Vadyba
Journal of Management
2016, № 1 (28)
ISSN 1648-7974

POSSIBILITIES TO IDENTIFICATE ACTION POINTS IN ECONOMIC DEVELOPMENT OF LOCAL MANAGEMENT

Melinda Molnár
Institute of Regional Economics and Rural Development Faculty of Economics and Social Sciences Szent István University, Gödöllő
Endre Lendvay
Enyedi György Doctoral School of Regional Sciences Szent István University, Gödöllő

Annotation
Although in the first place the public opinion interprets the success of the settlements from an economical viewpoint, in fact the success of a settlement is depending on several economical-social factors. The settlements and the surrounding social, economical sphere are constantly changing. After the collapse of the communist system development activities of local governments had suffered from lack of enough resources in Hungary. Taking into consideration their operational-financial deficiencies they could not give enough attention to the strategic thinking in local developments plans. Instead of real long-term programmes they were running for simple new resources. Due to their short-term irrelevancies many strategic dimension could not gain enough attention and support. But after debt-consolidation central government encouraged local governments to participate actively in local economic activities and strategic development. The settlements as autonomies due to their far-reaching role-system possess means of different characteristics, which can strengthen or even weaken each other's effects. According to common experiences decision making-process of the Hungarian local governments is much more based on a kind of opportunism than on a thought of sustainable growth. The research method described in the study supports the strategic decision-making process with recent tools of 'fact-based' decision-making. It provides structured information not only for prioritizing strategic fields but also for planning actions of economic development. Two main objectives of this method are defining development-fields and setting up an action plan. The main idea of this research is an indicator chart which is based on PESTEL-analysis, Balanced-Scorecard perspectives and a benchmark database which helps the interpretation of data. The analysis of the database is a core element of this method. During the benchmarking process the figures of the examined governments are compared to an average figure of multifarious types of settlements (e.g. similarity by population, size, development or other standards).
KEYWORDS: economic development; PESTEL-analysis; scorecard; indicator table; benchmarking.

Introduction

It is generally believed that successful settlements can come into being where the citizens are also prosperous and successful; thus where the growth, the improvement of the quality of life appears also in the life of the community and of the individual. In this case the citizens are obviously content; they can create the properly multilateral and complex expression of interest (Bódi-Bőhm 2000). However, this scenario cannot be considered as a standard. Interpreting the success of settlements as the set of individual successes is a bit simplifying and idealistic. The individual successes do not always provide clear communal values. There is not in every case a long-term sustainable development behind such a success (Nagyné Molnár 2013). .

Success cannot be reduced to one sole factor. Although in the first place the public opinion interprets the success of the settlements from an economical viewpoint, in fact the success of a settlement is depending on several economical-social factors. The field-research done in domestic settlements also prove this. The factors determining success are thus complex. Every factor that influences the local condition of existence and the quality of life has an effect on the development of the settlement, thus also on its success (Ludescher 2010). Behind the successful settlements stands a stable economy and community. According to Bartik (1995) and Čapkova (2005) the emphasis is on the positive quality of life besides having a sustainable development.

The settlements and the surrounding social, economical sphere are constantly changing. Among the continuously changing conditions those settlements can be truly successful which are able to adapt to their environment. (Jedynak, Nagy, Ardelean 2015) Adapting to the environment can be interpreted in a political, economical, social, technological, nature-geographical and legal sense. The PESTEL analysis is based on the research concerned with the adaptation to the six factors. With this analysis we can get a good general survey about the acting factors It helps us also in regional planning, because with its help the wanted development goals can be determined more precisely. (Bacsi, Forman, Káposzta, Nagyné Molnár, Péter 2007). However, this analysis does not explain, how one can be truly successful through the viewpoint of the examined acting factors. What kind of means can be used for this?

The settlements as autonomies due to their far-reaching role-system possess means of different characteristics, which can strengthen or even weaken each other's effects. One part of the instruments used by the settlements are unique (e.g. local taxes, local

communities, etc.), whereas other instruments (e.g. administrative legal regulation) work alike everywhere. The success of a settlement depends also on finding their effective means and how well they use it (Nagyné Molnár 2013).

