## **Communication Activity of the Micro-Regions of North-Hungary**

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#### Abstract

This paper demonstrates the results of the analysis on the local authorities' communication activity level in the micro-regions of North Hungary. Hereby I am making an attempt to measure 'communication activity', an important factor from the viewpoint of territorial differences, which is difficult to be valued on the basis of traditional statistical indicators. We have a very heterogenous picture about the communication activity of the examined micro-regions. The results of our survey represent a quite favorable picture in the case of Heves county while the situations that prevail in Nógrád and Borsod-Abaúj-Zemplén counties are predominantly disadvantageous.

#### Zusammenfassung

Dieses Papier führt die Ergebnisse von der Analyse um die Höhe der Kommunikationstätigkeit der örtlichen Autoritäten in den Mikrogebieten Nord-Ungarn vor. Hiermit mache ich einen Versuch an Messen des wichtigen Faktors (vom Standpunkt territorialer Unterschiede) 'Kommunikationentätigkeit, der schwierig durch traditionelle statistische Anzeiger zu schätzen ist. Wir haben ein sehr heterogenes Bild um die Kommunikationstätigkeit von den untersuchten Mikrogebieten erhalten. Die Ergebnisse von unserer Vermessung vertreten ein ziemlich günstiges Bild im Fall von Heves Bezirk, während die Lage von Nógrád und Borsod-Abaúj-Zemplén Bezirke hauptsächlich nachteilig sind.

### Keywords:

Communication activity, micro-regions, territorial differences.

### Introduction

The reasons behind these territorial differences have long been studied. The economic and social structure, the features of the environment, the favorable or unfavorable accessibility of the region and the manpower quality are the most important factors in territorial differences.

While we are examining territorial differences it can be realized that the reasons are often similar. Some factors, such as distance from the capital or an important economic centre or the general education level etc. can be measured easily, but other factors, such as the quality of the economic factors' connection network or the general emotional condition of the population are difficult to evaluate.

In every case, the main target is to insure a good quality of life accompanied by a harmoniously growing standard of living. For this, the required conditions are the relatively high employment and high productivity of labor, which usually offers favorable income to these territories. To achieve this, it is expected to set forth a high level of competitiveness and a continuous renewal capability.

In 2003 the Department of Regional Economics in the University of Miskolc made a research in the micro-regions of North Hungary inquiring about their opportunities for renewal. The project's main target was to develop strategies for the related micro-regions. The strategies focused especially on the question how to develop the micro-regions' competitiveness.

In the first stage of the project we analysed the micro-regions' present situation from the point of view of five aspects (human conditions, infrastructure, financing situation, communication activity, general macroeconomic situation). Four of these five aspects can be measured easily by statistical indicators, but we were confronted with problems when we wanted to demonstrate the territorial differences of the communication activity. In this case we were not able to use the traditional statistical indicators.

In the framework of the project we examined the communication activity of both the local authorities and enterprises. In this paper I represent the results of the survey about the local authorities' communication activity.

## Methodology:

a) A questionnaire was created to measure the communication activity level of Borsod-Abaúj-Zemplén, Heves and Nógrád counties. We wanted to ensure the highest level of representativity so our interviewers visited all the local authorities. The proportion of answering local authorities never went below 75%.

Name of the micro-region	Number of local authorities in the micro-region	Number of answering local authorities	Proportion of answering local authorities
Edelény	43	46	93%
Encs	50	55	91%
Kazincbarcika	24	32	75%
Mezőkövesd	19	24	79%
Miskolc	35	41	85%
Ózd	28	28	100%
Sárospatak	15	16	94%
Sátoraljaújhely	28	36	78%
Szerencs	27	32	84%
Szikszó	18	24	75%
Tiszaújváros	21	21	100%
Eger	18	21	86%
Füzesabony	15	19	79%
Gyöngyös	20	23	87%
Hatvan	10	13	77%
Heves	14	17	82%
Pétervására	20	25	80%
Balassagyarmat	22	28	79%
Bátonyterenye	11	13	85%
Pásztó	21	26	81%
Rétság	21	25	84%
Salgótarján	20	22	91%
Szécsény	11	13	85%

### Basic data about the survey's representativity:

The questionnaire had three main parts. The first part of the questionnaire concentrated on the geographical direction of the self-governments' communication activity. We were curious to find out the rate of communication activity at a local level of these self-governments, and the proportion of communication beyond the borders.

