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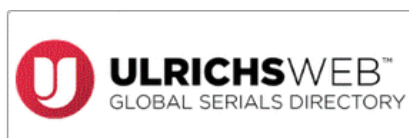
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**STRATEGIC MANAGEMENT OF INNOVATIVE DEVELOPMENT
OF BUSINESS ENTITIES**

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Abstract. *Scientific and methodological bases for formation and selection of an innovative strategy for development of business entities, based on complex diagnostics of external and internal environments, grouping and development of methodology, the basis of which is a system of quantitative indicators and peer review, are substantiated. The system of indicators includes indicators for assessing the level of innovation intensity of business entities (with division by cost of innovation activity, results and pace of innovation activity), strategic innovation potential (with division into internal (production, technological, personnel, information, financial, scientific, technical, managerial, organizational and marketing potentials, innovation culture) and external components), risks of innovation activity, technical capital of business entities. In order to solve the main strategic and innovative problems in case of formation of an innovative strategy of business entities, scientific and methodological provisions have been developed to form an optimal strategy for production of innovative goods by business entities on the basis of economic and mathematical modeling.*

Keywords: *innovative activity, strategy, potential, technical capital, development.*

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Introduction

Prospects for the country's development in the world economy are conditioned by competitiveness of the national economy. Deepening of globalization processes, actualization of competitive rivalry, formation of competitive advantages creates new requirements for the state policy in the direction of increasing and creation of conditions for ensuring competitiveness of business entities.

Sustainable economic development in the long term period is primarily caused by introduction of foreign experience of innovation activities of highly developed countries, action of factors aimed at supporting mastering advanced technology and science. Innovative factors are decisive in the system of improving competitiveness of the country's economy and serve acceleration, permanence of the innovation process and development, the efficiency of the innovation system.

Search for new driving forces accelerating economic dynamics, adequate to the current state of development of the world economy, has become a permanent task of today, which is, first of all, related to exhaustion of factors of extensive economic development. Such situation initiates formation of an innovation strategy at all levels of management, which will become an effective tool for developing and implementing a system of improving competitiveness of the country's economy to stimulate its innovative and socio-economic development. This substantiates the relevance of developing theoretical and methodological bases for formation of the innovative strategies, taking into account factors, levers and tools for enhancing competitiveness of the national economy, regulation of innovation development processes.

In the current conditions of development of the world economy, business entities should in the overall development strategy bring innovative development (fulfilment of innovations) to the main, general line, since the strategy is based on a complex of innovations, their complex application in the socio-economic, management, and technology spheres, etc. Innovative development should be the most important strategic goal of organizations, not just a functional direction or objective, but strategic management of innovation development to grow into a promising direction and take into account peculiarities of business entities in an unstable external environment.

The purpose of the research is to formulate theoretical and methodological bases for creation of innovative strategies in the system of enhancing competitiveness of the national economy in modern conditions and to develop scientific and practical recommendations for strategic management of innovative development at all levels of management.

Literature Review

The need to strengthen the role of innovation as a fundamental factor in competitiveness stems from the following provisions:

innovations contain an element of novelty and change, are of dynamic nature and tend to development (Kianto, A., Sáenz, J., & Aramburu, N. (2017));

innovation is closely linked to all other factors affecting competitiveness of a product, enterprise, region and country (Clauss, T. (2017));

innovations influence formation of market demand, which in itself is a very important factor in improving competitiveness (Lee, K., Woo, H. G., & Joshi, K. (2017)).

The main feature of the innovation strategy is combination of two directions of influence, former aiming at the international environment and contributes to improving competitiveness of the country among other players on the world market, and the latter – to ensure internal optimization of the national economy.

At all levels of the national economy and governance (macro, meso, micro) the innovation strategy is characterized by its uniqueness (França, C. L., Broman, G., Robèrt, K. H., Basile, G., & Trygg, L. (2017)).

At the macro level, it is combined with introduction of new equipment and technology, emergence of new types of intellectual activity, emergence of mostly radical, breakthrough innovations (Kasemsap, K. (2017)). At the meso and micro levels, consolidation is emerging with the overall strategy of the business entities, degree of their innovative activity, their ability or willingness for innovations, innovative development, changes.

An innovation strategy is characterized by a set of actions that are geared towards enhancing vitality and competitiveness of entities (Voegtlin, C., & Scherer, A. G. (2017)). Its formation and choice are the most important components of the strategic and innovation management cycle.

Worldwide innovation experience enables identification of several models of new knowledge provision and the choice of an appropriate innovation strategy:

diffusion of innovations from external sources and their improvement in the national conditions (the model is predominant if the "transfer" strategy is implemented) (Baumgartner, R. J., & Rauter, R. (2017));

inflow of new knowledge through foreign expansion and convergence with transnational structures, development of foreign branches in the country, consolidation with the foreign market, transnationalization and globalization of activities (the model is actively used in the case of the "borrowing" strategy implementation) (West, J., & Bogers, M. (2017));

development of an innovative environment at the expense of own potential, integrated with high-tech companies, which creates prerequisites for intensification of the national science and technological progress (the model is prevailing in case of implementation of the "escalation" strategy) (Bouncken, R. B., Fredrich, V., Ritala, P., & Kraus, S. (2018)).

The country should be interested in enhancing its own competitiveness through creation and implementation of an innovation strategy through formation of an innovative environment, stimulation of innovative activity of entrepreneurship, investment in innovation, formation and activation of the system increasing the economy competitiveness, development of innovative activities of enterprises, in particular production of high-tech products (Santoro, G., Ferraris, A., Giacosa, E., & Giovando, G. (2018), Santoro, G., Vrontis, D., Thrassou, A., & Dezi, L. (2018)).

In an innovative economy, economic growth is due to individualization of the process of production of goods and its consumption, the economic efficiency is obtained through the maximum return on the lowest costs in the process of use of limited production resources, and economic freedom is manifested as a high degree of freedom to manage innovative business activities, employees, etc. (Coccia, M. (2017)).

Optimal achievement of economic security (enhancement of innovation potential through division and cooperation of labor) and constant reduction of prices for innovative products are the primary goals of social development and innovation economy. (Gutierrez-Gutierrez, L. J., Barrales-Molina, V., & Kaynak, H. (2018)).

As of now, a strong theoretical framework has been created to analyze the tools for enhancing competitiveness of national economies and the place and the role of innovative strategies. However, many aspects of this problem have not been developed enough. In particular, it remains debatable and requires further study for interpretation of the system of improving competitiveness of the country's economy, theoretical and methodological foundations of mutual harmonization of formation of innovative strategies at different levels of the national economy in the system of improving competitiveness of the national economy have not been created. The relevance, theoretical and practical significance of these problems, insufficient level of their study and theoretical and methodological development have determined the choice of the topic of work, the logic and sequence of scientific research.

Methods

The theoretical and methodological basis of the research are works of the classics of competitiveness theory, strategic management of innovative development, state regulation of innovative activity, modern concepts of innovative development.

In order to solve the problems of scientific research, general scientific theoretical methods have been applied: generalization, explanation, grouping, classification – to analyze the views of economists with regard to the object of research and to formulate conclusions of the content analysis of the primary sources; analysis and synthesis – to clarify the main scientific categories of research, justification of new concepts and categories, laws, principles in case of solving research problems; schematic and graphical representation – for a visual presentation of the study results and analytical data.

In the process of solving problems of the research, special methods of scientific cognition were also used: formal and logical – to develop a methodology for choosing an innovative strategy for business entities, to determine factors influencing competitiveness of the economy; comparison, comparative analysis; economic and mathematical modeling – to develop an optimal innovation strategy for fabrication of innovative products by business entities; peer review – to identify problems, factors and obstacles to the innovative development of business entities, the weight of evaluation criteria, and selection of innovative strategies for business entities. Processing of the obtained data was performed with the use of modern information technologies.

Results

Any business entity by nature is endowed with the gift of finding something new, original, which makes it possible to stand out from other entities. However, not all manage to realize such natural advantages. There are usually certain obstacles in the way. In order to increase efficiency of innovation activity and implement the innovation strategy, it is necessary to study in depth the structure and nature of the obstacles to innovation development.

Deficiencies in the innovation activity and innovation development of business entities can usually take the following forms:

- loss of opportunity to generate revenue from the introduction and use of innovation, since potentially effective innovations are not implemented by business entities for various reasons;

- dawdling implementation of innovation, delays in development, production, etc.;

- improper organizational implementation of innovation impedes the process of finding and implementing innovation;

- ineffective change management by business entities, and the inability to struggle the change resistance;

- lack of expected innovation potential;

- emergence of unexpected costs to implement innovations that exceed planned costs, etc.

Strategic management of innovative development of business entities is designed to solve the issues of planning and implementation of innovative, investment projects, deals with the process of anticipation of changes in the economic activity of organizations, search and implementation of large-scale strategic decisions that ensure survival and sustainable development at the expense of identified future factors of success.

Getting effective results from implementation of innovative development requires introduction of specific means and management tools from a set of strategic or innovative management, depending on what position is considered innovative development at the micro level. Innovative management is carried out in parallel with the management of the traditional process of production of goods and services.

Formation, planning and organization of an innovation strategy takes place simultaneously or consistently at several levels of strategic management. For the most part, this process takes place at the following levels: corporate, business units, functional (Table 1).

Innovation strategy is of diffusion nature and it integrates into all strategies of the business entities in the strategic set, from corporate to operational. This strategy implies purposeful activity on setting priorities of strategic innovative development, their achievement, and, as a consequence - ensuring new quality of management, production.

Table 1. Characterization of levels of strategic management on an innovative basis (author's development)

Levels of classic strategic management	Levels of strategic management on an innovative basis
<p>Level 1. Corporate strategy</p> <p>Sets guidelines for development of business entities in general, including innovative development, behavior of business units (subunits). The entity is perceived as a holistic system, defining the line of business, including expansion or reduction of the existing type of activity, merger, setting up joint ventures, etc.</p>	<p>Level 1. Corporate innovation strategy</p> <p>Sets targets mostly for innovative development, behavior of business units (subunits) based on introduction of new ideas. Creation of a new business model, acquisition of a new business, making innovative decisions to address issues related to organizational and financial structure of the economic entity.</p>
<p>Level 2. Business strategy</p> <p>For the most part, this level is characterized by features of competitive strategy. Addresses issues of technology modernization; financing of business activities; holding a market niche, etc.</p>	<p>Level 2. Business innovation strategy</p> <p>Addresses issues of formation of competitive advantages; new range and type of products; application of the latest technological processes; capturing a new market niche, etc. Strategic goals are focused primarily on the competitive struggle using various types of innovations.</p>
<p>Level 3. Functional strategies</p> <p>Functional level at which preconditions are formed and conditions are created for solving strategic tasks: sharing responsibilities between departments and units; an action plan in the field of marketing, sales, production, etc.; staff development; production process automation, etc.</p>	<p>Level 3. Functional strategies</p> <p>Functional level at which preconditions are formed and conditions are created for solving strategic tasks: action plan for R&D, marketing, sales, production, etc.; staff development; production process automation; introduction of a new information system, etc.</p>

At the same time, achievement of priorities has some limitations, due to innovative potential of the activity. This strategy is implemented through non-standard, advanced, well-grounded decisions that are tailored to the specifics of business entities. The content of the innovation strategy depends on the specifics of the innovation activity of the business entities, relationship between functional strategies, innovative corporate strategy and business strategies.