Meaning of local economic development is not defined clearly yet. It might be considered as comprehensive strategy for using local resources in creating employment facilities (Čapková 2005). In other interpretation local economic development is meant a strategic intervention either by an external or by internal stakeholder who is a local player (Mezei 2006). Because of weak experiences some local governments have uncertainly defined their strategies. That is why the main goal of our study is to assist in local economic activities by providing a method based on result-based decision-making tools.

Focus was given to three dimensions: first an action plan based on researching external conditions, internal resources and their relations. Our research table (RSC-matrix) focuses on internal features of local economy and external conditions of their circumstances by using a special system of indicators. Secondly available stimulating tools and external conditions are examined, particularly prioritizing the identification of the action plan. Tool-impact matrix (Lendvay 2013) shows the relation between the internal structure of tools of local government and their external conditions. It will show how local government can influence external conditions by its internal structure of tools, and finally how the local government is able to accommodate to these external conditions. Thirdly the relation between tools and available resources will be examined in order to facilitate real planning on development activities.

Examining local economic development opportunities it is a relevant precondition that local economy shall be examined in interaction with its environment (external conditions). It means a comprehensive coverage by external factors and complex understanding of internal economic dynamics.

There are different researching methods to examine **external** factors. One of them is PESTEL-analysis. PESTEL is meant as a wide analysis method within business environment. As an abbreviation it is consisting of six relevant external dimensions among enterprises: Political (P), Economic (E), Social (S), Technological (T), Environmental (E) and Legal (L). This model is enough flexible, and it has different forms with regard to the primary focus of the researching or business environment. The flexibility of this model makes it possible to be used in a special sector, within local governments. Local entities, governments are in a unique situation: their decisions have impacts mainly not only on themselves (as in the case of a company's decision), but particularly on their entire local community. It is a relevant question how local governments can influence on their economic development and improving life-quality of their population through external conditions. There are several external factors which cannot be affected or controlled. In this case the adequate adaption or accommodation can be the realistic goal of the local decision-makers.

Within the validation process each dimension of the analysis was examined with regard to its relation and relevance for assisting in strategic decision-making processes of local governments. The following conclusion was established: political, economic, social, environmental and legal factors play an important role either for local community or for a company, but their impacts can prevail in different ways. Technological changes show wider diversions: technology is a key-factor for companies, especially in the sense of recent info-technology oriented, active competition. While local communities are much more depending on infrastructural conditions which might have even technology-oriented dimensions as well.

In order to examine **internal** factors, another well-known method was used. Balanced Scorecard is considered a strategic frame-system, which is very supported within business environment, similarly to SWOT or PESTEL researching methods because of its flexibility and easy application. Balanced Scorecard is consisting of four dimensions: financial, consumer/buyer, operational and learning-improvement dimensions. Based on each dimension strategic goals, referring indicators and reflecting actions can be established. This method is adequate for measuring the efficiency of the decision-making in reaching strategic goals. Similarly to PESTEL-method it is enough flexible to be used in local governmental environment in order to measure the efficiency/success of local economic development activities. As regards some elements of this method, it was changed because of the special focuses of the governmental dimension. The methodology determines the strategic goal of the local community as the development of the local economy, which created changes within the original four dimensions. Correction in the method was based on the revision of all four dimensions.

- Financial dimension was renamed financial-economic dimension as far as it gives priority not only to financial conditions of the local government, but mainly to its complex economic situation.
- Consumer/buyer dimension was a bit misleading, even if some typical service-provider and consumer might be examined within the local community, local government as well. The main focus is given here not only to the concrete service provided by local government, but mainly to the general quality level of local services. That's why life quality as new dimension is more suitable in the governmental dimension.
- Operational dimension is meant even wider fluctuation: companies have a wide, flexible space for their operations, but local governmental decisions and activities are strictly determined by central regulations, laws. But within these narrow circumstances local governments have also opportunities to make their operations, resource mobilization more efficient. That's why this dimension was renamed as operational efficiency.

