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WORKING PAPER

T. Gavrilova, A. Alsufiev, A. Pleshkova

INFLUENCE OF KNOWLEDGE MANAGEMENT PRACTICES ON COMPANY PERFORMANCE RESULTS IN RUSSIAN CONTEXT

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Abstract: This paper is bringing the focus on knowledge management elements and analyses their influence on the performance of the company. Namely knowledge management practices are considered the key element for enhanced innovative performance. The main research method is exploratory factor analysis with preliminary analysis of covariations among variables. Research bases on results of survey conducted among Russian companies during 2017 and intends to reveal interrelationships among KM and Performance constructs that are peculiar for Russian market.

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Influence of Knowledge Management Practices on Company Performance Results in Russian Context

1. Introduction

Today's modern environment trends (globalization and technological evolution, growth of highly diversified markets and products) change the structure of market in the way that it is hard to remain competitive using standard sources of company's advantage (4 P's, reliable suppliers, etc.). Companies now have broad access to any physical, financial or technological assets upon more or less same open-market conditions. Therefore, companies face the need to start the process of developing their own distinctive capabilities that would be difficult to reproduce by the competitors. A promising example of such capabilities can be human resources of the company who actually apply their skills and abilities and manage the directions for company's development by using knowledge they obtain. This development based on knowledge is the force to expand the company's distinctive capabilities [Bell, 1973; Drucker, 1993]. Knowledge of this kind does not exist or can be acquired in the open market and is very hard to imitate. Reproduction of such knowledge is challenging because it requires resources such as time, effort and specific context situation in order to understand the origins of this knowledge [Andreu & Sieber, 2001].

Knowledge has 3 fundamental characteristics that make it the purpose of research. First of all, it is born belongs to the person who assimilates it during his/her own working experiences and this way makes it personal. People use knowledge they acquire in the context of an organized whole that gives structure and meaning to its different "pieces" [Kolb, 1984]. Secondly, knowledge utilization allows other people to understand the perceived phenomena based on their own experience and to evaluate it further in different situations. Third, knowledge serves as a guide for action and helps to organize step by step decision process [Andreu & Sieber, 2001].

These issues form knowledge as a good base for building sustainable competitive advantage. Due to the fact that this advantage comes from knowledge from a certain experience of a certain person and under some certain circumstances it is almost impossible to replicate.

The remainder of this paper is constructed in the following way: in the main body the theoretical background is provided where we justify the importance of the study. Then we continue with the description of the study and the brief analysis of the preliminary results of the study (which will be more specific due to the date of the seminar). We will also highlight the possible limitations of the research and propose the future directions of the research development.

2. Theoretical Background

Among researchers and practitioners alike, there is no doubt about the importance of knowledge within firms. In the knowledge-based economy it is the most valuable resource for creating a sustainable competitive advantage [Grant, 1996]. Globalization processes make the value of knowledge even more tremendous as now it is undoubtedly connected with time savings [Ragab and Arisha, 2011]. The way companies manage their intellectual and knowledge resources differentiates them among each other [Massingham and Massingham, 2014]. This is the reason why the sphere of knowledge management (KM) as a separate discipline and issue has been growing within prominent academic journals [Serenko and Bontis, 2009, 2013]. The practical reasons for emergence and growth of knowledge management can be outlined as follows [Serban, Luan, 2002]:

- Information overload and chaos: the information overload paradigm is based on proposition that workers have finite limits to the amount of information they can perceive, assimilate and process during any given unit of time. If these limits are exceeded and there is the case of information overload workers decrease their efficiency [Malhotra

et al., 1982]. Too much information can lead to dysfunctional performance and this is the starting point for knowledge management to introduce the instruments for mitigating these negative effects. As the volume of available information increases, individuals and organizations become overwhelmed by the plethora of information. This can reduce productivity and performance, hinder learning and innovation, affect decision making and well-being and cost organizations large amounts of monetary resources [Jackson, Farzaneh, 2012]. Especially seen this effect can be seen on so-called star employees of the organization that produce the major changes and results in the business processes [Oldroyd, Morris, 2012].