Quality of the relationship between the specialized units, the intensity of this interaction produce a significant impact on the content and results of the innovation strategy. Responsibility for strategy implementation, development of business entities rests with the top managers, whose task is to identify managerial capabilities for conditions of functioning and progress of the organization, regular improvement of managerial talents, setting goals, extent of the required management training and identification of necessary resources.

Introduction of innovation in one area influences other areas of activity of business entities and leads to introduction of innovation in those areas too. All types of innovation are interconnected and can be implemented in parallel and sequentially.

Table 2. Functional strategies with innovation components (author's development)

Res- ource feature	Strategic objectives	Strategic guidelines	Functional strategies aimed at innovations
Marketing	Maintaining and expanding products demand	Increase in sales' growth rate. Market share retention. Expanding market share.	Product stewardship strategy (launch of new products). Price strategy (new pricing methods). Market strategy (maintaining the old markets, entering new ones, expanding borders).
Scientific and technical	Improvement of scientific, technical and organizational level of production	Increasing the share of new information technologies. Increasing the level of standardization, robotization, automation of production processes. Increasing the share of new technological processes. Increasing the number of scientific and technical publications. Increasing the number of intellectual property rights.	Scientific development strategy. Technical development strategy. Technology development strategy Strategy of information and analytical development. Product Development Strategy. Integration strategy. Diversification strategy.
Intangible	Increasing profitability of the organization	Creating a brand and increasing its value. Creating a trademark and increasing its value. Creation of patents, know-how. Goodwill formation. Gaining experience, staff training.	Brand development strategy. Trademark development strategy. Intellectual Product Development Strategy. Know-how, patents development strategy. Goodwill development strategy. Staff development strategy.
Production	Increasing efficiency of production or operating activities	Increase of financial return. Reduction of material consumption of products. Labor productivity growth. Improving product quality. Increase in profitability of production or operating activities. Cost reduction per 1 UAH of commercial products. Increasing production flexibility. Formation of quality management system.	Strategy of production activity diversification. Strategy for optimization of production structure. Strategy of technical and technological development. Resource optimization strategy. Inappropriate costs reduction strategy. Quality management strategy.
HR	Professional development, staff mobility	Salary growth. Improving working conditions. Improvement of employees' wellness. Team building.	Staff development strategy, training. Staff structure optimization strategy. Social orientation strategy. Communication development strategy.
Economics	Improving efficiency and effectiveness of the activity	Reducing the payback period of investments. Increase in sales. Reducing the cost of production. Increasing profits from innovation. Increasing the value of the organization.	Investment strategy. Pricing strategy. Cost optimization strategy. Product development strategy. Goodwill development strategy.
Finance	Improving efficiency of financial management	Maximizing cash flow. Improving return on assets. Improving return on equity. Cost minimization.	Strategy of generating financial resources. Strategy of financial security of business entities. Strategy for improving quality of financial management.
Information support	Improving information, analytical and communication support	Increasing the level of IT penetration and automation. Improving the socio-psychological climate. Improving the document flow.	Strategy of information and analytical development. Communication development strategy.

Thus, synchronous implementation of innovations and innovation strategies at all levels enables business entities to simultaneously focus on reducing costs, improving efficiency and quality of products, meeting consumer needs in greater extent, etc. Innovative strategies make it possible to gain a competitive advantage and increase competitiveness of business entities in case managers aim at creative, innovative activity, confronting the established traditions in management.

An innovative corporate strategy influences creation of functional strategies that will focus on innovations (Table 2).

Each functional department of business entities operates in accordance with the strategic goals of innovation development and strategic indicators (benchmarks). Strategic guidelines for assessing the objectives (goals) of business entities should meet the following requirements: time limitations; measurability (quantitative or qualitative), real, clearly formulated, communicated to each employee of the organizational unit; complement each other. Also, a strategic indicator can be among the key indicators in several structural units (functional units) and can be used to evaluate approximation to goals and objectives.

Businesses entities possess more or less similar set of resources that can be used to achieve the intended goals. It is the well-tuned and effective strategic innovation management system of business entities that reflects the ability of the management to optimally, rationally, efficiently and successfully use the available resources, implement changes, innovations.

Development of an organization's innovation strategy should be based on the theory of the life cycle of a business entity and take into account its position on the market, innovation policy. For this purpose, it is important to consider the available resource base (economic, marketing, scientific, design, technological, production, personnel, intangible, financial, information and communication, etc.) and its usability.

External and internal factors of influence should also be taken into account, in particular: the scope activities of business entities; prerequisites, conditions and factors of the external and internal environment; range of goods manufactured by economic entities; product life cycle; the level of risk involved in the project implementation and diversification; generation of technological, scientific and technical, innovative potentials; development of innovative growth strategy and implementation with corporate (general) strategy of organization development; availability of resources and other factors to implement the innovative strategy of business entities; tracking scientific and technical information and the state of the innovation market.

Intensity of innovation activity (process) of business entities – use of resources involved in the innovation activity (process) of business entities. Intensity of innovation activity is a component of innovation activity which is aimed at acquisition, creation, development, realization of innovations in certain spheres of activity of economic entities due to managerial influences and implemented functions that have different efficiency and intensity. At the same time efficiency of the innovation activity (process) of business entities is the level of innovative

development of a certain sphere or business entities in general in accordance with the set goals and shows in development of the innovative potential.

Innovation intensity of business entities is the main feature of their innovation activity level.

Innovation activities of business entities can, for the most part, cover at the same time a number of areas: technology, products, marketing, organizational innovations, innovations in business models that are grouped together. Study of interconnected, integrated innovation processes within groups (complex of innovations) allows the business entities to maintain balance in case of developing different spheres of innovation activity, to focus on the rapid progress of one of the main directions for business entities in order to achieve the synergy effect that is created in the parallel movement of the whole complex of innovations. It also enables to take into account synchronization of the priorities of the interchangeable and dependent development of the spheres of activity in terms of intensity, depth and relative to created conditions for cross-functional interactions within the innovation complex.

It is proposed to assess the level of innovation activity of business entities through calculation of indicators of innovation activity intensity in the following groups: indicators of costs of innovation activity, indicators of innovation activity, indicators of pace of innovation activity.

This research can be conducted by the method of peer review, application of which requires development of a map of indicators for each group (with calculation method) and establishing rankings of significance of certain types of indicators to determine the level of innovation intensity of business entities.

Calculation of the level of innovation intensity of business entities is proposed to analyze in accordance with the available indicators of innovation activity and to evaluate with indicators of the base period of activity of the investigated business entities or their degree of deviation from the normative (in case of starting activity).

It is proposed to estimate the prospects for assessing level of the selected indicators of innovation activity intensity of business entities by the expert method. Experts can be managers, leading specialists of financial, economic, human resources, marketing, scientific and technical departments. For the purpose of the expert evaluation it is necessary to use the method of scoring from 1 to 10.

The table of interpretation of the received value of the level of intensity of innovation activity, in which the 5-level system is used as a basis for evaluation and the criteria are laid down, is given below (Table 3).

The summary estimates for each group were obtained through the synthesis of individual estimates belonging to the respective group (innovation cost indicators, innovation performance indicators, innovation activity rate indicators), and the integral indicator was obtained through synthesis of summary estimates based on the average evaluation. Weighted average scores should be calculated in such a way as to take into account the weights, namely the degree of impact of each assessment group through the peer review method.

Table 3. Interpretation of results of estimation of intensity of innovative activity of business entities (author's development)

No.	Level of innovation intensity	Value of the integral indicator
1	High	(0.8-1]
2	Upper intermediate	(0.6-0.8]
3	Intermediate	(0.4-0.6]
4	Lower intermediate	(0.2-0.4]
5	Low	[0-0.2]

Choice of the innovation strategy depends on the evaluation results for each component considered: the level of innovation activity intensity, the level of innovation potential, the risk level of innovation activity and the value of the intangible component of technological capital of business entities. The indicators and the scale for selection of innovative strategy of business entities developed on basis of scientific works are shown in Table 4.

Table 4. The indicators and the scale for selection of innovative strategy of business entities (author's development)

Active generator strategy	Active innovator strategy	Active-passive innovator strategy
$I_{LII} \rightarrow \text{max}; \text{max}$	$I_{LII} \rightarrow \text{max}$	$I_{LII} \rightarrow \text{min}; \text{max}$
$I_{LSIP} \rightarrow \text{max}; \text{max}$	$I_{LSIP} \rightarrow \text{max}$	$I_{LSIP} \rightarrow \text{max}$
$\frac{IA}{TK} \rightarrow \text{max}; \text{max}$	$\frac{IA}{TK} \rightarrow \text{max}$	$\frac{IA}{TK} \rightarrow \text{max}$
$I_{RI} \rightarrow \text{max}; \text{max}$	$I_{RI} \rightarrow \text{max}$	$I_{RI} \rightarrow \text{max}$
Active simulator strategy	Active-passive simulator strategy	Passive simulator strategy
$I_{LII} \rightarrow \text{min}; \text{max}$	$I_{LII} \rightarrow \text{min}; \text{min}$	$I_{LII} \rightarrow \text{min}$
$I_{LSIP} \rightarrow \text{max}; \text{max}$	$I_{LSIP} \rightarrow \text{min}$	$I_{LSIP} \rightarrow \text{min}$
$\frac{IA}{TK} \rightarrow \text{max}; \text{min}$	$\frac{IA}{TK} \rightarrow \text{min}$	$\frac{IA}{TK} \rightarrow \text{min}; \text{min}$
$I_{RI} \rightarrow \text{min}; \text{max}$	$I_{RI} \rightarrow \text{min}$	$I_{RI} \rightarrow 0$
Active conservative strategy	Active-passive conservative strategy	Passive conservative strategy
$I_{LII} \rightarrow 0$	$I_{LII} \rightarrow 0$	$I_{LII} \rightarrow 0$
$I_{LSIP} \rightarrow 0$	$I_{LSIP} \rightarrow 0$	$I_{LSIP} \rightarrow 0$
$\frac{IA}{TK} \rightarrow 0$	$\frac{IA}{TK} \rightarrow 0$	$\frac{IA}{TK} \rightarrow 0$
$I_{RI} \rightarrow 0$	$I_{RI} \rightarrow 0$	$I_{RI} \rightarrow 0$

Notes: I_{LII} – integral indicator of the level of innovation activity intensity, share; IA – value of intangible assets combined with management of research and development, technical preparation of production and products fabrication, monetary units; TK – technical (production) capital of business entities, monetary units; I_{LSIP} – integral indicator of the level of strategic innovation potential of business entities, share; I_{RI} – integral indicator of innovation risk assessment in the stages of innovation implementation by business entities, share.

