EVALUATION OF PUBLIC INVESTMENT IN INFRASTRUCTURE AND IMPACT ON SOCIAL INDICATORS

(The case of Saranda)

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ABSTRACT: In recent years has increased attention to the role of governments and the positive impact of public spending in economic development of the countries. Fiscal policy has an important role in the economic development process. in developed countries and developing countries. Also, attention is focused on the problems of their evaluation. However, evaluation of the efficiency of public investment can not be measured directly. Often, it is unclear what will be the results and this is a problem associated with public investments. The impacts of public investment are essential to economic and regional development. Decisions about public investment depend to a large extent by the effects of the economic, social and environmental expected. In this paper is treated evaluation of public investment on the basis of their impact on social indicators, at the local level. In the first part of this paper is treated the theoretical aspect of public investment, identification of social indicators and evaluation of public investment on the basis of these indicators. In the second part we have treated methodology for collecting and processing data. In this regard are used primary data through a questionnaire and for their processing is used SPSS version 21 (SPSS v21). Data analysis represents the third part of the study, namely through descriptive and graphical analysis, which expresses the connection of independent variables with the dependent variable. The perception of satisfaction of the population to social indicators, represent independent variable that we have included in our study, while the perception of the population for evaluating the efficiency of public investment represents the dependent variable.

KEYWORDS: PUBLIC INVESTMENT, EFFICENCY, PUBLIC INFRASTRUCTURE, SOCIAL BENEFIT, SOCIAL INDICATORS, SATISFACTION.

I.   Introduction

The importance of public investments according to their role in economic and social development of countries is one of the challenges to every government of country. Especially, objectives of development that have to be achieved in developing countries are achievement of higher and better standarts of living for their community, and an achievement of a reasonable level of economic and social equality. These economic and social objectives could be realized only by the state. The fiscal policy plays an important role in process of economic development at the developed and developing countries. The public expenditures are an instrument of promotion of economic development on 2 aspects; (1) quantitative and (2) qualitative. According to the quantitative aspect, it aims the growth and the expansion of volume of investments in the public and private sector. According to the qualitative aspect, it aims the content, composition and investment flows in such a way that they will be efficient to achieve the maximum of social and economic effects[1]. They affect, directly or indirectly way, in all the economy and the society in general, in all of economic entities and industries, people and families, and government.

The decisions for public investment depend enormously from the expected economic, social and environmental effects. Efficient analysis shows the relationship between the inputs and output. The efficiency and the methods of its measurement in public investment have a great importance for economic policy-makers. However, the measurement of public investment efficiency is still a conceptual challenge. The problems begin because of the public investments have too objectives and for this reason the results of public sector aren't sold in the market, which means that the data and the prices are not disposal and also the public goods are difficult to measure in the monetary terms. In macroeconomic view the appreciation of using the public investments depends from the level of economic and social indicators that they affect.

II.   The impact of public investments in social profit

The main objective of using the public investments for every central and local government is above all the growth of the welfare level of the people. This is achieved, not only with offering of the public goods to their people, but also by the growth of the people's income level or their social profitably. The investments in public infrastructure are a direct factor in social profitably, providing services and appropriate networks. Also, the development of the infrastructure has an important social role in the poverty improvement, helping the income allocation and the mitigation of the environmental degradation. The investments in infrastructure have a considerable economic and social impact for the community, where they are realized through the delivery of the benefits. The construction of a road serves the community for a long time and contributes in its standard living growth. Thus, the life standard of people is related by investment effects, in reduction the traffic jam, shortening of the time travel, the decrease the number of accidents and operative costs of car repairments, in the access of community toward the centralized services, etc (Aschauer 1989a, Holtz-Eakin & Schwartz 1995a, Munnell 1992).

The poverty and the income inequality are frequent occurrence in devopling countries. The poverty is defined as inability of a person to achieve a minimal standard of life (World Bank, 1990). The poor people live in an unhygienic environment, have minimal frequency of the travel or the communication and a limited access with the public necessary infrastructure. The public investments in infrastructure could improve the poverty. Offering such services in water and sanitation provides a significant and directed effect reducing morbidity and mortality. The transport and infrastructure services are considered as a possibility to increase the level of employment. In urban area, the public infrastructure of the transport and the communication help people at the outer edges of the cities, providing them an access to the centralized services, the employment and the social activities such as sport and free leisure (World Bank,1994). Also, the construction and the infrastructure maintenance help in the poverty reduction providing employment[2]. Economic growth and its effects in higher income per capital provides better standard of life for people. It exists a general consensus that in long-time the growth and the development could help to eliminate the poverty.

