KNOWLEDGE-BASED RESOURCES IN MARKET SHARE DEVELOPMENT

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Abstract

Knowledge management (KM) is described as a crucial element for business success and competitiveness. KM practices are commonly linked to continuous business renewal, productivity and efficiency improvement. Building knowledge-based resources (KBRs) in the organization is of particular importance, as they create opportunity to achieve a competitive advantage, develop market share, and strengthen the overall performance of the firm. It should be remembered that KBRs are always strongly related to human resources and refer to such attributes as individual knowledge, abilities, skills, experience and innovation. The main aim of the article is to identify the relationship between selected areas of KBRs and the change in the firm's market share. To realize of the main aim, the survey study was developed on a group of 355 enterprises in Poland in early 2022. The respondents, who represent managerial stuff or firms' owners, express opinions on selected KBR elements using a 5-point Likert scale. To analyze the research results, the common statistical methods in management studies were used, as descriptive statistics and Kendall Tau correlation analysis. As a main conclusion, there are positive correlation between selected KBRs and firm's market share. Hence, building and constant renewal of KBRs brings several advantages for organizations, including development of market share, and, consequently, competitiveness improvement.

KEY WORDS: competitiveness, human resources management, knowledge-based resources, knowledge management, large enterprises, market share, SMEs

Introduction

Contemporary markets are characterized by being highly turbulent, dynamic, and presently highly unstable which requires firms to develop advanced dynamic capabilities to overcome the challenges and threats related to the new political, social and economic situation (Pacheco et al., 2022; Mahto et al., 2022). Currently, well-established management methods are increasingly being questioned, which have proved ineffective in the face of the pandemic and war in Ukraine. However, management, as a social science, is constantly revised and modified, requiring constant empirical research to help adapt existing tools to a changing environment.

Nowadays, knowledge management (KM) is one of the most important and necessary resource for any type of organization (Garcia, SosaFey, 2020). Many previous studies have described KM as a key tactical element of business processes (Pepple et al., 2022). The importance of KM as a determinant of the firm's success in the era of technological dynamics is also widely emphasized (Srinivasan et al., 2020). In practice, knowledge management in firms, especially in small and local businesses, is highly disordered and ad hoc, and thus turns out to be insufficient or unreliable (Al-Kurdi et al., 2018).

Organizations now appreciate the special importance of KM as an operational tool used in ensuring market competitiveness. The prevailing belief is that information gathering, dissemination, and use for the business advantage is the most important factor that determines the performance of organizations (Sun et al., 2022).

Considering KM as the driving force of social and economic development and firm's competitive strength, the determining role of KM in improving the management performance of organizations, and internal process efficiency should be emphasized (Deng et al. 2022). Previous studies linked KM practices to continuous business renewal, productivity and efficiency improvement, and enhanced project efficiency (Yap, Shavarebi, 2022).

KM capitalizes on the collective knowledge of organization, and the expertise of its members and stakeholders in terms of lessons learned, best practices, problem solving methods and creative processes (Yap et al., 2022). KM processes typically involve the continuous activities of knowledge creation, sharing, storage and application (Gunasekera, Chong, 2018).

KM is necessary to intensify activities related to the learning process of the organization, as well as in basic management areas such as planning, organization, control and management. For an organization to develop on the basis of knowledge, its creation, acquisition and use must not be ad hoc, but must take the form of a coherent process. This process should include activities for storage, measurement and transfer the knowledge, as well as creating the explicit knowledge and intellectual capital, supported by technologies through the stages of knowledge acquisition, internalization, exploitation, transfer and measurement (Su, Daspit, 2022).

The paper is structured as follows: Section 2 includes the theoretical background on knowledge-based resources in organization. Section 3 presents the methodological description of the study. Section 4 analyses the results of the research. Finally, the last section concludes the paper with limitations, and future research directions.

Literature review

To the organizational resources should be included all assets and inputs necessary to achieve business goals (Kaya, Patton, 2011). They can be in form both tangible or intangible elements used to business activities and processes. It is recognized that the concept of resources, in organizational terms, is a narrowing of the concept of capability. From this point of view, organizational capability is a broader construct because it is assumed that it includes the ability to carry out organizational tasks in a consistent and coordinated manner, based on the available resources of the enterprise, with the intention of achieving a specific end result. It should be noted, however, that in the literature on knowledge management, both concepts are very similar, because all processes are based on information and personal skills and are implemented on the basis of complex interactions between individual elements of business resources (Tsai, Jhang, 2010).

