44	44.93	43.64	47.47	45.41	0.38
	Num	310980	272456	191060	218722	228492	199721	232480	216916	-0.5

Source: Analysed by author



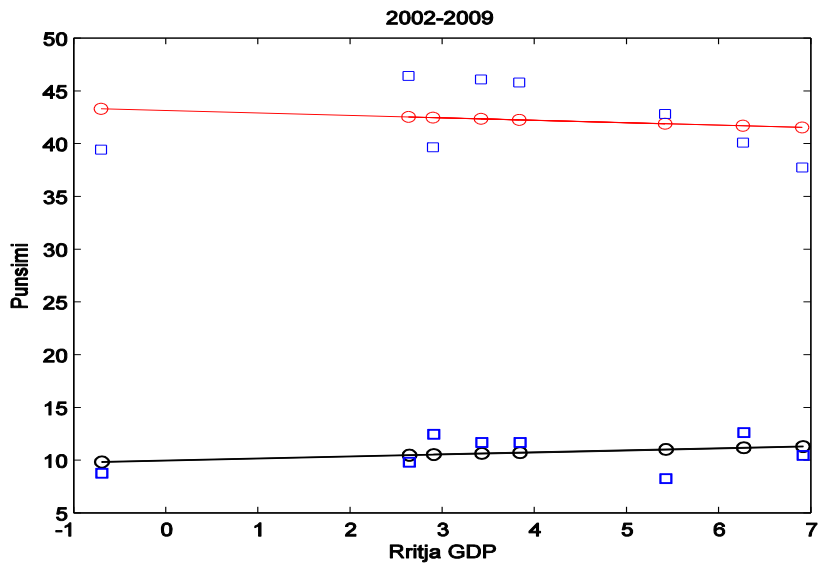
The fact that Kosovo's economy is in a dynamic transition and the exposure of different population groups to the macro behavior of the economy and to the society is different. Gross Domestic Product GDP and Gross National Product GNP are important indicators whether a country has the capacity to provide employment. Empirical analysis has only used time series data up to year 2010, due to the fact that in Kosovo there has been no continuous data after 2010. There was data instability regarding the publication of data regarding labour market indicators. In the table below, there are the correlations between employment and unemployment with GDP. From the table above is interesting to note that there is no correlation between the employment outcome measured by the analysis and the increase of GDP. Likewise, the percentage employment (according to the labour force survey) of men is well correlated with GDP, whereas numerically there is no correlation ( $c = 0.28$ ) (Bellaqa, B., 2013, p.111). The fact that GDP growth ( $r$ ) is not correlated with the results obtained according to the survey, respectively for the total and percentage for women. The results from the table above also show that the unemployment rate of women is not correlated with growth of GDP. Moreover, it is surprising that the unemployment of men in working age is positively correlated with the growth of GDP. Testing the linear function for variables and their logarithms found no connection to Okun's law. However, the low number of registered data suggests that a qualitative method should be also used to further research the topic.

**Table 3: Employment and Macro Variable Correlations- based on the survey**

Indicators	Var = Percentages			Var = Numerical values		
	Total	Female	Males	Total	Females	Males
GDP	0.38	0.03	<b>0.77</b>	<b>-0.83</b>	<b>0.58</b>	-0.28
GDP_Rr	<b>-0.62</b>	<b>-0.75</b>	-0.42	<b>-0.68</b>	0.23	-0.06
GDP(Nat.Curr	0.18	-0.14	0.61	<b>-0.84</b>	0.39	-0.46
CPI	0.01	-0.20	0.38	<b>-0.79</b>	0.07	<b>-0.64</b>
CPI(Index)	<b>-0.77</b>	<b>-0.83</b>	-0.42	-0.30	-0.18	<b>-0.52</b>
ImpTotal_Change	<b>0.65</b>	<b>0.63</b>	0.36	-0.37	-0.06	0.04
ExpTot_change)	0.13	0.47	-0.16	<b>0.66</b>	<b>-0.55</b>	-0.05

Source: Calculated by author

Figure 1. Linear approach of Employment and GDP growth.

