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**DIGITAL SYSTEM OF CONVERGENT MANAGEMENT OF BUSINESS
PROCESSES OF OPERATING ACTIVITIES OF HOSPITALITY INDUSTRY
ENTERPRISES**

Specialty 5.2.6. "Management"

Abstract
of the dissertation for the degree of
Candidate of economical sciences

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Relevance of the research topic. The hospitality industry is one of the largest and fastest growing industries in the world economy. Over the past ten years, the dynamics of the hospitality industry development exceed the average growth rate of the world economy. Trends in the development of hospitality industry enterprises in Russia over the last five years demonstrate growth in most economic indicators. All this testifies to their sustainable economic development and ability to recover quickly in the conditions of existing challenges of the external environment. It is safe to say that the hospitality industry has significant potential for economic growth and increasing its share in the country's GDP.

In this regard, the search for new approaches to improve the effectiveness of the model of business process management of operational activities of hospitality industry enterprises is particularly acute. Representatives of both the scientific world and the business community emphasize the relevance and practical significance of the process approach to management and treat it as one of the dominant models of modern management. However, for effective management it is necessary to use the most adequate methods and tools for measuring and analyzing the indicators of various business processes of the company's operating activity. This issue is particularly acute in the context of a dynamically changing external environment, which requires prompt management decisions to optimize the operating activities of companies of different functional orientation. One of the modern approaches to the creation of effective management methods is convergence, which is the integration of different areas of knowledge, scientific disciplines and technologies. At the junction of "different" there is the emergence of "new" with a synergetic effect, which contributes to the creation of breakthrough solutions and innovations in various sectors of the economy.

It should be emphasized that convergence is a general methodological term that is used to define different systems and approaches to management. At the same time, in each specific case convergence is associated with combination of different components aimed at solving certain tasks.

The scientific approach to business process management presented in this study

has a fundamentally new interdisciplinary nature and is aimed at optimizing the operational activities of hospitality industry enterprises. The concept of convergent business process management of hospitality industry enterprises is based on the integration of the process approach, statistic-based management, industrial model of marketing mix, as well as digital technologies of data processing and visualization.

Given the above, the relevance of the topic of the dissertation research lies in the need to develop theoretical and methodological aspects that define the conceptual framework, conceptual apparatus, logic of construction and organizational and methodological mechanism of functioning of the system of convergent business process management aimed at improving the operational efficiency of enterprises of the hospitality industry in the context of digitalization.

Degree of development of the problem. Modern science has a significant basis in the field of business process management of operational activities of companies operating in various sectors of the economy. Theoretical aspects describing the conceptual apparatus of the process approach to management are presented in the works of both domestic and foreign scientists, among which we can note V.V. Repin, V.G. Epiferov, V.G. Epiferov, V.V. Repin, V.G. Epiferov, A.V. Sheer, Z.I. Rumyantseva, I.B. Filipova, T.B. Shramchenko, V.V. Rei.

The importance of the process approach in building a modern model of company management, as well as the mechanisms of its creation are reflected in the works of S.V. Maklakov, V.A. Ivlev, T.V. Popov, A.S. Shmatallyuk, S.L. Optner, D.A. Mark, M. Robson, F. Ullah, S.V. Cheremnykh. Various approaches, principles and methodologies of business process modeling are presented in the scientific works of O. Deming, L. Hershman, R. Mayer, B. Silver, K. McGowan. Among the authors who described the principles of classification and specifics of business process management of operational activities at the enterprises of the hospitality industry we can point out such authors as S.S. Skobkin, G.A. Papiryan, A.E. Saak, M.V. Yakimenko, K.A. Enz, D. Rutherford, M.J. O'Fallon, P. Szende, A.N. Dalton, M. Yuu.