The development of the knowledge-based resources (KBRs) provides an opportunity to more fully identify and explore entrepreneurial opportunities (Basu et al., 2015). KBRs are a very special type of resource. They are highly unique and difficult to imitate by business rivals. From this perspective KBRs create opportunity to achieve a competitive advantage, strengthen the overall performance of the firm, as well as provide a chance of survival in long term (Hansen, 2002). According to Yin and Jahanshahi (2018), to be competitive, organization need to collect, accumulate, integrate, and use knowledge to develop new products, services and processes. The ability to the accumulation, combination and exploitation of KBRs is a precondition to being innovative and entrepreneurial in the organization as a whole (Kaya, Patton, 2011). Basing on knowledge resources increases the chance of proper perception of the economic environment. Efficient anticipation of market changes allows to build strategic attitudes that enable flexible adaptation to them (Caloghirou et al., 2004). In addition, treating knowledge as a key strategic resource refers not only to explicit knowledge, obtained through formal education and trainings, but also to tacit knowledge that can only be acquired through direct experience.

Knowledge in a firm aggregates opportunities, capabilities, structured information and technological solutions, to ensure more thanks to which the enterprise can more precisely predict the scope and character of market changes, and prepare the proper answer on the tactical and strategic level of management (Wiklund, Shepherd, 2003).

It is often emphasized that KBRs create barriers of knowledge as they are protected from imitation. KBRs are built on the basis of talents that are elusive but also unique (Nieves et al., 2014). However, it should not be forgotten that to talk about KBRs of organization, knowledge cannot be treated as a resource accumulated only in the minds of individuals. It should be implemented in structures, procedures, and business processes, and used with the relations of the firm with the business environment. In this way, knowledge becomes an asset of the firm, and thus the risk of its loss is reduced when individual employees leave their jobs (Nieves et al., 2014).

The value of a knowledge resources is visible in how it interacts with other resources (Martin-Rios et al., 2022), especially with human resources. It should be remembered that KBRs are always strongly related to human resources and refer to such attributes as individual knowledge, abilities, skills, experience and innovation (Krysińska et al., 2018; Nathan et al., 2019). Only this way of embedding knowledge, which applies to the entire organization and not to its individual members, leads to success and sustainable development.

When building KBRs to increase an organization's market share, the priority is the highest quality human resources, because employees are a specific strategic and organizational asset used to develop relationships with stakeholders (McDonnell et al., 2016). This is the reason why human resources should be prioritized as a mean to integration and transfer of knowledge within the organization (Singh et al., 2021). Hence, Fang et al. (2018) emphasize that KBRs should be treated as a complex intangible resource, constituting a collective resource at the organizational level, created on the basis of the exchange and integration of knowledge of many individuals.

Method

The main aim of the article is to identify the relationship between selected areas of KBRs and the change in the firm's market share.

The goal was achieved on the basis of own research on a group of 355 enterprises operating in southern Poland. The study was not representative; therefore, the conclusions of the study should be treated as preliminary conclusions, indicating the regularities and directions of further research.

The study was conducted in early 2022. The study used the proprietary questionnaire, which consisted of closed questions and had a 5-point Likert scale adopted on the basis of (Sheng et al. 2011; Peng, Luo 2000), in which the respondents assessed the studied phenomenon. The analyzed elements of KBR were selected based on literature (Wiklund, Shepherd, 2003; Bojica, Fuentes, 2012), and were the opinions of managers presented in a 5-point scale. Also the dependent variable - market share - is a subjective declaration of the managers of the surveyed companies, who rated it on a scale from 1 to 5, where 1 - a large decrease and 5 - a large increase.

The paper questionnaire was filled in directly by managers/owners of the surveyed firms. The participation to the survey was anonymous. After formal evaluation of the collected data, they were subjected to appropriate statistical analysis using the Statistica 13.3 program. To analyze the research results, the commonly methods in management studies were used, as descriptive statistics and Kendall Tau correlation analysis.

When analyzing the research group, it turns out that the smallest group among the surveyed companies are companies starting their activity (n=9), companies operating for more than 20 years (n=130) and operating for 11 to 20 years (n=81) dominate. Over 42% of the surveyed companies belong to the micro-enterprise sector, i.e. enterprises employing up to 9 employees, while over a quarter of the enterprises employed from 10 to 49

employees. In total, the SME sector accounted for 82.26% of the surveyed enterprises. Among the surveyed companies, 63 enterprises were included in the sector of large enterprises with employment exceeding 250 employees. The dominant group of the surveyed enterprises were companies providing services (n=183), then trade companies (n=92), which constituted 1/4 of the surveyed enterprises (Table 1).