During the evaluation we had to take into account that local connections are necessarily primary for the operation of self-governments, however, national and international relations are also indispensable for a dynamically developing area. Our answers were valued in the light of this.

The second part of the questionnaire focused on the range of the self-governments' partners. With the help of this part we wanted to learn about the complexity of the communication network of the self-governments, and we also aimed to measure this complexity in some way. Those communication connections were rated with higher points which didn't come directly from the obligatory activities of the self-governments and which could lead to greater positive effects. In this way, for example, connections with advanced educational research centers or other types of research centers were higher appreciated than the regular connections with other self-governments, which derive from the usual function of the establishments and not from the institutions' enterprising spirit.

The third part of the questionnaire measured the forms of communication activity within the self-governments. We were curious to reveal the scope of our self-governments' communicational activity. We have examined how they are trying to find consensus with their partners, and how self-governments build upon independent opinions. We appreciated more if a self-government showed a higher grade of openness (for example: when a self-government is trying to get its inhabitants involved into the project).

b) Afterwards, the questions in the survey form had been weighed from the point of view of the importance of their communication level and we created three main indicators. Then, we made trial calculations, which helped to determine the best and the worst imaginable values of these indicators. The indicators were scaled from -2 to +2. -2 means the worst possible value of the indicator, +2 means the best imaginable value of it.

The low value of the indicator in the geographical direction of the self-governments' communication activity means that the micro-regions' self-governments are quite closed, the low value of the indicator for communication partners means poor cooperation, while the low value of the indicator of the communication form infers that the micro-regions' self-governments make use only a small part of the communication opportunities.

c) Finally, we created a unique indicator also ranging from -2 to +2. This indicator represents the micro-regions' communication activity level.

# **Results and Discussion**

### Table 1.: The indicators of Borsod-Abaúj-Zemplén county's communication activity

Micro-region of Edelény	The value of the indicator
Indicator of geographical direction	-1,05
Indicator of communication partners	-1,14
Indicator of communication form	-1,125
Indicator of communication activity level	-1,105

Micro-region of Encs	
Indicator of geographical direction	0,16
Indicator of communication partners	-0,5
Indicator of communication form	0,02
Indicator of communication activity level	-0,11
Micro-region of Kazincbarcika	-0,11
Indicator of geographical direction	-0,43
Indicator of communication partners	-0,6
Indicator of communication form	-0,3
Indicator of communication activity level	-0,44
Micro-region of Mezőkövesd	,
Indicator of geographical direction	-1,2
Indicator of communication partners	-1,24
Indicator of communication form	-0,9
Indicator of communication activity level	-1,11
Micro-region of Miskolc	
Indicator of geographical direction	1,2
Indicator of communication partners	0,1
Indicator of communication form	0,275
Indicator of communication activity level	0,52
Micro-region of Ózd	
Indicator of geographical direction	-0,75
Indicator of communication partners	-0,37
Indicator of communication form	-0,2
Indicator of communication activity level	-0,44
Micro-region of Sárospatak	
Indicator of geographical direction	1,04
Indicator of communication partners	0,47
Indicator of communication form	0,07
Indicator of communication activity level	0,53
Micro-region of Sátoraljaújhely	
Indicator of geographical direction	-1,83
Indicator of communication partners	-1,27
Indicator of communication form	-1,04
Indicator of communication activity level	-1,38
Micro-region of Szerencs	
Indicator of geographical direction	0,37
Indicator of communication partners	-0,57
Indicator of communication form	-0,3
Indicator of communication activity level	-0,17
Micro-region of Szikszó	
Indicator of geographical direction	-1,62
Indicator of communication partners	-1,13
Indicator of communication form	-0,9
Indicator of communication activity level	-1,22
Micro-region of Tiszaújváros	0.2
Indicator of geographical direction	0,3
Indicator of communication partners	-1,21
Indicator of communication form	-1,05
Indicator of communication activity level	-0,65

We can say, that it can be pointed out, that almost all micro-regions' communication activity level of Borsod-Abaúj-Zemplén county is below the average which is represented by the indicator's 0 value. Only the micro-region of Miskolc (0,53) and the micro-region of Sárospatak show us a rather favorable situation. The communication activity level of the micro-region of Szikszó (-1,22) Sátoraljaújhely (-1,38) and Mezőkövesdi (-1,11) is really low.