The study of the works of domestic and foreign scientists allows us to conclude that significant results have been achieved in the development of theoretical and methodological foundations of the process approach to management. At the same time, the integrative nature of convergent management, as well as the effectiveness of its use in modern scientific literature is not so widely represented. This is explained by the fact that this area of knowledge is in the stage of active development, scientific research and approbation of their results are being conducted. Scientific works on the problems of convergent approach to business process management, based on the integration of the process approach, marketing-mix model and statistics-based management are not presented in the scientific literature. In addition, the industrial aspect of the use of this approach in the operational activities of enterprises of the industry is practically not investigated. This justifies the need for a holistic scientific study aimed at developing theoretical and methodological aspects in this area of knowledge.

The purpose of the dissertation research is to form a digital system of convergent business process management aimed at improving the operational efficiency of enterprises in the hospitality industry.

The objectives of the study, aimed at achieving the set goal of the thesis research, are as follows:

1. To systematize modern scientific approaches to understanding the structure and key components of the hospitality industry, as well as to identify trends in the development of this sphere of economy.
2. To substantiate the feasibility of using, key advantages and features of the convergent approach to business process management of operational activities.
3. To determine the basic elements, principles of functioning and relevance of practical use of business process management system in the activities of enterprises of the hospitality industry.
4. To propose a conceptual scientific approach to the formation of a digital system of convergent management of business processes of operational activities of enterprises of the hospitality industry.

5. To develop a methodological apparatus for a digital system of convergent business process management in the hospitality industry.
6. To build an organizational and methodological mechanism of functioning of the digital system of convergent business process management.
7. To develop a digital information platform for converged management of operational business processes in the R programming language.
8. To make an algorithm of implementation of digital system of convergent management of business processes in operational activities of enterprises of hospitality industry on the basis of project management methodology.
9. To conduct a qualitative and quantitative analysis of typical risks of the project to implement a digital system of converged business process management in the activities of enterprises of the hospitality industry.
10. To create a methodology for evaluating the effectiveness of using a digital system for converged operational business process management.
11. To approbate and implement the results of the dissertation research in the operational activities of the enterprises of the hospitality industry.

Area of research. The dissertation is carried out within the framework of the area of research designated in the Passport of scientific specialty of the Higher Attestation Commission 5.2.6 "Management":

- pt. 10 – "Designing management systems of organizations. Business processes: methodology of construction and optimization models. Network models of the organization. Information-analytical support of organization management".
- pt. 20 – Marketing technologies in company management: theoretical and applied aspects. Marketing contribution to the creation and management of intangible assets. Modern models and methods of interaction with clients and consumers.
- pt. 26. – Organization management in the context of digital transformation. Strategies and methods of digital business transformation.

The object of the study is the operational activities of enterprises in the hospitality industry.

The subject of the study is convergent business process management of

operational activities based on the integration of the process approach, the marketing-mix 8P industrial model and statistics-based management.

Research Hypotheses. Within the framework of the dissertation research a working hypothesis was put forward, reflecting the key ideas of the work. The hypothesis is based on the assumption of increasing the operational efficiency of enterprises in the hospitality industry through the use of a digital system of convergent business process management based on the integration of the process approach, industrial model of marketing mix, statistic-based management, as well as digital technologies of data processing and visualization.

Theoretical and methodological foundations of the research are based on the classical provisions of economic and management sciences, as well as the works of Russian and foreign scientists in the field of management, business process management, operational management in the hospitality industry, convergent management technologies, marketing, statistics-based management, statistical analysis and project management. In the process of dissertation research used the principles of system, situational and process approaches, as well as methods of statistical, comparative, structural, correlation and regression analysis, expert assessments, subject modeling, analogy and synthesis, sociological survey based on questionnaires.

The information and empirical base of the study was made up of legal acts regulating activities in the hospitality industry, including the federal law "On the Fundamentals of Tourism Activities in the Russian Federation", the passport of the national project "Tourism and Hospitality Industry", the All-Russian Classifier of Economic Activities" of Rosstandart, data from the Federal State Statistics Service (Rosstat). The materials of industry scientific and practical conferences, statistical data, the results of sociological and marketing research, review and analytical materials, expert assessments presented on Internet sites and in periodicals by analytical services, information agencies, consulting companies, specialized associations were used. The paper presents the results of the author's own research conducted by the author in the framework of the educational and project laboratory of

the Faculty of Hospitality IOM RANEPA under the President of the Russian Federation, as well as the Federation of Restaurateurs and Hoteliers of Russia.

