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SWOT-ANALYSIS AS A PERSPECTIVE COGNITIVE STRATEGY OF MANAGEMENT

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Abstract

Knowledge is presented as a valuable strategic resource. The maintenance of competitiveness of an organization requires a focused intelligent resource management. The article reveals the role of implicit knowledge in the realization of cognitive capacities of management strategies. It is shown that the channels of replenishment and distribution of implicit knowledge are social relationships and interpersonal interactions. The role of social capital in strengthening of intellectual capital is defined. The article reveals the role of technical and organizational initiatives in provision of a comprehensive infrastructure used in knowledge management processes. The paper accentuates the role of initiatives on knowledge management which enhances the competitive position of an organization that uses knowledge technologies and strategies in management processes. «SWOT-analysis» is interpreted as a business-strategy based on knowledge of the strengths and weaknesses of an organization, potential and risks. The strategy is considered as a balancing on the edge of external environment (potential and risks) and internal capacity of an organization. The inner capacity of an organization, which is characterized as a resource-based approach, is based on resources and capabilities of competitive organization. The article shows the duration and sustainability of resource strategy, discloses its advantages and specificity of the phenomenon of «increasing returns». It is shown that knowledge provides «increasing returns» only when it is used, as demonstrated by «self-reinforcing cycle».

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Keywords: SWOT-analysis, strategic management, implicit knowledge, strategic resource, cognitive strategy, competition.



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1. Introduction

Management theory, emerging in science at the turn of the XX-XXI centuries, is focused on the growing role and importance of knowledge as the dominant factor and the most important strategic resource for knowledge society. Management strategy based on cognitive potential technologies allows strengthening of competitiveness capacity and competitive advantages of an organization. «SWOT-analysis» is an indicator which is aimed at identification of the factors of strengths and weaknesses of an organization and the scale of its competitiveness. «SWOT-model» based on «SWOT-analysis» allows adjustment of knowledge strategy of an organization and increase in competitive advantages of the system.

2. Problem Statement

The rationale of specificity of cognitive management strategies, the potential of these strategies in knowledge society points out the necessity of «SWOT-analysis», which will identify the strength and weaknesses of an organization. The regulation of knowledge strategy will eventually lead to the assurance of competitiveness of an organization. Knowledge management is an interdisciplinary approach with the help of which cognitive management enables organizations to achieve the set of organizational goals and objectives. It is obvious that it may be done only through the effective use of knowledge. «SWOT-analysis» here plays the role of mechanisms to ensure the effectiveness.

3. Research Questions

Determination of specificity and scope of epistemological potential of «SWOT-analysis» is possible under the condition of clarification of issues of theoretical properties. The list of these questions includes the following ones:

- What is the essence of knowledge management?
- How does knowledge management refer to strategy of an organization?
- What is the difference between knowledge strategy of an organization and knowledge management strategy?
- What is the role of «SWOT-analysis» in the strengthening of competitive advantage potential?

4. Purpose of the Study

The purpose of the research is to study the potential of «SWOT-analysis» in the formation of knowledge strategy models.

5. Research Methods

The problems of specificity and potential of «SWOT-analysis», are highlighted in a number of studies of Western analysts. So, Zack (1999) proposed a system of analytical tool, which enables to justify the idea that the knowledge management strategy is determined by single organization's strategy and market position of an organization. Garavelli et al. (2004) proposed a model for the assessment of current situation

on the basis of «SWOT-analysis». Type models of organizational structures relevant to the specificity of intellectual intensive organizations (inverted organization, and intelligent network-wide web) were developed and proposed for implementation into practice by Quinn et al. (1996; 2005). Interesting applied conclusions regarding the diagnosis of cultural barriers in knowledge management were found by De Long and Fahey (2000). Four-phase spiral cognitive resources management model was developed and recommended to the implementation by Nonaka and Konno (1998). Such problems as the problem of knowledge loss associated with the leaving of employment in organization and the problem of preservation of knowledge are partially resolved in the research of De Long and Davenport (2003). The studies of these authors played an invaluable role in the formation of paradigm proposed in our work and in the choice of methods of our study. A number of Russian researchers also work in this field (Ardashkin & Popova, 2015; Ardashkin et al., 2018; Brylina, 2019; Brylina & Kornienko, 2016; Kornienko, 2016b; Sidorov & Chernikov, 2018).

The problem mentioned in the title of this article had been solved by using the potential of various methods: the method of comparative analysis, the method of a systematic methodology. The authors also used the theoretical potential of integrative, comprehensive and comparative approaches.

