

The Dependence of Personnel Potential on Social Investment. The Case of the Tourism Sector

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In this paper, we explore an econometric model of the dependence of the number of employees working in the tourism sector in Azerbaijan, on the investments in the tourism sector. Based on the results, it has been established that investment in the tourism sector has a significant impact on the increase in the number of workers in the tourism sector for the following year. Also, if annually the tourism sector attracts investments in the amount of one billion manat, this will lead to an increase in the number of employees in this sector by 7.471 people, for the following year.

Keywords: *tourism, social investment, personnel potential, econometric model, regression equation, socio-economic impact, employees, labor market*

JEL Classification: *E22*

1. Introduction

One of the most specific and broader segments of the investment market is to invest in social spheres. All investment projects considered in social projects are aimed at improving the social well-being of the people living in the region, the region and the country, and improving their financial and moral development and cultural-national values. Effective development of social spheres is possible only through activating investment markedly and increasing the volume of investment significantly. The latter is mainly related to the importance of the development of the social field to ensure the overall socio-economic development of the country. Investment in the social field is determined by the following factors: making a decision related to a socially-oriented investment that requires a large amount of financial resources; long-term investment in social fields and not differing its short-term investment from its long-standing commitment; according to the rules, affecting the social field by the social and economic life in other spheres.

The investment problem has always been actual and relevant in the transition to a market economy. Depending on the solution of this issue, a sustainable development of the economy and social spheres is ensured. Investing in capital is a key factor in preventing production decline, ensuring economic growth, and raising competitiveness of enterprises. Lack of investment leads to the loss of sustainable development of the economy. It should be noted that the social role of investment requires more attention. Despite the fact that the

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investment is aimed at the achievement of a high income, the investment creates the basis for the social problems of the society, by implementing its investment project, while maintaining the interests of the society (William, 2001).

In the current article, the tourism area was taken as the goal of the social sphere. The essence of tourism is its socio-economic meaning. Economic sense is the ability to generate income as a field. The tourism area provides jobs, organizes its material resources, and creates appropriate funds. As a result of its activity, it earns profits. The social purpose is to create jobs, develop entrepreneurship and, to generate households in tourism regions relevantly and service sphere according to the needs of the population.

The development of tourism in the world is of great interest in increasing the level of states and civilizations. That is why international financial institutions and organizations are now increasing their interest in the development of tourism services. Tourism service is a large field of labor and opens up broad prospects for the development of small and medium-sized businesses. In general, the development of tourism services results in both the social and economic development of the country's economy. Tourism, in essence, has many advantages as the development direction of the service, unlike other areas, and a major advantages: - Investing in tourism will yield its fruit for a short time. The capital has high turnover. From the economic point of view, the attractiveness of tourism is that the investments in the continuous expansion of service areas are short-term in self-correcting and the conversion of income into the form of a possible currency.

There are favorable natural-climatic conditions, historical monuments and other factors for tourism in Azerbaijan. On the other hand, the relative decline in the value of the manat (foreign exchange) against foreign currencies, including US dollar, has significantly reduced the level of prices for tourism services in foreign currencies in recent years, which has greatly increased the competitiveness of tourism sector in foreign countries in Azerbaijan.

It is known that our country is rich in natural resources (especially with hydrogen resources). However, oil reserves are depleted and world oil prices are unstable. At present, oil prices in the world markets remain low. In this regard, attention is paid to the development of the non-oil sector in Azerbaijan, including the tourism sector. Moreover, the development of the tourism sector contributes to the increase of employment in the country.

It is a well-known fact that the development of each sector, including the tourism sector, is primarily dependent on investments in that area. However, effective analysis of the development of the tourism sector is necessary. Taking into consideration all these factors, it is very important to determine the numerical value of the number of employees employed in the tourism sector in terms of the volume of investments invested in the tourism sector under current conditions.

Relevant researches and results obtained can be used to conduct policies in the relevant government agencies in the tourism sector and to increase the effectiveness of the investments.