Maximization of these benefits with regard to social and economic impact is depending by the efficiency, which is an important key to transform the public investments to the output. The

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[1] T. Mathew, *Economics of Public Expenditure,* Vora and Co publishers Pvt. Ltd., Bombay, 1972, P. 93

[2] (Bordi Kombëtar Zhvillim Ekonomik dhe Social 2004)

policymakers at local government, as well as those at centre government and the stakeholders need to operate with efficiency concept of using the public investments. **The achievement of efficiency level of public investments, in the sense that how much these public investments have affected in economy, or in social profit gives an information that stakeholders must revise the decisions in selection of alternatives for efficient use of public investments.**

III. Methodology

In this chapter is explained the theoretical and practical aspect of necessary data collection for successful realization of this paper. Since the main focus of this paper is identification and finding the causal relationships between efficiency of public investments and the social factors, we have taken as a case study the touristic city of Saranda. The casual relationships (cause-result) are relationships, which are considered as been realized when are founded and analyzed the statistical relationships among the measurable variables.

There are many methods to collect the data, such as surveys, experiments, analysis of historical data and the case studies (Gharry & Gronhaug , 2005 cited by Kociu, 2015[3]). For the more, it is emphasized that the case studies are valuable when is needed to obtain the quality data in order to explain better the main problems of this study.

For the successful realization of the study are collected, also, the primary data through a questionary, which fulfils all the requests of a direct survey with people from the environment, where the study is concentrated. The population, which is the object of our study, includes all the families which live on the area of "Road Five", and the businesses which have their headquarters and their activities in this area. Part of this survey have been and the people out of this area, but they have their businesses in this area or carry out their daily activities, too. In this population are not participating these businesses or families which don't have the above mentioned relationships with 'Road Five'.

The determination of size of selected sample is one of more important part of the study. The selected sample should represent the population taken in the study by the view of characteristics that will be studied. Blumberg et al (2005) have defined the sample as a part of population and chose carefully to represent all population. The selection of the sample has a particular importance, because it would be impossible and ineffective to study all population, which in our study include about 1800 families and 300 legal business entities. In our study the sample is selected occasionally by the population.

The table 3.1 shows the total number of population separated by two elements: (1) families and (2) businesses. If we defined the total number of population in our study, it will be easy to determine the size of selected sample.

Table 3.1. *The family and business number*

Total number	Families	Businesses
2,098	1800	298
100%	86%	14%

The right definition of sample size is done relating to Slovins formula[4], by determining at the same time a mistaken interval between 5% and 10%.
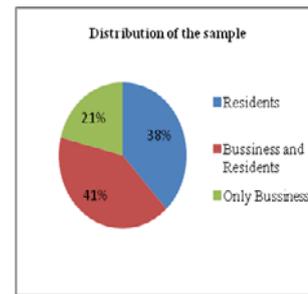
n - the sample size, which will be study

N - the total size of population, from which will be selected the sample

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[3] Kociu, L. *"Identification and Assessment of SMEs Risk –Case study:Gjirokastra Region"*, Dissertation Thesis, Tirane, 2015.
[4] http://www.statisticshowto.com/how-to-use-slovins-formula/

e - margin of mistake

Figure 3.1. *The distribution of sample for interview*

By accepting the smaller margin of mistake, $e = 0.05$, it is chosen a sample by 140 people:

$$140 = \frac{2100}{1 + 2100 x (0.05)^2}$$

By realization of interviews was seen that the distribution of interviewed people was the right representative of population (figure 3.1)

### IV. Graph analysis of social indexes and efficiency to public investments.

The chart 4.1 represents a distribution to population according to standard of life. According to this chart we see that the biggest part of population, about 65% to it, have agreed for a average level of standard of life (relatively reach), about 11% of population have agreed to a high level of standard of life (reach and too reach), and other part of population, about 24% have agreed for a low level of standard of life under the minimum accepted average level of standard (relatively poor and too poor).

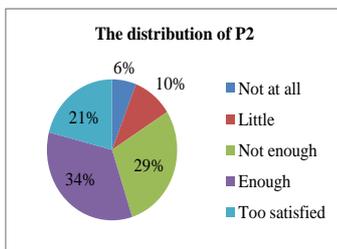*Figure 4.1.* *The distribution of population according to P_1*
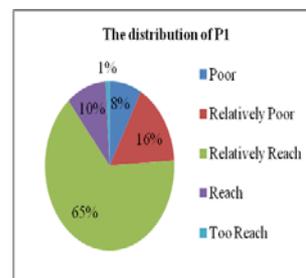
The chart **4.2.A** shows the distribution of negative perception and the chart **4.2.B** shows the distribution of positive perception to **P_1** for the efficiency of "Road Five" investment. According to the chart (A) results that about 80% of negative perception for efficiency of public investment consists from the population, which are in average level and under-average level of standard of life. While, in the chart (B) results that about 90% of positive perception for efficiency of public investment consists from the population, which are in average level and under-average level of standard of life. It comes up that negative and positive perception for efficiency of public investment from population with high level of standard of life, where in the chart (B) the positive perception consists only 1% of the total, while the negative perception consists 4% of the total.