Let's consider calculation of the three-component system of the integrated indicators of innovation activity of business entities by the formula 1:

$$\left\{ \begin{array}{l} I_{LII} = \sum_{l=1}^n \frac{\sum_{j=1}^m Z_{lj}}{m} \times \alpha_l; \\ I_{ISIP} = \sum_{l=1}^n \frac{\sum_{j=1}^m F_{lj}}{m} \times \vartheta_l; \\ I_{RI} = \sum_{l=1}^n \frac{\sum_{j=1}^m X_{lj}}{m} \times \beta_l. \end{array} \right. \quad (1)$$

where: Z_{lj} – value of the j -th indicator of the l -th group included in the calculation; α_l – degree of influence of the l -th evaluation group on the overall level of innovation intensity; m – the number of evaluation indicators for each group; n – number of evaluation groups; F_{lj} – value of the j -th indicator of the l -th group included in the calculation; ϑ_l – the degree of influence of the l -th evaluation group on the overall level of strategic innovation potential of business entities; X_{lj} – value of the j -th indicator of the l -th group included in the calculation; β_l – extent of the impact of the l -th assessment group on the overall level of risk from innovation on stages of innovation implementation.

The proposed indicators for selecting an innovative strategy for business entities demonstrate the level and quality of management of each component under consideration. In order to increase competitiveness of business entities, it is necessary to develop and implement measures, effective management methods, to organize management processes for risk, technical capital, innovation potential.

Human factors play a crucial role in enhancing innovation activity and managing innovation potential of business entities. Efficiency of its use requires continuous search of forms and methods of activation of creative, innovative activity of employees, their orientation on the accelerated development of innovations in production, making a creative climate, which requires open informal style of management, involvement of intelligent and talented personnel in the non-standard thinking, introduction of a new ideas search system, creation of innovative climate, culture.

Effectiveness of the process of innovation activity managing of business entities depends on development of innovative, in particular, scientific and technological potential.

Ways to increase intensity and effectiveness of innovation activity are: creation on a permanent or temporary basis of new innovative units of organizational structures, among which there are matrix structures, scientific and technical units, scientific and technical organizations, internal ventures, development of business networks, network technologies, intercompany relations. The latter include the following basic forms of intercompany cooperation: agreements on cooperation on specific aspects of activity; agreements for small business acquisition by large

companies to gain new technologies; contractual relations (on the basis of long-term contracts) between suppliers of materials and their consumers in the form of scientific and technical alliance, joint ventures, consortium, financial and industrial groups.

At the same time, in order to intensify innovation activities, it is necessary to optimize the costs of such activities, i.e. R&D, innovation, development of new products and technologies, promotion and sale, protection of intellectual property objects.

Minimization of innovation activity is due to shortening of R&D process, introduction and production of innovation, rollout, patent rights acquisition period.

The process of managing innovative potential of business entities is focused on enhancing existing competitive advantages or facilitating formation of new ones. This process should allow for:

diagnosing the process of managing innovation potential: an integrated preparatory generalized conclusion about the state of actual and hypothetical innovation potential of business entities (investigation of the results of management actions of formation and preparatory evaluation of innovation potential, conditions of internal and external environment) on the basis of appropriate assessment of relevant analytical information, reports. Based on quality diagnostics, managers are able to substantiate and make effective decisions about planning and managing innovation potential;

planning (strategic, tactical and operational planning) of the process of managing the innovative potential of business entities (setting guidelines, goals, growth rates), developing decisions on timing, executors and sequence of execution of the process in order to achieve the intended results;

a system of incentives for the personnel at the general and individual level, which is oriented on the initiative and support of honest fulfillment of duties by employees on the basis of moral (innovative culture) and material interest, self-motivation for creative development of employees, etc.;

organizing the process and ensuring management of the innovation potential of business entities, which involves solving issues of final optimal structure of the potential, regulating actions of executives, establishing support for the process of optimal development of innovative potential;

monitoring and controlling the process of managing innovation potential of business entities.

Therefore, increasing competitiveness of business entities requires a focus on improving the process of managing innovation potential, identifying deviations from the desired state of potential, formation of a system for managing innovation potential.

The search for new methods of management of business entities inevitably leads the business entities to update the material base, increase production efficiency, increase business activity, innovate, produce such products that would be competitive on the world markets. Effective innovation depends first and foremost on a number of factors. Of utmost importance is the completeness of financial relationships formed in case of attracting different sources, effective use of funds, available resources, implementation of the operational strategy.

Managing production entities (business entities and their units) in today's changing market environment is a complex process that involves many risks and depends on many factors. In these circumstances, it is impossible to do without the use of modern mathematical tools, information technology and computers.

The developed model allows to determine in what percentage of the whole range of products each type of products is produced, taking into account the market environment and actions of competitors and the possibility of optimal adjustment of this ratio in order to maximize the income from sale of enhanced products.

If a business entity produces and markets products in accordance with the strategy outlined in the study, it will be able to maximize revenue from the sale of a unit of all types of enhanced products. Calculations made using the proposed model will allow us to formulate measures for making rational decisions that will allow the business entity to timely enter the market with innovative products, outstripping potential competitors and conquering the market segment.

Based on the research conducted to develop an innovative business entity strategy to enhance competitiveness, it is important to note the specific recommendations for strategy formulation:

in the current conditions of the world economy, a business entity should in the overall development strategy bring innovative features to the main, general line. A business entity innovation strategy should be the most important strategic driver, and innovative development is the most important strategic goal, not just functional areas or tasks;

functional strategies should be a platform for developing an innovative business development strategy for business entities;

strategic management of innovative development of business entities should be considered as a process of implementation of the system of management of the basic spheres of activity on innovative grounds in order to achieve the goals of strategic and innovative development, increase of competitiveness and competitive positions, financial success, building innovative strategy taking into account changes of environment;

choice of innovative strategy of business entities under certain internal and external conditions, scale of factors of influence on innovative development and activity of business entities should be based on analysis and evaluation of such components as innovative intensity of enterprise, strategic innovative potential, risks of innovative activity, technical capital. These elements cover all aspects of business entities, which are oriented on the innovative way of development, open up possible prospects for development;

decision-making process for formulation of an optimal strategy for fabrication of innovative products by business entities, sale of which on the market could provide them with sufficient financial benefits, should be based on modern technologies, in particular application of economic and mathematical modeling in the conditions of market uncertainty;

applying a game-theoretic model to formulate an optimal strategy for manufacturing innovative products by business entities will solve the problem of optimizing production volumes of new products, taking into account additional costs

incurred by business entities due to development, research and production of these products.

Conclusion

Grounded on the basic methodological provisions of strategic and innovative management, the main principles and tasks of strategic management of innovative development of business entities were substantiated, the system of strategic factors that determine formation of an innovative strategy, a description of levels of strategic management with consideration of innovative component, directions for development of innovative activity and increasing competitiveness of business entities were presented. It was proved that the innovation strategy is the basis for conceptualizing economic development at all levels of national economy.

Strategic management of innovative development, first of all, involves definition of goals in the context of each management object with justification of the result of implementation. Thus, the object of management is the production, technical capital (a complex of objects that creates an active part of the main production assets, intangible assets related to management, organization of research and development, technical preparation of production and fabrication of goods), human, information and financial resources, investment capital.

In the current market-oriented conditions, successful corporate strategies should be combined with innovative strategies to achieve the stated goals of business entities. Based on these conditions, the necessity of distinguishing nine innovative strategies for the development of business entities was substantiated, classification by relevant features was refined, correlating them with the basic strategy, which allowed to define indicators and the process of selection of innovation strategy. Characteristics of the innovation strategy were presented taking into account types of implemented innovations and conditions of application.

Scientific and methodological approach to selection of innovative strategy for development of business entities has been improved, which, in contrast to the mentioned, proposes the process of formulating an innovative strategy under given internal and external conditions, the scale of factors influencing its innovation activity and development.

Tools for carrying out the study of external and internal environment on the basis of the formulated system of indicators (innovative intensity of the enterprise, strategic innovation potential, risks of innovative activity, technical capital of enterprises) have been clarified. This approach solves the practical problems of business entities in case of introduction of different types of innovations, enables them to become activators or fully functional participants in the innovation process.

The content of "the innovation intensity", "the strategic innovation potential", "the risks of innovation activity" concepts for business entities were clarified, scientific approaches to grouping, tools and methods of assessing the level of these indicators with their division into components were further developed.

It was substantiated that in the process of selecting an innovative strategy for economic entities it is important to estimate the value of the intangible component of the technical capital of business entities. The advanced growth of the intangible

component value of technological capital is an indicator of quality of innovative development of business entities and achievement of strategic innovation goals.

A series of successive stages of the decision-making process for formulation of an optimal strategy for innovative products fabrication was proposed, which includes structuring of stages on the basis of ten interconnected blocks with justification of detailed interconnected measures and coherence between them, which makes it possible to adapt the decision-making process to innovation activity of business entities in uncertain market conditions, taking into account the market situation and actions of competitors, potential for optimal correction of actions with the purpose of maximizing revenue from selling products.

In the conditions of limited investment and budgetary resources, the process of formulating a national innovation strategy, adjusting functioning of national and regional innovation systems, enhancing competitiveness of the economy and creating conditions for implementation of innovation policy should proceed due to optimal selection and effective implementation of a set of economic steps for implementing the state innovative policy, selection criteria and application of the economy innovative development models, forms of their implementation, establishment of a state regulation system for innovation activity, considering actions at theoretical, methodological, instrumental and organizational levels, which causes identification of interconnection and interdependence of innovative strategies and formation models of the innovative economy.

It is advisable to provide additional support for development of innovative processes by optimizing the state regulatory functions, simplifying operations of administrative control and supervision, overcoming regulatory barriers for business entities. Therefore, it is important to review the public policy, develop preventive measures related to formulation of a national innovation strategy, switch the economy to a leadership type of development, taking into account objectives, status and conditions of innovative development.

