DETERMINANTS OF THE LEVEL OF DEVELOPMENT OF MANAGEMENT CAPACITY OF ENTERPRISES IN THE DIGITAL ECONOMY

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Abstract. The article contains the results of research on the main determinants of management capacity (MC) and its financial support. Identifying their features in accordance with the level of development of the digital economy allows us to draw conclusions about the priority areas of personnel development, information and innovation support for management decisions and the development of corporate culture and teamwork. The components of management capacity must meet the strategic objectives of the enterprise. Priorities for the implementation of management innovation and investment projects for the development of management capacity are determined depending on the impact of each component and the overall level of management capacity. Similarly, the need for financial support for each component of the MC is determined. The contradictions in assessing and prioritizing are the interrelationships of the components, as well as the duplication of development functions. Development of management capacity in the conditions of informatization and intellectualization of economy, introduction of innovations at the enterprises is carried out in the environment of corporate culture. Corporate strategic management in the digital economy involves the use of a comprehensive and targeted management system and environmental information support for management activities. Reasonable choice of determinants with the help of human-oriented value approach is presented in theories and practices of using a system of balanced scores, maximizing value for owners, visualization of development maps and more. The law of synergy allows to obtain new qualities of management capacity based on the development of each component and their relationship. This connection is carried out in accordance with the main carrier of management capacity - the manager, who is also a carrier of corporate culture, innovation and an active user of the information system of the enterprise and a team player. Such various roles of the manager and the purpose of development of his or her personal potential as the expert and the person demand the complex approach to formation of components of management capacity of the enterprise. At the heart of the components and as the component with the greatest equal capacity is the management capacity of personnel (MCP) at all levels (from enterprise to individual). In accordance with the MCP, innovative, informational, team, cultural and corporate potentials are considered. Determinants of management capacity development should be based on key determinants of value in accordance with each of the components and stage of the life cycle of the enterprise. This will determine the priority aspects of management capacity development, identify the links between its components, their interaction and the dynamics of determinants of management capacity development in accordance with the determinants of strategic management of the enterprise. It is also important for the digital economy to use the potential of information systems, electronic communications, digital skills of personnel. Determinants of financial support are evaluated as the indicators of innovation and investment projects; introduction of changes in management; improvement of the information system, corporate system of the enterprise, personnel training costs, support of departments in certain areas, personnel management system costs, personnel incentives and motivation in terms of direct costs and efficiency, as well as in terms of saving resources: time, human and material resources. The current system of monitoring, evaluation and forecasting of interrelated financial and non-financial determinants, combined within the framework of human-oriented value management, allows to assess the state of management potential and identify components that need to be developed at first instance.

Key words: digital economy, management capacity, financial support, enterprise, synergetic system, information ecosystem, determinants of the level of development of management capacity of the enterprise.

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1. Introduction

The urgency of identifying the determinants of the development of management capacity of the enterprise (MC) and its financial support is primarily due to the fact that you can manage and develop only what can be measured. Selected determinants are justified in accordance with the values of the enterprise and the peculiarities of the digital economy; they will determine the main directions of development of management capacity and form a budget of financial resources. The novelty of the results obtained lies in the target function of identifying the determinants of management capacity, the use of humanoriented value approach to the composition of the components of MC and their prioritization.

The purpose of research is to identify the features of the digital economy and the determinants of management capacity development.

The analysis of the results of research on the features of the digital economy was initiated by such scientist as D. Tapscott (Tapscott, 2014) and continued by various scientific schools, as well as presented by the analysis of IT practitioners and financial analysts (Anderson, 2016; Tsyfrova ekonomika, 2020).

The most popular indicator for "measuring the economy is GDP, but in the digital economy it does not take into account all the immeasurable benefits of digital solutions", especially when measuring indicators of management capacity (Tsyfrova ekonomika, 2020). Digital capabilities include personnel training in management and active implementation of innovations using information technology. It is advisable to use a system of balanced indicators of management capacity, which should focus on personnel development in general and other components, the main carrier of which is also a person (Kaplan, 1998). Visualization of such determinants is realized with the help of advancement maps (Blakyta, 2013).

To determine the financial value of the determinants of management capacity, it is advisable to use the concept of Value-Based Management (VBM) (Rappaport, 1997). A. Rappoport, the author of the concept, identifies four main elements of management: evaluation, as a process of determining the value of the organization for the owners, monitoring indicators, identifying mechanisms for creating new values; strategy as a set of targeted measures to increase the value of the organization for its owners; finance as an indicator of return on investment; corporate governance as a system of balance of interests of owners and managers, stimulating the activities of specialists and the highest level of management. It is necessary to focus on the diversity of evaluation criteria for each stakeholder group and the specifics of investing, as well as to form an adapted approach to identifying the determinants of management capacity.