- Information congestion: efficient information transmission is one of the most pressing problems faced by organizations [Arenas et al., 2008]. When organizations face increasing volatility of the environment and a stronger competitive pressure they are forced to pool their disperse information at an ever faster rate [Dodds et al., 2003].

Also, factors that can be added to this list might be: information and skill segmentation and specialization, workforce mobility and turnover, competition.

During the past few years several empirical studies presented the clues of the impact of KM on firm performance [Andreeva and Kianto, 2012; Chuang, 2004; Kamhawi, 2012; Lee et al., 2012; Marques and Simon, 2006; Tanriverdi, 2005; Wu and Chen, 2014; Zack et al., 2009]. The main message of these debates can be resumed that KM has some kind of concrete impact on the company's performance but scholars do not have the unique view whether this impact is direct or may be mediated by some other variables [Andreeva and Kianto, 2012].

Classical empirical research detects that KM is connected to several constructs including product leadership, operational excellence, customer intimacy [Zack et al., 2009], innovation [Darroch, 2005; Andreeva and Kianto, 2011], organizational creativity [Lee et al., 2012], competitive advantage [Andreeva and Kianto, 2012; Chuang, 2004], firm's overall performance [Lee and Choi, 2003; Marques and Simon, 2006] and even, but in rare cases, has a modest direct impact on financial performance [Andreeva and Kianto, 2012; Tanriverdi, 2005]. This cannot be considered as a strong fact that significant KM investments might and will necessarily lead to improvement of key financial performance indicators [Kalling, 2003] but a set of intermediate variables will most probably be influenced which in turn, should affect financial performance [Lee and Choi, 2003]. Therefore, the actual outcome of KM is hard to predict [Yahya and Goh, 2002] but academic researchers clearly appreciate the impact that individuals have [Civi, 2000; Gooijer, 2000; Robertson and Hammersley, 2000].

Great amount of recent studies in this research area focus on issues of generic knowledge processes such as knowledge acquisition, knowledge sharing and knowledge creation [Chen et al., 2010; Lee et al., 2013] and formed knowledge-based assets like intellectual, structural, human and relational capital [Subramaniam and Youndt, 2005; Wang and Chen, 2013; Castro et al., 2013; Menor et al., 2007; Aramburu and Saenz, 2011] on company's innovation performance. However, very limited amount of studies have examined the concrete impact of the implementation some systematic managerial activities (more frequently named as knowledge management practices in this content) have on firm's performance. Some previous studies have provided the example of analysis of knowledge management practices on a firm's innovation and overall performance but usually they consider either one or a few knowledge management practices [Camelo-Ordaz et al., 2011; Donate and Canales, 2012; Hurmelinna-Laukkanen, 2011; Sarin and McDermott, 2003; Soto-Acosta et al., 2014; Yang et al., 2009] or firm performance outcome indicators aside from those related to innovation [Gold et al., 2001; Lee and Choi, 2003; Atapattu and Jayakody, 2014]. Furthermore, the Global Knowledge Management Network, coordinated by Dr Peter Heisig, has conducted a ground-breaking study interviewing more than 200 Knowledge Management experts worldwide. According to this international expert panel, the key research gap in the field is a better

understanding of the relationship between knowledge management and firm performance [Heisig, 2014; Perez-Arrau et al., 2014]. Therefore, demonstration of how engaging in knowledge management practices enhances firm performance in terms of increased innovation performance is an issue worth analyzing. To bridge this gap in the existing knowledge, this research addresses the question of how knowledge management practices impact the innovation performance of companies. The goal of this research is to increase knowledge on the abilities of firms to increase their innovation performance through engaging in knowledge management activities. By dividing intentional knowledge management activities into ten types and exploring their impact on innovation, we add to the knowledge based view of the firm and the literature on knowledge management. In addition, we contribute to knowledge on innovation management by exploring novel sets of managerial methods to improve company innovativeness.