2. Literature Review

The approaches to studying social spheres from a variety of aspects have always been in the center of attention of both local and foreign researchers. At the same time, it should be noted that a number of important conceptual and practical issues of social spheres have been widely studied by neo-classical, neo-Keynesian and other world-renowned representatives, including the majority of Nobel Prize laureates in the economy and the IMF, World Bank experts. Although European and American research have been systematically used as a method of evaluating the effectiveness of social investment in INPUT, OUTPUT, Cost-Benefit-Analyzes, Econometric assessment but in Azerbaijan it is not considered in the social sphere (Nadirov, Samadzadeh, Nuriyev, Musayev, Ibrahimov, Alirzayev, Guliyev, Sadikov, Ahmedov, Salahov, Hajiyev, Hasanli, Huseynova, Muradov, Ahmedov, Rahmanov and others). Economics scientists of the country studied various aspects of social aspects have shown exceptional services. World economist scientists Marks, Engels, Smith, Ricardo, Keynes, Mill, Sey, Cob, Leontyev, Richard, Pareto, Rosenstein-Rodan, Nurkse, Hirshman, Bernal and others economics theories and scientific contributions could be noted.

3. Research Methodology

The components of staff training system shape it as a dynamic, adaptive socio-economic system that provides a lifelong education. Factors affecting the processes that occur in the training system are subdivided into separate subsystems. It is important to note the factors affecting all elements of the system:

- the impact of the social environment;
- political and financial-economic situation in the region and in the world;

- activities of regional and local regulatory bodies.

Organizations and enterprises operating in the tourism industry must carry out the evaluation of the professionalism of the personnel. The results of this assessment are transferred to the field employment service by these organizations for further monitoring.

The main purpose of the staff training system and labor market monitoring is to identify the perspectives for the needs of the staff based on the socio-economic potential of the region and to aim at a thorough investigation of the relevance of the processes in the personnel training system.

It is known that investment decisions have a certain impact on revenue generation, including the increase in the number of employees. This is due to the fact that it takes a lot of time to build facilities, installations and other work, and to have the marketplace (advertising, etc.) on time. Therefore, the dependence on the number of employees working in the tourism sector will be assessed in the previous year (s) in the tourism sector. We will consider the following equation of regression:

$$T_{IS} = C(1) + C(2) * T_{INVES}(-t) + u \quad (1)$$

Here: T_{IS} - Number of employees working in specific areas for tourism, namely number of people;

$T_{INVES}(-t)$ – the amount of investment in t- year in specific areas for tourism in the previous year, by million manat; $C(1)$ and $C(2)$ are the parameters of regression equation, $C(1)$ –shows the extent to which the investments made by the parameter in t-years increases the number of jobs in the previous years. Here, the t-time indicator may indicate one or several years ago. $C(1)$ – characterizes by the parameter the effects of fixed factors, which are not considered. Specifically, the value of the $C(1)$ equation in Equation (1) indicates the base level of employees working in the tourism sector, regardless of new investments. u - is a random deviation. u is a set of conditions on the random boundary (conditions of Gauss-Markov). When these conditions are fulfilled, it is said that the values of Equation (1) found in the Minimum Quadratic Method of the Regression Equation (MQM) are consistent, inexpensive and effective. In other words, the econometric model reflected in Equation (1) is adequate and it can be used for analysis and prediction. Note that the evaluation of the t-time lag is determined by imitation in the econometric evaluation (Hasanli, 2014, p.24).

4. Data Collection and Sample

In order to implement econometric evaluation presented in Equation (1) the following official statistics have been collected (Table 1).

