BUDGET DECENTRALISATION AS A FACTOR FOR THE SIMULTANEOUS DEVELOPMENT OF MUNICIPALITIES AND THE INDUSTRIAL BUSINESS[1]

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Abstract: The article presents the results of a study on budget decentralisation and its effects on the development of municipalities and the industrial business. The objective is to reveal the relationship and interdependence between municipalities' own-source revenues, which are characteristic of their financial and investment policies, and the extent to which industries are developed on their territories. The development of the industrial business is not directly affected, however, by the investment policy of the municipalities. Nevertheless, it contributes greatly to the increase of their own-source revenues.

Key words: budget decentralization, financial decentralization, fiscal decentralization, budget process, investment policy.

JEL: H72, H61, H54.

[1] The authors' contribution to writing the article is as follows: Assistant Prof. Denitsa Zagorcheva – the main body of the article and the conclusion; Associate Prof. Yordanka Velcheva, PhD – the introduction and the study - based conclusions.

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Introduction

Decentralisation is a multi-faceted vertical transfer of responsibilities and resources from the state to the local authorities. This process allows the local authorities to have considerable autonomy to manage and administer their revenues, plan and reduce their costs and control the overall budget process from the collecting to the spending of the resources.

In this respect the American economist George Stigler recommends to *"... give each governmental activity to the smallest governmental unit which can efficiently perform it...*" (Stigler, 1957, p. 212).

Decentralization is, therefore, a process of downward redistribution of functions, authority and resources.

The main premise is that decentralization, on the one hand, makes products and services available and more easily accessible to consumers. On the other hand, it saves ("economises") the costs and losses that arise under conditions of centralization (Brusarski, 2007, p. 217).

Thus, decentralization is a transfer of a set of responsibilities and resources to the local authorities. It is also an autonomous local governance mechanism tailored to the needs of the population and financed by available resources (Vazquez, 1999).

According to a report of the Ministry of Finance from 2005, the financial decentralization is a process of transferring resources, authorities, and responsibilities from the centre to the local structures. This process must lead to the functioning of a more balanced and effective municipal policy whose results will facilitate the achievement of the goals of a local government that offers to the citizens adequate pubic services that meet their needs.

The purpose of this article is to study the impact of local revenues in the municipal budget resulting from the process of decentralization for the simultaneous development of the municipalities and the industrial business operating on their territory

To achieve this goal, the researchers will:

- study the effect of the municipalities' local revenues on their investment costs;
- study the relationship between the municipalities' investment costs and their development, i.e. infrastructure, public institutions and services, which contribute to the development of the industrial business on their territory;
- research the inverse relationship, namely the impact of the industrial business operating on the territory of the municipalities on the share of their own-source revenues in the total municipality budget.

The conclusions are based on regression and correlation analyses of data from the last published reports (for 2014) of the 27 municipalities (district centres) in the country.

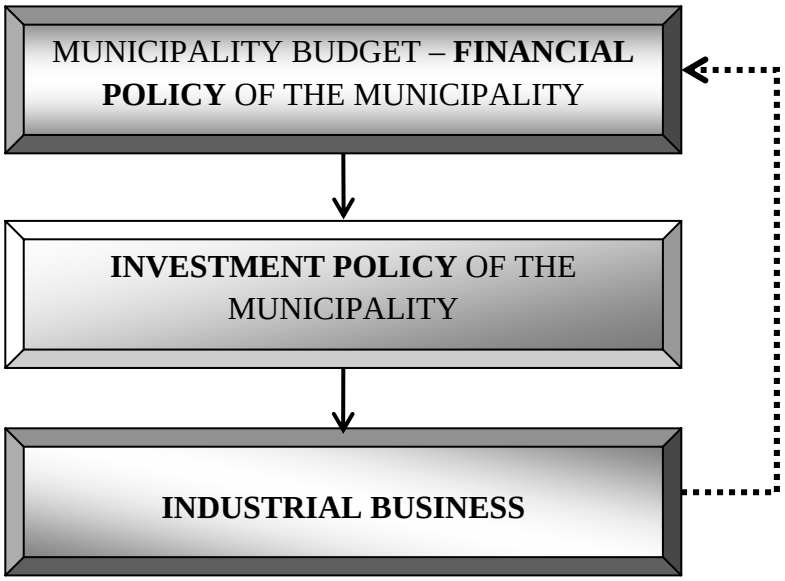
The main hypothesis of the research is that decentralization provides a higher relative share of local revenues for the municipalities. As a result, they are better-developed and can provide better conditions for the development of industrial business on their territory. The interrelationship and dependence between the local revenues of the municipalities, their investment costs and the industrial business is outlined in Figure 1. With reference to this, three hypotheses have been put forward:

Hypothesis one: the financial policy of the surveyed municipalities determines to a great extent their investment policy.

Hypothesis two: the investment policy of these municipalities contributes to the creation of a better local environment that will stimulate the development of the industrial business on their territory.

Hypothesis three: the development of the industrial business on the territory of the surveyed municipalities is an important factor for their financial policy in general and increasing their revenues in particular.

Figure 1. **Structure of the interrelationship between the financial and investment policy of the municipalities and the industrial business**



1. Formation of the municipal budget – types and share of the own-source revenues

The budget is a framework of the planned revenues and costs of the state and the local authorities for the particular year. The objective of the budget is to secure the provision of goods and services to the population and the business by maximizing the effective use of the available resources.

The main normative document that regulates the preparation, adoption and financial reporting of the municipal budgets is the Public Finance Act (PFA, 2013). When the statement of revenue of the municipal budget is prepared, the policy referring to the **own-source revenues** is if great importance. These revenues can be collected from various sources such as taxes, fees, management of municipal property, services offered by the municipality, rights granted by the local authorities, revenues and incomes from property, etc.

The main sources of own revenues are the local taxes and fees regulated by the Local Taxes and Fees Act (LTFA, 1997). The process of decentralization and the amendments to the LTFA have given the local authorities the possibility to administer and collect the local taxes and fees independently. This inevitably has led to an increase in the actual revenues getting into the municipal budgets.

The locally implemented financial policy of the municipalities is most clearly manifested through the own-source revenues and their share in the structure of the municipalities' total revenues. This big share indicates a high degree of autonomy and effectiveness in the management of the local finances.

Table 1. **Own-source revenues of municipalities as a share of their total revenues**

Municipality	Total revenues for 2014 (BGN)	Own-source revenues for 2014 (BGN)	Own-source revenues as a relative share of the municipalities' total revenues (in %)
1	2	3	4
Blagoevgrad	50003697	18317567	36.63
Burgas	166949627	76227948	45.66
Varna	241183833	121720891	50.47
Veliko Tarnovo	65879423	22715744	34.48
Vidin	33529385	7603876	22.68

Vratsa	55864715	12935066	23.15
Gabrovo	37230604	11890317	31.94
Dobrich	54421592	19966273	36.69
Kardzhali	53808146	11989165	22.28
Kystendil	39185965	9060363	23.12
Lovech	32305618	8350371	25.85
Montana	31578700	9997845	31.66
Pazardzhik	67599662	22845571	33.80
Pernik	51562122	18111757	35.13
Pleven	74331316	26879437	36.16
Plovdiv	255199296	106144343	41.59
Razgrad	42639286	14082620	33.03
Rousse	114731816	34024153	29.66
Silistra	31410788	9184448	29.24
Sliven	77260101	24858154	32.17
Smolyan	38001272	7549031	19.87
Sofia	1025569281	505470349	49.29
Stara Zagora	103683565	42579462	41.07
Targovishte	41977792	10846069	25.84
Haskovo	56403893	25751755	45.66
Shumen	60514663	19618185	32.42
Yambol	48846180	13030069	26.68
Total	2951672338	1211750829	41.05

Source: NAMRB[4], http://www.namrb.obuchi-se.org,[5] calculations made by the author.

The average level of the share of own revenues in the total revenues is 41.05%. The reported data shows the wide range (more than 30 percentage points for some of the municipalities) of the relative share of own – source revenues for the particular administrative units.

