

Knowledge Sharing Behaviour and Development of Small and Medium-sized Enterprises

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SUMMARY

The aim of the article is to indicate the knowledge sharing behavior (KSB) in SMEs. The task is to be achieved through an analysis research results on KSB. This kind of behaviour is associated in the literature with much broader knowledge management issues. This paper is an attempt to correlate the employees' statements with their work places (company's size) and aims at research made on force of such correlation, including specific character of personnel behaviour resulting from company policy.

Keywords: knowledge; sharing knowledge behavior; SMEs

Journal of Economic Literature (JEL) codes: M12, M53, M54

DOI: <http://dx.doi.org/10.18096/TMP.2015.02.07>

INTRODUCTION – DISCUSSIONS ABOUT KNOWLEDGE

Modern organizations operate in an environment of constant change, even as some researchers and theorists of management indicates in terms of chaos. In this situation, the crucial factor that determines survival and development is organization agility. This feature of the organization is based in large part on the reservoir of knowledge that is immaterial resource. Considerations included in this study focus only on the knowledge possessed by each employee. In this context, the behaviour based on the exchange of knowledge (Knowledge Sharing Behaviour-KSB) between employees could provide an inexhaustible source of knowledge that might contribute to the development of the organization. This problem is particularly important in relation to the of small and medium-sized enterprises (SMEs), which, due to economic limitations have to rely on the resources of employees' knowledge and relations of this type of organizations with their operation environment.

Present day interest in knowledge as an asset creating the supremacy of a given organization, economy, or society is a continuation, or rather a re-discovery of the thesis claiming that knowledge is the basis of civilization and economical development. Although the notion of knowledge, and in a result - innovation, is as old as

human civilization, the concept of “society of knowledge” or “knowledge-based economy” are relatively new. Initially knowledge and its accumulation caused a creation of new inventions, discoveries and technological achievements corresponding to human needs. Present day availability of various knowledge assets has created a situation in which the inventions overtake the human needs and expectations, and in some cases even create them (Cichobłaziński & Słocińska 2009). It is more common that what decides a company's value, according to the stock exchange, is not a tangible asset, but real potential measured as knowledge available for the company. As an example here may be used the organizations from the IT sector, or e. g. training or consulting companies. Therefore, analysis of the processes of creating knowledge and its flow has become one of the most important problems of modern economy and modern enterprises.

With reference to the flow of knowledge, it seems to be a key factor to create a network of contacts among various knowledge centres (individuals, organizations and institutions). An organization itself can be also understood as a social net of action (Czarniawska 2013). In these nets an impulse spreads in a flash. If this impulse is knowledge or information it means that functioning of the net gives access to quick information and almost unrestricted resources of knowledge what plays a vital role for the organization success.

The modern meaning of knowledge is an effect of countries, economies and organizations development and necessity of reaching better results. In the case of organizations, it has become more common to use the term “knowledge management”. Its interpretation is an effect of acceptance of a particular organizational strategy and it is a clarification of the term of knowledge itself.

Knowledge is often confused with similar terms such as data, information, or wisdom. Encyclopedic definitions of knowledge oscillate around the claim that knowledge in its narrow understanding is generally reliable information with reality together with the ability of using it, but knowledge understood broadly, is a general collection of information, skills, experiences, beliefs, etc., to which cognitive or practical value is added. It may even include superstitions, and also a vision of world included in the religious systems and systems of value (Czarniawska 1999).

The basic term connected with knowledge is data. This should be understood as a collection of independent, separate facts and events. Data are essential for functioning of organizations, but in themselves they do not need any inherent meaning. Most of the organizations use special methods of gaining, gathering, ordering and transferring data. In order to do this, special complex information systems are used. Nevertheless, data are only starting materials for decision-making process. In order to have the possibility to draw conclusions on reality, it is necessary to have the possibility to analyse and interpret data. Here emerges the category of information understood in fact as transfer of information. In this frame two elements are important: sender and recipient. Information changes the perception of the recipient, his way of perceiving facts and events, which influences his evaluation of situations and behaviours. In this meaning, “information is data, that makes the difference” (Cichobłaziński & Słocińska 2009). As opposed to data, information is characterized by relevance and purpose.