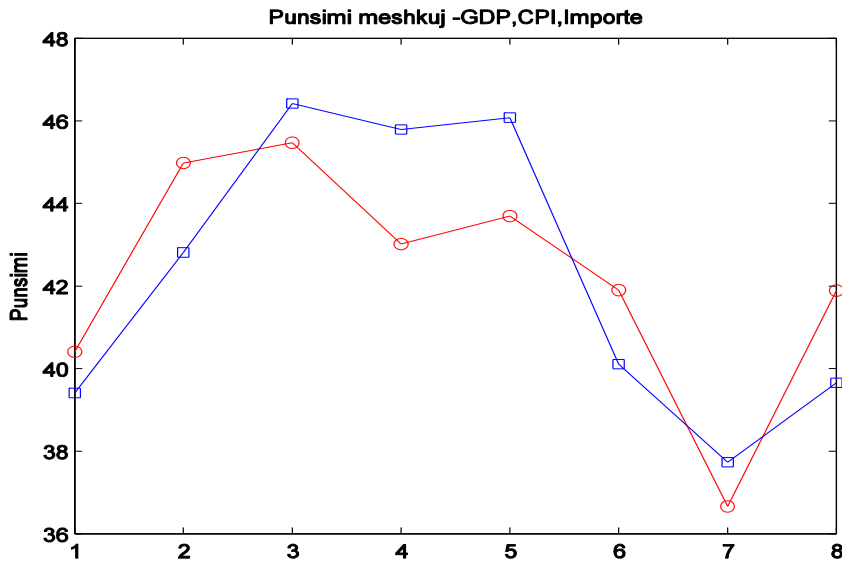


It is interesting that while male employment has a (downward trend) correlation with GDP growth, female employment is in an ascending sequence. The two vectors are  $vm = [- 0.2309 \ 43.1376 \ 82.4092]$  and  $vf = [0.1921 \ 10.0399 \ 17.8504]$ . The linear approximation of the percentage of men in employment is worse. Referring to the tables above, it turns out that there is a difference between the percentage connections with the actual numerical values. This may show the fact that if employment has increased proportionally with the increase of the active working population, the faction has remained in place by hiding the real dynamics.

It is suggested the function of three variables  $P = a + a_1 * GDP + a_2 * CPI + a_3 * IMP$  where P marks the level of employment, GDP marks the growth of domestic output, CPI price index marks inflation, and IMP is the weighted volume of imports expressed annually.

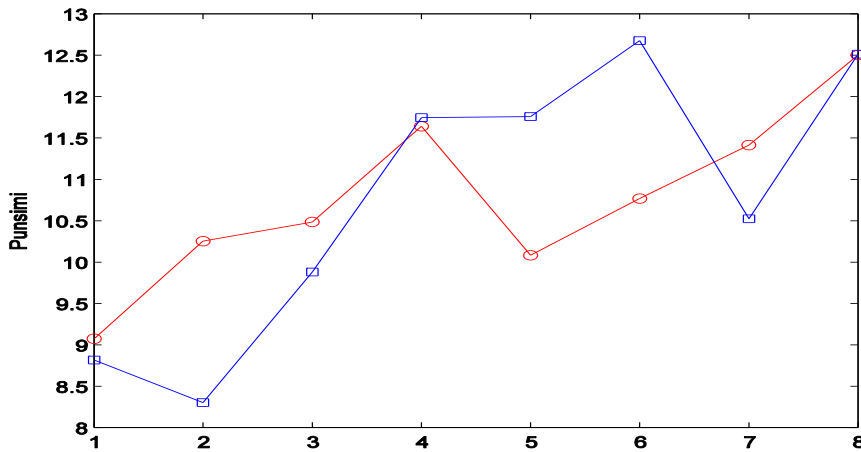
A function containing more variables will therefore be much more representative. Similarly, we calculate the functions for cases where correlation is relevant, like it was for example male / female relationships and age groups.

Figure 2. Male Employment - GDP, CPI and Import



The constants vector is  $[a, a_1, a_2, a_3] = [37.6773 \ 0.9777 \ 0.0400 - 0.9337]$ . Similarly, the female employment relationships is taken as seen in the table below

Figure 3 Female Employment - GDP, CPI, Import



It is interesting to note that the percentage of employed women is fully linear with three variables, but if we add exports, then the model is satisfactory. The parameters in this case are  $[aa, a_1, a_2, a_3, a_4] = [13.3902 - 0.4292 - 0.0279 \ 0.0982 \ 0.0543]$  where 4 is the coefficient next to the percentage change of the volume of exports.

Regarding the age group 15 to 24 which is a dynamic age for Kosovo, because Kosovo's population is new, the number of entries and outflows in the labour market from this window to this age group is unbalanced. Employment and lack of employment are influenced by a number of additional factors such as education, the tendency to emigrate, lack of professionalism, etc. We studied the links of this parameter with the main parameters used above. In this case, increasing trend approximations do not yield any results to the curves themselves. The linear dependence is weak when it comes to the ratio of Unemployment-GDP / RGDP.

## **Conclusion**

Labour market statistics are not yet ready for producing continuous information, since in recent years there has been lack of data creating a gap, which does not contribute to creating a clear picture of the labour market situation.

Kosovo characterizes with a higher unemployment rate compared to the countries of the region, as well as with an unstable labour market.

A linear relationship between Employment / Unemployment with GDP and GDP Growth is generally not expressive in the 2001-2012 period, but it improves after 2007. Following the timing of the parameters that are being observed such as employment and unemployment shows that trends speak for a rather complex process than an evident dependency.

MLSW has no clear policy for improving labour market policies that ought to be in clear terms of improving labour market indicators, so there should be a clearer formulation of short-term and medium term objectives that will play an important role in improving labour market trends in Kosovo.

The usage and results of linear methods for an economy or society in transition reveals the importance of linear econometric approach as a very purposeful study tool.

First, we see that the link serves as an indicator of linear dependencies and can be analyzed as the system's tendency or complexity and relationships between variables.

The development of the labour market information system should be unique, meaning that it should be improved from data being scattered to being is pooled on a same database. For a concluding summary of the quantitative study, it turns out that the employment variable in Kosovo has a complex relationship with a set of other parameters where GDP and GDP change carries the main weight.

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