6. Findings

In this paper the authors refer to the concept of «strategy», and this choice is nonrandom. The fact is that the management process is connected with adequate influence, through the lens of which the prospects of development of an object are always seen. And the choice of strategy is associated with the resource endowment. Knowledge plays the role of strategic management resource in knowledge society. In terms of the content of the term «strategy», the strategy is understood as the attempt to preserve the equilibrium position in a situation of balancing on the edge of the external environment (its possibilities, its threats) and internal capacity of an organization (including its strengths and weaknesses). With regard to knowledge strategy, Zack (1999) pointed out the important detail in determination of its specificity. The meaning of this detail lies in the fact that many leaders try to articulate the relation between competitive strategy and intellectual resources and capabilities of their organizations.

They do not have well-developed strategic models that would help them to link the knowledge-oriented processes, technology and form of organization with its business strategy. They are not sure how to convert the task of «intelligence raising» of an organization into a set of strategic reasoned actions. They require a pragmatic, but also theoretically grounded model of knowledge strategy (Zack, 1999). The evaluation of knowledge strategy of an organization is given by referring to the potential of «SWOT-analysis». It is mentioned in literature that knowledge strategy and knowledge management strategy are meaningfully different: while knowledge strategy is the competitive strategy and it is formed around the intellectual resources of an organization and is focused on the combination of these intellectual resources, knowledge management strategy is essentially the basis of the definition of processes and infrastructure for knowledge management. Clarifying differences between knowledge strategy and knowledge-management strategy, Zack (2002) believes that “knowledge strategy implies the idea of a knowledge-based strategy” (p. 193), i.e. competitive strategy, built around intellectual resources and potential of a company.

Once the company identifies opportunities, threats, strengths and weaknesses associated with its intellectual resources and potential, the actions taken in order to manage gaps or surpluses in knowledge (e.g. recruitment of staff with specific skills, creation of online document storages, creation of communities of practitioners, technology licensing) are guided by the knowledge management strategy. “Knowledge Management Strategy directs and determines the processes and infrastructure of knowledge management” (Kornienko, 2016a, p. 430).

In addition, the author touches upon the issue of difference between knowledge strategy and strategic knowledge management. The effective strategy should be based on knowledge about an organization (strengths and weaknesses of an organization associated with the resource component), and its competitive environment, its opportunities and its risks. Zack (2002) defines these processes and infrastructure, used in the work with the knowledge, as strategic knowledge and considers it as a form of knowledge management. These include communities of practitioners, information technologies and their role in knowledge management.

The difference in the opinion of researches is also can be traced. For example, M. H. Zack offered an ideal model («as it should be» or due), while Garavelli et al. (2004) were focused on a model which evaluates specific situation («as it is» or existent). Although it is necessary to recognize that Zack (1999) and Garavelli et al. (2004) mutually complement to each other in the interpretation of knowledge management strategy.

The methodology of «SWOT-analysis», focused on the study of potential and risks that accompany a company in its functioning in an aggressive competitive environment was created about half a century ago (Andrews, 1971).

Authors who work in the paradigm of «SWOT-analysis», proceed from the premise that the strategic knowledge used in an organization, are classified into three blocks. This is a set of basic knowledge (minimum set and level of knowledge), advanced knowledge, and finally, innovative knowledge (core, advanced, innovative). Zack (1999) interprets advanced knowledge as intermediate average level of knowledge quality classification of an organization. Advanced knowledge allows competition. And, only innovative knowledge allows taking a leading position and differentiation in competitive environment.

Analysts are actively using the construct of a «strategic gap». «SWOT-model» is based on the idea that the basis of the strategic gap is a potential gap in knowledge (knowledge about what an organization should do in order to remain competitive and knowledge about what it can do for the implementation of strategy and strategic requirements).

«SWOT-model» used to evaluate the competitiveness of an organization in the environment saturated with the knowledge is necessary to form knowledge strategy. As for «SWOT-analysis», it is based on knowledge that it is focused on the comparison of knowledge resources and capabilities with strategic potential and risks. And this comparison enables to determine the potential and weaknesses of an organization. This, in its turn, is the basis for strategic decision-making in knowledge management, which will increase the competitive advantage of an organization and will decrease the scale of risk.