References

- Baumgartner, R. J., & Rauter, R. (2017). Strategic perspectives of corporate sustainability management to develop a sustainable organization. *Journal of Cleaner Production*, 140, 81-92. URL: <https://www.sciencedirect.com/science/article/pii/S0959652616304358>
- Bouncken, R. B., Fredrich, V., Ritala, P., & Kraus, S. (2018). Coopetition in new product development alliances: advantages and tensions for incremental and radical innovation. *British Journal of Management*, 29(3), 391-410. URL: <https://onlinelibrary.wiley.com/doi/full/10.1111/1467-8551.12213>
- Clauss, T. (2017). Measuring business model innovation: conceptualization, scale development, and proof of performance. *R&D Management*, 47(3), 385-403. URL: <https://onlinelibrary.wiley.com/doi/abs/10.1111/radm.12186>
- Coccia, M. (2017). Sources of technological innovation: Radical and incremental innovation problem-driven to support competitive advantage of firms. *Technology Analysis & Strategic Management*, 29(9), 1048-1061. URL: <https://www.tandfonline.com/doi/abs/10.1080/09537325.2016.1268682>
- Dayan, R., Heisig, P., & Matos, F. (2017). Knowledge management as a factor for the formulation and implementation of organization strategy. *Journal of Knowledge Management*, 21(2), 308-329. URL: <https://www.emerald.com/insight/content/doi/10.1108/JKM-02-2016-0068/full/html>

- França, C. L., Broman, G., Robèrt, K. H., Basile, G., & Trygg, L. (2017). An approach to business model innovation and design for strategic sustainable development. *Journal of Cleaner Production*, 140, 155-166. URL: <https://www.sciencedirect.com/science/article/pii/S0959652616308010>
- Gutierrez-Gutierrez, L. J., Barrales-Molina, V., & Kaynak, H. (2018). The role of human resource-related quality management practices in new product development: A dynamic capability perspective. *International Journal of Operations & Production Management*, 38(1), 43-66. URL: <https://www.emerald.com/insight/content/doi/10.1108/IJOPM-07-2016-0387/full/html>
- Kasemsap, K. (2017). Strategic innovation management: An integrative framework and causal model of knowledge management, strategic orientation, organizational innovation, and organizational performance. In *Organizational Culture and Behavior: Concepts, Methodologies, Tools, and Applications* (pp. 86-101). IGI Global. URL: <https://www.igi-global.com/chapter/strategic-innovation-management/177568>
- Kianto, A., Sáenz, J., & Aramburu, N. (2017). Knowledge-based human resource management practices, intellectual capital and innovation. *Journal of Business Research*, 81, 11-20. URL: <https://www.sciencedirect.com/science/article/abs/pii/S0148296317302461>
- Lee, K., Woo, H. G., & Joshi, K. (2017). Pro-innovation culture, ambidexterity and new product development performance: Polynomial regression and response surface analysis. *European Management Journal*, 35(2), 249-260. URL: <https://www.sciencedirect.com/science/article/abs/pii/S0263237316300391>
- Santoro, G., Ferraris, A., Giacosa, E., & Giovando, G. (2018). How SMEs engage in open innovation: a survey. *Journal of the Knowledge Economy*, 9(2), 561-574. URL: <https://link.springer.com/article/10.1007/s13132-015-0350-8>
- Santoro, G., Vrontis, D., Thrassou, A., & Dezi, L. (2018). The Internet of Things: Building a knowledge management system for open innovation and knowledge management capacity. *Technological Forecasting and Social Change*, 136, 347-354. URL: <https://www.sciencedirect.com/science/article/pii/S0040162517302846>
- Voegtlin, C., & Scherer, A. G. (2017). Responsible innovation and the innovation of responsibility: Governing sustainable development in a globalized world. *Journal of Business Ethics*, 143(2), 227-243. URL: <https://link.springer.com/article/10.1007/s10551-015-2769-z>
- West, J., & Bogers, M. (2017). Open innovation: current status and research opportunities. *Innovation*, 19(1), 43-50. URL: <https://www.tandfonline.com/doi/full/10.1080/14479338.2016.1258995>



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THE INNOVATIVE COMPONENT OF THE WORLD INVESTMENT MARKET DEVELOPMENT

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Abstract. *Systematic globalization of the world economy caused the necessity of transformation of the world investment market, the imperatives of which are represented by the intensification of financial arrangements, an advance increase of national investment markets, intensive transnationalism, asymmetry of investment activity of world countries, etc. Considerable significance of the innovative line of investment activity in the world countries has been determined through the correlation accounting between the volume of exports of high-technology products and the volume of clean portfolio investments based on the data for 130 countries. We identified 4 country groups: the 1st group is characterized by a strong correlation between the parameters, indicating the highest level of efficiency of portfolio investments in innovation sectors of economy growth; the 2nd group is described by the medium correlation between the parameters, which can result from significant diversification of the investment sources of the development of the economy; the 3rd group is characterized by a lack investment of high-technology industries of the economy, which is a gradual reorientation of countries from the manufacturing-based development strategy through engagement of foreign investments and the need to develop and finance science on other strategies of development, for which the financing of the economy innovation sectors requires lower volumes and is not of great priority; the 4th group is characterized by correction retraction between the volumes of high-technology export and the volumes of clean portfolio investments, which can result from the offshore outsourcing of the economy of these countries.*

Keywords: *investment market, globalization, innovation sector, portfolio investments, international capital movement.*

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Introduction

In the age of the world economy globalization, one observes a rapid increase in the correlation between the economies of particular countries in the area of both production and international capital movement in the form of foreign investments, increasing rapidly and leading to the transformation of the world investment market, in the course of development of which the need for the institutional environment development becomes more relevant as it provides the necessary support for high-power and clean market and ensures opportunities for free and efficient international capital movement.

The problem of the world countries' financial markets further development and the consolidation of their role within the global investment process has an integrated nature and requires a resolution of many questions in the course of further economic transformations. Herewith, the establishment of a favorable investment climate, the arrangement of an effective financial market model, the provision of conditions for the transformation of savings into investments, and the shift of investment capitals in a real sector of the economy should be viewed as specific components, which make it possible to break negative tendencies in the national economy development and allows the country to enter the trajectory of a steady-going growth, despite unfavorable external factors and world conjuncture.

The research objective is the extension of theoretic and methodological foundations of the study of the world investment market development under the conditions of global transformations.

Literature Review

Global transformations lead to particular changes, which affect the life of the entire planet. These changes might have an objective character that is not dependent on the human activity or they can be caused by subjective targeted actions of specific participants of these transformations (Nur'ainy, R., & Adipati, N. M. (2018, October)).

Thus, the process of globalization is quite a controversial phenomenon in the global universe (Nurianto, R. S., & Fata'al Chuzai, A. (2019)).

To some extent, the meaning of the process is expressed in the framework, promoting the effectiveness of the world economy, economic, and social progress of the humanity (Dollar, D. (2017)).

At the same time, the forms of the frameworks' expressions might sometimes limit the interest of the population stratum of the countries worldwide and particular countries, which do not have the membership in the "club" of states of "the Golden Billion" (Thede, S., & Gustafson, N. A. (2017)).

Under the conditions of the financialization of the world economy, the study of the international capital movement is of great interest. Indeed, with the development of society, the connection between the economies of particular countries increases both in the field of production and the capital movement in the form of foreign investments, increasing at an accelerating pace (Morris, M., & Staritz, C. (2017)).

At present, the industrial capital actively develops the world economic space through investments, representing its immanent capital flexibility, its ability to combine or consistently use various forms and methods of foreign economic-financial expansion, its ability to adapt to changing economic, socio-political, and legal conditions in different countries and groups of countries (Perraton, J., & Spreafico, M. R. (2019)).

Investments are the most important source of the resources for the development of the socio-economic system of the country. They determine the process of economic development in general, affects the deepest fundamentals of economic activity, its scales, structure, and efficiency, determine the state, perspectives, and the country's economic competitiveness (Chen, P., Karabarbounis, L., & Neiman, B. (2017)).

The investments, which have a different national origin, interlink and interact with each other (McSparren, J., Besada, H., & Saravade, V. (2017)).

They set international flows and transform into global investment resources that function within global investment space (Sondermann, D. (2018)).

The development of market relations, building a new ownership structure, the change of management system, the expansion of economic autonomy and other expressions of global transformations world economic systems require finding and applying new methods and approaches to regulating the economy (Lee, T. K., Cho, J. H., Kwon, D. S., & Sohn, S. Y. (2019)).

Thus, one can consider the following distinguishing features, forming the market approach to understanding the investments' fundamentals:

first of all, it is the weaving of investments and generation of income that acts as a motivator for conduction of investment activity (Cho, S., & Kurtz, J. (2018));

secondly, it is the consideration of investments in the correlation of two aspects: resources (capital values) and input (expenses) (Capolupo, R. (2018));

thirdly, it is the investment analysis in the dynamics, which makes it possible create a union in the framework of the category "investments," including from one side, the resources and input, and the return on investment from the other side as the motive for this union (Sommer, M., & McCoy, J. (2019));

fourthly, it is the inclusion of the investment objects of any investments, providing economic or any other useful effect (Tsai, I. C. (2017)).

While determining the considerable contribution of the researchers in the development of economic study on the highlighted topic, it can be said that global determinants of the world investment market development as an immanent feature of the world economy functioning and the grounds of space asymmetries in the system of the world economy are still an underinvestigated direction of modern economic science.

That is why, in spite of the depth of modern scientific research results on the questions, related to the complex generalization of starting conditions, reasons, and causes of asymmetry of the world investment market development, which determine a specific influence on the state of the world economy, the practice imperfection related to forming a prudent investment policy of the country, its investment attractiveness, and conditions for sovereign entry into the global investment space, indicates the need for further developments in this direction.

Methods

The scientific provisions, conclusions, and recommendations are fully substantiated. They demonstrate the presence of a logical interrelation of the formulated tasks and obtained results, the reasoning of the theoretical conclusions, the use of a wide range of statistical material, and scientific research methods.

The instrumental and methodological apparatus of the dissertation rests on the dialectical method of cognition and the systematic approach to the study of the peculiarities of the world investment market development under the conditions of global transformations. In the course of the research, we used general scientific and special methods of scientific cognition, in particular: a combination of the abstract and concrete methods; the logical and historical methods (while studying the conditions of formation of the world investment market); a systematic analysis and synthesis (to justify the methodological approaches to the analysis of the peculiarities of the world investment market development); a comprehensive system analysis (to identify modern trends of development of the world investment market); a combined approach, including the use of multifactorial research methods (in the process of developing the conceptual bases for improving the investment attractiveness of the country).

Information and statistical research foundations are represented by creator-owned scientific results, monographic and other publications of the scientists, official statistic and analytical data of the international organizations (of the group of the World Bank, WTO, IMF, and UNCTAD), expert appraisals of ranking agencies, materials of the international information agencies, legislative and regulatory documents, and statistical data of the European Commission.

