

Factors Affecting Investments in Tourism Enterprises

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Abstract:

This article analyzes the influence of factors such as cash payments, the amount of fixed assets, costs of production and revenue from sales on the investment volume of tourism enterprises operating in the Samarkand region, Uzbekistan. The results of the article can be used by managers for strategic planning of production of tourism services and investors.

Keywords: : Investment attractiveness, capital expenditures, tourism, econometric methods, statistics

INTRODUCTION

Attracting investment in the development of the tourism services market is a strategic area of development programs for both country and regions with tourism and recreational potential. Investment on the tourism industry and tourism infrastructure will increase business activity, and thereby solve social problems as well as increase the competitiveness of domestic tourism. The systematic approach that integrates the efforts of business, local authorities, government and relevant departments is relevant here. Tax incentives for the development of the tourism business will increase its attractiveness not only for local, but also for foreign investors [1]. Therefore, it is necessary to determine the impact of tax payments on investments, which in the future will bring economic benefits not only to tourism companies, but also to destinations. The volume of investments is influenced by many factors, such as: revenue from sales, tax payments, amount of fixed assets and cost of production. Together these factors influence the investment attractiveness of the businesses and guarantee higher profits to tourism organizations. In the similar studies of analysis of factors influencing investment, traditional statistical methods: groupings, absolute and relative values,

and average values were used. However, these methods do not properly reflect the actual impact of factors on dependent variable. Econometric methods allow simultaneous use of traditional techniques and combine qualitative with the theoretical analysis, to detect the existence of correlation among factors and impact of these factors on the amount of investment. Identification of all unexplored factors and their targeted use to increase investment attractiveness is an essential element in the development of roadmaps and strategic plans for regional development. Economic and mathematical methods of analysis create great opportunities for studying the strength of communication and identifying patterns and empirical observation of complex socio-economic phenomena[7]. At present, a huge number of software products have been created that accelerate the application of these methods and allow the selection of the most significant forecasting model.

LITERATURE OVERVIEW

In our study, our aim was to develop a model for determining the influence of factors on increasing the investment attractiveness of a tourism organization on the basis of existing resources involved in tourism. In this regard, the scientific

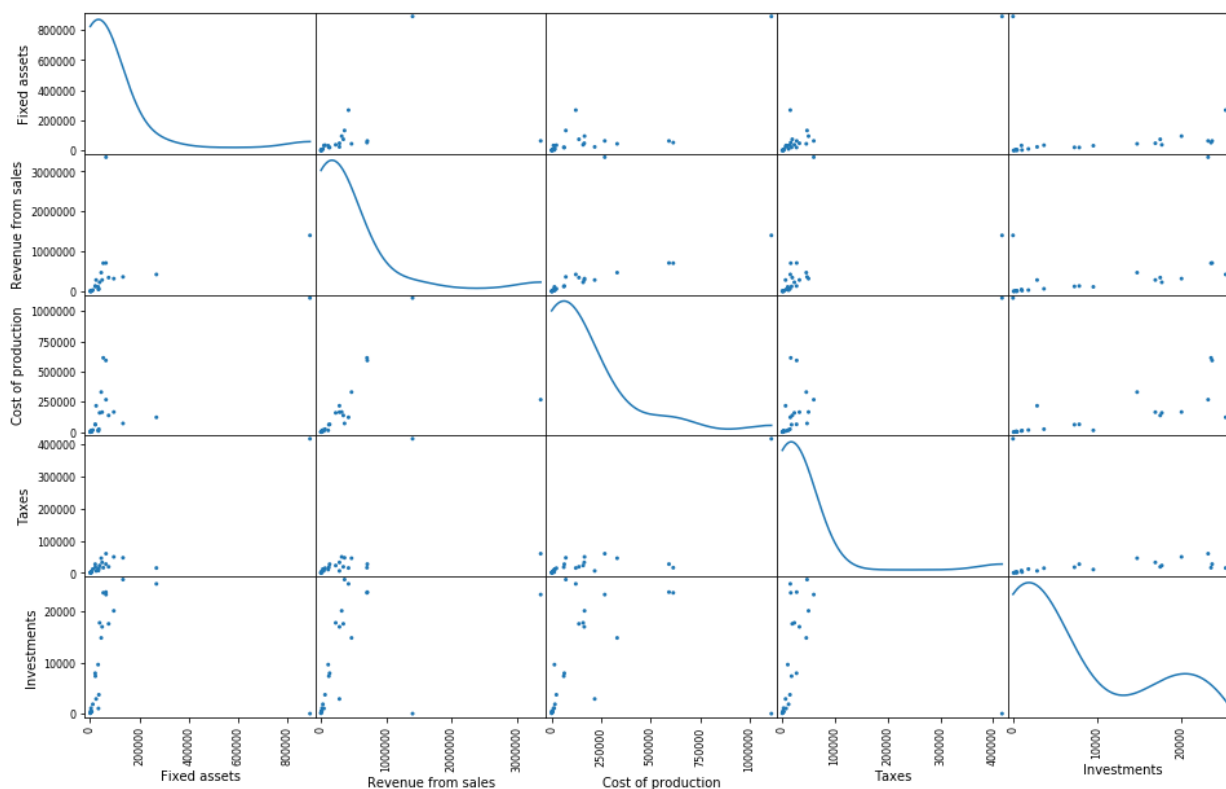
works of a number of scientists such as O.E.Bashin, M.Ivanova , Andrew F.Siegel , R.A.Shmoilova , B.Sh.Safarov, M.K.Pardaev, J.M. Wooldridge, whose works were fundamental in the dissemination and development of economics in Central Asia.

