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Article

Organizational Characteristics and Social Competences: Are there differences within social competences connected with communication and co-operational skills based on the characteristics of organizations?

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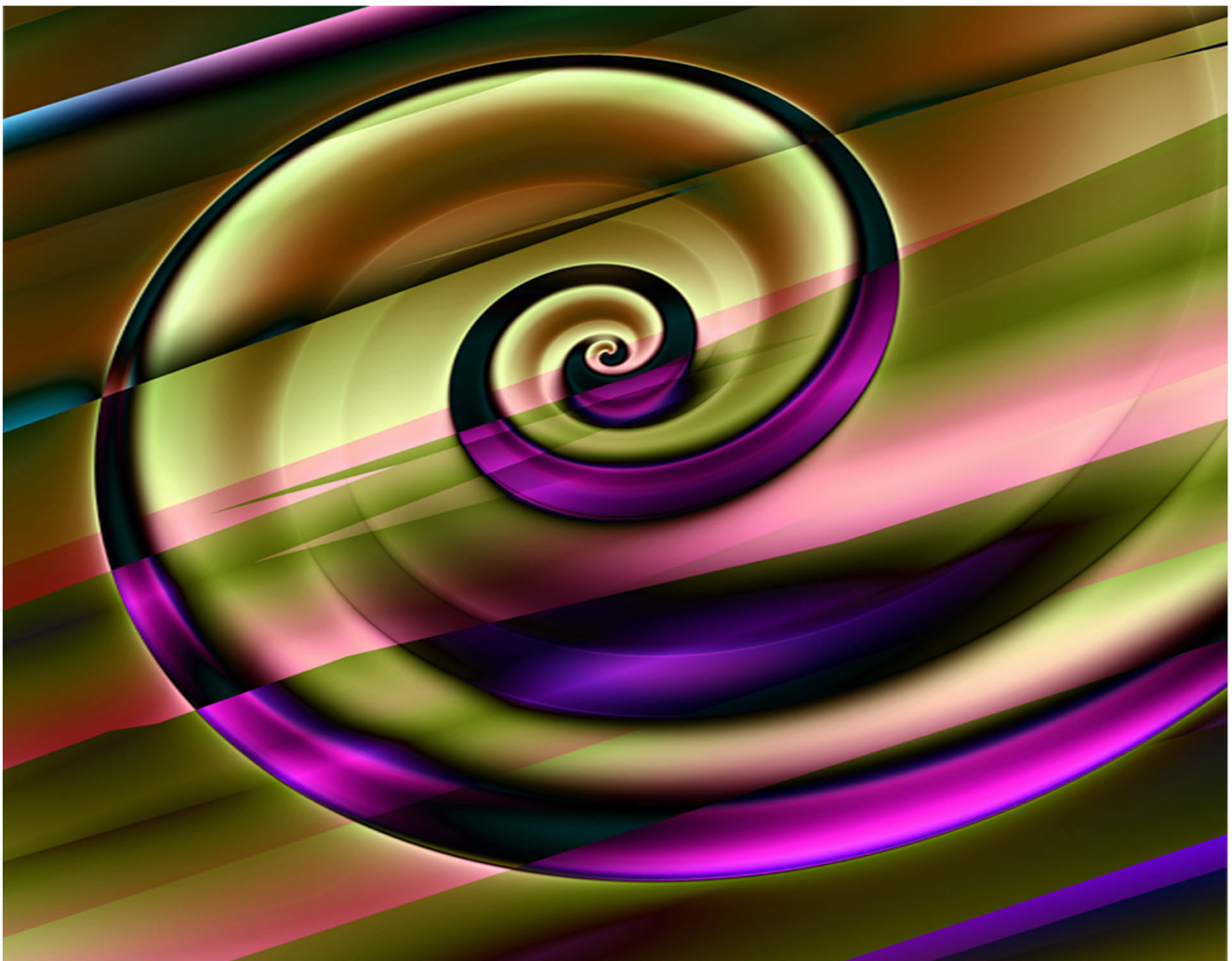
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Organizational Characteristics and Social Competences: Are there differences within social competences connected with communication and co-operational skills based on the characteristics of organizations?