The data in the table clearly indicates the inequality between the municipalities caused by the different potential they have for generating own – source revenues. On the other hand, the total revenues do not also guarantee the optimal provision of goods and the complete satisfaction of the population's needs.

[4] National Association of the Municipalities in the Republic of Bulgaria, http://projects-namrb.org, last accessed on 27.02.2017.

[5] An Internet – based platform for training the local authorities supported and maintained by NAMRB, http://www.namrb.obuchi-se.org, last accessed on 27.02.2017.

2. The investment policy of the municipalities as a function of their financial policy (own-source revenues)

To measure the degree of correlation between the own-source revenues of the municipalities as a factor for their investment policy we have performed a correlation analysis: „*The correlation coefficient measures the strength of the relationship or the dependency between the researched indicator*" (Valchev & Yordanova, 2004, p.159). The incredibly high level of correlation, namely the coefficient of 0.987, reveals that the revenues of the surveyed 27 municipalities and the volume of their investments are heavily dependent on each other.

For the municipalities the **investment activities** have a two-fold aspect, i.e. to attract potential investors and to implement their investment policies. The former is of significant importance for the overall development of the municipalities because in this way the local authorities can attract specialists, secure employment and stable incomes for the local population and thus increase their standard of living and purchasing power, and ultimately improve their social status.

The implementation of the investment policy of the municipalities refers to the investments made by them. These investments may be made to improve the social and technical infrastructure; develop modern infrastructures; build modern housing and capital construction; establish municipal businesses and facilities.

The main constraints to the investment activities of the municipalities are the capital expenditures for infrastructure they have to make with reference to their financial and, in particular, their fiscal potential.

There is no balance in the development of the municipalities in Bulgaria, which is caused by their unequal financial opportunities. However, in order to achieve parity in the allocation of local products and services, the government has regulated a number of transfers to the municipal budgets.

Therefore, the municipalities have to justify their investment policy based on two main factors, namely the volume of their revenues and investment costs. The volume of the total revenues is indicative of the municipalities' capability of investing in infrastructure, technical equipment and urban development. Territory is a quantitatively fixed indicator and its area determines the needs of maintenance and development. These requirements, however, are not always directly dependent on the financial resources of the municipalities.

When measuring the relationship between the investment policy and the municipalities' revenues we apply a regression analysis where we study

the effect of the factor variable X, i.e. the revenues of the municipalities, on the resultative value, i.e. their investment costs.

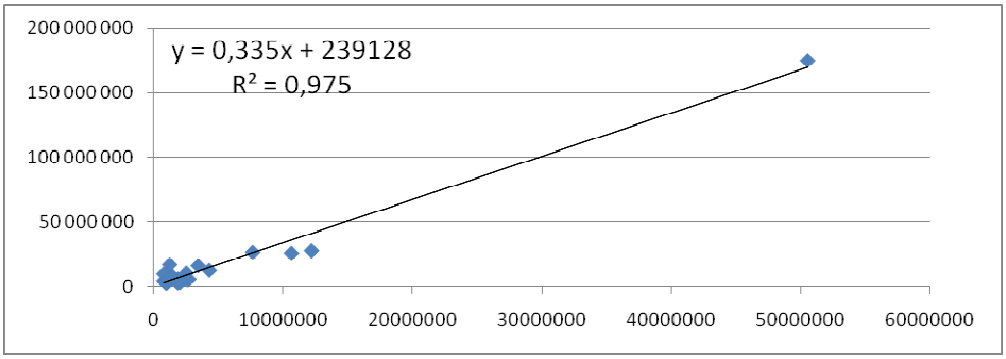
Table 2. **The share of investment costs in the total revenues**