Figure 4.2.A-B. *The distribution of perceptions of P_1 for efficiency*
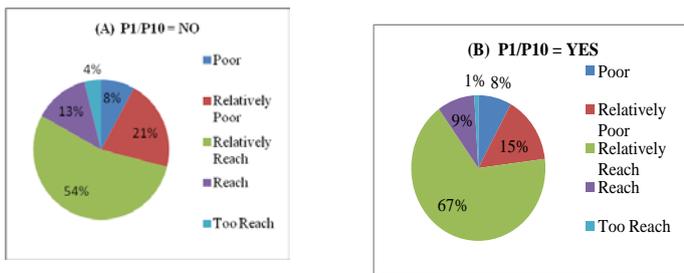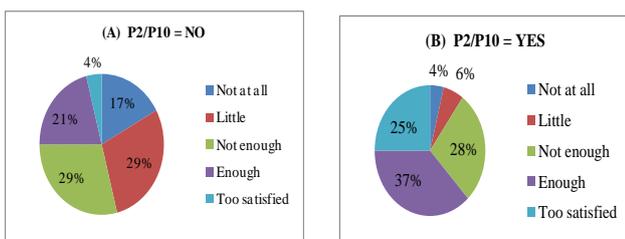

The chart 4.3 represents a distribution to population by the answers, that they have given related to **P₂** variable, which explains the perception in improvement of drinking water providing. According to this chart, it results that the biggest part of population, about 58% of it, is answered for a high and on average level to satisfaction for improvement of drinking water providing after the investment in public infrastructure. While, a small part of population, about 16% of it, is answered for a low and under-average level of satisfaction for improvement of drinking water providing after the investment in public infrastructure of "Road Five", and the other part o population, about 26% of it, is answered for a average level of satisfaction for this service.

Figure 4.3. *The population's distribution according to P_2 perception.*

The chart (4.4.A) shows the distribution of negative perception and the chart (4.4.B) shows the distribution of positive perception to P2 for investment efficiency to "Road Five". According to the chart (A), we see that about 46% o negative perception for public investment efficiency is consists of population, which perceives an under-average level of satisfaction for improvement of drinking water providing. The population with an average level of satisfaction for improvement of drinking water providing consists 29% of negative perception for efficiency. While in the chart (B) results that under-average level of satisfaction for improvement of drinking water providing is composed by only 10% of positive perception. Also, in the chart (B), this part of the population with a high perception level for improvement of drinking water providing results that positive perception includes 62% of the total, while negative perception includes only 25% of the total. This shows for a positive relationship of perception to population for efficiency and the satisfaction level of one of the indicators of social profitably, such as drinking water providing.

Figure 4.4.A-B. *The perception distribution to P_2 for Efficiency*

The chart 4.5 shows a distribution to population according to their answers regarding to P8 variable, which explains their perception for centralized services. According to this chart, we see that the biggest part of population, about 41% of the total of answers

consists are expressed for a high level (**affects significantly** and **affects too much**) and on-average level of satisfaction for centralized services after the investment in public infrastructure. While, about 20% of the total are expressed for a low level (**affects few** or **not at all**) and under-average level of satisfaction for centralized services after the investment in public infrastructure "Road Five" and about 38% of the total are expressed for an average level of satisfaction for this service.

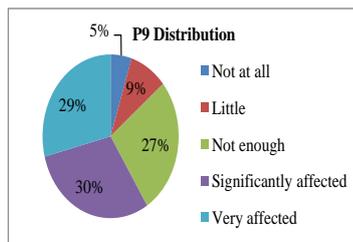*Figure 4.5.* *The distribution of population according to P_8 perception.*
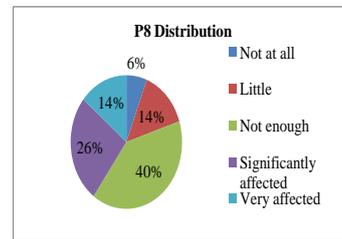
The chart (4.6.A) shows the distribution of positive perception and the chart (4.6.B) shows the distribution of negative perception of P8 for investment efficiency to "Road Five". According to the chart (4.6.A) comes up that 58% of negative perception for efficiency of public investment is consisted by the population with an under-average level of satisfaction for centralized services. While, the population with an average level of satisfaction for centralized services consists about 34% of negative perception for efficiency of public investment. Meanwhile in the chart (4.6.B) results that under-average level of satisfaction for centralized services is consisted by only 12% of positive perception. What comes up in this analysis is the negative and positive perception for efficiency of public investment that the population with a high level of satisfaction for centralized services have, where according to the chart (4.6.B) the positive perception include 47% of the total, while the negative perception includes only 25% of the total. This means for a positive relationship of perception to population for efficiency and the satisfaction level of one of the social profitably, such as the access to centralized services.