Empirical analysis

Our aim was to find an analytical expression that showed how Y was driven - the investment volume depended on the values of $[x]_{-1, x_2, \dots, x_n}$ factors. In our study, these are the revenue from

sales, tax payments, the amount of fixed assets and cost of production. In other words we should determine function $Y=f(x_1, x_2, x_3, x_4)$. We used data of 25 touristic companies operating in Samarkand region at least five years. First of all, before starting the regression analysis, it is necessary to find the correlation among factors and dependent variable, namely observe the correlation matrix[8]. In order to do that we decided to use python programming language. In Figure 1, the scatterplot of correlation matrix is illustrated.

Correlation matrix. Figure 1



From here, we can see that there is no strong linear relationship between any factors, which is crucial condition for building reliable econometric model. The main method for solving the problems of finding the parameters of the forecasting equation is the ordinary least squares method developed by K.F. Gauss [5]. In parameter prediction, the following equations are the most common and studied : The linear equation is $Y = a + b_1 x_1 + b_2 x_2 + \dots + b_n x_n$;

The parabolic equation is $Y = a + bx + cx^2$

Hyperbolic equation - $Y = a + b/x$;

Logarithmic - $Y = a + b_1 \ln x_1 + b_2 \ln x_2 + \dots + b_n \ln x_n$;

When studying the dependence of the price of a tourism product and factors, we used the linear multivariable regression, not only as the most mathematically sound, but also as the form provided by the software packages for the PC. So as to identify factors affecting the volume of investments, we have studied the activities of 25 functioning tourism organizations that have existed on the market for 5-10 years located in Samarkand region. The tours that were offered by these enterprises were competitive

and of good quality. (See appendix 1). A typical tourism product includes the following identifying elements: name, route, duration of the tour, type of tour, tour program, cost structure and price of the tourist product for 1 tourist in US dollars. The investment attractiveness of an organization depends on many factors: the legal climate in the country, the

tax system, the value of assets, sales volumes, the list of clients, and staff qualifications. In the process of observation, four main factors were identified that affect investment attractiveness: the revenue from sales of the company, the cost of production, tax payments, and the amount of fixed assets. (Table 2)

Table 2.: Factors affecting the price of a tourism product.

No.	Variable	Conventional sign
1	Investment volume (dependent variable)	Y
2	Revenue from sales (thousand soums)	x_1
3	Cost of production	x_2
4	Tax payments	x_3
5	Amount of fixed assets	x_4

Using the Excel program, we obtained the results of a regression analysis of data on the price of a tourism product. High coefficient of determination indicates a strong positive relationship between the

identified factors, the data is rather tightly grouped (with a small random spread) around a straight line directed up and to the right.