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Abstract

An empirical survey aiming to investigate middle managers working at medium- and large-sized enterprises in Hungary has been conducted since 2007. Its purpose has been to reveal the competences these middle managers find important for knowledge sharing and to discover the characteristics that result in differences within the revealed competence groups.

The data was analyzed using Principal Component Analysis and seven different competence groups were identified. Furthermore this research investigated whether there were differences within selected competence groups (social competencies connected with co-operational skills and communication skills) regarding the characteristics of the middle manager's organizations. As methods decision tree and analysis of variance were used.

The results have shown that differences could only be found within social competences connected with co-operational skills and only regarding one of the examined organizational characteristics while no difference could be discovered within social competences connected with communication skills.

By revealing the competences important for knowledge sharing, the organizations have the opportunity to develop them. Knowing which organizational features have or do not have an influence on these competence groups could help the organizations to think about methods to change it and to create and develop organizational knowledge.

Key words: competence, knowledge sharing, middle managers, organizational characteristics

1. Introduction

Knowledge cannot be shared efficiently without having the adequate competencies accordingly; it is relevant to be aware of the competencies that are necessary for sharing knowledge. From the large number of competencies, those which are needed for knowledge sharing can be and have been revealed with the help of middle managers, who will finally use them to share knowledge (Szabó & Csepregi, 2011). Middle managers as employees, who work below the top management of the organization and who are responsible for and work with employees who are hierarchically lower than they are, thus play a significant role in the vertical organizational communication and also influence horizontal knowledge sharing within their organization. Based on this, from the revealed seven competence groups of Szabó & Csepregi (2011) this paper focuses on two competence groups (social competences connected with communication and co-operational skills) and aims to reveal whether certain features of the investigated middle managers' organization has an effect on them.

The paper is structured as follows. In the next section, the theoretical background of middle managers, knowledge sharing, and competences is briefly outlined, while Section 3 introduces the empirical study which has been conducted since 2007 among 400 middle managers working at medium- and large-sized enterprises in Hungary. This section contains the purpose of the research and also the research question, after which the hypothesis and the data collection of the research is discussed. Since several methods can be used to test the hypothesis, all these are presented, and also those which were finally chosen to test the hypothesis. Based on this, the results of the study are also introduced in this section, which is followed by the presentation of the thesis and its interpretation. Section 4 is dedicated to the conclusion and discussion.

2. Theoretical Background

2.1 Middle Managers

The investigation of middle managers is not a topic of recent origin, it dates back at least to the 1970s when, according to Chandler (1977), their jobs covered exclusively the supervision of the lower hierarchical levels. Nowadays however a large body of literature discusses their role in other fields as well. In the past few decades there has been no universally accepted definition of middle managers. Bower (1986, 297-298) states that middle managers are those within their organization “who are in a position to judge whether issues are being considered in the proper context”. From another viewpoint Uytterhoeven (1989, 136) argues that a middle manager is someone “who is responsible for a particular business unit at the intermediate level of the corporate hierarchy”. Ireland (1992) provides a more concrete definition concerning middle managers and describes them as employees who work between an organization’s top-level and first-level managers. Furthermore, their jobs contain the integration of “the intentions of top-level managers with the day-to-day operational realities experienced by first-level managers” (Ireland, 1992, 18). Regarding their position in the organization, Staehle and Schirmer (1992, 70) emphasize that middle managers are “employees who have at least two hierarchical levels under them and all staff employees with responsibility for managing personnel”. Being aware of these features, we consider middle managers as employees who work below the top management of the organization and who are responsible for and work with employees who are hierarchically lower than they are.

2.2 Knowledge Sharing

Regarding the definitions of knowledge sharing, it is mainly described as an activity during which information or other important contents are shared (Bartol & Srivastava 2002; Möller & Svahn 2004; Li 2010). The approach of Bartol and Srivastava (2002) contains information as an element of knowledge sharing and defines it as the action in which relevant information is diffused by employees to others across the organization. Möller and Svahn (2004, 220) emphasize that knowledge sharing is “sharing not only codified information, such as production and product specifications, delivery and logistics information, but also management beliefs, images, experiences, and contextualized practices such as business-process development”. Li (2010, 40) defines knowledge sharing as an activity “in which participants are involved in the joint process of contributing, negotiating and utilizing knowledge”.