Municipality	Own-source revenues for 2014 (BGN)	Investment costs of the municipalities for 2014 (BGN)	Investment costs as a share of the total revenues (in %)
Blagoevgrad	18317567	5 615 412	30.66
Burgas	76227948	26 294 304	34.49
Varna	121720891	27 510 295	22.60
Veliko Tarnovo	22715744	6 093 259	26.82
Vidin	7603876	4 134 393	54.37
Vratsa	12935066	8 990 321	69.50
Gabrovo	11890317	5 074 897	42.68
Dobrich	19966273	2 636 755	13.21
Kardzhali	11989165	16 789 011	140.03
Kystendil	9060363	9 330 862	102.99
Lovech	8350371	3 300 913	39.53
Montana	9997845	2 418 655	24.19
Pazardzhik	22845571	7 541 448	33.01
Pernik	18111757	2 527 230	13.95
Pleven	26879437	5 364 561	19.96
Plovdiv	106144343	25 587 844	24.11
Razgrad	14082620	6 465 015	45.91
Rousse	34024153	15 999 166	47.02
Silistra	9184448	2 272 027	24.74
Sliven	24858154	10 277 749	41.35
Smolyan	7549031	9 699 504	128.49
Sofia	505470349	174 903 931	34.60
Stara Zagora	42579462	12 431 783	29.20
Targovishte	10846069	5 368 086	49.49
Haskovo	25751755	4 814 668	18.70
Shumen	19618185	4 187 200	21.34
Yambol	13030069	6 830 668	52.42
Total	1211750829	412459957	34.04

Source: NAMRB, http://www.namrb.obuchi-se.org, calculations made by the author.

Based on the data from Table 2, we can design a correlation field. It shows that the points are grouped around the drawn straight line.

Figure 2. **Regression model of the dependency between investment costs and own-source revenues of municipalities**



The majority of the points in the correlation field overlap because of the close values of the studied dependency in a wide range.

$$y = ax + b = 0{,}335x + 239128$$

The coefficient *a* shows that the resultative value y (the investment costs) would change by 0,335 if the independent factor variable *x* (the own – source revenues) change by one. The coefficient *b* equals the ordinate of the point in which the regression line intersects the ordinate axis. (If the forecast own – source revenues are 220 million BGN, the expected investment costs of the studied municipalities will be approximately 74 million BGN (73, 939,128 BGN).

The correlation coefficient, raised to the power of two, is also called a coefficient of determination. It reveals what percentage of the resultative variable scatter is determined by the effect of the factor variable. In this case, the coefficient of determination is 0,975. In other words, the dependency of the investment costs on the revenues of the municipalities is 97.5%.

More investments will re-enter the business, if a bigger amount of public goods, which directly or indirectly stimulate the development of a favourable business environment, are produced. The mechanism for directing capital towards the creation of similar conditions is manifested through the investment costs of the municipalities.

3. The investment policy of the municipalities as a factor for creating a better industrial business environment

By investing in infrastructure, technical equipment and urban development, setting up public institutions and guaranteeing high-quality, complex services, municipalities create better conditions and in this way, indirectly, influence the development of the industrial business on their territory. On the other hand, the degree of development of the industrial business in the municipalities is of significant importance and is manifested in a number of ways. First, the industrial business provides a considerable number of jobs by compiling various requirements with reference to the experience, qualifications and gender of the workforce, to mention just a few. This, in turn, is a prerequisite for the high level of employment of the local population. Next, the industrial business requires a great deal of resources (both material ones and services), which is a favourable condition for guaranteeing the operations of the other industrial sector in the region. The industrial business multiplies the volume in its overall multi-phase process. Finally, yet importantly, the industrial business affects the standard of living in the region and improves its public image.

The industrial business can be measured by using various criteria such as the number of enterprises, territory encompassed, technologies and innovations, number of employees, output volume, international operations, etc. Not all of these critera are defined as dependent on the local business environment. Most of them depend on the type of the industry, the capital investments and the management of the companies.

In order to study the mutual, even though mediated relationship, between the degree of development of the industrial business and the investment policy of the local authorities (in the researched municipalities), we have used as a criterion the output volume.

The correlation coefficient of this dependency is 0.985. Despite the certain conditionality, due to the mediated representation of the dependency on the local environment that is developed through investments, it is concluded that the increase in investment costs encourages the development of the industrial business. The higher investment costs of the 27 municipalities result in a better business environment, which in turn, stimulates the expansion of the existing companies and the setting up of new ones.