According to Davenport and Prusak (2000) knowledge is a shaped set of experiences, values, information, referred to the context and insight, which is the basis for evaluation and acquisition of new experience and information. Therefore, this process is initiated and occurs within human minds. Knowledge exists within people, and is developed by them. According to the idea of Nonaka and Takeuchi (2000), people do not obtain knowledge in a passive way; they interpret and adjust it to their own situation and perspective. Within an organization, knowledge is stored not only in documents, or special data-bases, but also in the organizational routines, processes, practices and norms. As may be noticed, knowledge is directly linked with the notion of organizational culture in which it is encoded. Norms, values or network interconnections and relationships, as elements of organizational culture, include elements of organizational knowledge as well. This type of individual knowledge stored in the minds of employees, based on

subjective effect of personal intuition and feeling, is more difficult to formalized, or even impossible.

LEVELS OF KNOWLEDGE- FLOW

Transfer of knowledge is often considered according to two aspects. The first one is knowledge transfer between or between the organization and its environment, particularly social, cultural and institutional in the local, national, continental and even global dimension. In this group of knowledge transfers there should be included the flow of patents and licenses, mainly in the technical and technological aspect. The second dimension is connected with the flow of knowledge within an organization. It is important here to focus on particular employees, their aims and interpersonal relationships, fostering or limiting the flow of knowledge, as well as inter- organizational factors (tangible and intangible), that foster these processes.

Knowledge is treated as a kind of an asset in the organization, which is an element managed according to the management rules to the same extent as the remaining assets of a given organization (Probst et al. 2004). This thesis is true taking for granted that knowledge is identified with the possibilities of using information, especially technical ones. Accepting the broad understanding of knowledge as a factor characteristic for people and their experience, undergoing the process of constant changing of context, the approach to the knowledge management as an asset seems to be very difficult, if not impossible to apply. A dynamic approach to knowledge is inseparably connected with people. This apparently clear statement requires additional explanations. In an organization the people possess and use knowledge, being the carriers of this asset. Sharing knowledge behaviour can be called an engine of exchange and creating knowledge processes (Lin 2008). However, acceptance of new knowledge is often inextricably linked to the need of abandonment of already held beliefs and what was obvious (Cichobłaziński 2013). Knowledge sharing behaviour is a first step to knowledge transfer, which is a one way action, yet the final and most desirable phase is knowledge exchange as it reflects to knowledge seeking action (Wang & Noe 2010).

Nonaka and Takeuchi (2000) claim that management of knowledge exchange is like a football match. The ball does not move in any specific, orderly way. The ball movement is a result of shared play of the team members. It is influenced by place, direct experience of the players, their attempts and mistakes. It requires arduous and intensive interactions among the team members (Nonaka & Takeuchi 2000). It has to be noted that individual knowledge expands while being shared – in this way a transfer from individual to organizational knowledge occurs (Davies et al. 1998). An organization cannot produce knowledge itself without the

individual initiatives of the employees and mutual relationships between them.

MEANING OF KNOWLEDGE SHARING FOR SMALL AND MEDIUM-SIZED ENTERPRISES

According to the trends in management, as well as ideas of knowledge management, organizations should have non-hierarchical, self-organizing structure and they should (Nonaka & Takeuchi 2000):

- be more flat than their hierarchical predecessors,
- be more dynamic, rather than static,
- foster building of close relationships within an organization and relations with customers,
- emphasize competence – unique experience and skills,
- consider knowledge and intellect as the most causative operation tools.

The above characteristics are mainly related to the sector of small and medium-sized enterprises (SMEs), nowadays dominating in the structure of world economy. Their sizes, regardless of the branch they operate in, mean that establishing interpersonal relationships and understanding of the rules of functioning of the whole organization is easier than in the case of large enterprises. The employees in a specific way understand the goals and needs of an organization and have significantly better insights into the location of knowledge within the organization. Information about knowledge possessed by other employees is often obtained as a result of informal interactions, within or beyond the nets (Wang & Noe 2010), which are more common in SMEs. Location of such knowledge-centres is very important, because SMEs often do not dispose sufficient financial assets in order to obtain or purchase knowledge from the company environment. That is why it becomes significant to diagnose and monitor the reservoirs of the employees' knowledge, in order to have the possibility to use knowledge, if necessary.