After reviewing these definitions, it can be seen that neither do they deal with middle managers, nor do they investigate elements that are important regarding the knowledge sharing of middle managers. This

has inspired the authors to create their own definition of knowledge sharing from the combination of the above mentioned ones. Thus this research defines knowledge sharing as a two-way process (imparting and receiving knowledge) between the knowledge giver(s) and the knowledge receiver(s), who as participants of knowledge sharing, exchange the knowledge found in their minds or the knowledge found in electronic or paper documents (so tacit and explicit knowledge). Furthermore knowledge sharing can occur simultaneously, when the participants are present, or at different times, when they make their knowledge explicit.

2.3 Competence

According to Sveiby (1997, 38) competence “embraces factual knowledge, skill, experience, value judgments, and social networks”. In contrast, Keen (1992, 115) considers competence as the “ability to handle a situation (even unforeseen)”. Stoof (2005) created a definition of competence in which skills, besides attitudes and knowledge, are also important elements of competence which according to him are required in the jobs or tasks employees must fulfill. The definition of Gibb (1990, 21) is similar to Stoof’s (2005) description except that it also contains motivation and describes competence as “an ability to perform certain tasks for which knowledge, skills, attitudes and motivations are necessary”. Reinhardt and North (2003) emphasize the importance of requirements which is left out of the previously presented competence definitions but is involved in their definition of competence. According to them (Reinhardt & North, 2003, 1374) competence “describes a relation between requirements placed on a person/group or self-created requirements and these persons’ skills and potentials to be able to meet these requirements”. They also emphasize that competence focuses on when knowledge is applied and it can be measured when the result of actions is achieved (Reinhardt & North, 2003). Despite the differences in the definitions, it can be observed that the term competence is a broad concept that combines knowledge, skills, attitudes, motivations, and it is needed to fulfill requirements, jobs and tasks. From the above presented definitions this research adopts the definition of Gibb (1990) who as mentioned above emphasizes the importance of attitudes, knowledge, skills and also motivation to perform certain tasks, since all these characteristics are needed for the middle managers to fulfill their task in knowledge sharing.

Sonntag and Schäfer-Rauser (1993) investigated the self-assessment of vocational competencies. Three special vocational competencies were assumed by them which are professional, methodological and social competences (Sonntag & Schäfer-Rauser, 1993). Their competences were adapted by Forgács et al. (2002) as well but in their professional competences classification include capabilities and knowledge,

while methodological competences consist of thinking and problem solving, creativity and learning ability. Finally social competences include communication and co-operation (Forgács et al., 2002). In the end, personal competences were also adapted by Forgács et al. (2002) which were investigated earlier by Kuhl and Fuhrmann (1997).

This research has adapted the above mentioned authors classification of competences and has differentiated seven competence groups which are found important for knowledge sharing by middle managers who work at medium- and large-sized enterprises. The investigated competences have been separated by principal component analysis into competence groups as methodological competences needed for thinking, methodological competences used for work method and style, social competences connected with communication skills, social competences connected with co-operational skills, professional competences, personal competences and intercultural competences (Szabó & Csepregi, 2011).

Methodological competences needed for thinking contains competences as logical thinking, systematizing ability, analytical ability, and system analysis capability. Competences such as awareness of organizational goals, result-orientation, and practical comprehension of tasks belong to methodological competences used for work method and style. The third competence group, namely social competences connected with communication skills, which is investigated further in this paper, includes the competences of ability of summarizing, easy capacity of understanding, and ability of explaining. Social competences connected with co-operational skills, the competence group that is also examined further in this paper, contain competences as capability of initiation, capability of maintaining relationship, objectivity, ability of feedback, and empathy. The fifth competence group, professional competences, contains working experiences gained in other special fields, experience gained by individual interests, experience at other types of organizations, and experience in organizations similar to present. Personal competences, as the sixth competence group, include stamina, capability of undertaking tasks, and ability of managing stress. Competences gained through studies abroad, job abroad, and job in international surroundings belong to the seventh competence group, namely intercultural competences. (Szabó & Csepregi, 2011)

Differences can be revealed within these social competences from the point of view of the individuals (Gaál et al., 2011) and also concerning the organization where the middle managers work. The results of the latter, regarding its effect on these selected competence groups, are presented in the following part of the paper.