2. Adaptation of known approaches

The value concept for the system of management capacity development assumes that management capacity is already a value of the organization that needs to be developed, and for this purpose it is necessary to use the proposed areas of management. The development of this concept by Arnold G. and Davies M. suggests that the system of material incentives should be based on indicators of forecasting and evaluation of performance, which is not always directly related to the welfare of owners (Arnold, 2000).

Management capacity cannot be assessed as an indicator of the value of the enterprise, but its level is usually associated with this value, indicators of profitability of the enterprise. That is why the pattern emerges: the more successful the company, the more investment is directed to personnel training, automation and informatization of management processes, introduction of corporate culture measures, etc. To do this, the company must implement a flexible system of financial security and identify components of management capacity (Laktionova, 2016; Humeniuk 2020).

To assess the development of management capacity, it is advisable to use the method of VRIO analysis (VRIO, 2020).

Being adapted to the assessment of the level of management capacity, this method allows to assess the management capacity in four areas: value (if the value is a priority at this stage); uniqueness (especially for author's management technologies, level of management capacity, unique properties of corporate culture, etc.); ability and reproducibility (especially in times of crisis); organization (balance between sustainable institutions and dynamic project teams). Synergetic use of known approaches and methods has allowed to form a value-based human-oriented approach to the formation of a system of balanced indicators of management capacity development. The research is devoted to the synergetic combination and adaptation of certain theories in the practice of identifying the determinants of management potential.

The operation of management capacity development is based on the results of the analysis of business processes, according to which the priority of goals is determined to their usefulness, potential interests of all stakeholders. The enterprise as a socio-economic system must form common values that are priorities in the development of management personnel as a central component of the management capacity of the enterprise and take into account the connection with other components. This approach requires the formation of a system of balanced indicators, which will focus on the values of management personnel and the enterprise as a whole with the active use of innovative management technologies, corporate culture systems and automation of management processes.

3. Human-oriented value approach to identifying the determinants of management capacity development

The human-oriented value approach is based on two basic approaches: maximizing value for owners and maximizing the multifactor objective



Figure 1. General theoretical model of management capacity formation

Vol. 1, No. 2, 2020 ·

function for all components. Figure 1 presents a general scheme for the development of management capacity.

The level of influence of the component determines the distribution of financial support and the priority of changes for the development of management capacity. According to the initial data of the enterprise survey, the highest priority is given to the management capacity of the personnel (defined in the figure with *) and its training (defined in the figure with **). Table 1 presents the main components of the development of management capacity of the enterprise and the relevant determinants.

Indicators of development of each component must correspond to human-oriented value indicators of development of management capacity and the enterprise as a whole. In accordance with the development of a person who is a specialist of the enterprise, values are usually assessed by qualitative expert indicators.

Differences in the evaluation and forecasting of indicators of the components of the development

of management capacity of the enterprise are the priority of the development of management personnel and evaluation systems of other components in relation to the development of each individual and the enterprise as a whole. Evaluation of determinants is carried out in accordance with the results of a survey of personnel and experts on a scoring system and the formation of a common indicator for each component and an integrated indicator of management potential of the enterprise (example of a conditional enterprise is presented in Table 2).

This analysis will allow to form taxonomic indicators, which are the basis for determining the integrated indicator of the level of development of management capacity.

4. Conclusions

The formed concept of human-oriented value approach to the development of management capacity is the basis for the creation of a system of determinants for assessing the

Table 1

Components of development of management capacity
of the enterprise and corresponding determinants

Component of			
management capacity development	Determinants	Features of financial support	
Management capacity of personnel	Quantitative indicators of personnel development by educational level, level of professional development; participation in successful projects; work experience; work performance. Qualitative indicators of personnel potential development in the competencies of leadership, communication, organization, creativity, etc. functions.	Constant financial support of material incentives for personnel Regular financial support based on the results of personnel evaluation Financial support for personnel training	
Capacity for innovation	Quantitative indicators of innovation in management processes; the results of the introduction of innovative projects in the management system.	Financial support of the introduced innovations. Financial support of innovative projects	
Capacity for the introduction of a comprehensive information system	Level of coverage of management processes; the level of readiness of personnel to work in the information system; number of services for communications and visualization; indicators of the level of completeness and the use of the knowledge base for management decisions	Financial support of work monitoring and updating of the complex information system of the enterprise	
Potential for the development of corporate culture and training	Number of corporate events; indicators of corporate information portal development; indicators of social protection of employees; indicators of training outcomes	Financial support of corporate events, support of the information portal, insurance, social benefits, distance learning courses, knowledge base, external training of personnel.	
Capacity for project teams	Quantitative and qualitative indicators of project implementation results. Evaluation of team members according to project management indicators	Financial support of individual projects, as well as measures for the formation of strategy, problem situations, etc.	