- The learning-improvement dimension is also reflecting for a company environment while this category is a bit problematic within a governmental environment. This dimension was changed for innovation in order to take into consideration the innovation and adaptation facilities of the local community.

These four dimensions can contribute to a comprehensive examination internal factors affecting the development of local communities.

A new model: RSC-matrix

This model is consisted of combining factors of the two previously mentioned models. The first one is the PESTEL-matrix which is useful for measuring of external conditions. The second one is the Balanced Scorecard which is useful for measuring of internal factors. Integration of these two dimensions is reflected in the RSC-matrix (Table 1). Rows are measured by the factors of the Balanced Scorecard approach, while columns are reflected by six factors of the PESTEL-model. Each field of the chart refers to one indicator which is relevant for identifying relevant dimension of local economic development.

Table 1. RSC-matrix (research table) logical framework and code of indicators (I: indicator)

Factors	**P**olitical	**E**conomic	**S**ocial	**I**nfra-structural	**En**vironmental	**L**egal
Life **Q**uality	IQP	IQE	IQS	IQI	IQEn	IQL
Operational **E**fficiency	IEP	IEE	IES	IEI	IEEn	IEL
Economy and **F**inance	IFP	IFE	IFS	IFI	IFEn	IFL
Innovation	IIP	IIE	IIS	III	IIEn	IIL

Source: Prepared by Lendvay

Indicators

In order to measure 24 indicators, we need to have 50 several measuring values. Most of the indicators are measure by 2-5 several data which are collected from different, specified primer and secondary sources. That is why unified methods and principles are of high importance. In order to achieve this goal electronic form was provided. Collected data are being transformed into "data-processing table" which is automatically generating indicator values. Core data and purified indicators are reflected in the SPSS database.

It was an important precondition for indicators that they would have own information contents which are even considered a good entry point for researching different aspects and dimension of the development process. Indicators (Table 2. and 3.) are suitable for providing a comprehensive analysis on external and internal features of local governments, and furthermore they can contribute to the complex comparison of differentiating governments within well-determined conditions. Benchmark database is adequate for further differentiation such as the size of the local entity (population of settlement) or the localization. Benchmark database plays key role in clarifying and correcting data originated from the researching tables. RSC matrix can give a complex analysis on external and internal features of local governments, if the values of indicators are examined in a comprehensive, interacting, interdepending way of method.

Table 2. Indicators (life quality, efficiency and economical/financial dimensions)

Name	Description
IQP	Proportion of mayor's candidate support to its nominating organization from government side (%)
IQE	Per capita net income for the year (thHUF)
IQS	Unemployment rate (%)
IQI	Number of residential public services which can reach with public transport in 30 min. (pcs)
IQEn	Amount of green space per capita (m^2/cap.)
IQL	Proportion of new and modified decrees to all decrees. (%)
IEP	The realized proportion of the local government investment and development spending compared with budget appropriation (%)
IEE	The local willingness to pay taxes compared with the GDP growth. (%)
IES	Long-term unemployed rates within overall unemployed (%)
IEI	Average lifetime of the IT tools which used by local government (year)
IEEn	Amount of environmental investments per capita (thHUF/cap)
IEL	Proportion of available strategic documents in relation to the number of mandatory strategic documents (%)
IFP	Proportion of the amount of the per capita urban development source and the country's national development fund amount per inhabitant (%)
IFE	Gross value added per enterprise. (thHUF)
IFS	Proportion of the working age taxpayers (%)
IFI	Per thousand capita number of medium-sized enterprises weighted by PGI index
IFEn	Number of overnight stays per thousand capita and the multiplied proportion of protected areas in the settlement.
IFL	Proportion of collected HIPA (Local Business Tax) and the tax paying ability of settlement (%)
IIP	Proportion of the candidates to the seats of the representatives in the city council (%)
IIE	Changes in the number of registered businesses per thousand inhabitants (pcs/1000 cap)
IIS	Number of civil organizations per thousand capita (pcs/1000 cap)
III	Number of internet access per hundred capita (pcs/100 cap)
IIEn	Proportion of selectively collected waste to communally collected waste (%)
IIL	Proportion of development resources won by the local business compared with the national rates (%)