3. Empirical Study

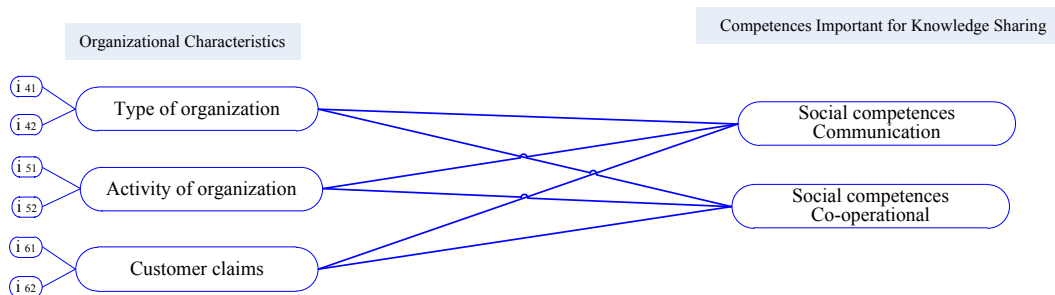
3.1 The purpose of the research and the research question

The purpose of this research has been to discover which components of organizational characteristics result in differences within the selected competence groups middle managers, who work at medium- and large-sized enterprises in Hungary, find important for knowledge sharing. Regarding this purpose the following question needs to be answered:

Question: How do organizational characteristics influence social competences connected to communication and co-operational skills which are found important for knowledge sharing by middle managers who work at medium- and large-sized enterprises?

Organizational characteristics regarding the middle manager’s organization in this research classification consist of the type, the activity, and the customer claims fulfilled by the investigated organization. The category regarding the type of the middle manager’s organization asks about which of the following combination the organization is characterized by: national or foreign-owned, privately or state-owned. The activity of the middle manager’s organization aims to reveal which activity dominates within the organization: the service or the production. Only the categories concerning customer claims fulfilled by the middle manager’s organization, that refers to the demand by the customers, consists of questions containing answers based on a 5-point Likert scale in which the two extremes are not changing and fix customer claims, and often changing and complex customer claims. Figure 1 presents the elements of the model that has been examined.

Figure 1. Elements of organizational characteristics and social competences under investigation



3.2 The Hypothesis and the Data Collection

In order to answer the presented research question the following hypothesis has been stated:

Hypothesis: Differences can be found within social competences connected with communication and co-operational skills which are found important for knowledge sharing by middle managers, who work at medium- and large-sized enterprises in Hungary, on the basis of organizational characteristics.

The data collection of the survey has been conducted since 2007. Since there has not been any database containing the number of middle managers it has been difficult to identify the total number of middle managers working in Hungary. Thus the registered number of medium- and large-sized enterprises in the statistics of the Hungarian Central Statistical Office (KSH) was searched. Based on the data achieved from the KSH it was possible to determine the registered number of middle- and large-sized enterprises in Hungary. Thus, it was possible to investigate 5700 enterprises on the average. This is considered to be the theoretical population of the research since every middle- and large-sized enterprise has at least one middle manager. The KSH statistics do not include the name and addresses of the enterprises, thus to identify the accessible population, newspapers containing rankings of the Top 100 and Top 200 enterprises, databases having information on the enterprises (e.g. name, postal address or e-mail address, CEO name, homepage) was investigated. Knowing this, the homepages of these enterprises was also viewed to find contact information of middle managers working there or at least the contact information of the enterprise where it was possible to send the letter or the e-mail. A sample of 4000 medium- and large-sized enterprises was selected and a database containing the contact information of these enterprises was created.

Questionnaires were sent to these enterprises by post and via e-mail. The printable version of the questionnaire was attached to the letter and the Microsoft Office Word version of the questionnaire was attached to the e-mail. Besides the Hungarian and the English Microsoft Office Word versions of the questionnaire, the electronic version of the Hungarian and the English questionnaire was also created by LimeSurvey (an Online Survey Tool). A Hungarian and an English homepage were established for the research. On these homepages, the electronic and the printable Microsoft Office Word versions of the questionnaires, brief information about the research, and contact information can be found. For further information about the research, the e-mails and letters contained the link of the homepage of the research as well.

The questionnaire comprised of seven categories and from them Individual Competences contained questions regarding the importance of competence for knowledge sharing based on a 5-point Likert scale. Principal component analysis was used on these data and seven principal components have been created (Szabó & Csepregi, 2011) which have been introduced above (2.3 Competence). The questions concerning organizational characteristics were applied from general information in the questionnaire.

