THE ROLE OF GEOGRAPHICAL PROXIMITY IN INTER-ORGANIZATIONAL COMMUNICATION

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Abstract
The form of organizations' relations and organizational communication is influences by several factors. The study focuses on a part of an empirical research which was implemented in 2013, in the SMEs of the Western Transdanubian region, in Hungary. Its focus was the in-depth analysis of inter-organizational communication; the aim of this article is to analyze the impact of geographical proximity on the inter-organizational communication and used communicational genres. The impact of geographical proximity is relevant, however, it is observed periodically.

Key words
Proximity. Geographical proximity. Communicational genres. Inter-organizational communication. Empirical research.

Introduction

In parallel with inter-organizational relations, the inter-organizational communication has become more relevant and as technology and info communication has been developed, communication can be realized between companies situated in different areas of the world (Aguiléra, Lethiais 2015).

The inter-organizational communication is influenced by several internal and external factors from the viewpoint of a certain organization which can be categorized into two groups (Borgulya 2007). On one hand, there are the external factors such as society, the national and economic culture where the company is functioning, on the other hand, the organization itself because the size, the strategy, the leadership or the organizational culture have a great impact on the communication (Lin et al. 2015).

In inter-organizational communication, many text types and communicational genres are used and can be differentiated based on internal or external or as written or verbal communicational genres (Abloncyzné Mihályka 2010, 243-256). A contract is a part of the external and written communicational genre; a negotiation is an external but verbal one. Meetings, phone calls and letters (both traditional and e-mails) are used in internal and external communication as well (Bodnár 2012, 54-55).

1. Table. Typical communicational genres and their categories

	Written	Oral
External	E-mail	Phone call
	Report	Phone message
	Blank	Meeting
	Tender	Report
	Advertisement	Negotiation
	Letter	Consultation
	Contract	Presentation
	Publication	
Internal	Short message	Phone call
	Reminder	Meeting
	Regulation	Introductory interview

	Internal report Minutes Circular Application	Introduction of workplace Report Conversation Instruction Small talk

Source: Ablonczyné Mihályka, Lívia: Gazdaság és nyelv, 2006, p. 66.

As it is seen from Table 1, there are several types of communicational genres which needs face-to-face meetings of organizations' representatives, however, there are forms which does not require personal attendance of the communication participants. Since the importance of knowledge networks and relations has been arised, the study of influencing factors is also growing. The field of regional studies is dealing with the term and the impact of proximity in todays' inter-organizational settings.

Proximity is often interpreted in its traditional, i.e. geographical/phisycal meaning, when the concentration of companies is higlighted (Bouba-Olga, Ferru 2012, Letaifa, Rabeau 2013). However, Entrikin (2011) states that geography is not exclusive anymore; it is necessary but not sufficient in inter-organizational relations (Bentlage et al. 2014, Dettmann et al. 2015, Johnson et al. 2006).

Beside geographical proximity, other dimensions of proximity are defined which all include soft factors influencing inter-organizational relationships, knowledge-flows and communication.

The representatives of the French School of Proximity differentiate the organizational proximity from the geographical one (Gallaud. Torre 2004). The researchers study the impact of these proximity dimensions on knowledge-transfer processes, their role in innovative milieus and focus on the relation of proximity dimensions (Torre, Rallet 2005). Geographical proximity means the distance between two physically separated objects of which rate can be measured and expressed objectively and exactly. However, organisational proximity includes soft factors which promote the interactions and their development of organizations and/or organizational communities, therefore, the measurement of organisational proximity is more complex (Torre,Wallet 2014).