The indicator of geographical direction is especially unfavorable in the micro-regions of Szikszó (-1,22), Sátoraljaújhely (-1,83), Ózd (-0,75), Mezőkövesd (-1,2) and Edelényi (-1,05). Only the micro-regions of Miskolc (1,20) and Sárospatak (1,04) show us definitely positive values. It can be observed, that being located in the country's periphery – especially being located near the country's eastern borders (such as in East Hungary) - narrows the geographical direction and effects the communication activity level. In some cases (e.g. in the micro-region of Mezőkövesd) it is difficult to explain the indicators' bad results with the periferial theory. In these cases we have to find the different factors (for example the specific territorial structure of the settlements, etc.), which can be behind the results. Higher indicators can be observed in micro-regions where there are more populated capitals or if the region possesses a more significant economic potential. Micro-regions consisting of the network of small settlements have little chance to build a national and international communication network.

The indicators of communication form in every micro-region represent a very low level with the exception of the micro-regions of Miskolc (0,10) and Sárospatak (0,47). It also shows us the absence of seeking cooperation and the almost total lack of the endeavour to find consensus with different partners. We found merely a few exceptions where we could reveal some connections with research institutes for advanced education or other type of research institutes, or in certain cases with enterprise development institutes or chambers of commerce.

The indicators of communication form show us that with the exception of the micro-region of Miskolc, the practice of all the micro-regions' self-governments communication is in a poor state. Beyond the obligatory means of communication that are required by different sources of law, they do not use any other devices for the presentation of their intentions and projects. It seems that self-governments feel more like an authority than a service-based institute, which represents different interests. Despite these facts mention has to be made that the wider range of communication means need greater sources of funds, which is not accessible for all self-governments.

Micro-region of Eger	The value of the indicator
Indicator of geographical direction	0,48
Indicator of communication partners	0,57
Indicator of communication form	0,91
Indicator of communication activity level	0,65
Micro-region of Füzesabony	
Indicator of geographical direction	-0,18
Indicator of communication partners	0,22
Indicator of communication form	-0,11
Indicator of communication activity level	-0,05
Micro-region of Gyöngyös	
Indicator of geographical direction	0,41
Indicator of communication partners	-0,02
Indicator of communication form	0,3
Indicator of communication activity level	0,23
Micro-region of Hatvan	
Indicator of geographical direction	0,89
Indicator of communication partners	0,41
Indicator of communication form	0,11
Indicator of communication activity level	0,47

Table 2.: The indicators of Heves county's communication activity

Micro-region of Heves	
Indicator of geographical direction	-0,39
Indicator of communication partners	-0,69
Indicator of communication form	-0,11
Indicator of communication activity level	-0,40
Micro-region of Pétervására	
Indicator of geographical direction	0,32
Indicator of communication partners	-1,11
Indicator of communication form	-0,98
Indicator of communication activity level	-0,80

The micro-regions of Heves county represent us a varied picture from the point of view of the communication activity level. The communication activity levels in the micro-regions of Heves (-0,40) and Pétervására (-0,80) are quite low, while the micro-regions of Eger (0,65) and Hatvani (0,47) show as a favorable situation. In Heves county we can also observe that micro-regions with a more significant capital, and micro-regions which are close to the main trade and tourism routes are usually in better situation.

The indicator of geographical direction shows us a quite fortunate situation in the microregions of Eger (0,48) Gyöngyös (0,41) and Hatvan (0,89). All the other micro-regions represent an average level. Compared to Borsod-Abaúj-Zemplén, Heves county shows a definitely better picture, in spite of the fact, that Miskolc has a regionally significant university with several institutes. This favorable picture can be explained by these significant cities' (Hatvan, Gyöngyös) smaller distance from Budapest and by the fact that Eger is an internationally known important touristic center.