Table 1. Characteristics of the surveyed companies (n=355)

The surveyed companies	Company age				
	up to 1 year	1-5 years	6-10 years	11-20 years	over 20 years
n	9	66	69	81	130
%	2.53	18.59	19.44	22.82	36.62
The surveyed companies	Size of the company (number of employees)				
	Micro (0-9)	Small (10-49)		Medium-Sized (50-249)	Large (250 and more)
n	151	90		51	63
%	42.54	25.35		14.37	17.74
The surveyed companies	Dominant profile of activity				
	Trade	Production		Services	
n	92	80		183	
%	25.91	22.53		51.56	

Results

The literature review of the subject allowed to identify the areas of knowledge-based resources in enterprises. The research made it possible to identify six areas of knowledge-based resources in the surveyed companies, including:
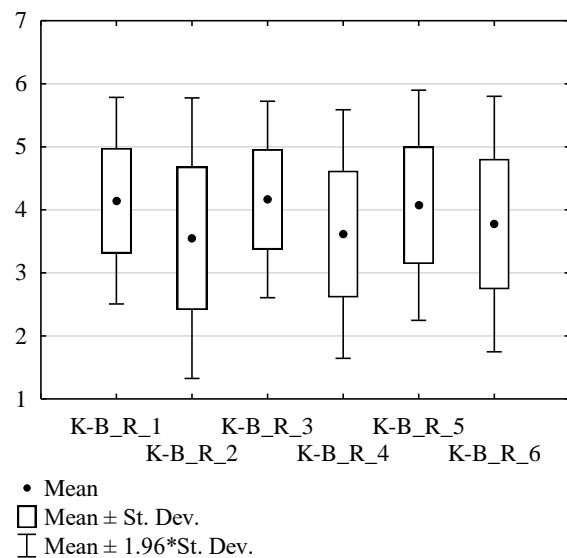
- K-B_R_1: knowledge-based resources in the field of technical knowledge,
- K-B_R_2: knowledge-based resources in the field of IT knowledge,
- K-B_R_3: knowledge-based resources in the field of product / service development,
- K-B_R_4: knowledge-based resources in the field of marketing knowledge,
- K-B_R_5: knowledge-based resources in the field of customer service,
- K-B_R_6: knowledge-based resources in the field of business management.

The research has shown that the average level of knowledge-based resources in selected areas is different, however, they oscillate between the values of 3.68 and 4.14 on a 5-point scale. The highest level of knowledge-based resources is declared by the surveyed enterprises in the field of technical knowledge at the level of 4.14 and this value deviates from the average value by +/- 0.821 points on a 5-point scale. Interestingly, only in the case of the K-B_R_1 area the minimum value for the variable is 2.0. The lowest level of resources is declared by enterprises in the area of K-B_R_2 and K-B_R_4, at the level of 3.68 and this value deviates from the average value by approximately +/- 1.030 points on a 5-point scale. In all selected areas, the maximum value of the examined variable was at the level of 5.0 (Table 2).

**Table 2.** Descriptive statistics for knowledge-based resource areas (K-B_R)

	N	Mean	St. Dev.	Min.	Max.
K-B_R_1	355	4.14	0.821	2.0	5.0
K-B_R_2	355	3.68	1.030	1.0	5.0
K-B_R_3	355	4.12	0.828	1.0	5.0
K-B_R_4	355	3.68	1.027	1.0	5.0
K-B_R_5	355	4.03	0.975	1.0	5.0
K-B_R_6	355	3.83	1.017	1.0	5.0

Further research made it possible to distinguish four groups of the surveyed enterprises in terms of the size of employment and the identification of knowledge-based resources in selected areas of companies. It turned out that in micro-enterprises employing up to 9 employees, the highest level was declared for knowledge-based resources in the field of product / service development (K-B_R_3), at an average level of 4,165 on a 5-point scale, while the lowest level for resources in the field of IT knowledge (K-B_R_2), at an average level of 3.549 on a 5-point scale (Fig. 1).