*Figure 4.6.A-B.* *The perception distribution to P_8 for Efficiency*
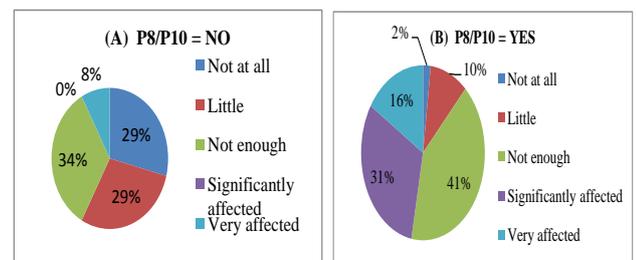
The chart **4.7** shows a distribution of population according to their answers, which they have given in conjunction with **P₉** variable, which explains the population perception for the impact of the public investments, such as in infrastructure, in tourism field, etc. According to this chart comes up that the biggest part of population, about 61%, are answered for a high and on-average level of impact to these public investments in tourism development, other part of it, about 14%, are answered for a low and under-average level of impact to these public investments in tourism development, and the other 25% of population are answered for an average level of this impact.

Figure 4.7. *The distribution of population according to the perception of P₉*

The chart (**4.8.A**) shows the distribution of negative perception and the chart (**4.8.B**) shows the distribution of positive perception to **P₉** for investment efficiency to "Road Five". According to the chart (4.8.A) results that 46% of negative perception for efficiency of public investments is consisted by the population with a low and under-average level of perception for the impact of such investments in tourism development. The population with an average level of perception for the impact of public infrastructure investments on tourism development consists about 17% of negative perception for efficiency of public investments. While, in the chart (**4.8.B**) results that the under-average level of perception for the impact of public investments such as in infrastructure for tourism development, consists only 8% of positive perception. What comes up in this analysis is the negative and positive perception for efficiency to public investments of population with high level of perception for the impact of public investments, such as one of infrastructure on tourism development, where according to the chart (**4.8.B**) the positive perception consists 64% of the total, and the negative perception about 37% of the total. This means for a positive perception of population for efficiency to public investments on tourism development.

Figure 4.8.A-B. *The distribution of perception to P₉*
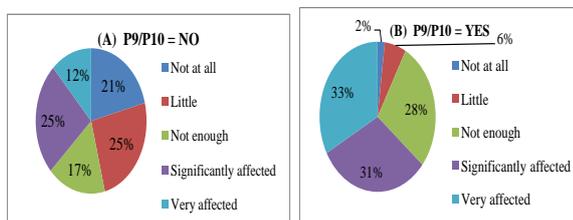
V.　Conclusions

‡　The use of public investments, first of all, must be oriented in evaluating and increasing the efficiency of them, achieving the goal for maximization of community welfare.

‡　The local public managers should appreciate the efficiency of public investments and to use all information related with them. In this way they should re-appreciate the decisions on the selection of alternatives for efficient use of public investments.

‡　The central governments, and those local, except the economic indicators should manage the efficiency of public investments in others objectives, such as the poverty reduction, etc.

‡　The analysis, the identification and the assessment of indicators of public investment efficiency are necessary for the maximization of their effects in social and economic aspects.

‡　The achievement of efficiency level of public investments, in the meaning that how these investments have affected in the economy or in social welfare, gives important information for stakeholders to revise their decisions to select the best alternatives for efficient uses to the public investments.

‡　The increase of standard level of life, which in our paper was appreciated by the level of social indicators such as the access to central public services, drinking water supply, travel time reduction, etc, requires first of all the increase of efficiency to public investments.

‡　The utilization of infrastructure public investments on coherence with the communication tools for central services increases importantly the positive perception of efficiency by the community side.

‡　The increases of level of life, according to our questionary about 20% of interviewers are on the average level of life, requires first of all the increase of level of public investments on quality aspect.

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