Source: Prepared by Lendvay

Results

During the measurement in the first phase we have collected municipal data from different districts of the convergence regions, nearly from 130 local governments. Every district has different number of settlements wing to different regional conditions. In the future, this basic database can be expanded with further elements as required.

The first result was derived from Benchmarking's analysis in case of region's aspect and in case of settlement size's aspect. As an illustration we show the effects of environmental infrastructure in case of district (Table 3.) and settlement size (Table 4.).

At first we examine those services which were utilized by the population in 30 minutes (IQI). It can be determine that the Kapuvár district shows the best result (24.35), and the Nyíradony district represents the worst result (10.00). This is consistent with the image formed on the overall development of regions. The other district's results are between 14.5 and 18.5. If we disregard data's which calculated on the basis of only two valid responses, the remaining three values is in parallel with the size of the district headquarters, which seems logical, because a more significant district headquarter can supply more public services directly in a same time. The indicator provides indirect information about public transport and the road network quality. Examining the map it's conspicuous that the region has outstanding frequent road network which has to make the travel time shorter to reach district headquarter. The other endpoint is the Nyíradony district. In here the anomaly may be caused by -at the side of generally weaker development of the region- the natural central (Mikepércs) terminalisation and for a new settlement which has less developed infrastructure is raised to district headquarter level.

If we examine the same indicator (IQI) as size of settlements (Table 4) it's ascertainable that there is significant difference between the smallest size category (max. 500 cap) and the largest category. The difference is approximately 20% which can be sensible in life quality especially if every day public services, like schools or kinder gardens fallout from the accessibility circle.

The IEI indicator examines the support of economic development through the average lifetime of the IT tools. We can also examining with this indicator the work efficiency conditions indirectly. The required varies for the indicators are from local data services which are less

reliable. As you can see, we cannot do anything neither with two district data's because of the small sample size (Table 3). But at the same time it's striking that the overall average lifetime of IT tools is high (4,99 years). More than a year of average lifetime difference can be observed in favour for the west side districts, however, a more detailed examination is necessary to definitively declare this statement. By taking a closer examination about the settlement size (Table 4), it's a bit strange that the bigger (over 5000 cap.) settlements IT tools has 33% higher average lifetime compared with the 501-1000 cap. settlement category. If we take into consideration that the obsolescence time of IT assets is approximately 3 years it's determinable that the public sector technical facilities are nowhere meet the standards of the age.

Table 3. Benchmark values as districts

Indicator	District (Average/valid item number)						Sum
	Kapuvári	Makói	Nyír-adonyi	Szikszói	Tabi	Tapolcai	
IQI	24,35	17,79	10,00	18,50	14,50	18,10	17,80
	20,00	14,00	8,00	2,00	24,00	30,00	98,00
IEI	4,87	5,93	No data available	6,50	4,51	4,88	4,99
	20,00	11,00	0,00	2,00	17,00	26,00	76,00
IFI	4,75	5,82	5,00	5,02	3,65	4,34	4,63
	20,00	15,00	9,00	24,00	24,00	30,00	122,00
III	10,18	8,21	2,56	7,43	1,32	4,01	5,54
	20,00	15,00	9,00	24,00	24,00	33,00	125,00

