

University of Szeged
Faculty of Science and Informatics
Doctoral School of Geosciences
Department of Economic and Social Geography

Research on success factors of Hungarian small villages

The theses of the Ph. D. dissertation

Klára Józsa

Consultant
Péter Bajmócy, Ph. D.

Szeged
2014

I. The reasons of topic choice, sample area, goal

The total population of small villages is continually changing, as there are more and more settlements fall into the category of villages with population no more than 500. Because of that, the topic has been a field of interest for geography for decades (GY. ENYEDI, 1980; P. BELUSZKY – T. T. SIKOS, 1982; P. BELUSZKY – T. T. SIKOS, 2007; A. BALOGH, 2008). In the last decades these settlements have been strongly differentiated, among them were there not only emptying ones, which can be characterized by ‘small village syndrome’, but specifically developed, successful ones.

In the researches of the past years, small village groups can already be found, but the phenomena in the background of their differentiation are not at all or only partly known. For that reason I examine the features that are in the background of success, in those small villages that have been categorized mainly as being successful in earlier statistical analyses and case studies (Figure 1).

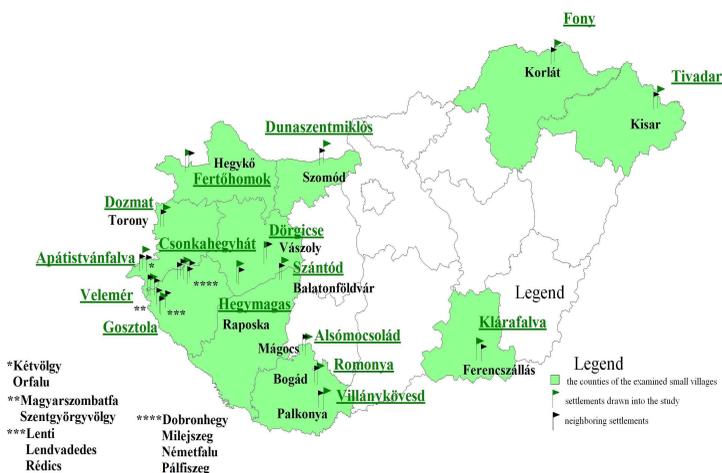


Figure 1. The territorial situation of small villages and their neighboring settlements drawn into the study

(Source: own construction)

Regarding the Hungarian small village stock I raised the following questions at the beginning of my research:

- Are the features that make the examined small villages successful, still success generating factors?
- Do the small villages that have high statistical ranks, have high ranks within the whole village stock?

- To what degree are the success indicators of villages that were judged successful by village typifying based mainly on statistics, identical to the success factors conceived by local people?
- Do the residents of the neighboring settlements possess information about the examined village?
- To what degree do the houses and the street view of the villages drawn into the study resemble to the street view of an ordinary small village, can a difference be perceived?
- What success factors of small villages can be outlined with the help of statistical analysis, questionnaires, interviews, building stock survey and photo documentation review?
- How can the group of development generating factors of successful small villages be outlined, and how can a successful small village be modeled?

I contracted these questions to three major questions, which are the following ones:

- Which factors lead to the success of small villages?
- By which methods can the success factors be outlined?
- Can the successful small village be modeled, if so, how?

According to my hypothesis:

- The circle of the success factors outlined by the local residents, the circle of those outlined by the local elite and those outlined by statistics, are not identical.
- The data from questionnaires, interviews, statistics, building stock analysis and photo documentation review, altogether and completing one another, mark out the circle of success factors.
- By revealing the success factors by quantitative and qualitative methods, the group of factors resulting a successful small village can be defined, and the successful small village can be modeled.

In terms of these, I made up three major goals of the research:

- to outline the ‘success factors’ of developed small villages
- to model the successful small village
- to present the successfulness-examination possibilities by showing different methods.

II. The applied research methods

I used quantitative and qualitative methods in my research:

- I surveyed the literature about domestic small villages regarding the following subtopics: defining the theoretical frameworks, distribution area

of small villages, regional politics, differentiation of small village stock, village typifyings. In order to reveal the success factors, I studied the Hungarian and the international literature that examine the concept of success in terms of different value systems, in detail.