3. Empirical Research Object and Methodology

This research is splitting knowledge management practices into six major blocks of variables that might affect the firm performance and innovativeness. These blocks are: strategic management, organizational culture, human resource management, information technologies, knowledge management and business process management. All in all the questionnaire consisted of 119 questions the majority of which were in the form of 5-point Likert scale. The questionnaire was provided for the Russian top-managers of the GSOM EMBA program. Later on the answers were analyzed within the Excel and SPSS program (in the preliminary results we mainly focused on the mean values and their correlations with the dependent variables).

The research grounds on 4 approved models taken from [Giampaoli, Ciambotti, Bontis, 2017; Inkinen, Kianto, Vanhala, 2015; Kianto, Andreeva, 2014; Andreeva, Kianto, 2011] and by uniting them into one big model make the results more deep and trustworthy. Actually we are not only analyzing the results from these 4 models point of view but also look for the new connections between the variables in the context of Russian companies. And we have found out them even on this small sample size (see Images 1 and 2):

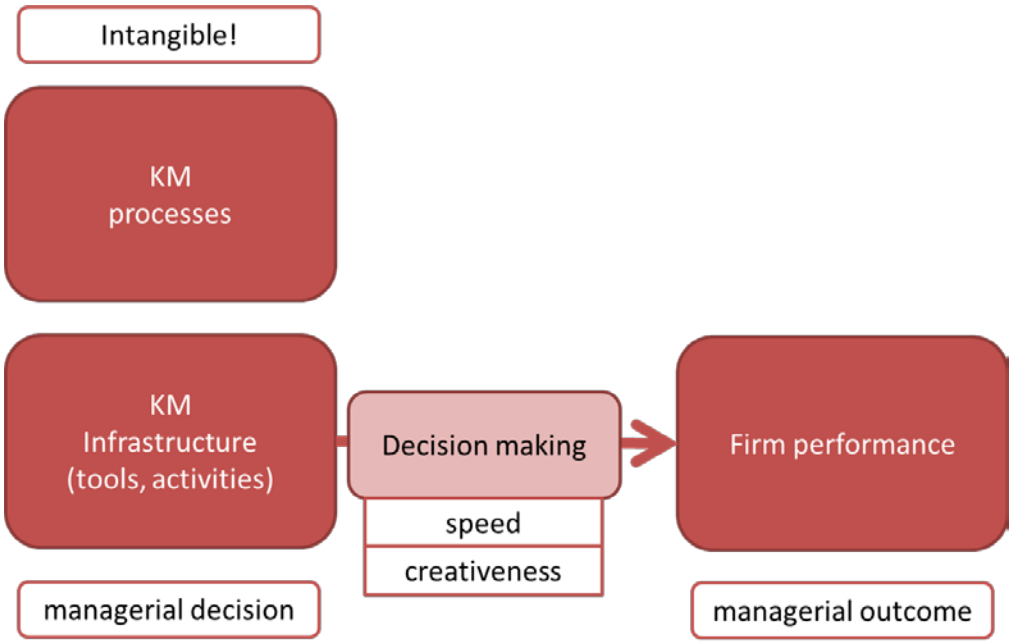

Image 1: the influence of knowledge management practices on company's performance