(chample of quantitative values of the material according to the contactorial enterprise)								
Components	«V»	«R»	«I»	«O»	Quantitative value of the indicator			
					Strength/Weakness	Taxonomic indicator		
Management personnel	Yes	Yes	No	Yes	Strength	0.7		
Innovation in management	Yes	Yes	No	Yes	Weakness	-0.2		
Information system	No	No	No	Yes	Weakness	-0.5		
Corporate system	Yes	No	No	Yes	Strength	0.5		
Training	Yes	Yes	Yes	Yes	Strength and steady excellent competence	1		
Capacity for project teams	Yes	Yes	Yes	Yes	Strength and steady excellent competence	1		

Table 2VRIO analysis of the management capacity of the enterprise(example of quantitative values of the indicator according to the conditional enterprise)

level of development of management capacity by individual components and integrated indicator.

The identified determinants of management capacity development based on human-oriented value approach can be assessed on the basis of relationships between components and indicators, in accordance with quantitative indicators of management development, corporate culture, information management environment and knowledge bases, project teams. The main determinants of the level of development of management capacity can be assessed by the following projections:

Indicators of the capacity for management personnel can be assessed as levels of professional competencies; compliance with needs; participation in corporate culture; personnel motivation; readiness to use information support; level of readiness for innovations; the effectiveness of personnel training.

The capacity for the introduction of a comprehensive information system is assessed by determining the number of management processes covered by the information environment, quality levels of procedures to support the adoption and implementation of management decisions and personnel readiness to work and communicate in a single information environment. Innovation capacity is measured by the number of innovative changes in management and the levels of their impact on the result, the willingness of personnel to innovate.

Training development capacity is assessed for each training event and subsequent post-training performance.

The capacity for project teams is assessed through the use of project performance indicators and the level of personnel involvement in teamwork, in particular the effectiveness of the project strategic management team.

Generalization of known approaches and their transformation to identify the determinants of management capacity will form a system of indicators of management capacity development. The indicators of development of management capacity obtained have different levels of influence on the results of the enterprise. To model such an effect, it is advisable to use the methods of correlation analysis and multiple regression. We believe that it is necessary to assess the impact of each component and the integrated indicator of management capacity to further determine the share of financial security for each of the components.

The plans of further research include identifying the determinants on the example of Ukrainian enterprises and forming a system for monitoring development indicators.

References:

Tapscott, D. (2014). The Digital Economy Anniversary Edition: Rethinking Promise and Peril in the Age of Networked Intelligence. N. Y.: McGraw-Hill.

Anderson, L., & Wladawsky-Berger, I. (2016). The 4 Things It Takes to Succeed in the Digital Economy. Cambridge: Harvard Business Review. Available at: https://hbr.org/2016/03/the-4-things-it-takes-to-succeed-in-the-digital-economy

Tsyfrova ekonomika Ukrainy (2020) [Digital economy of Ukraine]. Top Lead. Available at: https://businessviews.com.ua/ru/get_file/id/digital-economy-of-ukraine.pdf

Kaplan, R. S., & Norton, D. P. (1998). *The Balanced Scorecard : Translating Strategy into Action*. Cambridge: Harvard Business Review Press.

Blakyta, H. V., Chorna, L. O., Kovalenko, O. O., Chorna, N. Yu., Zachosa, O. D., & Petrovska, A. V. (2013). *Modeling of strategic maps of organization development*. Vinnytsia: VTEI KNTEU. (in Ukrainian)

Rappaport, A. (1997). *Creating Shareholder Value: A Guide for Managers and Investors*. N. Y.: Free Press. Arnold, G., & Davies, M. (2000). *Value based management. Context and application*. N. Y.: John Wiley & Sons.

Laktionova, O. A. (2016). *Hnuchkist finansovoi systemy: metodolohiia, otsinka ta vektory zabezpechennia: monohrafiia* [Flexibility of the financial system: methodology, evaluation and vectors: monograph]. Vinnytsia: Donetsk National University. (in Ukrainian)

Humeniuk, R. P. (2020). Financial support of the management potential of the enterprise. *Efektyvna ekonomika*, 6. doi: 10.32702/2307-2105-2020.6.202. Available at: http://www.economy.nayka.com.ua/pdf/6_2020/204.pdf (in Ukrainian)

VRIO Analysis Framework for Strategic Planning (2020). Available at: https://bscdesigner.com/ vrio-analysis.htm