Results

The liberalization of the world economic relations (the world financial market in particular), stabilization of an investment climate in the market economy countries (providing the conditions for the activity of TNC), liberalization of regimes (thanks to which, the modern management and marketing come in the recipient country together with technologies) contributed to the strengthening of world investment processes at the turn of the XX-XXI centuries. All those features have become part of the globalization of the world economy.

The influence of globalization on the development of the world market manifests itself in the following forms:

1. The unification of the investment process by the International organizations and a range of developed countries under the terms of nondiscrimination and competitiveness development.

2. Insurance and support of subjects of the world economy against national and regional crises, and their transformation in the global ones.

3. The institutionalization and influence of the international norms on the state regulation upon the investment area to provide global stability, economic steadiness, ecological safety of the countries.

4. The encouragement of state support for open investment markets through the provision of protection from political and commercial risks (through systems of the risks distribution and institutional care).

The globalization of the world economy resulted in the modification of the world investment resources market: the intensification of the credit mechanism, the change of terms, prices, and conditions for countries that wanted to get access to the international loan resources.

The modern process of the economy globalization changes the role of the state and makes it a direct participant of social production. Under the conditions of globalization, the investment market is getting more anonymous, which results in an increase in transaction expenses. The information has become one of the components of production. The established information systems enhanced the ability of capital to move quickly, which includes a potential possibility to destroy economic systems. The market fundamentalism has become a widespread phenomenon, and the international financial system itself became a factor of the crisis process; there was the capital, capable of making money of money the volume of which cannot be accounted for; one faced the issue when the capital was running away, which was associated with the creation of offshore zones; the flows of capital have changed as a result of attracting foreign currency in many countries, which feeds on the issue effect of countries issuing their currency. At the same time, not all movements of money denote the escape of financial resources. The damage to domestic production and its removal from investment resources is the formal trait.

Financial activity under the condition of globalization has features, which make it different from traditional forms of financial interaction between the countries, grounding on state sovereignty. Among them are:

- the global presence of international financial institutes;
- the international financial integration;
- the large-scale introduction of financial innovations;
- the enhancement of the financial competitiveness between the countries;
- the reduction of the state intervention into the activity within the domestic market;
- the expansion of the international market of Eurobonds and euro-equities;
- the development of multiple links between domestic and international segments and markets;
- free capital movement from domestic to international financial market;
- the expansion of security accreditations of vendors and the borrowers from the risks caused by global financial integration.

The transformations of the international investment activity into the global investment process encourage the maturity of the world financial market, the rapid development of the securities market, the establishment of large centers of the capital concentration, the boundary-spanning of interstate economic boundaries, the means of information exchange, and the appearance of the informal financial markets. Under the influence of these factors, one can observe the emergence of specialized markets of securities, guarantees, capital construction projects, debt, etc., influencing the development of the global reproduction process and determine the global movement of investment resources: scales, geographical segmentation, forms of movement and introduction.

The modern stage is characterized by the formation of Industry 4.0. – the epoch of innovations, when the latest technologies significantly change sectors of the economy at a rapid pace.

One of the most tangible aspects of the fourth industrial revolution is the idea of “service-oriented design.” It can range from the users, using the factory default data for production of their particular products, up to companies, which deliver individual products to individual consumers.

At the same time, in the course of Industry 4.0. concept implementation, one should consider the key problems – standardization, labor organization, accessibility of technologies, and the corresponding financial support. Thus, to ensure smooth implementation of Industry 4.0., one should assume the following measures:

- provide accessible services within the network infrastructure and support them with international standards and policy – both national and global;

- to gradually replace old static, non-dynamic systems by the new ones, which operate in a real-time environment and focus on services;

- to form new business-models;

- engage employees at the very beginning of modernization processes, advance their qualifications, and technical development.

Institutional, space, and structural transformations of the economic environment promote the development of the investment processes in an innovative direction. The innovation activity of the countries with an open economy is determined by the targeting of global development and the desire to accumulate competitive advantages for long-term economic growth. The knowledge and information technologies form the environment for the establishment of post-industrial society and the corresponding production of knowledge-based products and services. This process is followed by the appearance of new managerial systems and promotes the expansion of the network forms of organizational interaction of economic patterns, including the Internet. The policy of support of the competitiveness of the countries, which set the goals of sustainable socio-economic development, is based on the systematic use of investment factors and sustainable spatial layout of innovative infrastructure.

The relationship between investment activity and scientific and technological progress has several aspects. The most important of them is the consideration of investments as a kind of catalyst for scientific research, which is especially important in the context of the transformation of science into a direct productive force of

society. In this regard, one faces the need in the formation of the model of financing of economic growth, based on the innovations, creating the possibility of development of the real sector of the economy, based on the latest achievements of STP and formation of the optimal structure of social production.

As of now, investment activity plays the most important role in the provision of gradual and qualitative economic growth. With that knowledge in mind, we think it important for the country to have an ability to mobilize not only its internal but also external investment opportunities and resources.

Innovation activity is the engine of economic progress, the catalyst for economic growth and development. In the first place today, one can see the factor of growth of the efficiency of resources and business, based on R&D and innovations, which caused the formation of concepts of the innovative type of economic growth. This type of growth, most developed countries have already chosen, is based not on the production and consumption of material values, but on the creation and consumption of information products, i.e. high-technology products. This means that this type of growth has nothing in common with the problem of “expenses – output” and is determined by the volume of information consumption. Among the main sources of such economic growth are innovations and the accumulation of human capital.

Thus, investment in innovation activity can be considered as one of the most important factors for the economic growth of the country, the formation of an innovative economy. The set of measures, necessary for the formation of an innovation-type economy in the country can be attributed to three fundamental measures: a) increase of the amount of financing and investment of R&D, improvement of their mechanisms; b) active use on the practice of indirect methods of financial support of the innovative environment – tax breaks, customs preferences, targeted lending, leasing, state guarantees; c) formation of innovative clusters with their further point financing by the state and foreign investors.

In the context of global transformations of the world economy, there is a need to prioritize the measures, which are the basis for the development of innovative technologies. Thus, investment in innovations is a central priority and a major tool for the development of new technologies, which, in turn, is a catalyst for the activation of the activity in the world investment market.

To study the innovation component of the world investment market, one should consider such parameters as the volume of venture capital investments in innovation technologies upon the ranking of global investments index, the amount of international investments in the knowledge-based research and development sectors (R&D); global trends of the world venture capital investments in innovations upon segments.

The general trend of a decrease in the volume of venture capital investments in innovative technologies, which began in 2016, kept on decreasing in 2017. The leaders of the ranking (Canada, Israel, and the USA) weakened their positions for 0.15, 0.37, and 0.31 volume units respectively (Table 1).

Table 1. General venture capital investment volume in innovation, 2017*

Country	Volume	Indicator
Canada	0,55	100
Israel	0,43	100
United States of America	0,39	100
France	0,31	100
Finland	0,28	89,93
Denmark	0,22	70,83
United Kingdom	0,21	67,39
Sweden	0,19	61,88
Iceland	0,19	59,04
Switzerland	0,18	57,20

*Built by the author based on the data of the Global Innovation Index.
URL: <https://www.globalinnovationindex.org/analysis-indicator>

In 2018, the figures of the top three leaders did not regain the values of 2015, while the volumes of the venture capital investments in innovations of Canada and Israel became the smallest ones during the period of 2014-2018 (Table 2).

Table 2. General volume of venture capital investment in innovation, 2018*

Country	Volume	Indicator
Canada	0,50	100
United States of America	0,40	100
Israel	0,30	100
France	0,30	100
United Kingdom	0,20	78,71
Lebanon	0,20	73,66
Finland	0,20	68,19
Sweden	0,20	63,33
Denmark	0,20	59,08
Netherlands	0,10	46,91

* Built by the author based on the data of the Global Innovation Index.
URL: <https://www.globalinnovationindex.org/analysis-indicator>

The indicators of Singapore, Japan, and Sweden, closing the top 20 countries housing the largest R&D corporate enterprise-investors, are relatively small. This issue is explained by the fact that the above-mentioned countries are one of the main recipients of investments in innovation.

Segmental division of the world venture capital investments by year is the indicator, characterizing the international investment market in relation to perspective directions in the research and development segments (R&D). This indicator demonstrates the percentage of investments in particular innovations by the sector, depending on the investments in other innovative directions and is expressed as a percentage.

A gradual investment bust in the area of media technologies, energetics, and computer equipment became the general tendency for the period of 2013-2018. The volume of investments in the mentioned directions in 2018 did not equalize with the best indicators, observed in 2013.

The volume of investments in other innovative technologies, such as commercial and recreation services were not steady throughout the period under the study, 2013-2018. The highest investment volumes in the given sectors were observed in 2015 (21% of the total investments in innovations). In 2018, one could observe a two-percent investment bust until the level of 17.6%.

Thus, computer software keeps on staying on leading positions among innovation technologies in the world market. It steadily gets the share of venture capital investments ranging from 35 to 47 percent. The power generation sector and media technologies are innovative directions, which keep on developing. In 2018, they had a total share of 12.6% of the world venture capital investment. A negative trend is observed in the area of investing the construction activity, related to computer equipment: in 2018, the venture capital investment of such projects decreased for a half, compared to relatively high indicators, observed in (to 6.3%).

To determine the innovations investment direction in the world countries we will calculate the correlation between such indicators as:

export of high-technological products, million US dollars, 2010-2016;

clean portfolio investments at current prices, million US dollars, 2010-2016.

The results of the conducted calculations are given in Table 3.