3.3 Available methods for testing the Hypothesis and the methods chosen

After the use of decision tree, alternating conditional expectations or (multivariate) analysis of variance and post hoc test could be applied for testing the hypothesis.

To reveal the differences within the competence groups regarding the influencing factors, the decision tree was used as the first method, since with the usage of organizational characteristics it has been possible to reveal classes within the selected competence groups. The goal of this technique is to build a tree which helps in the prediction of the dependent variable based on the values of the independent variables (Blattberg et al., 2008). As a result, the stronger the impact of the independent variable on the dependent is, the closer it will get to the root node which means the variables that can be found at the root node are the strongest classifiers, and these are followed by the next strongest ones at the leaf nodes (Breiman et al., 1984; Sabherwal, Becerra-Fernandez, 2010).

After separating classes with the usage of decision tree from the available three methods, depending on the number of classes, analysis of variance or post hoc test could be chosen. By comparing the group means, the aim was to reveal whether there were significant differences, based on individual characteristics, in the classes created within the selected competence groups. Furthermore, nominal or categorical variables can be used during these methods, and as independent variables at least two independent groups can be created (Urdan, 2005). Since the organizational characteristics have matched these features, these two methods looked to be the best for this analysis.

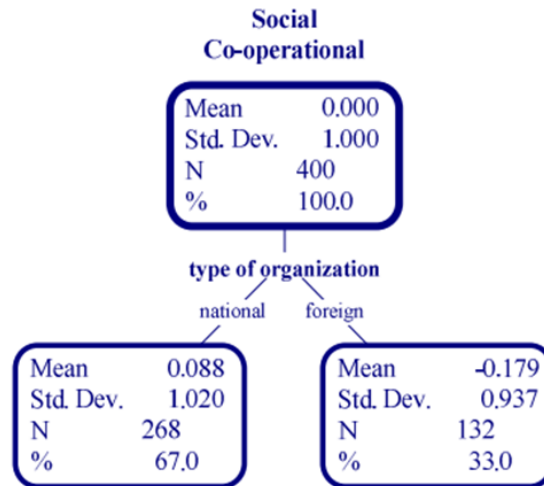
3.4 Results

Decision Tree

By using the method of decision tree it has been possible to reveal classes based on organizational characteristics within social competences connected with co-operational skills. The diagram in Figure 2 shows the classes created by the decision tree. On the other hand, no class could be revealed within social competences connected with communication skills. Within social competences connected with

co-operational skills classes have been discovered regarding organizational characteristics only by the type of the investigated organization.

Figure 2. Classes revealed within social competences connected with co-operational skills



Analysis of Variance

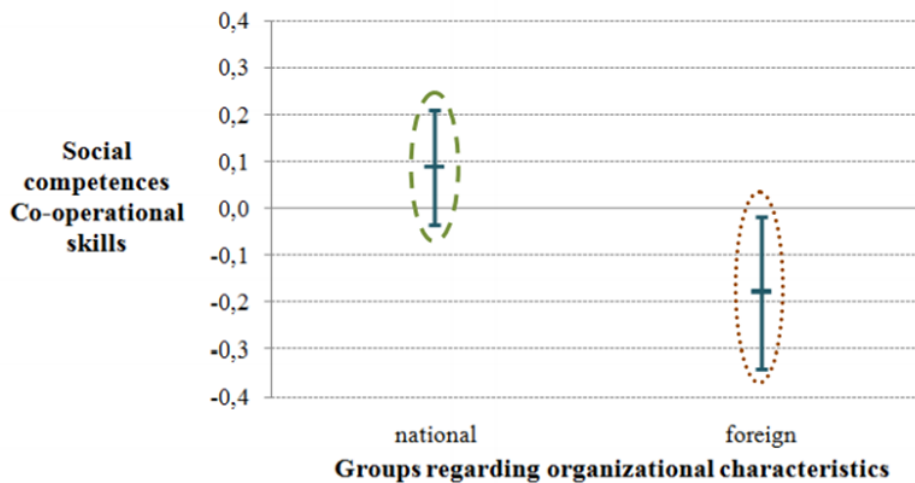
By using analysis of variance the researchers compared, in pairs, the group means of the classes identified by the decision tree within social competences connected with co-operational skill. After this, the classes with the most favorable result within the investigated competence group were separated from the class with the least favorable result. The separated classes according to being the most and the least favorable ones can be found in Table 1.