Nevertheless, the level of the reservoir SMEs' employees' knowledge becomes a source of trouble. As knowledge is mainly based on the personal experience of a given employee, cannot be easily coded and transfer using the latest IT innovations. In such situations a specific type of knowledge is required – knowledge based on personal relationships with other individuals, even if they are employees from the outside of the company. By means of such relationships, the organization may acquire knowledge necessary for the realization of current tasks or for future programming. Solutions of this type are very rarely used in the case of large enterprises, which are mainly based on formal contacts and hierarchical dependencies. Employees of SMEs often have the right to

make autonomous decisions and resolve current problems. This is due to the fact that selection of the personnel is rather based on trust, not pure qualifications. However, it must be pointed out that trust has been recognized as a crucial factor of sharing knowledge behaviour (Lin 2007).

In this group of enterprises, it is also much easier to make changes, even radical ones, as the employees all the time function as if they were in a phase of thawing and they are ready to change the direction of their activities. This is a result of increased instability of SMEs performance.

The fact that they do not have the leading position makes SMEs constantly look for new solutions allowing them to develop themselves and catch up with their competitors. As a result, these companies are not loaded with arrogance and self-admiration, which is more typical for some large organizations that have won the race with rivals. Fear of failure makes the SMEs work harder on creating better rules concerning services, products and processes. Therefore, employee behaviour in the area of knowledge sharing is perceived and carried out in a different way in SMEs than in large enterprises. When encouraging behaviour of this type, a key role is played by the management or owners of an organization, often having managerial functions. They are facilitators of the processes of knowledge exchange among employees (Słocińska 2011). Nevertheless, their lack in knowledge concerning the awareness of the meaning of knowledge and its flow may block the flow of information between the employees and environment, at the same time negatively influencing the development of an organization.

METHODOLOGY

For examining the connection between variables the chi-square (χ^2) test was used which lets us verify the zero hypothesis about the independence of two variables X and Y or the alternative hypothesis, according to which the variables X and Y are dependent (Białek & Depta 2010). In order to determine the power of the relation of features a C-Pearson (C_p) index was applied (Białek & Depta 2010).

The research was conducted in 2013 on the group of professionally active people from the areas of Silesian Voivodeship, Łódź Voivodeship, Lesser Poland Voivodeship and Masovian Voivodeship, employed in production, trading and service companies of various size (Table 1). For the examination purpose 1200 employees were selected at random. From this sample 883 questionnaire forms correctly filled in were obtained. In the selection sample was used a method without returning.

Table 1
Sample characteristic

Features	Number	Percentage
Sex		
female	428	48.47
male	455	51.53
Total	883	100.00
Age		
under 24	300	33.98
25 - 34	232	26.27
35 - 44	166	18.80
45 - 54	128	14.50
55 or above	57	6.46
Total	883	100.00
Seniority (total number of years of work experience)		
under 1	145	16.42
2 - 5	300	33.98
6 - 15	213	24.12
16 - 25	145	16.42
26 or above	80	9.06
Total	883	100.00
Size of the company (based on employees number)		
large	187	21.18
middle	244	27.63
small	251	28.43
micro	201	22.76
Total	883	100.00

Source: own calculations

For testing the assumption concerning the random character of the sample a test of series of the sample randomization was applied, in which the zero hypothesis was checked. Zero hypothesis is that the sample has random character, towards the alternative hypothesis that the sample does not have random character (Domański, 1990).

For sample drawn this way on significance level $\alpha = 0.05$ there were no grounds for rejecting the zero hypothesis, that the sample had random character ($p > 0.05$), and so it was possible to make an assumption about the randomization of the attempt.

Proving the hypothesis the sample on employees has random character, authorize putting general motions with reference to the population of studied provinces.

The research was aimed at determination of personnel behaviour stimulating factors based on knowledge sharing. The respondents were asked to give their opinions about 47 statements on knowledge sharing. Their opinions were expressed in range between 1 and 5 where 1 meant "I fully agree", 3 – "neither agree, nor disagree" and 5 meant "I fully disagree" with a statement. Table 2 contains the statements from the survey with company size correlation coefficient. This paper contains correlation coefficients statistically significant on the level $p < 0.05$. This criterion made the author focus on correlations with significant influence (statements with asterisk) and only those have been analysed herein.

Table 2

C-Pearson coefficient for the selected statements on relation between KSB and organization size.