Source: Prepared by Lendvay

Table 4. Benchmark values by settlement size

Indicator	Settlement category (Average/valid item number)				Sum
	max. 500 cap.	501-1000 cap.	1001-5000 cap.	More than 5001 cap.	
IQI	16,28	21,19	17,68	19,83	17,89
	47,00	21,00	25,00	6,00	99,00
IEI	4,93	4,57	5,44	6,04	5,02
	36,00	19,00	18,00	4,00	77,00
IFI	3,12	4,93	6,83	8,59	4,66
	62,00	25,00	30,00	6,00	123,00
III	1,53	5,16	11,23	26,95	5,85
	64,00	25,00	31,00	6,00	126,00

Source: Prepared by Lendvay

The IFI indicator refers to the ability to attract economic activity for settlements. It consists of two factors: from the number of medium and large sized enterprises per 100 capita and a separate indicator which is on basis of the infrastructure facilities. The former one is approaching to the town's ability to attract investors through the existing businesses and the last one is through the infrastructural availability. Based on this indicator the Makói district has really good abilities, the Tabi and the Tapolcai district have the most difficult situation and the other districts have average values. Based on above it is appropriate for districts with weaker result to develop their business infrastructure which is match with the Tabi and Tapolcai district site inspections experience. In case of the Makói district it would be worth to attracting the investors to the region using the regional, municipal marketing tools. Noticeable that when examining the various municipalities within the districts a significant deviation can be observed, which intuitively shown by the settlement sized benchmark data's. For the lowest settlement category the value is 3.12, while for the highest category the value is 8.59. It is well established that larger settlements are more attractive to businesses wishing to settle in.

The infrastructural environment for economic innovation is modelled by the number of broadband Internet accesses per 1000 inhabitants (III indicator). The overall average in this field is 5.54. In line with expectations the Kapuvári district (10.18) has positive direction, and the Tabi (1.32) and Nyíradony (2.56) districts differs negatively from the average. If the latter is compared with the same measure, relatively high IFI values can conclude that modest level of broadband coverage can be or perhaps it's already an obstacle for

the regional development of the real economy. The settlement size is growing together with the high value of the indicator, which is in line with expectations.

Conclusions

The settlement's success depends on a lot of technical, economical, social, infrastructural etc. factors. Universal rule the success cannot be reduced to one sole factor. The territory and the settlement size analysis provide an informative data about the success. In this article we display a new method (RSC matrix). This model is consisted of combining factors of two known models. The first one is the PESTEL-matrix, which can measure the external conditions. The second one is the Balanced Scorecard approach, which can measure the internal factors. We examined the interaction of these factors. The RSC matrix's operation was presented by indicators. The results prove that this matrix is one of the most useful tools for the local government in the economic development.

References

Bacsi Zs, Forman B, Káposzta J, Nagyné Molnár M, Péter B, Káposzta J (2007) (ed.) *Regionális gazdaságtan* (Regional economy) Gödöllő: DE AMTC AVK, 2007. 300 p. (ISBN:978-963-9732-76-6)

Bartik, T. J. (1995). Economic Development Strategies. Upjohn Institute Working Paper No. 95-33. Kalamazoo, MI: W.E. *Upjohn Institute for Employment Research. Retrieved* September 17, 2013 http://research.upjohn.org/up_workingpapers/33

Bódi, F.- Bőhm, A. (2000). A sikeres és sikertelen településekről. (About Successful and Unsuccessful Settlements.) In Bódi F.- Bőhm A (Eds.), *Sikeres helyi társadalmak Magyarországon* (Successful Local Society in Hungary) (pp. 7-32.). Budapest: Agroinform Kiadóház.

Čapková, S. (2005): Local Government and Economic Development Čapková, S. (ed.) *Local Government and Economic Development*. Open Society Institute, Budapest, pp. 1-19.

Lendvay, E. (2013): The possibilities in the economic development of the local governments. In: Lengyel I. - Vas. Zs. (2013) (eds.): *Regional Growth, Competitiveness and Development.* University of Szeged, Faculty of Economics and Business Administration, Doctoral School in Economics, Szeged, 26-36. p. (ISBN 978-963-306-222-7) http://www.eco.u-szeged.hu/kutatas-tudomany/workshop/workshop

Ludescher, G. (2010). *A vállalkozások és a közösségek szerepe a rurális térségek megújulásában* (Function of the enterprises and communities in connection with regeneration of the rural areas.) Pécs: IDResearch Kft./Publikon Kiadó.