Table 3. Results of the rolling correlation analysis*

Country	Differential	Country	Differential	Country	Differential
Australia	376	Kazakhstan	686	RSA	314
Austria	694	Cameroon	105	Peru	222
Azerbaijan	553	Canada	653	Poland	515
Albania	-528	Qatar	-113	Portugal	393
Argentina	728	Kenya	-174	Russia	-336
Bangladesh	-371	Kirgizstan	229	Rwanda	-376
Barbados	512	China	341	Romania	796
Bahrain	-647	Cyprus	734	Samoa	269
Belgium	679	Columbia	-544	São Tomé and Príncipe	-964
Benin	141	Congo	28	Seychelles	44
Belarus	176	Korea	-349	Senegal	-427
Bulgaria	-306	Costa Rica	-364	St Vincent and the Grenadines	-886
Bolivia	853	Cote d'Ivoire	152	Saint Kitts and Nevis	-66
Bosnia and Herzegovina	94	Kuwait	-424	Serbia	-601
Botswana	-542	Laos	-551	Singapore	372
Brazil	-345	Latvia	511	Slovakia	87
Burkina Faso	-475	Lesotho	879	Slovenia	-603

Burundi	61	Lithuania	-119	Sudan	-218
United Kingdom	219	Lebanon	455	Surinam	-115
Venezuela	109	Luxembourg	883	USA	586
Vietnam	-364	Mauritius	0.48	Sierra Leone	-305
Armenia	-87	Madagascar	-121	Thailand	0,52
Ghana	-264	Macao	-258	Tanzania	-371
Guinea	-456	Macedonia	91	Timor	0,23
Hong Kong	543	Malawi	0.04	Togo	-0,53
Greece	127	Mali	3	Trinidad and Tobago	-108
Georgia	353	Maldives	85	Tunisia	94
Denmark	351	Malta	321	Turkey	404
Ecuador	-246	Morocco	274	Uganda	374
Estonia	618	Mexico	0.55	Hungary	-216
Egypt	87	Moldova	0.81	Ukraine	399
Zambia	-74	Mongolia	-0.36	Uruguay	707
West Bank and Gaza	-332	New Zealand	0.46	Philippines	512
Zimbabwe	181	Namibia	0.1	Finland	809
Jordan	-291	Niger	-0.08	France	0,54
Israel	911	Nigeria	0.36	Croatia	-39
India	-205	Netherlands	0.62	Czech Republic	0,31
Indonesia	179	Nicaragua	0.22	Chile	0,06
Iraq	22	Germany	0.02	Montenegro	0,03
Ireland	0,2	Norway	0.57	Switzerland	-76
Iceland	0,48	Oman	-0.01	Sweden	557
Spain	834	Pakistan	0.71	Sri Lanka	393
Italy	0,33	Papua New Guinea	0.28	Jamaica	-279
				Japan	127

* Calculated by the author

Let us analyze the received results in more detail.

According to the analysis report, one can determine the countries (8), which are characterized by strong correlation during the period of 2010-2016 between the volumes of high-technological export and volume of clean portfolio investments, Fig. 1.

As you see, Israel, Luxembourg, Lesotho, Bolivia, Spain, Moldova, Finland, and Romania have the highest level of efficiency of portfolio investments in the innovation sectors of economic development.

Such countries (22) as Latvia, Barbados, Philippines, Poland, Thailand, France, Hong Kong, Azerbaijan, Mexico, Sweden, Norway, the USA, Estonia, Netherlands, Canada, Belgium, Kazakhstan, Austria, Uruguay, Pakistan, Argentina, and Cyprus are characterized by the medium correlation between the volume of high-technology export and volume of clean portfolio investments, which can result from significant sources diversification of the innovation sectors of the economy growth.

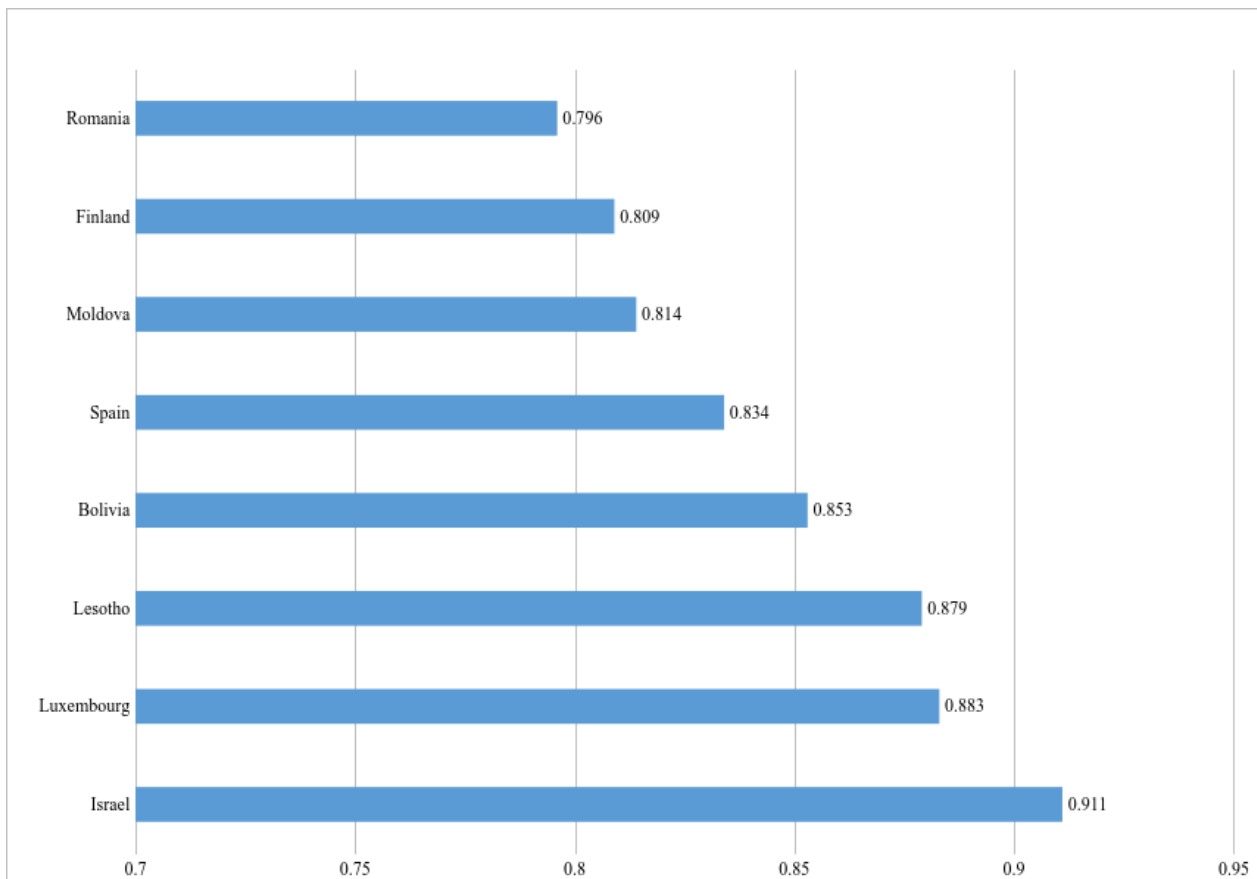


Figure 1. The group of the countries with a strong correlation between the volumes of high-technological export and volumes of clean portfolio investments, 2010-2016.*

**Developed by the author*

Among the 53 countries, which are characterized by the absence of correlation between the volumes of high-technology export and volumes of clean portfolio investments in 2010-2016, one should highlight not only the countries that are developing and have a lack of financing for high-technology industries but also Germany, Japan, the United Kingdom. The author thinks such results can be interpreted as a gradual reorientation of countries. The strategy of industrialization through the attraction of the foreign investments, which requires significant development of science and its financing, is gradually being replaced by other strategies of development, in which the financing of the economy's innovation sectors requires smaller volumes, and is not of great priority.

Among the countries (46) that are described by the inverse relationship between the volumes of high-technology export and volumes of clean portfolio investments during the period of 2010-2016, one should give special attention to São Tomé and Príncipe and Saint Vincent and the Grenadines. The volume of high-technology export in these countries has a stronger inverse relationship with the clean portfolio investments during the period of 2010-2016, which results from the offshore outsourcing of the economy of these countries.

Thus, considering the results of determining the innovation direction of investments in the world countries, we can make a conclusion that the determination of the innovation direction of investment activity in the world countries can be conducted through the calculation of the correlation between the volumes of export of

high-technology products and the volume of clean portfolio investments at current prices. Our correlation analysis for the period of 2010-2016 for 130 countries allowed us to determine 4 groups of countries:

8 countries (including Israel and Finland) are characterized by a strong correlation between the parameters, which indicates about the highest level of efficiency of portfolio investments in innovation sectors of economic growth;

22 countries (including the USA and France) are described by the medium correlation between the parameters, which can result from significant diversification of the investment sources of the development of the economy;

53 countries (including Germany, Japan, and United Kingdom), are characterized by a lack investment of high-technology industries of the economy, which is a gradual reorientation of countries from the manufacturing-based development strategy through the engagement of foreign investments and the need to develop and finance science on other strategies of development, for which the financing of the economy innovation sectors requires lower volumes and is not of great priority;

46 countries (including São Tomé and Príncipe and Saint Vincent and the Grenadines) are characterized by the correction retraction between the volumes of high-technology export and the volumes of clean portfolio investments, which can result from the offshore outsourcing of the economy of these countries.

The world's practice of the innovation and investment financing actively uses venture capital financing, which is an efficient mechanism that makes it possible to implement progressive ideas, encourage business to transition on the innovative path of development, and improve the economic efficiency in general.

Discussion

Thus, the analysis of foreign financing experience and the promotion of innovation processes in the economy demonstrate the leading part of the country. Herewith it does not necessarily include direct financing. India and China pay great attention to international cooperation to draw foreign capital for systematic development of various industries throughout centuries. Private enterprises and foreign investments quickly changed the economic systems of both countries. Thanks to the engagement of foreign technologies and know-how, they have become important exporters of high-technological products and services in the world market.

Thus, based on the conducted research, it is possible to identify the following global innovation and investment stimulation trends:

economically developed countries (USA, Europe) are actively using financial incentive measures, including the activities of financial institutions of development (banks for development, venture capital and investment funds), combining them with the economic support of economic entities (in particular, through the use of tax benefits);

countries with developing economies (India, China) are successfully utilizing non-financial development institutions (free economic zones, technological parks and technopolises, business incubators, and clusters), thereby promoting the conditions for the development of high-technological industries.

Conclusion

The determination of the innovative direction of investment activity in the world countries was implemented through the evaluation of the correlation between the volumes of exports of high-technology products and the volumes of clean portfolio investments upon current prices for the period of 2010-2016 for 130 countries.

The held rolling correlation analysis made it possible to identify 4 groups of countries (including Israel and Finland), which are characterized by a strong correlation between the figures, indicating about the highest level of efficiency of portfolio investments in innovation sectors of economy development; 22 countries (including USA and France), which are described by the medium correlation between the parameters, which can result from significant diversification of the investment sources of the development of the economy; 53 countries (including Germany, Japan, and United Kingdom), are characterized by a lack investment of high-technology industries of the economy, which is a gradual reorientation of countries from the manufacturing-based development strategy through the engagement of foreign investments and the need to develop and finance science on other strategies of development, for which the financing of the economy innovation sectors requires lower volumes and is not of great priority; 46 countries (including São Tomé and Príncipe and Saint Vincent and the Grenadines), which are characterized by the correction retraction between the volumes of high-technology export and the volumes of clean portfolio investments, which can result from the offshore outsourcing of the economy of these countries.