- Mean
- □ Mean ± St. Dev.
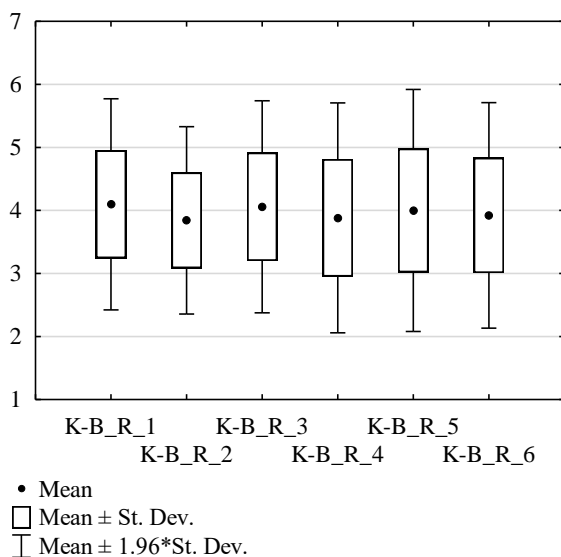- ⊥ Mean ± 1.96*St. Dev.

Fig. 1. Average level of knowledge-based resources in selected areas in micro-enterprises (n=151)

In small enterprises employing from 10 to 49 employees, the highest level was declared for resources in the field of technical knowledge (K-B_R_1), at the average level of 4,144 on a 5-point scale, and the lowest level for knowledge-based resources in the field of marketing knowledge (K-B_R_4), on the average level of 3,577 on a 5-point scale (Fig. 2).

- • Mean
- ☐ Mean ± St. Dev.
- ⊥ Mean ± 1.96*St. Dev.
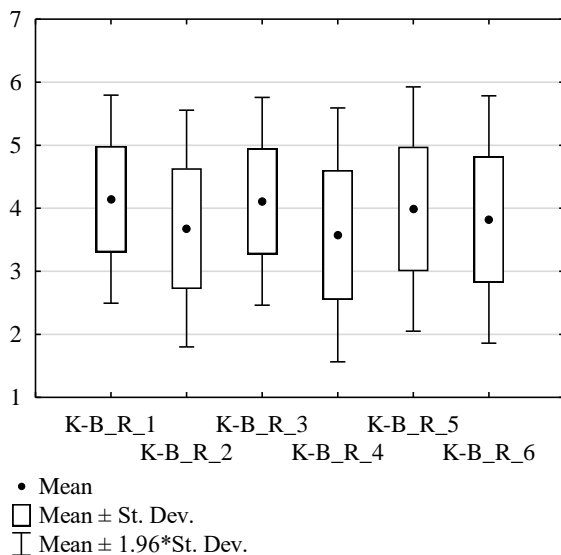
Fig. 2. Average level of knowledge-based resources in selected areas in small enterprises (n=90)

In medium-sized enterprises employing from 50 to 249 employees, the highest level was declared for knowledge resources in the field of technical knowledge (K-B_R_1), at the average level of 4,098 on a 5-point scale, and the lowest level for knowledge-based resources in the field of IT knowledge (K-B_R_2), at an average level of 3.843 on a 5-point scale (Fig. 3).

- • Mean
- ☐ Mean ± St. Dev.
- ⊥ Mean ± 1.96*St. Dev.

Fig. 3. Average level of knowledge-based resources in selected areas in medium-sized enterprises (n=51)

In large enterprises employing 250 or more employees, the highest level was also declared for knowledge-based resources in the field of technical knowledge (K-B_R_1), at the average level of 4,158 on a 5-point scale, and the lowest level, interestingly, for KBRs in the field of marketing knowledge (K-B_R_4), at an average level of 3,809 on a 5-point scale (Fig. 4).

- • Mean
- ☐ Mean ± St. Dev.
- ⊥ Mean ± 1.96*St. Dev.
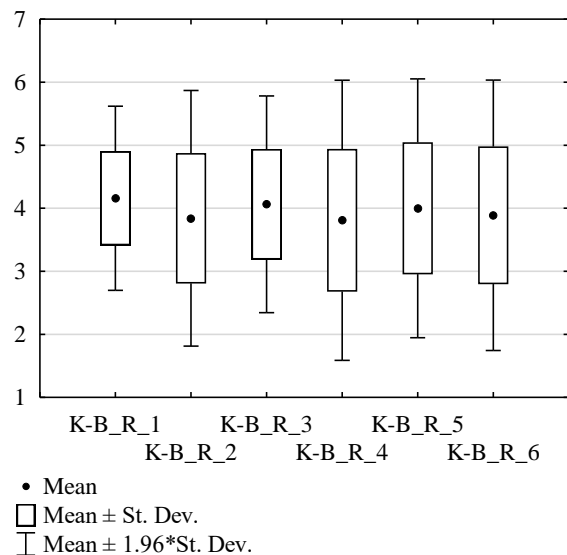
Fig. 4. Average level of knowledge-based resources in selected areas in large enterprises (n=63)