With the help of the indicator of communication partners, we can say that the micro-regions of Heves (-0,69) and Pétervására (-1,11) are in bad situation, and the micro-regions of Eger (0,57) and Hatvan (0,41) are definitely above the average.

The indicator of communication form is favorable in the micro-region of Eger (0,91), and very unfavorable in the micro-region of Pétervására (-0,98). All the others represent an average level. Compared to Borsod-Abaúj-Zemplén, Heves county is in a better state, which means that there is a wider communication network around the county's self-governments.

Micro-region of Balassagyarmat	The value of the
	indicator
Indicator of geographical direction	0,66
Indicator of communication partners	-0,97
Indicator of communication form	-0,5
Indicator of communication activity level	-0,27
Micro-region of Bátonyterenye	
Indicator of geographical direction	0,02
Indicator of communication partners	-0,67
Indicator of communication form	0,17
Indicator of communication activity level	-0,16
Micro-region of Pásztó	
Indicator of geographical direction	-1,1
Indicator of communication partners	-1,09
Indicator of communication form	-0,97
Indicator of communication activity level	-1,05

Table 3.: The indicators of Nógrád county's communication activity

Micro-region of Rétság	
Indicator of geographical direction	0,15
Indicator of communication partners	-1,07
Indicator of communication form	-0,8
Indicator of communication activity level	-0,57
Micro-region of Salgótarján	
Indicator of geographical direction	1,02
Indicator of communication partners	-1,21
Indicator of communication form	-1,22
Indicator of communication activity level	-0,47
Micro-region of Szécsény	
Indicator of geographical direction	0,02
Indicator of communication partners	-1
Indicator of communication form	0,05
Indicator of communication activity level	-0,31

It is conspicuous that all the micro-regions of Nógrád county are below the average from the point of view of their communication activity level. Especially the micro-regions of Pásztó (-1,05) Rétság (-0,57) and Salgótarján (-0,47) are at an unsuitable level. It was rather surprising to recognize that the micro-region of the county's capital presented a really bad performance. The general closeness of the county seems to be very prominent in spite of its being located in the neighborhood of Budapest and the Central Region.

The indicator of geographical direction in the case of the micro-regions of Balassagyarmat 0,66) and Salgótarján (1,02) is above the average but the micro-region of Pásztó (-1,10) betrays of a really bad situation, all the other micro-regions show us an average performance.

The indicators of communication partners show us really unfavorable conditions in all the six micro-regions of Nógrád and it is not by chance, since there are no significant higher education and innovation institutes in the county.

The indicator of communication form is somewhat above the average in the case of the microregions of Bátonyterenye (0,17) and Szécsény (0,05), while in the other micro-regions there are definitely poor communication forms. The self-governments communicate almost exclusively in official cases and they very rarely try to involve the potential partners.

### Summary

With the help of the survey about the communication activity of the Micro-Regions of North-Hungary we received a very heterogeneous picture. We were able to determine significant differences among the counties but also among the micro-regions within the counties. From the viewpoint of communication activity level definite correlations can be observed. We observed connections with the periferial situation, with the settlements' space network, with the importance of the micro-regions' central city, and with the closeness of the important transport, trade and tourism routes.

While we got a quite favorable picture in the case of Heves county in general, the situation of Nógrád county is mainly disadvantageous, despite its closeness to Budapest. In the case of Borsod-Abaúj-Zemplén county - with the exception of two micro-regions - we got a generally unfavorable picture despite its regionally important higher education and innovation centers. It seems that self-governments located a bit farther from these centers are not able to utilize their given opportunities. With the further examination of the above mentioned factors, it

seems that areas connected with national and international tourism have more satisfactory communication activity.

Finally, it is useful to mention that in spite of all our efforts we were not able to eliminate a number of subjective factors (the general social or economic atmosphere of the areas, personal subjectivity etc.), but the results we got with the help of this survey are quite close to the general picture of the micro-regions. As a result, we were able to identify which are the micro-regions where self-governments have serious gaps in their communication activity. And as a consequence it has to be mentioned that better communication in itself will not resolve the problems of the territories that are in disadvantageous situation but can build a working network around the areas: so it can pave the way for territorial development.

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