- I set up total development factors for the small village stock (1073 settlements), from the normalized values of 27 statistical indicators. A part of the data was secondary data, however most of them were primary data, collected by me, and made up village by village. For the sake of indicator group value differences being measurable, I also examined the total development ranks of small villages. By the statistics I outlined the success factors of small villages, I showed the distribution area of the most developed villages, and paid special attention to the villages that had been ‘running out’ into the category of small village or ‘outgrown’ that category by 2010.
- As there has been no presentation of the situation of the small village stock examined within the whole village stock, I made a statistical analysis of the whole village stock (2935 villages) as well. I ranked the villages according to development, again using the normalized values of 27 indicators. For the sake of measurability of some differences in development, I measured the development averages of the small villages, the development averages of the villages of more than 500 residents, and that of the whole village stock, separately as well. I also examined the rankings of averages within the total development, in order to refine. I compared the outlined success factors gained from analyzing the statistics of small villages, with the results from the statistics of the whole village stock, and I modified the circle of success factors. I separately analyzed the significance of nationality factor by methods of statistic analysis. As before the submission of my dissertation, the data of the 2011 census had been made accessible, by using the data of the census I modified the total development values (where it was necessary), and I showed the deflections in my paper. My research was extended to the development of some further villages that were in close proximity to the 16 examined villages. That meant a statistical analysis of the development connections of 310 villages, with the help of regional autocorrelation. Finally, a part of my quantitative research was to analyze the building stock of the examined villages, and the housing tendency of the whole village stock.
- I compared the factors outlined by statistical analysis, to the opinion of the local residents. I had nearly 500 questionnaires filled out, in the examined villages with 29 questions, in the neighboring settlements with 25 questions. The answers to the latter questionnaire are records of residential

opinion of the surrounding villages about the examined villages. I expanded the results of these questionnaires by a 2013 social geographic questionnaire research made in Fony. I made interviews (24 in-depth interviews) with the local elite. I recorded the opinion of the mayor and the local elite in a way similar to the residential questionnaires, and not with questions like ‘Do you consider success as (...)?’ In the course of the questionnaires and the interviews I inquired about success and its factors considered important by the residents and the local elite, independently of the statistical results. In order to further expand the circle of success factors, I also made an image content analysis of the websites of the examined villages (1134 photographs).

- At the time of being in the field, I also made a photo documentation of the examined villages myself. The figures and maps of the dissertation were made by MapInfo Professional[®] 10.5 and Adobe Photoshop CS6[®] 13.0.

III. Summary of the results

(1) The researches about the Hungarian village stock are not consequent in terms of the definition of small village. In the dissertation, in accordance with most of the researchers I call small village to be a village of less than 500 residents (K. KÖRMENDI, 1976 a; K. KÖRMENDI, 1976 b; GY. ENYEDI, 1980; P. BELUSZKY, 1984; Gy. ENYEDI, 1984; T. T. SIKOS, 1990; J. HUBAI, 1992; Z. DÖVÉNYI, 2003; A. BALOGH, 2008). From the 1950s the circle of factors differentiating the small village stock, has been continually changing, adapting to the actual regional political decisions. While in the 1950s and 1960s the main differentiating factor was settlement size (K. KÖRMENDI – V. KULCSÁR, 1976), in the 1970s and 1980s it was the capability of joining to a town (P. BELUSZKY – T. T. SIKOS, 1982) that differentiated the dynamic, developing and the depressive, undeveloped small villages. During the 1990s and after, location as a differentiating factor seems to have been appreciated (GY. ENYEDI, 1996; J. N. NEMES, 1997; P. BAJMÓCY– A. BALOGH, 2002; P. BELUSZKY, 2007), however connecting to work is also important. By now, the differentiation is so huge that developed, successful villages can also be found among small villages.

(2) The factors that generate the development of these villages are mostly measured in economic development (GY. ENYEDI, 1997; C. JENSEN-BUTLER, 1997), however success can also be defined by other values (e.g. social) (J. TIMÁR– G. VELKEY, 2003). As the success factors change quickly (I. LENGYEL — J. RECHNITZER, 2000; I. LENGYEL, 2003), and in the last decade the role of human capital is appreciated in relation to development (F. BÓDI – A. BÖHM, 2000), it is really important to measure success in terms of various values. Though in the literature of villages most of the time only one success factor was named as the

conducive of development (F. W. LEVEL, 1993; J. G. ASWORTH – H. VOOGD, 1997; Gy. ENYEDI, 1997; S. G. LUKÁCS, 2008), it is recommended to handle success as being complex, and to measure on various scales.