N	Survey statements	Correlation coefficient (p < 0.05)
1.	Information is more important than knowledge	0.1793755*
2.	Knowledge is more important than information	0.1638893*
3.	I often share information with other co-workers (superiors, colleagues)	0.1194327
4.	I often share knowledge with other co-workers	0.1329559
5.	I trust my superior in terms of information shared (quantity, truth, reliability)	0.1334340
6.	I trust my superior's decisions	0.1116921
7.	My superior is able to communicate objectives and tasks	0.1482940*
8.	My superior informs me about positive opinions about my accomplished task	0.1287150
9.	My superior informs me about negative opinions about my accomplished task	0.1297248
10.	My co-workers have knowledge I wish to possess	0.1714773*
11.	This knowledge tells: I know what to do	0.1463670*
12.	This knowledge tells: I know how to do it	0.1444576*
13.	This knowledge tells: I know why to do it	0.1077522
14.	This knowledge tells: I know where to look for information	0.1159311
15.	This knowledge tells: I know people who have necessary information	0.0951556
16.	This knowledge tells: I can do old things in a new, better way	0.1339599
17.	This knowledge tells: I know who can give me instructions helpful in task implementation	0.1110777
18.	This knowledge tells: I have excellent relations with my co-workers	0.1021392
19.	My colleagues / co-workers have no problems in communication	0.1111588
20.	My superior trusts me in terms of information I share	0.1479979*
21.	My co-workers/colleagues are dedicated to work	0.1060554
22.	My superior is dedicated to work	0.1066270
23.	I feel integrated with my team	0.1592976
24.	I obtain all information necessary for my duties / tasks	0.1579242*
25.	I need to find my own information to perform my duties	0.1334489
26.	My co-workers share knowledge with me only in exchange for different knowledge from me	0.1537712*
27.	My colleagues share knowledge in order to get "gratitude debts"	0.1272310
28.	My colleagues share knowledge, being aware that they create their image of a competent expert this way	0.1157529
29.	My co-workers share knowledge because they like to help others	0.1130502
30.	My co-workers share knowledge because this sharing makes their work faster and more efficient	0.0915099
31.	I don't share my knowledge because for I am afraid of becoming redundant and replaced	0.1318827
32.	I feel safe in my organization	0.1740244*
33.	My organization rewards sharing knowledge	0.1613459*
34.	My superior rewards sharing knowledge	0.1096881
35.	I see my work as meaningful	0.1561357*
36.	I enjoy sharing knowledge with my co-workers (superiors, colleagues)	0.1050874
37.	I feel respected in my organization	0.1148958
38.	I often ask what to do when I perform my tasks	0.1294236
39.	I often ask how to perform my tasks	0.0982881
40.	I often ask about necessary information sources when performing my tasks	0.1165635
41.	I often ask who could help me in my tasks	0.1070772
42.	In my work, I mainly count on myself	0.1244748
43.	In my work, I believe that mistakes are the way to learn	0.1739351*
44.	In my work, I believe that I can try doing old things in a new way	0.1546992*
45.	I am allowed to make mistakes in my work	0.1157962
46.	Knowledge is my property, I need to protect it	0.1359067
47.	My co-workers enjoy sharing knowledge with me	0.1435034*

Source: own calculations

STUDY RESULTS

In many papers and opinions there are noticeable errors in the understanding of knowledge as a term, narrowing it

to the pure information considered to be vital. That is why the research was also aimed at analysing this problem. Personnel in large organizations are relatively more likely to value information before knowledge.

Medium-sized, micro and small organizations employees

tended to value knowledge more (Figures 1 and 2).