Boschma (2005) studies proximity in innovational context, and makes distinction between five proximity dimensions. Beside geographical proximity, the author identifies 4 proximity dimensions – organizational, institutional, social and cognitive proximity – which can reduce uncertainty and facilitate knowledge-flows in inter-organizational relations. Geographical proximity expresses physical closeness, while organisational proximity means the tightness of relations within an organization or between organizations. When a relation is tighter, the likelihood of knowledge-sharing and development of innovation is higher. Institutional proximity contains a formal (laws) and an informal (shared language) level which provides homogeneous business environment to facilitate the formation of relations. Cognitive proximity is based on the similarity of organizations, i.e. "people sharing the same knowledge base and expertise may learn from each other (...) and facilitates effective communication" (Boschma 2005, 65). Social proximity includes the social embeddedness (Autant-Bernard et al. 2007) of economic actors on a micro-level where trust, former common experience and friendship are the key factors (Anchorena, Anjos, 2015).

Lagendijk and Lorentzen (2007) conclude that when there is geographical distance between actors, other factors come to the fore regarding knowledge-transfer processes, namely the virtual, cognitive, organisational, institutional, temporary and economic proximities. The authors also present a relational matrix of geographical and organizational proximity which is introduced in Table 2.

2. Table. Types of relations based on the rate of geographical and organizational proximity
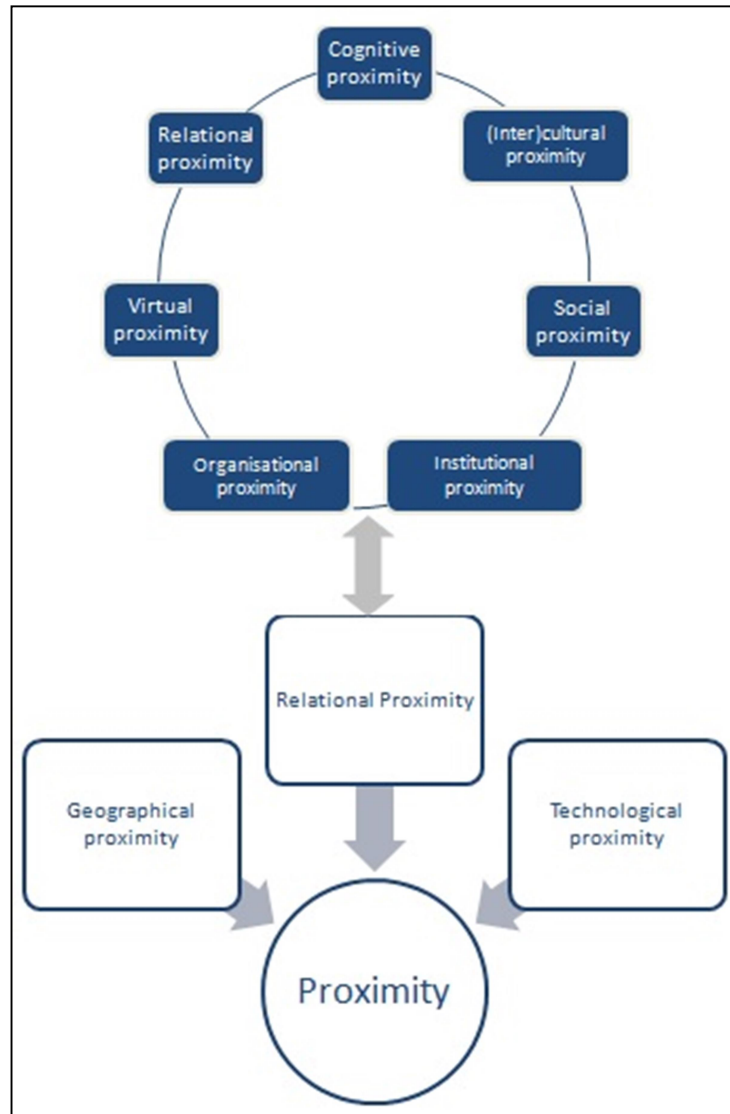
Geographical proximity	Organizational proximity	
	Strong	Weak
Strong	(1a) Local systems of innovation/production (clusters, agglomerations) (1b) Temporary co-localization (projects, meetings)	(3) Co-location without (direct) interaction (agglomerations, corridors with indirect effects in the forms of urbanization economies)
Weak	(2) Non localized interaction (e.g. trans-local organizations, value chains)	(4) Activities in isolation, e.g. in rural-peripheral areas

Source: Lagendijk, A., Lorentzen, A. 2007. Proximity, Knowledge and Innovation in Peripheral Regions. On the Intersection between Geographical and Organizational Proximity. European Planning Studies. vol. 15, is. 4, 457–466. p. 461.