Based on the conducted research, it can be concluded that in all groups of enterprises, due to the size of the company, the highest level of knowledge-based resources occurs in the field of technical knowledge and product / service development. In micro and small enterprises, the level of knowledge-based resources is the lowest in the field of organization management, IT knowledge and marketing knowledge, which is certainly influenced by the scale of the enterprise, its financial capabilities and qualified personnel. In medium and large enterprises, the level of knowledge resources in selected areas does not differ significantly from each other. Figure 5 is a graphical comparison of the results for individual groups of enterprises covered by the study.
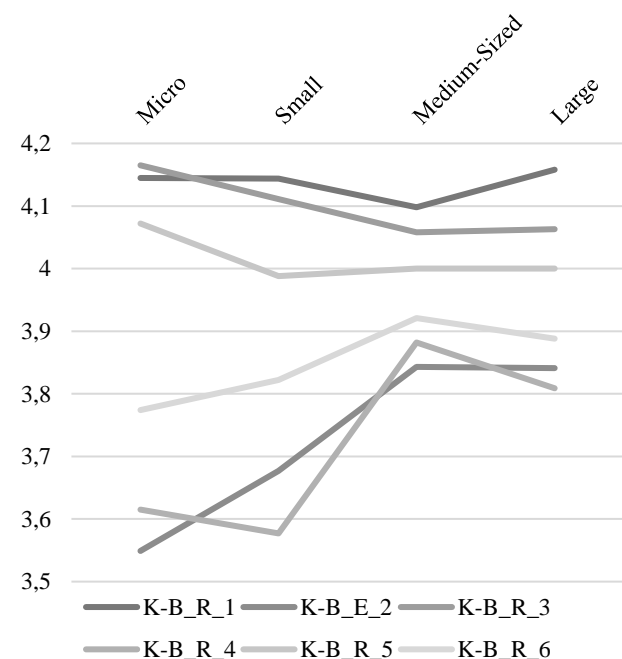
Fig. 5. Average level of individual knowledge-based resources in the surveyed enterprises (n=355)

The implication for managers of individual groups of enterprises is the observation that KBRs should be analyzed in great detail, because some elements of KBRs are at a similar level in all enterprises, regardless of their size, while the level of other KBRs is significantly lower in micro- and small.

The next step of the analysis was the identification and assessment of correlations between selected KBRs and market share. The Kendall Tau correlation indicator was used to find correlations between variables.

Table 2. Kendall Tau correlation between selected KBRs and firm's market share intensity (p=0.05)

	Market share
K-B_R_1	0.102
K-B_R_2	0.140
K-B_R_3	0.125
K-B_R_4	0.204
K-B_R_5	0.193
K-B_R_6	0.208

The correlation analysis showed statistically significant relationships between the studied variables, with a weak intensity, ranging from 0.102 to 0.208.

Confirmation of the presence of a statistically significant relationship, although to a small extent, should encourage the researchers of the subject to further in-depth verification of this relationship, taking into account also the moderating variables that may strengthen the relationship under study.

Conclusions

Considering environmental conditions characterized by intense competition, market dynamics and new management practices, companies must use various knowledge acquisition channels to keep their knowledge resources up-to-date (Agostini, Nosella, 2019; Baraldi, Ratajczak-Mrozek, 2019). The efficiency of using organizational knowledge is a crucial factor of firm's competitiveness and developing market share of organization (Omerzel, Gulev, 2011).

The conducted analysis confirms the relationship between the analyzed areas of KBRs and the market share of the organization. A weak relationship between the variables may indicate the influence of the moderating / mediating variables, which will be a research challenge in the future.

When indicating research limitations, attention should be paid in particular to the fact that the research concerns one national market, which may be highly specific. The use of a 5-point Likert scale can also be indicated as limitation, as well as the use of only a managerial approach when obtaining opinions. The current limitations are also the directions of potential research in the future.

It can be assumed that the presented results also have implications for business practice. The constant analysis of KBRs gives an opportunity to maintain their flexibility Managers should approach the analyzed quantities as

dynamic abilities that require constant adaptation and a strategic management perspective.

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