7. Conclusion

Knowledge strategy in its nature is a process of correlation of knowledge resources and knowledge necessary for not only insurance of competitiveness of organizations, but also for surpass of competitors. The ability to identify those knowledge resources that would provide to organizations a priority in relations of competition and occupy stable market position of an organization is the defining elements of knowledge strategy. «SWOT-model» formed from «SWOT-analysis» is the basis for the description of knowledge strategy. The knowledge strategy itself is the process of intellectual resources correlation with the knowledge that the necessary for organization to produce services. Knowledge resources and technologies present fundamental basis in determination of the position of an organization in the system of competitive relations.

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References

- Andrews, K. R. (1971). *The Concept of Corporate Strategy*. Dow Jones-Irwin.
- Ardashkin, I. B., & Popova, A. V. (2015). Knowledge management as a form of student initiative and a tool to increase education efficiency. *Procedia - Social and Behavioral Sciences*, 166, 270-276. <https://doi.org/10.1016/j.sbspro.2014.12.523>
- Ardashkin, I. B., Chmykhalo, A. Yu., Makienko, M. A., & Khaldeeva, M. A. (2018). Smart-Technologies In Higher Engineering Education: Modern Application Trends. *The European Proceedings of Social & Behavioural Sciences (EpSBS)*, L. <https://doi.org/10.15405/epsbs.2018.12.8>
- Brylina, I. V. (2019). Potencial SWOT-analiza v formirovanii modelej znanievyh strategij [The potential of the SWOT analysis in the formation of knowledge strategy models]. *Idei i ideally*, 11(1), 162-174. <https://elibrary.ru/item.asp?id=37292992>
- Brylina, I. V., & Kornienko, A. A. (2016). Stanovlenie universitetov kak predprinimatelskih struktur. Apologija kulturnoj missii universiteta [Formation of universities as entrepreneurial structures. Apologies of Cultural Mission of the University]. *Bulletin of Tomsk State University. Cultural science*, 2(22), 28-36. <https://elibrary.ru/item.asp?id=26375133>
- De Long, D. W., & Davenport, T. (2003). Better practices for retaining organizational knowledge: lessons from the leading edge. *Employment Relations today*, 30(3). <https://www.deepdyve.com/lp/wiley/better-practices-for-retaining-organizational-knowledge-lessons-from-dK7jm0A0Ko>
- De Long, D. W., & Fahey, L. (2000). Diagnosing cultural barriers to knowledge management. *Academy of Management Executive*, 14(4). <https://www.jstor.org/stable/4165689?seq=1>
- Garavelli, C., Gorgoglione, M., & Scozzi, B. (2004). Knowledge Management Strategy and Organization: A Perspective of Analysis. *Knowledge and Process Management*, 11(4). <https://doi.org/10.1002/kpm.209>
- Kornienko, A. A. (2016a). Kognitivnyj menedzhment kak innovacionnaya strategiya upravleniya v obshchestve znaniya: konceptualnyj aspekt [Cognitive management as an innovative management strategy in a knowledge society: conceptual aspect]. *Vestnik Tomskogo gosudarstvennogo universiteta. Filosofiya. Sociologiya. Politologiya*, 3(35), 36-45. <https://elibrary.ru/item.asp?id=27239056>
- Kornienko, A. (2016b) Cognitive management strategies in knowledge society: specific character and potential. *SHS Web of Conferences*, 28. <https://doi.org/10.1051/shsconf/20162801124>
- Nonaka, I., & Konno, N. (1998) The concept of “ba”. *California Management Review*, 40(3). <https://doi.org/10.2307/41165942>

- Quinn, J. B., Anderson, P., & Finkelstein, S. (2005). Leveraging Intellect. *The Academy of Management Executive (1993-2005)*, 19(4), 78-94. <https://www.jstor.org/stable/4166207>
- Quinn, J. B., Anderson, P., & Finkelstein, S. (1996). Managing professional intellect: Making the most of the best. *Harvard Business Review*. <https://hbr.org/1996/03/making-the-most-of-the-best>
- Sidorov, L. G., & Chernikov, V. G. (2018). *Filosofiya upravleniya kak specialnaya socialno-filosofskaya teoriya. Monografiya* [Management philosophy as a special socio-philosophical theory. Monography]. Rusajns. [In Rus.]
- Zack, M. H. (1999). Developing a knowledge strategy. *California Management Review*, 41. <https://journals.sagepub.com/doi/10.2307/41166000>
- Zack, M. H. (2002). Developing a knowledge strategy: Epilogue. In N. Bontis & C.W. Choo (Eds.), *The Strategic Management of Intellectual Capital and Organizational Knowledge: A Collection of Readings*. Oxford University Press.