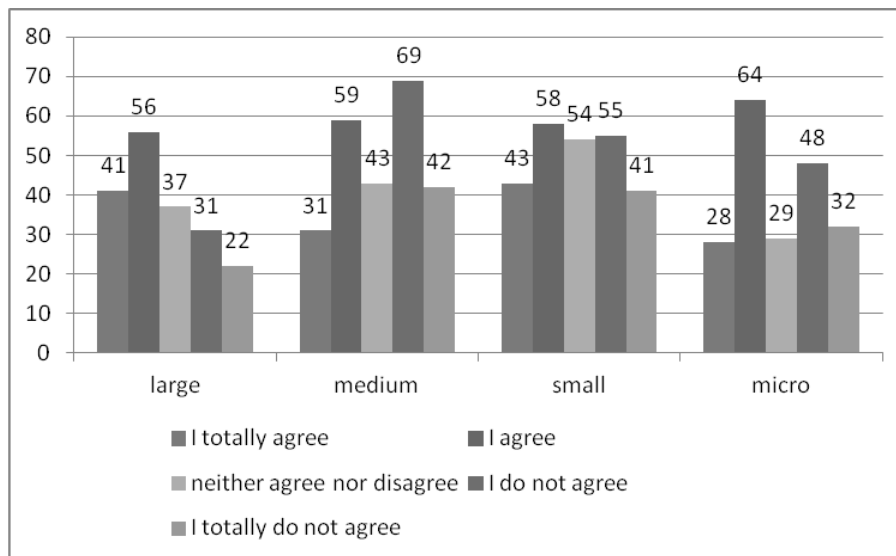


Figure 1. Answers for the statement: Information is more important than knowledge, according the company size (answers in number for N=883)
Source: own calculations

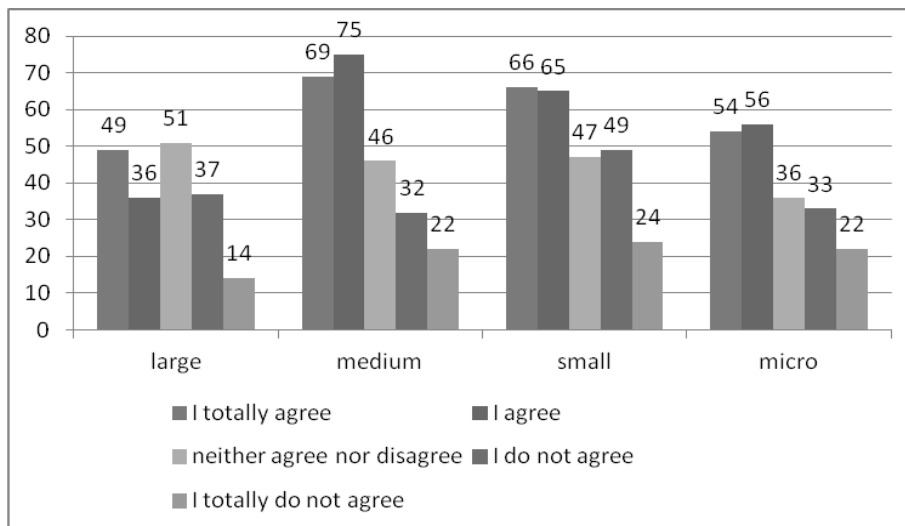


Figure 2. Answers for the statement: Knowledge is more important than information, according the company size (answers in number for N=883)
Source: own calculations

Such distribution of answers may be explained by the fact that large organizations have high specialization of duties. As a result, the employees rarely get to learn more about other co-workers' jobs and about contribution they make to the total company result. Moreover, narrowed duties stimulate routines without the necessity to complete knowledge. Large organizations use computer knowledge management systems, built as huge data storages or cooperating information modules, helping in fast generation of statistics and statements. This may create an illusion that information and its availability and processability help to manage the organization properly and make the decisions aimed at work efficiency increase. However, information

management tools may not necessary be helpful in building individual and organizational knowledge. The situation is different for the SME sector, where employees often are responsible for various tasks and need to know the specific character of their colleagues' jobs as well. This is clear in small and micro organizations, where work management requires flexible activity with the ability of quickly taking over other colleagues' duties, which, on one hand, stimulates learning ability, but on the other, requires strong involvement in knowledge sharing skills. Even vacation is possible only when one employee explains and passes one's duties to another.

The above is confirmed by the analysis of personnel opinions on the attractiveness of co-workers' knowledge, where the staff of micro-companies is

definitely leading, with 56% of respondents fully agreeing with the statement that their co-workers have the knowledge, they wish to possess (Figure 3).