References

- Capolupo, R. (2018). Finance, investment and growth: Evidence for Italy. *Economic Notes: Review of Banking, Finance and Monetary Economics*, 47(1), 145-186. URL: <https://onlinelibrary.wiley.com/doi/abs/10.1111/ecno.12097>
- Chen, P., Karabarounis, L., & Neiman, B. (2017). The global rise of corporate saving. *Journal of Monetary Economics*, 89, 1-19. URL: <https://www.sciencedirect.com/science/article/abs/pii/S0304393217300284>
- Cho, S., & Kurtz, J. (2018). The limits of isomorphism: global investment law and the ASEAN investment regime. In *International Investment Treaties and Arbitration Across Asia* (pp. 411-442). Brill Nijhoff. URL: https://brill.com/view/book/edcoll/9789004360105/B9789004360105_016.xml
- Dollar, D. (2017). China's investment in Latin America. *Order from Chaos: Foreign Policy in a Troubled World*. URL: https://theasiadialogue.com/wp-content/uploads/2018/04/fp_201701_china_investment_lat_am.pdf
- Global Innovation Index. URL: <https://www.globalinnovationindex.org/analysis-indicator>
- Lee, T. K., Cho, J. H., Kwon, D. S., & Sohn, S. Y. (2019). Global stock market investment strategies based on financial network indicators using machine learning techniques. *Expert Systems with Applications*, 117, 228-242. URL: <https://www.sciencedirect.com/science/article/pii/S0957417418305761>
- McSparren, J., Besada, H., & Saravade, V. (2017). Qatar's global investment strategy for diversification and security in the post-financial crisis era'. *Centre on governance research paper series*. URL:

https://socialsciences.uottawa.ca/governance/sites/socialsciences.uottawa.ca.governance/files/cog_research_paper_02_17_en.pdf

- Morris, M., & Staritz, C. (2017). Industrial upgrading and development in Lesotho's apparel industry: global value chains, foreign direct investment, and market diversification. *Oxford Development Studies*, 45(3), 303-320. URL: <https://www.tandfonline.com/doi/abs/10.1080/13600818.2016.1237624>
- Nur'ainy, R., & Adipati, N. M. (2018, October). Foreign Direct Investment (FDI) And Information Communication And Technology (ICT) Perspective: Empirical Study In Asia. In 2018 Third International Conference on Informatics and Computing (ICIC) (pp. 1-6). IEEE. URL: <https://ieeexplore.ieee.org/abstract/document/8780568>
- Nurianto, R. S., & Fata'al Chuzai, A. (2019). Government Regulations toward Investment Law in Indonesia. *Research, Society and Development*, 8(9), 3089-1295. URL: <http://rsd.unifei.edu.br/index.php/rsd/article/view/1295>
- Perraton, J., & Spreafico, M. R. (2019). Paying our way in the world? Visible and invisible dangers of Brexit. *New political economy*, 24(2), 272-285. URL: <https://www.tandfonline.com/doi/abs/10.1080/13563467.2018.1484718>
- Somer, M., & McCoy, J. (2019). Transformations through polarizations and global threats to democracy. URL: <https://journals.sagepub.com/doi/abs/10.1177/0002716218818058>
- Sondermann, D. (2018). Towards more resilient economies: the role of well-functioning economic structures. *Journal of Policy Modeling*, 40(1), 97-117. URL: <https://www.sciencedirect.com/science/article/pii/S0161893818300024>
- Thede, S., & Gustafson, N. Å. (2017). Bending the rules, breaking the rules: How corruption and lobbying affect the investment market selection of Swedish firms. *The World Economy*, 40(7), 1266-1290. URL: <https://onlinelibrary.wiley.com/doi/abs/10.1111/twec.12488>
- Tsai, I. C. (2017). The source of global stock market risk: A viewpoint of economic policy uncertainty. *Economic Modelling*, 60, 122-131. URL: <https://www.sciencedirect.com/science/article/abs/pii/S0264999316303030>
- World Bank Group, The Innovation Policy Platform. URL: <https://innovationpolicyplatform.org/content/rd-and-other-investments-innovation>



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JEL Classification: M11, M20

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**SUBSTANTIATION OF MANAGEMENT INNOVATIONS IN THE
PROCESSES OF CREATION OF PROJECT VALUES AT ENTERPRISES**

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Abstract. *The project value management model proposed in the work reveals a certain sequence of actions and tools for identifying, balancing, creating, checking relevance, and tracking the long-term consequences of using the project value, largely solves unresolved theoretical issues, provides not only the formation of conditions for ensuring the project value in all its manifestations and for a wide range of stakeholders but also tracking of the long-term results and creation of a knowledge base in the post-project period, which increases the efficiency of the project activities of the company and its competitiveness. The approaches formed during the study regarding the positioning of stakeholders, the identification of the impact of each of them on the project and the ranking of their value expectations together with methodological recommendations to ensure a balance of the project's value characteristics are the prerequisites for creating the expected value for each project stakeholder and reducing the risk of conflict of interest. The successful implementation of the company's value direction in terms of its project activities involves the introduction of a number of organizational measures, among which the priority ones include, as an analysis of the practice of enterprises in the field of electricity supply services shows, the inclusion of the recommendations proposed in the work into corporate provisions for project management, as well as the creation of structural units, which, based on generalized experience and knowledge, would form and implement a set of tasks for project value management in their activities. This is one of the key components to ensure the effectiveness and efficiency of project-oriented enterprises.*

Keywords: *project values, stakeholder groups, risks of conflicts of interest, project management, financial benefits.*

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Introduction

In the conditions of dynamic changes in the market environment, economic organizations ensure their adaptability and realize strategic intentions through the involvement of a wide range of modern management concepts, among which the project management methodology occupies the main place. Its active use is explained, on the one hand, by a significant increase in the number and scale of projects, and on the other hand, by the criticality of unconditional assurance of their planned characteristics since very often this enables both the existence of a project-oriented business and its competitiveness.

The rapid development of the theory and practice of project management, the emergence of international and national standards that streamline this type of activity were the consequences of these trends. However, studies by Pricewaterhouse Coopers showed (www.pwc.com) that, in the global space, about 30% of projects are completed with an excess of the budget and the planned implementation deadlines. One of the key reasons for such trends is the lack of attention that has so far been given to such a characteristic of the project as its value. Its integral nature and, at the same time, its ambiguous interpretation and determination by various stakeholders that evaluate the success of the project precisely by the value received, put on the agenda the question of developing effective approaches to ensure it in the framework of project management tasks.

The aim of the work is to deepen the theoretical and methodological provisions and develop practical recommendations for managing the value of projects in order to increase their effectiveness and ensure the value expectations of key stakeholders.

Literature Review

It should be noted that the use of project management and strict observance of the requirements for the goals set encourage scientists and practitioners to improve project management in order to gain competitive advantages, satisfy the needs of consumers and all stakeholders of the project (Boyle, G. (2017)).

In the last period, project management systems appear on the market annually and they are introduced into all economic spheres, innovative areas of project activity are being put into practice (Carvalho, M. M., & Rabechini Jr, R. (2017)).

Taking into account the achievements of scientists and practitioners in project management, one can draw certain conclusions about the need to study and develop issues regarding the project value management.

The foundations for the application of value are based on a different one from the traditional perception of projects as a means of achieving the intended purpose (Fleming, Q. W. (2019, January)). In our opinion, if earlier the project was

considered a temporary action, then in modern realities the practice of a project-oriented enterprise against the background of this also proves its expediency and effectiveness.

According to Fuller, M. A., Valacich, J. S., George, J. F., & Schneider, C. (2017), the main task of all firms is to allocate resources in such a way as to maximize the value of the project portfolios in accordance with the main mission (for example, long-term profitability, return on investments (ROI), increasing the possible success of the project). We believe that for the success of the enterprise it is important to identify and manage the value at all phases of the project life cycle but not just at the stage of operation of the project product since during this period of the project implementation, the manifestation of value through the prism of ROI indicators, profitability, and so on has only financial and economic character.

Harrison, F., & Lock, D. (2017) are convinced that ROI calculations in project management cannot be considered sufficient to evaluate their value.

Heldman, K. (2018) notes that the true value of project management exists “in the elusive realm” and advocates for an approach based on a balanced rating system. This approach to interpreting the project value is more reasoned and has a socio-economic background.

However, despite the credibility of opinions and a sufficient number of studies, the issue of ensuring value for all stakeholders of the project remains open (Huemann, M., Keegan, A., & Turner, R. (2018, September)).

Kerzner, H. (2017-2018) emphasizes that the creation of the project value is possible thanks to the restoration of the unique properties of the project product as part of the mission of the socio-economic system. However, this opinion does not fully reflect the essential content and creation of value at all stages of the project - from the design of the project to getting the result of the project product and its operation. In the author's opinion, it is worth paying attention to the value that is manifested in the process of project implementation.

Thus, it is desirable to distinguish between value in the process of creating a project and value from a project product; and in this context, it is necessary to cover all the stakeholders of the project - from the customer to the representatives of society.

Kivilä, J., Martinsuo, M., & Vuorinen, L. (2017) define value as the benefit received from the implementation of all interested parties, as a comprehensive indicator, which consists of the value of the process, product, and the value of the organization that works on the project. However, stakeholders who are interested in or are recipients of the project value are not adequately described in this approach.

In the project management process, the characteristics of the value described above are a reflection of the individual expectations of various stakeholders of the project (Kliem, R. L., & Ludin, I. S. (2019)).

So, for the customer and the investor, the manifestation of the value in the financial benefits of the project will be important.

For the project manager and members of the project team, the value will lie in gaining experience, accumulating knowledge, in particular in interdisciplinary fields,

as well as in career opportunities, the ability to build and maintain relationships (Lock, D. (2017)).

For the supplier, the value will be manifested in the receipt of orders and the support of business relationships in the current period with the prospect of future cooperation (Martens, M. L., & Carvalho, M. M. (2017)).

For consumers and surroundings, the value is a project product and the results of an implemented project that will satisfy the needs of all interested parties (Meredith, J. R., Mantel Jr, S. J., & Shafer, S. M. (2017)).

Accordingly, the manifestation of value in the project product may concern an individual (customer), a group of people (members of the project team) (Nicholas, JM, & Steyn, H. (2017)), or society as a whole (a wide range of stakeholders) (Papke-Shields, KE, & Boyer-Wright, KM (2017)), which in the future will have certain consequences for the activities of enterprises that form changes in economic sectors at the state level and in interstate relations (global space).

Changes in the theory of project management correspond to the requirements of the practical sphere of its application and cause the expansion of criteria for evaluating the success of projects. The value of the project is such a criterion, which, along with the existing ones, characterizes the success of the project. That is why the approaches to the established principles of project management as well as an analysis of existing developments in the project value management should be clarified and revised.