(3) One possibility for that is to examine 'from the outside'. Based on the statistical analysis of the small villages, only the 2/3 of the small villages that were earlier called successful or developed, has the factors today, based on which factors they reached a high score in total development. Most of them are in the north-western region of the country, the ones with the best scores are near Balaton or along the Austrian boarder (in the subregion of Kőszeg and Szombathely). Beside their location, they have other features that hugely contribute to their developedness: presence of nationalities, tourism conditions and their suburban characteristic. Further success factors are a high number of civil society organisations, a good situation of geography of transport, education, and the existence of linear infrastructure. The villages that have the highest values of total development, can be characterized by more than one indicator with a high value, at the same time. The fact that the values are substantially different, is also confirmed by the scores in development shown in the table of development values (Table 1).

(4) Among the small villages, due to the altering population size, there are some that for an examined time period belong in or fall out of the category of small village. Villages that in the 1990s had more than 500 residents but for now 'ran out' into the category of small villages, regarding their total development values, do not really differ from the average of small villages. Unexpectedly, the 99 settlements in question can be found mostly not at the end but in the middle 1/3rd section in the list of total development of small villages, what is more their average of joint, total development values (802,12) is almost identical to the total development average (802,14) of the whole small village stock. This is because of more reasons, on the one hand, the supply, the economy indicators of settlements that decreased in population, are not considerably worse than the average of small villages, on the other hand, the society, the infrastructure indicator values are mainly lower than them. This duality results in the characterization of them by values that are lower than the data of the best small villages, but higher than the data of the worst small villages. This means that the settlement size is an influential factor. Those villages that were small villages in 1990 but for today have 'outgrown' that category, are diverse. A part of them has high values of tourism, transport, society, economy indicators. The other part of them, despite their increasing population, has low total development values. In these cases the values of economy, society and supply indicators are lower than the average of small villages. So the increase in population size, on its own do not definitely result in a developing settlement.

(5) In the statistics of the whole village stock, those villages that were considered developed in literature, and had only one high valued indicator, lost position in the total development ranking. The development average (802,06) of small villages is left behind by the development average of the whole village stock (879,40). If I put the development averages of small villages among the development values of small villages, the average development value is 2076th in the ranking, by the same method I got the development average of whole village stock being the 1412th in the ranking of the development values of the whole village stock. If I examine the development data in groupings by indicators, the averages of small villages by indicator groups are substantially different from the averages of the whole village stock by indicator groups, in a supply and a social regard (Table 2). In regard to spatiality of total development in the whole village stock, the coast of Balaton is of crucial importance, which with the part of the M7 motorway up to Budapest, with the M0 ringroad, and with the line of the M7 and the M3 motorway marks out the place of the most developed villages in the country. The development of towns and their surroundings stands out on those areas as well, like the surroundings of Pécs, Gyöngyös or Eger, which turned out to be relatively undeveloped in the examination of small villages. The statistical analysis of the whole village stock, such as the small village examination, well supports the importance of presence of success factors being constant in time, and also the complexity that characterizes the factors, as being a necessity for settlement development.

(6) When correlating the success factors named in the statistical analyses, with the total development values, they give a positive correlation. Based on the values, in most cases there is a moderate correlation (between 0,309 and 0,670). The highest correlation values is given by the stochastic relationship of the rate of young people, the indicators of infrastructural supply and the total development data. There are two indicators, the values of which are not in connection with development: the rate of houses that are not on the utility drinking water system and the values of birth rate. On the one hand it confirms that for today there is no substantial difference between the drinking water suppliedness of villages. On the other hand it supports the earlier statement that the increase in population size do not automatically results in a developing settlement. As in the above-mentioned correlational study the nationality indicator turned out to have given one of the lowest moderate correlational values, I made a further study on that indicator. In order to decide on how much the presence of nationalities contribute to the development state of a settlement, I recalculated the total development of the small villages and the whole village stock, without the value of nationality indicator. I divided the villages (and within them the small villages too) into four groups, according to how much the rate of residents of nationalities on the settlement is. In regard to the development averages of each group without the nationality indicator, the following statements can be made. Those villages (and among them small villages) in which the nationality rate is below 10%, have the lowest total

development values. The development values grow together with the nationality rate, excluding those settlements where the nationality rate is the highest. Therefore there is a connection between the presence of nationalities and the development of the village. An even more definite connection can be measured in the small villages and the West-Hungarian settlements.