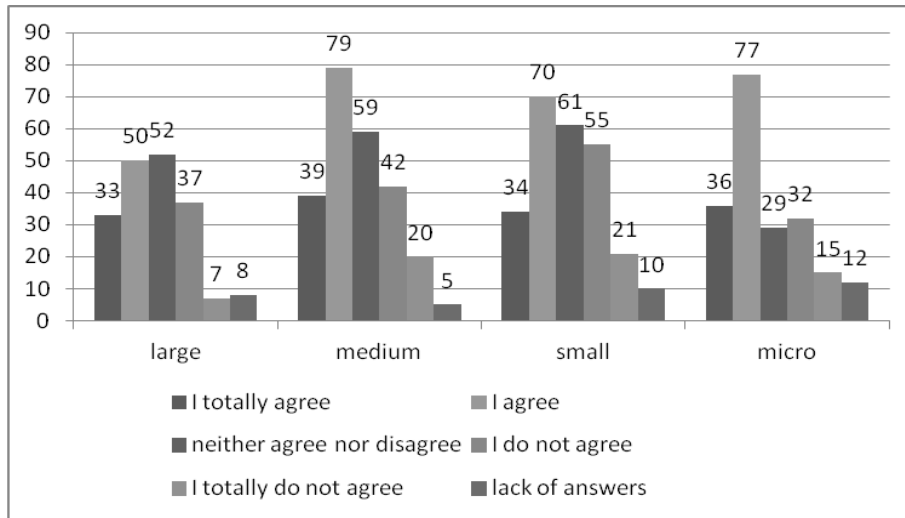


Figure 3. Answers for the statement: My co-workers have knowledge I wish to possess, according the company size (answers in number for N=883)
Source: own calculations

Such a result is surely caused by the fact that micro-companies' personnel may watch their colleagues at work and assess their professionalism, which usually is not related to substantial knowledge but to practical problems resolving skills. This is confirmed by the relations between the organization size and type of desired knowledge. Here micro-companies' personnel came forward for whom the "I know what to do" and „I know how to do it" type of knowledge was the most desired. It is surprising, however, that second place was taken by large companies' employees, who found the very

same knowledge attractive, but focused more on the skills connected with tasks performed.

The attractiveness of "I know what to do" knowledge could come out of lack of leadership skills, however in the analysed cases the staff of micro- and small organizations were usually enthusiastic about their superiors' abilities in the communication of objectives and tasks. This is surely related to the fact that these organizations are more open and direct in their structures, which helps to improve interpersonal relationships (Figure 4). This is also confirmed by the relatively highest response from micro-organizations, confirming the highest level of team integration.

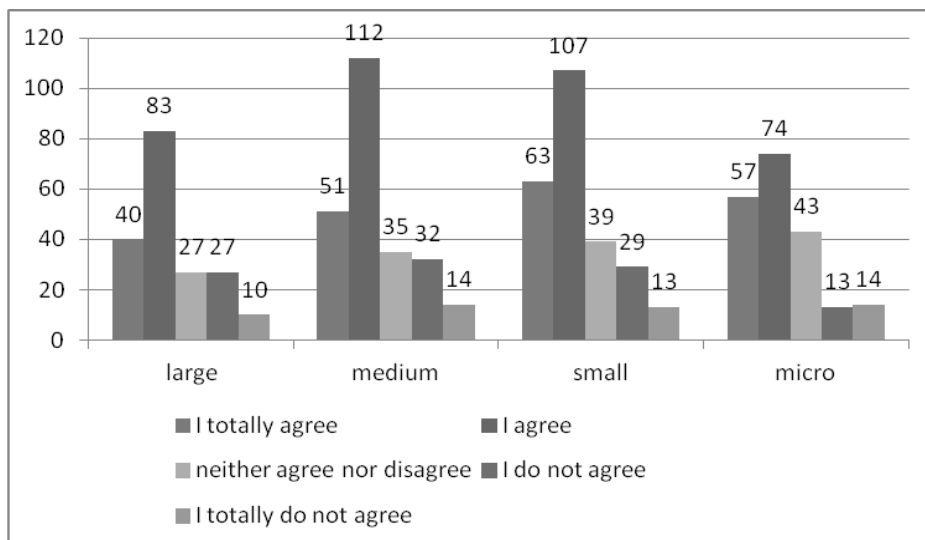


Figure 4. Answers for the statement: My superior is able to communicate objectives and tasks, according the company size (answers in number for N=883)
Source: own calculations

We may presume that knowledge desired by micro-companies' staff came out of its members lack of substantial knowledge necessary in resolving problems. This could be confirmed by the statements concerning trust of their superiors in terms of information shared by employees (Figure 5). Within the group of micro-

companies, the lowest percentage of employees confirm high superior's trust, while the largest percentage among the personnel of small and medium companies' felt their superior's do not trust in information shared by the subordinate personnel.