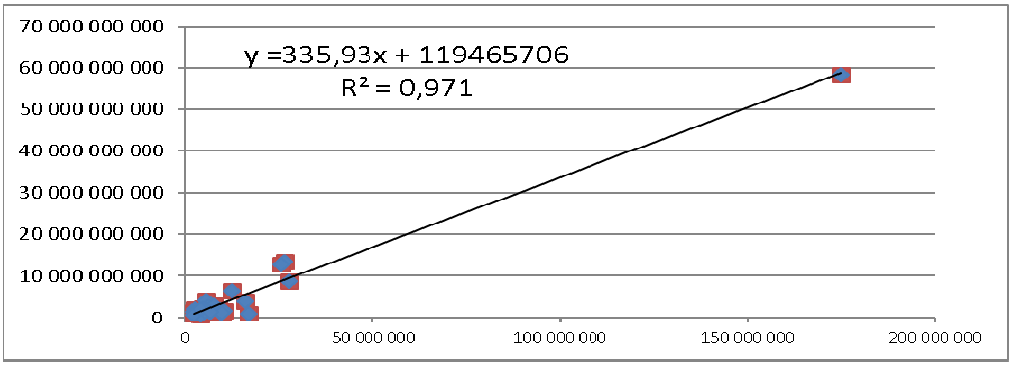
Based on the data from Table 3, we can create a correlation field of the described dependency.

Table 3. **Goods manufactured by the businesses in the municipalities and the investment costs of the municipalities**

Municipality	Investment costs of the municipalities for 2014 (BGN)	Output in 2014 (BGN thousand)
Blagoevgrad	5 615 412	4 206 879
Burgas	26 294 304	13 577 418
Varna	27 510 295	8 682 862
Veliko Tarnovo	6 093 259	2 743 497
Vidin	4 134 393	491 494
Vratsa	8 990 321	2 059 271
Gabrovo	5 074 897	2 003 070
Dobrich	2 636 755	2 123 945
Kardzhali	16 789 011	900 476
Kystendil	9 330 862	1 265 127
Lovech	3 300 913	1 569 865
Montana	2 418 655	1 359 365
Pazardzhik	7 541 448	2 929 848
Pernik	2 527 230	1 433 169
Pleven	5 364 561	2 426 267
Plovdiv	25 587 844	12 716 566
Razgrad	6 465 015	1 389 035
Rousse	15 999 166	3 971 031
Silistra	2 272 027	796 705
Sliven	10 277 749	1 705 471
Smolyan	9 699 504	1 163 314
Sofia	174 903 931	58 470 628
Stara Zagora	12 431 783	6 408 799
Targovishte	5 368 086	1 339 203
Haskovo	4 814 668	2 458 607
Shumen	4 187 200	2 118 929
Yambol	6 830 668	1 472 940
Total	412 459 957	141783781

Source: NAMRB, http://www.namrb.obuchi-se.org, calculations made by the author.

Figure 3. **Regression model of the dependency between output and investments**



The determination coefficient is 0.971. Therefore, we can state that the interrelation between the industrial business and the investment policy of the municipalities is significant.

4. The industrial business development and the own-source revenues of municipalities

In order to study the inverse relationship, i.e. the complete circular relationship "municipalities- industrial business", it is necessary to analyse the dependency between own-source revenues of the municipalities and the industrial businesses operating on their territories. Thus, for the purposes of this assessment we will use the following two criteria, namely "output" and "municipality revenues", the latter being the result value in this case.

Table 4. **Own – source revenues of municipalities and manufactured goods**

Municipality	Revenues of the municipalities for 2014 (BGN)	Output for 2014 (BGN thousand)
Blagoevgrad	18317567	4 206 879
Burgas	76227948	13 577 418
Varna	121720891	8 682 862
Veliko Tarnovo	22715744	2 743 497