Table. 1. The most and the least favorable classes based on organizational characteristics

Organizational characteristics	Categories	Social competences - Communication skills	Social competences - Co-operational skills
Type of organization	least favorable	n.a	Foreign-owned
	most favorable		National-owned
Activity of organization	least favorable	n.a	n.a
	most favorable		
Customer claims	least favorable	n.a	n.a
	most favorable		

Since classes could not be revealed with decision tree within social competences connected with communication skill, their group means could not be compared. On the other hand, based on the type of the organization regarding organizational characteristics, two classes were formed within the social competences connected with co-operational skills group. Figure 3 presents the mean values of these two classes.

Figure 3. The group means of social competences connected with co-operational skills based on organizational characteristics



Using the ANOVA test, it was possible to reveal whether the mean value of the class with the most favorable result regarding social competences connected with co-operational skills, and significantly differed from the mean value of the class with the least favorable result. The group with most favorable result contained national-owned organizations while the group with least favorable result included foreign-owned organizations. The result of the ANOVA can be seen in Table 2. According to the F-test of the ANOVA, there is a significant difference between the means of the most and the least favorable results regarding social competences connected with co-operational skills.

Table. 2. The ANOVA result of social competences connected with co-operational skills based on organizational characteristics

ANOVA					
Social competences - Co-operational skills					
	Sum of Squares	df	Mean Square	F	Sig
Between Groups	6.305	1	6.305	6.390	.012
Within Groups	392.695	398	.987		
Total	399.000	399			

Further analysis would have been needed in the case when within the investigated competence groups by using decision tree more than two classes have been formed as a result of organizational characteristics as influencing factors. In this case, with the combination of the most and the least favorable results of the classes within the selected competence groups, additional groups would have

been formed. On these groups, the researchers would have conducted a post hoc test, since the post hoc test compares pairwise all combinations of group means (Field, 2005) and investigates whether these means differ significantly. To prove that the means of the new groups with the most and the least favorable results actually differ, Levine's test of homogeneity of variance would have been conducted. With Levene's test it is possible to determine whether the variance within the investigated groups are homogeneous (Sajtos & Mitev, 2007) and decided whether Tamhane or LSD tests should be used during the post hoc analysis. When variances have been assumed to be equal (variances have been homogeneous) as the result of Levene's test the LSD test would have been used and when variances have not been assumed to be equal (variance were not homogeneous) the Tamhane test would have been applied (Sajtos & Mitev, 2007).

However since only two groups could be revealed, the means of which have been discovered to be significantly different, the following statements can be made:

Those middle managers who have worked at national-owned organizations find social competences connected with co-operational skills more important for knowledge sharing.

Those middle managers who have worked at foreign-owned organizations find social competences connected with co-operational skills less important for knowledge sharing.

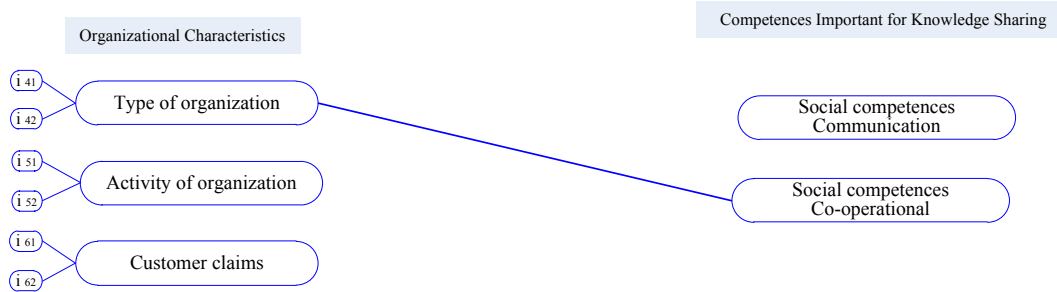
3.5 Thesis and its Interpretation

Based on the results the following thesis can be stated:

Thesis: Difference is found within social competences connected with co-operational skills, which are found important for knowledge sharing by middle managers, who work at medium- and large-sized enterprises in Hungary, on the basis of organizational characteristics only by the type of the investigated organization.