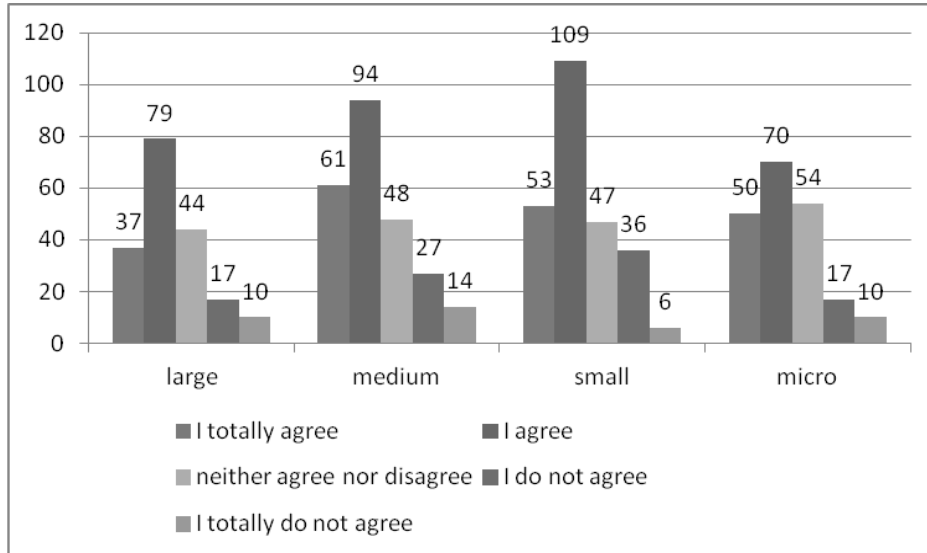


Figure 5. Answers for the statement: My superior trusts me in terms of information I share, according the company size (answers in number for N=883)

Source: own calculations

The respondents, when asked whether they were able to obtain all information necessary for their duties, were in the majority positive about this still the largest percentage of employees satisfied with the information they could obtain were found in medium companies. The second place was taken by micro-companies.

These statements need to be connected with the ones about perceiving one's work as meaningful (figure

6). The micro-companies' personnel was much better in perceiving the meaning of their work, which is definitely related to organization size. They are more able to place their work in the structure of the company performance and to describe their work input into final company results. Almost the same level of positive opinions was expressed by medium companies' staff.

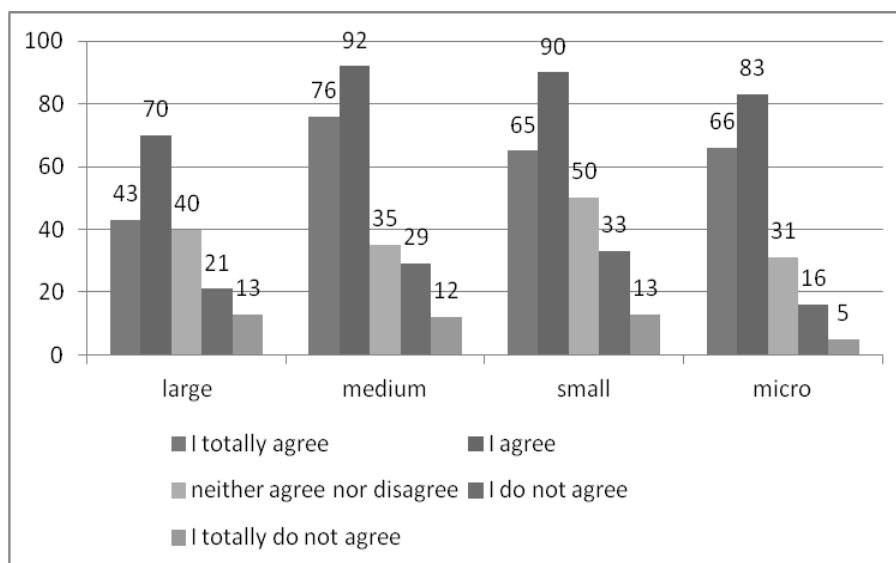


Figure 6: Answers for the statement: I see my work as meaningful, according the company size (answers in number for N=883)

Source: own calculations

The research aimed to identify dominating reasons of KSB in terms of the company size. And it was revealed that in the opinion of respondents of micro and medium-sized organizations their colleagues based their

KSB mainly on the principle of reciprocity (Figure 7). This means that employees share knowledge providing that other employees also take such action.