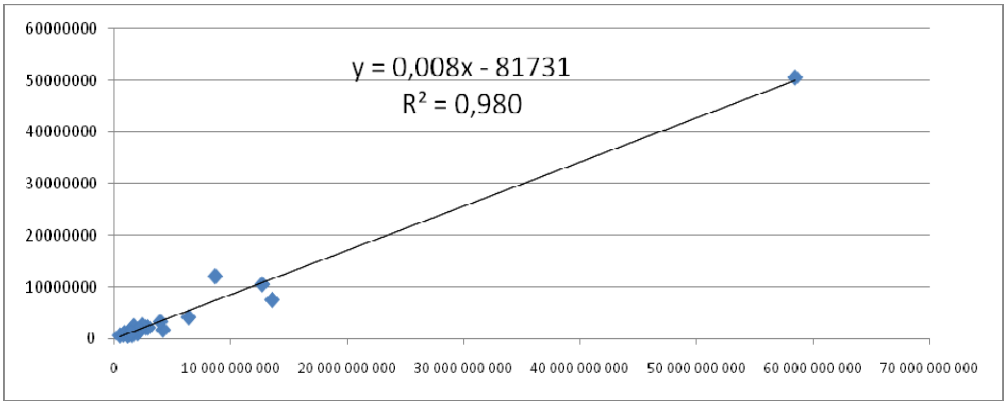
Vidin	7603876	491 494
Vratsa	12935066	2 059 271
Gabrovo	11890317	2 003 070
Dobrich	19966273	2 123 945
Kardzhali	11989165	900 476
Kystendil	9060363	1 265 127
Lovetch	8350371	1 569 865
Montana	9997845	1 359 365
Pazardzhik	22845571	2 929 848
Pernik	18111757	1 433 169
Pleven	26879437	2 426 267
Plovdiv	106144343	12 716 566
Razgrad	14082620	1 389 035
Rousse	34024153	3 971 031
Silistra	9184448	796 705
Sliven	24858154	1 705 471
Smolyan	7549031	1 163 314
Sofia	505470349	58 470 628
Stara Zagora	42579462	6 408 799
Targovishte	10846069	1 339 203
Haskovo	25751755	2 458 607
Shumen	19618185	2 118 929
Yambol	13030069	1 472 940
Total	1211750829	141783781

Source: NAMRB, http://www.namrb.obuchi-se.org, calculations made by the author.

The correlation coefficient of this dependency is 0.99. This shows that there is a very strong direct dependency between the chosen variables, namely the volume of goods manufactured by the industrial enterprises on the territories of the researched municipalities determines their revenues.

The coefficient of determination is extremely high, i.e. 0.980. This indicates that the dependency of the revenues of the studied municipalities on the volume of industrial output on their territories is 98.1%. The more developed the industrial business is on the territory of a particular municipality, the better its possibilities for increasing the own-source revenues. These revenues could be local taxes and fees, services, etc.

Figure 4. **Regression model of the dependency between the own-source revenues of the municipalities and output volume**



Based on the research, we could make the following conclusions:

1) **There is a very high correlation between the local own – source revenues of the surveyed municipalities,** which characterize their financial policy, and the costs for investments, i.e. their investment policy. The coefficients of correlation and determination are 0.987 and 0.975 respectively. The budget decentralization could lead to an increase in the financial resources of the municipalities and their investment capacity.

2) **The investment policy of the municipalities improves the local environment** that stimulates the development of the businesses operating on their territory. The more favourable business conditions, offered by the municipalities, are one of the factors for attracting and keeping the manufacturing companies on their territory.

3) The development of the industrial business on the territory of the studied municipalities **affects the local revenues –** the correlation is 0.99 while the determination coefficient is 0.98.

The main conclusion is that the budget decentralization contributes not only for the development of the 27 surveyed municipalities but also for the development of the industrial businesses operating on their territories.

Conclusion

One of the goals of the decentralization process in Bulgaria has been to give the local authorities the freedom to develop and implement their own financial and investment policies. The freedom to manage independently their finances has led to an increase in the absolute value of revenues and in the

percentage of taxes and fees collection in all surveyed municipalities. The independent investment policy has also had positive effects such as improvements in the infrastructure, the urban areas, and the local business environment in general.

The conducted analyses prove these trends and show clearly the interrelations and dependence between the revenues of the 27 surveyed municipalities, their investment policies and the development of the industrial business on their territories. As a result, the increased degree of budget decentralization could create even better possibilities for development of the municipalities and the industrial business in the country.

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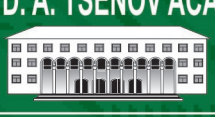

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