The previously presented hypothesis (3.2 The Hypothesis and the Data Collection) has thus been confirmed. Furthermore the thesis states that those middle managers who have worked at national-owned organizations find social competences connected with co-operational skills more important for knowledge sharing. While those middle managers who have worked at foreign-owned organizations find these competences less important for sharing knowledge. The revealed relationships can be seen in Figure 4.

Figure 4. Revealed relationship between organizational characteristics and social competences



The capability of initiation or maintaining relationships is much easier in organizations where the national and cultural background of employees is similar as this helps co-operation and facilitates knowledge sharing. The same can be stated regarding objectivity, empathy or the ability of feedback. On the other hand, when middle managers have to co-operate with employees coming from other cultural backgrounds they may lose their objectivity or empathy if previous bad experiences regarding these employees influence their judgment. Thus, they may not show empathy towards them and may decrease the frequency of feedback or refuse to give any feedback at all. Thus, it is understandable if middle managers found social competences connected with co-operational skills important for knowledge sharing in national-owned organizations.

Bad experience or the cultural differences regarding working at organizations mostly or fully foreign-owned can be the reason why middle managers in Hungary do not find social competences connected with co-operational skills so important for knowledge sharing. On the other hand, when working in such organizations and when employees come from different countries and cultural background, social relationships and competences connected to these relationships become more significant. The lack of these skills or competences can lead to the decrease of co-operation which results in low-level of knowledge sharing that can be very disadvantageous especially when these middle managers could learn new things from each other.

4. Conclusion and Discussion

This paper presents the results of an empirical study conducted since 2007 among 400 middle managers working at medium- and large-sized enterprises in Hungary.

This research investigated competences middle managers find important for knowledge sharing, which were revealed by principal component analysis into competence groups as methodological competences needed for thinking, methodological competences used for work method and style, social competences connected with communication skills, social competences connected with co-operational skills,

professional competences, personal competences and intercultural competences (Szabó & Csepregi, 2011). From these competence groups, social competences connected with communication and co-operational skills have been further examined by the characteristics of the middle managers' organizations. Organizational characteristics regarding the middle manager's organization in the classification consist of the type of the investigated organization, the activity of the investigated organization, and the customer claims fulfilled by the investigated organization.

Findings of the research indicate that from the two investigated competence groups social competences connected with co-operational skills show differences regarding one of the three investigated organizational characteristics of the middle manager's organizations. This examined characteristic is the type of the middle manager's organization.

These findings show the important role of the organization in knowledge sharing. Furthermore, Nonaka and Takeuchi (1995, 13) point out that "the organization cannot create knowledge on its own without the initiative of the individual and the interaction that takes place within the group." They also stress that organizational knowledge creation has its roots in individuals' tacit knowledge and it "should be understood as a process that organizationally amplifies the knowledge created by individuals and crystallizes it as a part of the knowledge network of the organization" (Nonaka & Takeuchi, 1995, 59). The creation of organizational knowledge is explained as follows "for tacit knowledge to be communicated and shared within the organization, it has to be converted into words or numbers that anyone can understand. It is precisely during this time this conversion takes place – from tacit to explicit, and, as we shall see, back again into tacit – that organizational knowledge is created" (Nonaka, Takeuchi, 1995, p. 9).

Since the creation of organizational knowledge constitutes of interactions, one of the most important tasks of the management is to encourage the process of interactions (the sharing of knowledge) occurring among employees. This shows that sharing individual knowledge, besides being a component of the organizational knowledge dynamics (Bratianu & Orzea, 2010), plays a major part in organizational activity, the result of which is considered to help both the individual and the organization to grow (Spender, 1996; Teece, 1998; Kearns & Lederer, 2003). The reason why knowledge sharing within an organization is so important is reinforced by Dunford (2000, 296) as well: "much of the key knowledge is held by individuals unless there is some structure to retain it within the organizational memory". This can be achieved by action learning as well (Radu, 2012). However, if the individual knowledge is not shared or cannot be shared in an effective way within the organization, then the knowledge will

probably vanish. Or as another possible result, it may have limited effect on the organizational effectiveness and the organizational knowledge base (Chou et al., 2007; Bhatt, 2002).

5. References

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