Reliability and validity of the research results are ensured by the principles of theoretical and methodological provisions in the field of business process management, convergent management, marketing analytics and statistics-based management with the use of scientifically recognized research methods, relevance of the information base and a representative set of used data, discussion of the main results at international and all- Russian scientific and practical industry conferences with their subsequent publication in scientific publications.

The scientific novelty of the research lies in the development of a digital system of convergent business process management, methodology of its formation, as well as methodological and instrumental support of functioning and performance evaluation, which contributes to the improvement of operational efficiency and sustainable economic development of hospitality industry enterprises in the long term.

Provisions put forward for defense that meet the criteria of scientific novelty:

1. The structure of the hospitality industry, the principal difference from the previously developed ones, is its integration link with the tourism industry. The integration mechanism is based on the fact that three types of activities (travel agencies and tour operators, organization of conferences and exhibitions, recreation and entertainment) belong simultaneously to two sets - the hospitality industry and the tourism industry. This mechanism explains the complexity of these types of activities, one of the key components of which is service services related to hospitality. Based on these methodological provisions, the structure of the hospitality industry consists of five elements, each of which corresponds to a certain type of activity in accordance with the OKVED classification. The author's classification of business processes of operating activities of hospitality industry enterprises based on the structuring of the group of processes by profit and cost centers. This classification takes into account the industry specifics of hospitality industry enterprises and reflects the relationship between business processes and operational metrics in management reporting.

2. The convergent approach to business process management of operational activities of hospitality industry enterprises has been developed and scientifically substantiated. It is based on convergence, in which different approaches to management are combined and create a new whole - convergent management of business processes with preserved properties and qualities of original components and the acquisition of new ones that emerged in the process of their integration. The author's convergent approach is based on the integration of three areas of scientific knowledge, including the process approach to management, the industrial model of marketing mix and management based on statistics (metrics). The developed convergence mechanism demonstrates the logic of interaction and mutual influence of all components of the triad during business process management aimed at optimizing the operational activities of hospitality industry enterprises.

3. The concept of digital convergent management system (hereinafter referred to as DMS) of business processes of operational activities of hospitality industry enterprises is developed, which is reflected in the logical-structural, functional and operational models of the system developed by the author. The logical-structural model includes basic elements that allow to visualize the key stages of the life cycle of a digital system of convergent business process management. The functional model positions CSKU as a complex system consisting of three interdependent and equivalent subsystems, each of which carries a certain load, including social, organizational and technological orientation. The operational model represents CSSCU as an open socio-economic system that transforms information resources into optimized business processes. The concept reflects the basic elements and principles of the system functioning aimed at effective management of operational activities and ensuring sustainable economic development of hospitality industry enterprises in the long term.

4. The methodology of creation and operation of the digital system of convergent management of business processes of operational activities of hospitality industry enterprises has been developed, which is a set of scientific provisions revealing the essence, conceptual apparatus, features and principles of its functioning.

As the main methodological provisions, scientifically substantiating the architecture of CSCU, are: logical and structural scheme describing the purpose, subject, object and management subject of the system; mapping of operational metrics by elements of the industrial model of marketing-mix 8P; mapping of operational metrics and business processes of operational activity; classification and map of business process gaps; repository of operational metrics and business processes of operational activity

5. An organizational and methodological mechanism has been created, which is one of the subsystems of CSCU and provides its instrumentality, i.e. the possibility of practical use of the system in the operational activities of the hospitality industry enterprise. The organizational component of the mechanism is represented by the four-level structure of the hybrid model of convergent business process management in the context of functional, organizational, behavioral and information projections. All business processes of the model are built on the principles of integration of BPMN 2.0 and SIPOC methodologies. The methodological component of the mechanism is represented by the toolkit of convergent business process management, which allows to carry out: analysis of operational metrics, operational audit and evaluation of business process indicators, identification of categories of business process gaps, making managerial decisions to optimize business processes, as well as statistical data processing to predict the quality of business processes. The author's organizational and methodological mechanism provides a systematic view of the set of actions that ensure the functioning of the CSCU and optimization of business processes of operating activities of hospitality industry enterprises