Table 1. The main indicators on specific areas of tourism

Years	Quarter	The number of employees in specific areas of tourism, by person	The amount of investment on specific areas of tourism, million manats
2009	I	35755	15.05
	II	37630	175.25
	III	35800	261.90
	IV	35227	75.60
2010	I	35450	81.08
	II	37915	345.75
	III	38105	296.47
	IV	36126	225.90
2011	I	35585	178.02
	II	39100	515.02
	III	38155	458.27
	IV	37560	256.49
2012	I	37402	118.81
	II	41230	517.35
	III	40054	496.98
	IV	36670	345.06
2013	I	38910	42.55
	II	43650	585.05
	III	41858	483.75
	IV	39150	259.65

2014	I	35967	231.68
	II	46546	846.56
	III	48960	750.11
	IV	36071	385.65
2015	I	44133	125.24
	II	54670	315.45
	III	53980	412.65
	IV	45013	210.56
2016	I	32612	28.05
	II	51560	89.55
	III	52056	134.56
	IV	37560	110.84

Source: Azerbaijan Statistics for Tourism (2018)

The econometric model has been formulated using relevant data in Table 1 as a result of econometric evaluation via EViews Application Software Package of parameter of regression equation (1).

$$T_{IS} = 31043.0356552 + 7.47125044955 * T_{INVES}(-1) \quad (2)$$

s. s. (2319.513) (1.634447)
R - squared = 0.839326

Here, the numbers shown under the parentheses below the parameters indicate the standard errors of the summing estimation of the corresponding parameters. R-squared -is the determination coefficient. Since the standard errors of the coefficients of the regression equation are smaller than the values of the parameters (coefficients), we can conclude that the estimations obtained by the Minimum squared parameters are highly reliable.

The estimation of the determinant coefficient indicates that approximately 84% of the change in the number of employees in the tourism industry depends on the volume of investment in the tourism industry, as shown in the following Figure 1's description.



Figure 1. Description of actual estimation (Actual), estimation obtained from the model (Fitted) and the sum of residual estimation (Residual)

Generally, the appropriate statistical properties and tests obtained from the EViews system have shown that the model reflected in Equation (2) is adequate (true) (Appendix 1).

Thus, the econometric model of Equation (2) shows that every million manat invested in the tourism sector in the previous year will increase the number of employees in the tourism sector by more than seven people in the next year. If the tourism sector is invested in one billion pounds annually, this means that the number of employees working in the sector will increase by 7471 per year.

5. Conclusion

Tourism sector is one of the key areas among the types of economic activities which respond effectively to investments. Thus, investments in the tourism sector have a significant impact on the increase in the number of employees who work in the tourism sector. In other words, investments in the tourism sector of Azerbaijan are directly proportional to the number of employees. Every billion manat invested in the tourism sector in our country increases the number of employees, who work in the same sector, by 7471 people.

Therefore, we can state that, tourism is the most multiplicative sector. According to the feedback of our research we can say that the investments give us opportunities to get an effective result in any field of tourism, especially the hotel industry has a multiplicative effectiveness and it takes 73% of hiring from this angle, the correlation of investment and hotel industry is 0.93. During the development of this research, we discovered some setbacks, such as the lack of available statistical data. Moreover, another limitation of the study is related to the tourism revenues that are not noted in the statistical data included in this research..

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Appendix 1. Statistical properties and appropriate adequacy tests obtained from the Eviews Applied Software Package of the econometric model

Regression equation of the model

Estimation Command: LS (T_IS) C (T_INVES(-1))

*Estimation Equation: T_IS = C(1) + C(2) * T_INVES(-1)*

*Substituted Coefficients: T_IS = 31043.0356552 + 7.47125044955 * T_INVES (-1)*

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	31043.04	2319.513	13.38343	0.0002
T_INVES(-1)	7.471250	1.634447	4.571118	0.0103
R-squared	0.839326	Mean dependent var.		40927.50
Adjusted R-squared	0.799157	S.D. dependent var.		4586.913
S.E. of regression	2055.646	Akaike info criterion		18.35577
Sum squared resid.	16902728	Schwarz criterion		18.28636
Log likelihood	-53.06731	Hannan-Quinnriter		18.07790
F-statistic	20.89512	Durbin-Watsonstat		1.072117
Prob (F-statistic)	0.010252			
Stability test of residual dispersion (Heteroskedasticity Test: Breusch-Pagan-Godfrey)				
F-statistic	0.094762	Prob. F(1,4)		0.7736
Obs*R-squared	0.138854	Prob. Chi-Square(1)		0.7094
Scaledexplained SS	0.024018	Prob. Chi-Square(1)		0.8768