(7) It can be stated based on the changes of data of the 2011 census, regarding the society indicator group, that the presence of nationalities factor among all the success factors, has even more strengthened in those small villages in which this factor had been instrumental in the total development of the settlement. If I examine the total development of the whole village stock, based on the data of the 2011 census, calculated from the values of two indicator groups, the highest development values can be found in the western part of the country, in the area of towns along the Slovak and the Austrian boarder, i.e. the villages around Győr, Mosonmagyaróvár, Sopron, Kőszeg and Szombathely. Comparing this to the 2001 values this deflection however is not only the result of higher education on these gentilital areas, but the migration of professionals to the West, who graduated in different areas of the country.

(8) In the small villages that were developed based on the statistics, the residents and the settlement management pay attention to preserving residential properties and public institutions as well. Based on the building stock survey, it can be stated that the rate of buildings in a poor or ordinary state, is higher in the villages that turned out to be undeveloped by the statistical analyses. By examining the dynamics of housing I came to the conclusion that among some small villages and villages with more than 500 residents, there are the ones with the most and the less housing, too, according to the yearly, permille expressed housing data of a survey made between 2001 and 2011. Taking the years of duration of newly built houses into consideration as well, the settlement size in the whole village stock unexpectedly wasn't crucially important.

(9) In the opinion of the residents one of the requirements of success is wealth in natural resources, another one is public values such as the good relationship between the residents or satisfaction with the settlement management. It is also important to take advantage of tourism conditions, and the solutions of conflicts generated by them. According to the residents the presence of nationalities and the satisfying institutional and infrastructural conditions may be developing features too. Among the settlements that were considered more successful than the villages drawn into the study, there were small villages and more populated ones as well. Regarding the villages called more unsuccessful, the settlement size is of crucial importance, the villages drawn into the study considered almost only small villages to be less successful than them. In the direct surroundings of the statistically developed small villages drawn into the study there are developed villages, in the

surroundings of the statistically undeveloped villages there are undeveloped ones. Between the development values of villages drawn into the study and the development values of the neighborhood there is a stochastic relationship that can be detected by autocorrelation, but only in case of the highest and the lowest development values (Table 3).

(10) The majors and the members of the local elite consider the followings as the most important features regarding the development of the settlement: the activity of the major, an atmosphere without conflict, a proper number of job opportunities, a high rate of willingness to tender, a proper state of infrastructural and institutional supply, a presence of nationalities, and on capable areas a fulfillment of touristic potentials. Based on the opinion of the majors and the local elite, recorded in the interviews, the success factors of small villages can be divided into three groups of factors: human factors, supply factors and the provision of undisturbed functioning of the settlement.

(11) The photo documentation analysis of the webpages of villages drawn into the study, confirmed that nice settlementscape and environment is important for the residents of the villages drawn into the study. The importance of environmental consciousness showed up in the most developed villages drawn into the study (because of waste separation), and tourism potentials and public activity that had been already named more times, came forward as development helping elements. The settlement websites did not communicate the presence of those development factors that can be connected to facilities, supply, economy (those that turned out to be important success-generating features in the questionnaires and the interviews).

(12) The group of success factors of dynamic small villages can be summarized by the followings:

I consider a small settlement as a successful, dynamically developing small village, if most of the following factors come to fruition together. Among these factors, there are some, present in the successful small village, that the village cannot or can only have a little influence on, e.g. the population size of the village is not decreasing (in extreme cases it is increasing so quickly that the village exceeds the category of small villages), considering its total development within the whole village stock it can be characterized with high values, usually it is located in the western part of the country or some tourist attractions of national significance, its traffic ties are good, its basic supply is satisfactory. There are also some factors in the successful small village, on which the residents can have strong influence on, these are necessary but not sufficient criteria. These are for example: the society and the members of the local elite being active, the residents paying attention to

preserving the state of building stock and protecting nature, and the willingness to cooperate with the surrounding settlements.