6. A digital information platform (hereinafter referred to as DIP) has been developed, which is designed for the implementation of targeted subject matter activities in the field of convergent management of business processes and is integrated into a unified management system of a hospitality industry enterprise. DIP belongs to the category of infrastructural digital platforms and provides automatic execution of certain operations on convergent management of business processes, including data storage and processing, mathematical calculations, visualization of obtained quantitative indicators, as well as making forecasts necessary for making

decisions on optimization of operational activities of the hospitality industry enterprise. Each module of the developed methodology of convergent business process management provides for automatic analysis and modeling of the initial data sample using a set of certain scripts of the R programming language. Data output elements obtained because of modeling are displayed on the dashboard placed in the frontend of the DIP in the form of graphs, tables or text.

7. A methodology has been developed to ensure effective implementation of CSCU in the operational activities of hospitality industry enterprises. It is based on the project approach and includes the main structural elements of the passport of a typical project of CSCU implementation. Using the principles of standard design allowed to create ready-made solutions for the implementation of CSKU in the activities of various enterprises of the hospitality industry, which significantly reduces the time and costs of its implementation. To improve the effectiveness of CSKU implementation, a toolkit for managing typical project risks was developed, including identification, qualitative analysis, and selection of a strategy for responding to them. A method for assessing the effectiveness of CSKU implementation is created, based on determining the degree of impact of the system on the achievement of strategic objectives of the hospitality industry enterprise in eight perspectives that determine the strategy of its development in accordance with the concept of marketing mix 8P. The logical-structural scheme reflecting the algorithm of CSKU performance evaluation based on financial and non-financial indicators characterizing economic and operational efficiency, as well as employee involvement in the practical application of the system is drawn up. The methodology is universal in nature, as it allows to use integral coefficients brought to a single scale of measurement, as well as any indicators defined at the corporate level as strategic benchmarks to calculate performance.

Theoretical and practical significance of the research. The work has developed the existing approaches in economic science to solving the problem of improving the efficiency of business process management of operating activities in the conditions of digitalization. The theoretical and methodological provisions

presented in the dissertation are aimed at improving the efficiency of operational activities of hospitality industry enterprises through convergent management of business processes based on the integration of the process approach, marketing-mix model and statistic-based management.

The practical significance of the obtained methodological and methodological results of the study lies in the possibility of their use for the formation of a modern concept of management of operational activities of enterprises of the hospitality industry in the conditions of digitalization. This will significantly improve the efficiency of operating activities and ensure sustainable economic development of enterprises in the hospitality industry in the long term.

The practical significance of the dissertation research lies in the fact that its methodological and methodological developments can be used:

- In hospitality industry enterprises to manage a corporate business process model to improve operational efficiency and sustainable economic development.
- Management companies and operators in the hotel and restaurant business when providing services to optimize the operational activities of enterprises based on the use of modern developments in the field of business process management.
- In higher education institutions to optimize campus management and improve the quality of accommodation and food services provided to different categories of clients.

Approbation of the results of the study is confirmed by certificates of implementation and was carried out:

- in the process of implementation of scientific and practical projects on the basis of the educational and project laboratory of the Faculty of Hospitality IOM RANEPa under the President of the Russian Federation;
- in the process of research and development work within the framework of the Federation of Restaurateurs and Hoteliers of Russia;
- in presentations on the research topic at 10 Russian and international scientific and practical conferences;
- in the educational process under the bachelor's and master's degree

programs of the Faculty of Hospitality of the IOM RANEPA under the President of the Russian Federation;

- in the unified directorate for the development of hostels and hotel and residential complexes of the Russian Presidential Academy of National Economy and Public Administration;

- in the international restaurant holding company "Coffemania" through the implementation of CSKU business processes in the operational activities of chain restaurants.

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