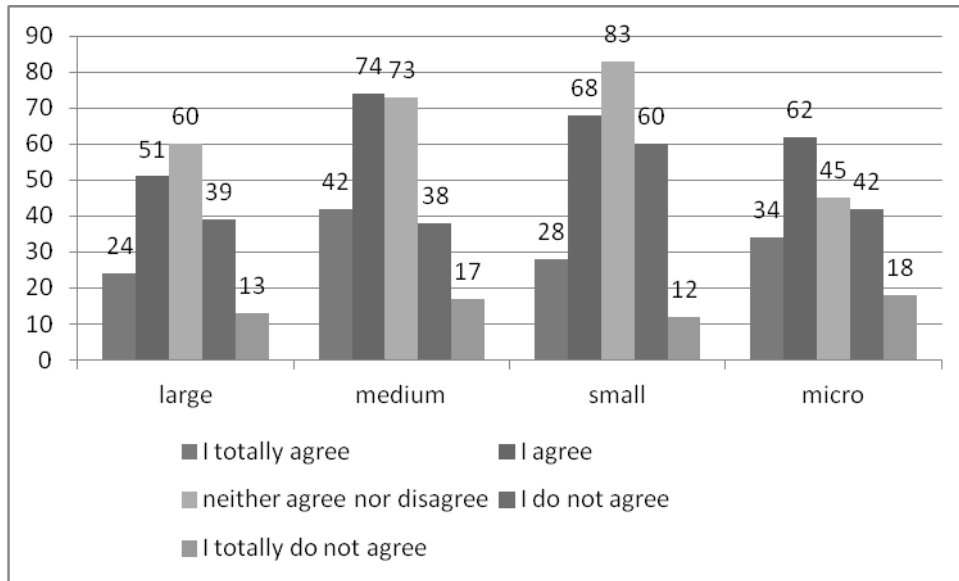


Figure 7. Answers for the statement: My co-workers share knowledge with me only in exchange for different knowledge from me, according the company size (answers in number for N=883)

Source: own calculations

The research found that bigger the organization is, the less secure the employees feel. This is even more surprising than expected, because large organizations provide much better protection of vocational rights and employment stability, which is not the case in micro- and small enterprises. The high security factor is reflected in micro-companies' staff conviction of being allowed to do "old things in new ways" and to "learn from their mistakes".

It has been also noted, that bigger organization size causes a decrease in knowledge sharing popularity among co-workers. This implies that knowledge sharing is strongly bonded with personal relations between colleagues and only slightly related to company knowledge management policy.

CONCLUSIONS

It should be noted, that there are not many research results on the creation of knowledge within organizations and knowledge exchange among employees. The basic assumptions of the theoreticians and practitioners in the area of knowledge management are centred on obtaining, growth and using already existing knowledge. There should be also highlighted a significant role of modern information technologies in these processes.

The research results allow us to make a few conclusions on behavioural patterns in knowledge sharing regarding the organization size factor. The main

conclusion is related to the relatively positive opinion on interpersonal knowledge sharing in micro-companies. The regularity discovered is probably influenced by direct relations inside the working environment and usually based on spontaneously developed behaviours rooted in close group relations, rather than stimulated by conscious company policy in this matter. Relatively poor in knowledge sharing are large organizations, which apparently avoid stimulating such activities. The situation of the medium-sized and small enterprises sector situation puts medium companies in a slightly better position. Nevertheless, it is difficult to confirm whether companies in this sector run any planned personnel behaviour shaping activities in case of KSB.

Organizations should transform, evolve and develop together with the knowledge flowing through them. Therefore, an organization should not only process knowledge actively, but also produce it. At the same time, the members of an organization have to go beyond a passive attitude and become active advocates of knowledge and innovations. In the case of the SMEs, with reference to the advantages of stimulating KSBs, there should be included: autonomy of the employees in the area of decision making, agreement to experimentation as a problem solving method, and non-routine actions as well as close interpersonal relationships fostering building of trust. The limitations of SMEs in the area of knowledge acquisition in a process of knowledge sharing are mainly the results of: limited own knowledge resources of a given organization (not many employees, poor qualifications), functioning rather on the basis of a

survival strategy, not according to the strategy of development, propensities to literal duplication of action schemes realized by other organizations and the conviction of the members of the company management staff that their decisions are infallible.

Presented research results certainly do not cover a broad spectrum of issues regarding to KSB in SMEs. The complexity of the presented problems indicates the need for further studies to gain additional insight into the KSB.

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