Mezei, C. (2006): A helyi gazdaságfejlesztés fogalmi meghatározása (Definition of the local economy developmenmt) *Tér és Társadalom* 20. year 2006/4. pp. 85-96.

Nagyné Molnár, M. (2013): Factors of success in case of local society, DETUROPE 5:3.63-70.pp.

Witold, J., Nagy H., Ardelean, L. (2015) (ed.): *Local Development in the Central European Perspective* Rzeszów: University of Rzeszów, 2015. 253 p. (ISBN:978 - 83 - 60391 - 73 - 0)

POSSIBILITIES TO IDENTIFICATE ACTION POINTS IN ECONOMIC DEVELOPMENT OF LOCAL MANAGEMENT

Summary

After the collapse of the communist system in Hungary the local government could not give enough attention to the strategic thinking in local developments plans. After debt-consolidation central government encouraged local governments to participate actively in local economic activities and strategic development. The settlements and the surrounding social, economical sphere are constantly changing. Among the continuously changing conditions those settlements can be truly successful which are able to adapt to their environment (Jedynak, Nagy, Ardelean 2015). The settlements as autonomies due to their far-reaching role-system possess means of different characteristics, which can strengthen or even weaken each other's effects. The main goal of our study is to assist in local economic activities by providing a method based on result-based decision-making tools. Focus was given to three dimensions: first an action plan based on researching external conditions, internal resources and their relations.

We prepare a new method (RSC-matrix) which focuses on internal features of local economy and external conditions of their circumstances by using a special system of indicators. One part of this RSC-matrix is a PESTEL-matrix, which can measure the external conditions. PESTEL is meant as a wide analysis method within business environment. This model is enough flexible, and it has different forms with regard to the primary focus of the researching or business environment. Our experience, that the political, economic, social, environmental and legal factors play an important role either for local community or for a company, but their impacts can prevail in different ways. Technological changes show wider diversions: technology is a key-factor for companies, especially in the sense of recent info-technology oriented, active competition. While local communities are much more depending on infrastructural conditions which might have even technology-oriented dimensions as well.

The second part of the RSC-matrix is the Balanced Scorecard approach. It can measure the internal factors. We examined the interaction of these factors. Balanced Scorecard is consisting of four dimensions: financial, consumer/buyer, operational and learning-improvement dimensions. Based on each dimension strategic goals, referring indicators and reflecting actions can be established. This method is adequate for measuring the efficiency of the decision-making in reaching strategic goals. These four, partially changed dimensions contribute to a comprehensive examination internal factors affecting the development of local communities.

The RSC-matrix model is consisted of combining factors of two known models.The RSC-matrix research method describe the strategic decision-making process with recent tools of 'fact-based' decision-making. It provides structured information not only for prioritizing strategic fields but also for planning actions of economic

development. It shows how local government can influence external conditions by its internal structure of tools, and finally how the local government is able to accommodate to these external conditions. The RSC matrix's operation was presented by indicators. The results prove that this matrix is one of the most useful tool for the local government in the economic development.

KEYWORDS: economic development, PESTEL-analysis, scorecard, indicator table, benchmarking

RECEIVED: 31March 2016 **ACCEPTED: 20 April 2016**

Nagyné Molnár Melinda Ph.D. geographer, associate professor Szent István University Faculty of Economic and Social Sciences Institute of Regional Economics and Rural Development. The main research field: rural geography, rural development Address: 2100 Gödöllő Páter K. street 1. E-mail: nagyne.molnar.melinda@gtk.szie.hu

Lendvay Endre Ph.D. student Szent István University, Enyedi György Doctoral School of Regional Sciences. The main research field: optimalization of the decision-making in the local government Address: 2100 Gödöllő, Páter K. street 1. E-mail: lendvay.endre@responsum.hu