Knoeben and Oerlemans (2006) synthesize previous studies regarding proximity dimensions and try to eliminate the overlaps between these categories. Based on their analysis, they finally define three dimensions, geographical, organizational and technological proximities. Technological proximity expresses the common technological experience and knowledge of organizations and can be measured by patent data and citations (Kabo et al. 2014, Liu 2013).

Cultural proximity means the similarity of cultures, the more similar are the cultures, the smaller the preceived distance is between them (Maletzke 1996, 33) and the easier they understand each other.

Figure 1 shows the three main dimensions of proximity – geographical, relational and technological – where relational proximity contains all the dimensions defined in the previosly introduced literature. Geographical proximity can be objectively measured, technological proximity can also be expressed by the number of patents and/or patent citations, while relational proximity contains soft elements with no exact measurement. The author prefers the term relational proximity since it refers to the relational aspect of this dimension and focuses not only the organizational factors but also on cultural or social ones.

1. Figure. Dimensions of proximity
Source: Own edited (2016) based on the sources in this chapter

Relational proximity is complex and contains many soft factors such as organizational and national culture, trust, shared values and perceptions. It is important to use the adequate terms with appropriately defined meaning based on the strategy and main aim of the certain research.

Materials and methods

The empirical research was implemented in 2013 in the Western Transdanubian Region of Hungary; the aim of the project was to study the internal and external communication of companies in this region. The findings of the research carried out by questionnaires were published (Ablonczyné Mihályka et al. 2014, Tompos, Ablonczyné Mihályka 2015, Tompos et al. 2014), however the author will highlight only a part of the results and from a new perspective. The external communication of companies and the used communication genres will be introduced in the context of geographical proximity.

The following hypotheses are defined:

H1: Geographical proximity has an important impact on the communication between companies.

H2: Geographical proximity plays a periodical role in the inter-organizational communication.

The most important criteria to be a sample company was the geographical demarcation by the region, however, the size and finances of companies were not selection criteria. The quota sampling was used as a sampling technique where the rate of companies functioning in different industries in the Western Transdanubian Region based on data of the Central Statistical Office (2011) – see table 3.

3. Table. Attributes of the sample

Industry	Total Western Region Transdanubian (CSO, 2011, %)	Final sample in the Western Transdanubian Region (2013, %)
Services	75.70%	68%
Industry	8.40%	25.20%
Agriculture	4.60%	3.20%
		No data: 3.6%

Source: Own edited (2016) based on the data of CSO (2011) and research (2013)

The final sample consists of 250 companies within the region; SPSS 22.0 statistical program was used to analyze the sample. The representatives of companies in the sample were asked to fill in a questionnaire which has several parts regarding organizational communication, such as negotiation techniques and skills, foreign language use, communication genres both in internal and external communication. The author will focus only on the used communication genres in the external communication of companies.

Table 4 illustrates the used communication genres in the external communication of companies with the categories of verbal and written types.