(13) Relying on the results got by methods that measure 'from the outside' and 'from the inside', it can be concluded that the successful small village proceeds in a linear way towards the goals conceived by the residents and the settlement management. It takes advantage of the potential(s) of the settlement according to its possibilities, the successful villages tend to decrease the retarding factors to a minimum, realizing that developing the areas having the worst development values is also necessary. On the contrary, in the undeveloped small village, goals are not definite, thus the development of it proceeds in a nonlinear way. When having indefinite goals, the extant potentials are neither achieved, the development of retarding factors is neglected, the settlement management only focuses on developing only one or two highlighted areas, which is not enough for development.

(14) In the model of the successful small village the followings give the basic requirements, based on the outlined success factor group: economic structure, social structure, conditions, supply, accessibility, quality of environment, preparedness of manpower, social cohesion. However due to the appreciation of human capital, I found it necessary to change the model from a social approach. Hence, a model defined 'from the outside' and a model defined 'from the inside' can be set up, according to the followings. Based on the success factors measurable 'from the outside', high statistical total development values are in the centre of the model. That is to say, a good position is needed in the development ranking based on the indicators that can be easily measured in a quantitative way, for the success of the settlement. Among the success elements measurable 'from the inside', the social involvement has been appreciated, which is the driver of settlement development.

IV. The possible applications of the results, suggestions

In the literature of villages the elements of the 'little village syndrome' are well outlined, however the factors generating a successful small village are not. The success model of villages and the outline of factors of dynamic small villages can be literature base for researches on the development of villages by quantitative and qualitative methods.

The figures in the Ph. D. dissertation, presenting the results of the questionnaires, offer a chance to show a methodology and an expressive representation of answers to an only question, based on the data recorded in the researched and the neighboring settlements.

Based on my research results, the local residents have a definite idea of the development possibilities in their village. So, it can be useful for regional development to make the residents and the local elite participate more actively in the preparation of decisions, and the shaping up of development directions.

As my research justified the idea that for the success of a village it is not enough to have only one relatively developed factor, I suggest that after surveying some of the settlement parameters (society, economics, supply, infrastructure, traffic ties, tourism conditions, etc.), not only the strong points should be developed, but the factors with the worst values, the retarding ones too, they can be significantly and substantively improved for the purpose of putting the settlement into a developing orbit.

As the examination of small villages is difficult because of their increasing population (they fall out from the category of small village), I suggest, when researching on small villages, an outline not only by population size. A possibility for categorization can be an outline by the functions as well.

V. Possible directions of further research

Of course, the dissertation could be further expanded in order to refine the research results. Success as a value category, would be worth looking at from the perspective of the 'local non elite', in accordance with the research problem gaining space mainly in foreign literature (J. TIMÁR – G. VELKEY, 2003; L. BOROS – G. HEGEDŰS – V. PÁL, 2007). Without attempting to be comprehensive, the opinion of tourists and the local marginalized groups could also be important, because this way it would be more definitely differentiated 'whose success' success is, and how each of them experiences settlement success.

On the other hand by reviewing literature I realized that the circle of success factors are continually changing, their emphasis are always redefined, so it could be worth repeating the same survey in the surveyed villages in a couple of years, and examining the success, development driving factors of them and their changes.

In connection to the previous statement, it could be also useful to test the model of the successful small village even in villages of more than 500 residents. Thus it could be decided how specific the model shaping factors of dynamic small villages are to small villages, to see if they can characterize more populated villages as well.

This research was supported by the European Union and the State of Hungary, co-financed by the European Social Fund in the framework of TÁMOP 4.2.4. A/2-11-1-2012-0001 'National Excellence Program'.