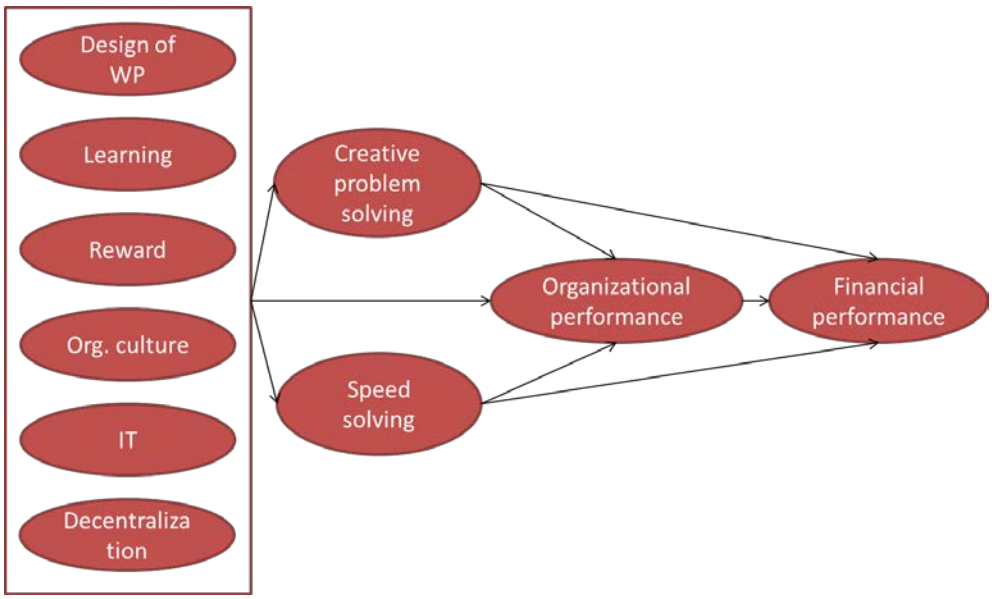

Image 2: the model of research

4. Results and Discussion

Up to the publication date we have managed to get 31 full valuable responses. The research is still ongoing but nevertheless there are some preliminary results that can be discussed. We will now provide the example of one part of the model (see Table 1):

Table 1. Problem solving variables.

X	Y
Independent variables:	Problem solving dependent variables:
• Working process design	• Creative problem solving
• Learning	• Speed solving
• Reward	• Organization efficiency
• Organizational culture	• Financial efficiency
• IT	
• Decentralization processes	

After we have calculated all the mean estimates for the each block of questionnaire and have analyzed them in the SPSS (see Table 2) we found out that there is a strong correlation between the Organizational culture and Organizational efficiency.

Table 2. Problem solving variables and correlations.

	Working process design	Learning	Reward	Organizational culture	IT	Decentralization processes
Correlations with creative problem solving	0,63	0,37	0,50	0,68	0,28	0,43
Correlations with speed solving	0,40	0,48	0,50	0,68	0,51	0,47
Correlations with organizational efficiency	0,64	0,66	0,57	**0,74**	0,67	0,58
Correlations with financial efficiency	0,60	0,61	0,58	0,59	0,50	0,54

Here are the questions for both variables to make it more easy to understand the connection between them:

Organizational efficiency:

- Fast and productive implementation of the solutions to the problem;
- Capability to develop new products/services;
- Capability to respond to new market demands;
- Capability to capture new business opportunities.

Organizational culture:

- Environment of trust and collaboration is encouraged;
- Employees who experiment and take reasonable risks are well considered even if they can be mistaken;
- Innovation and experimentation of new ways of doing tasks is encouraged;
- Employees are always concerned with getting jobs done with great emphasis on goal achievement.

5. Conclusions

The challenge that arises in the business sphere particularly within knowledge-intensive firms – is to remain productive and competitive under the enormously volatile market conditions where technologies develop at the evasive pace, competitors multiply and replicate the original product/service and the latter become outdated in almost overnight. Demands from the satiated customers for best quality upon the lowest cost influences the development of the knowledge management policies and practices. The strategies that now have to be implemented really differ from those that were effective 10 years ago. Knowledge-intensive firms, as well as traditional organizations, now increasingly compete because of knowledge and information. This article is bringing the focus on knowledge management elements and analyses their influence on the performance of the company.

This research will be developed for a quantitative study by gaining more responses from the managers of Russian companies.

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