Table 3.:Regression Analysis results

Regression statistics	
Multiple Regression Coefficient R	0.708
Determination coefficient R squared	0.501
Normalized R squared	0.401
Se standard error	7619.07
Observations	25
constant	5998.87
Coefficient x1	0.007
Coefficient x2	0.02
Coefficient x3	-0.21
Coefficient x4	0.06
P>t1	0.01**
P>t2	0,04**
P>t3	0.005***
P>t4	0.05 **

The established factors account for 70.8 % of the variability of investments in tourism, and the remaining 29.2 % are explained by the influence of other unidentified factors (Table 3). The standard error of the estimate $Se = 7619.07$ thousand soums

indicates the size of the discrepancy between the actual amount and the projected amount of investment. The regression equation in our case has the form:

$$Y = 5998.87 + 0.007x_1 + 0.02x_2 - 0.21x_3 + 0.06x_4;$$

The regression equation implies that 1 000 soums increase in taxes , reduces the amount of investments

by 210 soums, while increment in revenue from sales by 1000 soums grow investments by only 7 soums. In table 3 , the P value for each factor is below 5%, which indicates the significance of the model and the correct selection of factors.

The impact of tax payments on the development of tourism and on the investment activity of a business is obvious. For example, an increase in the amount of fixed assets (capital expenditures) by 100 thousand soums, investments will grow by 6000 soums . Since long-term investing is mainly in the form of capital capital expenditures. At this stage, the development of tourism in Uzbekistan becomes

relevant to the construction of hostels, restaurants of national dishes, the purchase and lease of vehicles (comfortable buses, double deckers). Tax incentives, together with rational expenses for advertising and promotion of services also stimulate further development. Joint efforts of the local community, local authorities to build modern infrastructure will ensure a surge of foreign investment on tourism sphere. And this is the strategic task of reforming the economy at the present stage. Thus, to determine the impact of tax payments on tourism investment, we have developed the following multivariable model:

Table 4.

No.	Dependent variable	Econometric model	Model type
1	Investment volume	$Y = 5998.87 + 0.007x_1 + 0.02x_2 - 0.21x_3 + 0.06x_4;$	Multivariable linear model

The above given model can be used to forecast the amount of investments in tourism companies and can serve as a useful analytical tool for policy makers. Applying this model to planning tourism business, as well as evaluating long-term strategies will speed up the development of tourism sphere in the region. Thus, the inclusion of this model into regional development programs in future will ensure a consistent increase in the competitiveness of destinations.

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Appendix 1

1. Information on the activities of tourism organizations in Samarkand region¹

No.	Tourism company	Number of employees	Investments	Revenues from sales	Costs of production	Fixed assets	Tax payments
1	MFZ "Sogd tour"	17	17724.4	226,24	159626	38191.8	22970
2	Expyr Dutemp	6	7316.1	121935.5	61,991.6	21066	17,645.3
3	Hsichf Shark	16	7889.6	133168	64562	20298	27106
4	Uzbek . For.yu	3	1008,666	46406	9754.24	33449.7	7236.1
5	Timur	2	468.3	6660	3988,4	2175	1500
6	Starlight	3	149.3	2488.5	1536.84	770	770
7	Sarbon tour	10	23588	704736	614469	52930	16139
8	Orient Star Hotel	25	23239.2	3359941	268720	64080	59764.7
9	Nusratillo	3	1066.8	17778.6	13248.8	3451	2500
10	Legend	17	14781.2	468383.6	331,335.1	44,757.4	45621.2
11	Crown	1	72	1200	700	426	157.2
12	KATIA	18	23717.1	709578	592996	63,667.5	27365.1
13	Caravan	5	2867.7	283,332.9	218013	24104	6261
14	Jamshed	5	1831	30519	17302	10714.4	12000
15	Darves	6	374.3	12457.3	5973.8	6063.8	2036.7
16	Barack	2	441.95	6610	1785.8	4350.97	2214.2
17	Saminthur	6	3686	63381	24607	35202	14642.8
18	Mauso	22	20071	317956	166568	95572	49835
19	Samarkand Plaza	13	17534	343032	138369	74667	18970.9
20	Sogd tennis Ball	8	9565.1	111896.5	14763.1	32100	10457.5
21	Alijon	20	25331	422,178.6	122564,08	268,013.6	15255.07
22	grand samarkand	18	26171.1	361454.9	72143.8	132926,1	47075.4
23	fat travel service	3	337.2	8333.8	3892.6	4026.2	2206
24	constant itol	16	16951	283986	165260	48330	32553
25	Malika	119	0	1401461	1109867	889746	417,086.3