	Population	R	Society	R	Supply	R	Economy	R	Traffic	R	Tourism	R	Total development	R
Szántód	317,13	9.	143,18	16.	356,35	1.	270,62	30.	205,62	52.	277,73	4.	1570,63	1.
Dunaszentmiklós	248,50	100.	119,66	30.	213,68	90.	255,11	94.	203,87	60.	116,07	64.	1156,89	15.
Fertőhomok	275,70	38.	117,11	33.	221,44	67.	259,67	59.	169,27	502.	39,69	282.	1082,88	29.
Hegymagas	234,42	166.	84,40	107.	235,30	45.	231,17	320.	186,70	223.	94,09	90.	1066,08	38.
Gosztola	284,04	32.	153,38	12.	55,47	1042.	257,93	70.	178,36	351.	127,60	48.	1056,78	42.
Dozmat	306,81	18.	69,82	183.	202,12	128.	239,75	225.	225,85	6.	11,82	837.	1056,16	43.
Dörgicse	241,26	130.	76,54	134.	218,24	79.	235,98	273.	170,26	488.	112,45	69.	1054,72	45.
Csonkahegyhát	243,77	116.	86,13	96.	218,60	78.	253,25	105.	201,06	75.	24,97	534.	1027,78	65.
Villánykövesd	188,83	760.	60,93	265.	201,30	133.	244,61	186.	180,88	300.	136,78	42.	1013,33	75.
Tivadar	191,91	702.	59,53	278.	155,43	431.	193,41	678.	142,82	882.	240,00	9.	983,10	99.
Apátistvánfalva	208,67	408.	156,02	9.	157,44	409.	237,56	251.	167,90	532.	30,18	420.	957,78	122.
Velemér	173,64	934.	84,50	106.	121,74	716.	255,46	87.	154,68	745.	160,80	26.	950,84	134.
Romonya	262,06	56.	65,20	226.	131,07	639.	237,76	249.	212,97	25.	14,61	786.	923,67	173.
Klárárfalva	228,67	208.	35,33	717.	183,07	232.	204,30	582.	200,64	77.	9,21	924.	861,23	314.
Alsómocsolád	215,19	335.	50,11	403.	162,44	369.	206,63	555.	133,62	964.	77,36	109.	845,34	360.
Fony	207,64	428.	82,83	111.	110,69	808.	165,33	855.	148,10	826.	22,81	575.	737,41	725.

Table 1. The values of settlements drawn into the study, by indicator groups and total development in the small village stock

(Source: own construction based on own calculation)

	Population	Society	Supply	Economy	Traffic	Tourism	Total development
The average of all the villages (1)	215,75	56,36	188,64	209,93	173,33	35,39	879,40
The average of villages excluding small villages (2)	221,60	60,65	213,77	215,04	177,90	34,73	923,69
The average of small villages (3)	205,43	48,92	144,90	201,03	165,35	36,43	802,06
(1) score in the ranking of values of all the villages	1254.	1182.	1553.	1695.	1504.	951.	1412.
(2) score in the ranking of values of villages excluding small villages	977.	981.	1048.	1549.	1285.	981.	1742.
(3) score in the ranking of the values of small villages	1785.	1626.	2285.	1920.	1854.	898.	2076.

Table 2. The development averages of all the villages, the settlements with more than 500 residents and the small villages, by indicator groups

(Source: own construction based on own calculation)

	Alsómocsolád	Apátistvánfalva	Csonkahegyhát	Dozmat	Dörgicse	Dunaszentmiklós	Fertőhomok	Fony	Gosztola	Hegymagas	Klárárfalva	Romonya	Szántód	Tivadar	Velemér	Villánykövesd
Total development	845,3	957,8	1027,8	1056,2	1054,7	1156,9	1082,9	737,4	1056,8	1066,1	861,2	923,7	1570,6	983,1	950,8	1013,3
The average of total development of the surrounding settlements	804,4	961,6	926,9	1063,4	1095,3	1050,6	1025,2	782,3	851,8	1104,9	1001,0	914,9	1086,1	829,1	898,5	814,3
The rate of regional autocorrelation	0,2296	-0,0179	-0,0004	0,0453	0,0541	0,1595	0,0566	0,4336	-0,0291	0,0769	-0,1087	0,0185	0,8436	0,0405	0,0251	0,0099

Table 3. The values of regional autocorrelation between the total development of villages drawn into the study and the total development of their surrounding villages

(Source: own construction based on own calculation)