4. Table. Communication genres in the external communication of companies

Verbal	Written
Phone calls (N=205) Attendance on conferences (N=140) Negotiation with buyers (N=127) Negotiation with business partners (N=109) Presentations (N=106)	Letters, e-mails (N=228) Filling in blanks (N=117) Contracts (N=113) Scientific publications (N=59) Tenders (N=46)

Source: Own edited (2016)

Factor analysis was used to reduce data regarding communication genres, where special area-related genres (e.g. HR management) were excluded. Finally, 3 factors were defined:

- Factor 1: Communication between companies (negotiation with buyers and with business partners, contracts)
- Factor 2: External communication of companies (not just with other companies) (scientific publications, conferences, presentations)
- Factor 3: Internal communication (internal talk, contact within the company)

The factor analysis is reliable, as the KMO-measurement is 0.732 with 0.000 significance. The three factors keep 47.901% of the original information thus it can be accepted. Letters, e-mails, and phone calls are the members of all the three factors since they are used both, in the internal and external communication.

The two most commonly used communication genres are letters (traditional and e-mail forms) and phone calls which suggest that the exclusive role of geographical proximity is questionable. Parallel with the development of info communication techniques and tools, companies do not necessarily need physical contact, i.e. geographical proximity to build and/or contain relation with other companies. Therefore, the face-to-face meetings and geographical proximity as a whole do not play important role in inter-organizational communication of companies. Hypothesis 1 should be refused, while hypothesis 2 should be accepted because personal meetings (e.g. on conferences or on face-to-face negotiations, meetings) should be held periodically to maintain and/or to develop relationships.

Finally, a Two-step cluster analysis was used to categorize the companies of the sample regarding communication genres (categorical variable) and the size of the companies (metric scale variable). Based on the analysis, two clusters can be identified as taking into account the complexity and usage of different communication genres.

The first cluster consists of 150 companies (67.1% of the whole sample) where only three genres are dominant – internal talk (its importance is 56%), usage of phone (importance is 75.3%) and letters/e-mails (importance is 90%). These companies prefer the traditional communication genres and put a high emphasis on the internal communication, as well. The second cluster contains 93 companies (38.3% of the total sample) of which communication spectrum are more complex. These companies use all the listed communication genres except scientific publications. Therefore, it can be stated that the size of a company influences the complexity of the used communication genres, both in internal and external communication.

Conclusion

Today, companies are related to each other in many different ways – as strategic alliances, supply chains or clusters – thus, communicate continuously. The aim of this study was to analyze the external communication of companies, i.e. communication between them and regarding this, the author explored the role of geographical proximity. Proximity is more than simply a term used for physical closeness; however it has a more complex meaning.

The study gave a short theoretical overview of organizational communication and proximity and proximity dimensions. Although different dimensions of proximity are introduced in the first chapter, the author has focused on geographical proximity in the empirical research because of data given.

The materials and method part of the article highlighted the empirical research conducted in 2013 in the Western Transdanubian Region of Hungary. The author put focus on the external corporate communication and the results were examined in the aspect of geographical proximity.

Taking a look at the communication types and genres used by companies, we can see that the verbal communication (phoning) is the primary communication types overall the sample; however, writing letters and e-mails are also relevant as written communicational channels and genres. These communication genres are traditional and are ensured by every enterprise around the globe. The number of used communication genres by the sample companies is limited; the size of the company has an impact on the range of used communication genres. The bigger the company is, the more types of communication genres are used. It was manifested by the Two-step cluster analysis of the sample companies.

If taking into account the role of geographical proximity, it can be stated that geographical proximity is not exclusive in the inter-organizational communication, i.e. companies can communicate with each other in great distances as well. On the other hand, it was also examined when geographical proximity plays important role. Based on the time factor physical proximity of the two parties is essential periodically – personal, face-to-face meetings are relevant not permanently but in a periodical way, e.g. on conferences or personal negotiations.

Regarding the limitations of the paper and future research plans, the author suggests that in further studies it should be further studied what other factors, i.e. other proximity dimensions influence the relations and communication between companies; it could give a more complex overview of inter-organizational communication. The findings of the introduced research are therefore limited to the impact of geographical proximity, though the study gives relevant insight of that. The other dimensions of proximity should be studied in more detailed empirical research.

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