Methods

To achieve the goal and solve a set of specific tasks, general scientific and special methods were used, such as analysis and synthesis, theoretical generalization and comparison (to conduct a multidisciplinary study of the essence of the concept “value” and determination of the features of its interpretation in project management); bibliographic and terminological analysis (to streamline scientific positions on the interpretation of the content of the project value and project value management); systematic approach and algorithmization method (to substantiate a conceptual model of the project value management); comparative analysis (to determine the dynamics of indicators of profitability of enterprises before and after the implementation of methodological recommendations for managing the project value); methods and techniques of economic analysis, namely: table-graphical (to represent the conceptual and structural elements of the project value management model), abstract-logical (to perform the theoretical generalization, the construction of logical - structural schemes, and the formation of conclusions).

The information base of the study was composed of legislative, regulatory, and methodological documents of state authorities regulating the activities of enterprises; international and national standards in the field of project management, the main provisions of the scientific works of scientists within the problem field under study; materials of scientific and practical conferences, periodicals and open sources of the Internet; planning, reporting, and organizational and methodological documentation of enterprises.

Results

The experience of the project management at enterprises shows that in the vast majority of cases, managers direct actions to achieve targets in terms of volume, quality, time, and budget execution of the project. At the same time, the assurance of the value of projects in a wider context for key stakeholders remains without the attention of managers, which leads to a significant decrease in the effectiveness of project activities and requires appropriate attention and managerial impact.

In the author's opinion, it is advisable to generalize existing developments on managing the value of projects, their systematization, and the removal of gaps. That is why the author proposes focusing further research on the development of an integrated approach to project value management, which will help ensure the value expectations of each stakeholder at different stages of the project life cycle and taking into account the environment in which it is carried out, increase the efficiency of project management processes by creating value for the main project stakeholders.

The basis for this is the improvement of identification processes, balancing, ensuring the value expectations of stakeholders in the processes of project management and creating a project product.

Managing the value of projects during the phases of the life cycle is as follows:

- at the project initiation phase, an analysis of alternatives to the project implementation and identification of the appropriate circle of its stakeholders interested are performed;
- the planning and implementation phases provide for the positioning of stakeholders, as well as balancing and creating their expected value;
- at the completion phase, the degree of value assurance with respect to its expected characteristics is determined;
- in the post-project period, the results of using the created value of the project are monitored, which may be manifested in the benefits of using the project product, improving the practice of conducting subsequent projects, etc.

It is proposed to dwell in more detail on the content of each stage of managing the project value by lighting a set of tools, which is recommended for use.

I stage. Diagnostics of the environment. At this stage, it is important to elucidate the objectives of the project and all the potential value of the project, taking into account a wide range of environmental factors in the relevant and related markets. It is proposed to use at this stage tools that will help identify the project environment and factors affecting the processes of its implementation and ensuring the future product of the project (Figure 1).

Project management theory and practice emphasize that the initiator of the project implementation is the customer or its authorized person. Accordingly, cooperation with the client/project manager and identification of the range of potential value expectations is of paramount importance.

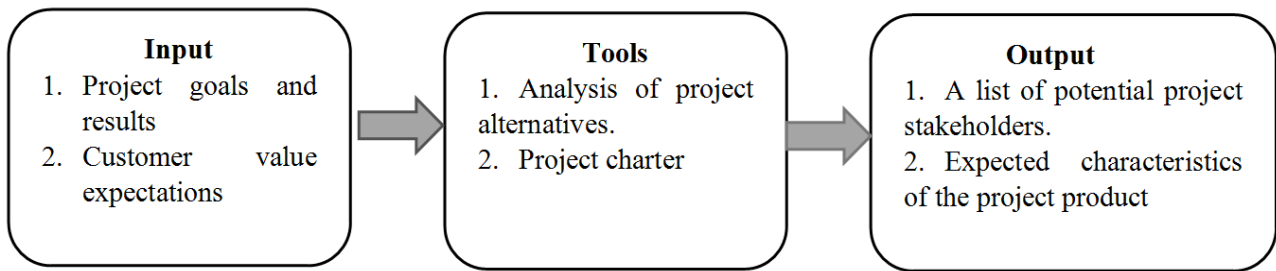


Figure 1. Project environmental diagnostics process (author's development)

For this purpose, it is most advisable to conduct negotiations and a written description of the main characteristics of the project product that the customer wants to receive. It is also appropriate to use the project alternatives analysis tool to provide the customer with all perspectives on the process of implementation and receipt of the desired project product.

Coordination of the implementation of this phase should be assigned to the project manager. He should present to the customer possible variants of the project implementation based on the results of studying the market situation. This approach will enrich the customer's perception of the project's expected product and, accordingly, its value expectations may be confirmed or substantially changed. In the future, all value expectations should be documented in the project charter or contract/annex to the contract (for an external customer), and the specification for the execution of work between the customer and the curator/project manager.

It should also be noted that the necessary components of the project contract/charter should be the main characteristics of the project, such as type, kind, duration of the project, etc. Therefore, the definition of these indicators broadens the initial understanding of the main project stakeholders and their possible value expectations. An important task at this stage is to identify all potential project stakeholders who may influence the project or be involved in the project implementation process and use of its product, other post-project results.

The customer (user, consumer), sponsor (investor), project curator, project manager, members of the project team, suppliers, contractors, surroundings, and society should be considered the main project stakeholders. The identification of stakeholders is most often done by the project manager or project manager at the project charter stage. Accordingly, their own perspectives on potential stakeholders and their attitude to the project, the experience they have in a particular field of activity, and the involvement of external/internal experts help them identify a range of potential stakeholders.

Stage II. The positioning of project stakeholders. This stage of project value management involves a wide range of diagnostic work aimed at analyzing the main project stakeholders (Figure 2). Based on the list of project stakeholders indicated in the project charter, an important task in the context of creating value is the distribution of stakeholders into groups.

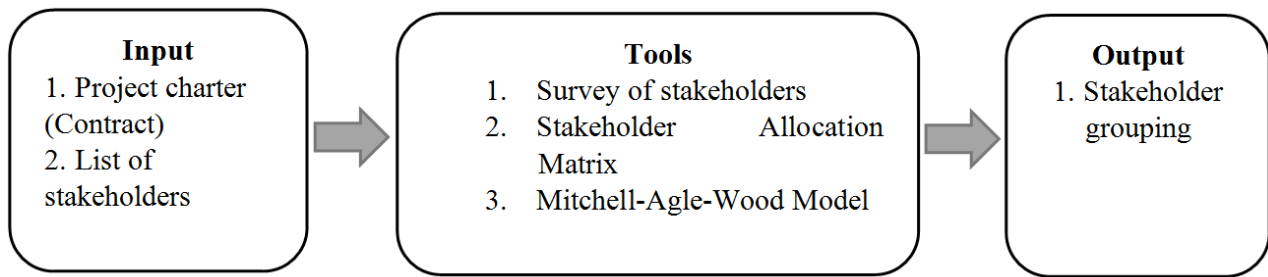


Figure 2. The process of positioning of the circle of the project stakeholders
(author’s development)

Based on the list of project stakeholders indicated in the project charter, an important task in the context of creating value is the distribution of stakeholders into groups. To achieve the best results in ensuring the value expectations of all interested parties, they should be grouped in accordance with the sphere of expectations: to distribute stakeholders to those who can get value in the process of project management, and those who can get it in the process of creating and/or using the project product.

Table 1. Questionnaire to identify the scope of the manifestation of the value expectations of the project stakeholders (author’s development)

No	Question	Answer	
		Yes	No
Block 1. Project Product Creation			
1.1	Is it important for you to receive the project product on time, within budget and with appropriate quality/quantity? (Pr1)	1	0
1.2	Will the project product have an impact on improving the well-being of the society/community/population? (Pr2)	...	...
1.3	Does the project product have unique properties for you? (Pr3)	...	...
1.4	Do project results have an impact on the economy of the region/market/country? (Pr4)	...	...
1.5	Will the project and its product expand sales markets? (Pr5)	...	...
1.6	Are the project results the achievement in technological/technical/innovation processes? (Pr6)	...	...
1.7	Does the project product have cultural or social value? (Pr7)	...	...
$\sum P_r = Pr\ 1 + Pr\ 2 + Pr\ 3 + Pr\ 4 + Pr\ 5 + Pr\ 6 + Pr\ 7$			
Block 2. Project Management Process			
2.1	Is it important for you to have frequent communications during the project? (P1)	...	...
2.2	Will the implementation of the project help to secure and maintain the company's reputation? (P2)	...	...
2.3	Do you consider the project as a means of ensuring the strategic development of the enterprise? (P3)	...	...
2.4	Is your project management experience important for improving your skills? (P4)	...	...
2.5	Does the project contribute to enhancing your management competencies? (P5)	...	...
2.6	Do you receive additional financial rewards as a result of successful project implementation? (P6)	...	...
2.7	Do your project management processes facilitate the acquisition of cross-industry knowledge? (P7)	...	...
$\sum P = P1+P2+ P3+P4+ P5+P6+ P7$			

To do this, a survey of all interested parties should be carried out (Table 1), in which a positive answer is rated 1 point, a negative answer - 0 points. The survey results are processed and the total values of the answers for each block of questions are calculated ($\sum P, \sum P_r$).

The bigger cumulative value under Block 1 Project Product Creation ($\sum P_r > \sum P$) gives reason to believe that the value expectations of a given stakeholder will be ensured by the project product, respectively, the opposite results ($\sum P_r < \sum P$) - assurance of the value in the project management process. If the values for each block are equal to each other ($\sum P = \sum P_r$), then it means that for a given stakeholder value expectations are equally important in both directions. It should also be noted that the minimum values for each block ($\sum P, \sum P_r = \min$) indicate that the project value for the stakeholder is indirect.

Based on the survey results, it is proposed to form a matrix of distribution of stakeholder groups who wish to meet their value expectations from the project product and in the project management process (Figure 3).

Project product interests	Weak	Group Product Interests (S^{P_r}) $\sum P_r > \sum P$	Group Complex product interests (S^C) $\sum P = \sum P_r$
	Strong	Group Neutral interests (S^N) $\sum P, \sum P_r = \min$	Group Management processes interests (S^P) $(\sum P_r < \sum P)$
		Weak	Strong
Project management interests			

Figure 3. Mapping of project stakeholders: matrix of project interests/project management interests (author's development)

Considering this distribution of interests (value expectations) of project stakeholders, it is suggested that the Complex Interests (S^C) Group's value expectations are of initial importance, so its stakeholders have value expectations regarding the project management process and the project product (according to the stakeholder map they will have the following meaning: $\sum P = \sum P_r$). Priority in meeting the interests of this group is due to the fact that it enables the simultaneous satisfaction of the interests of the S^P and S^{P_r} groups, which coincide with the interests of the S^C group.

The values for the stakeholders of the Management Process Interests (S^P) Group and the Project Product Interests (S^{P_r}) Group are further provided, and last but not least, subject to the provision of the first two, the value for the Neutral Interests (S^N) group is provided.

It should be noted that all stakeholder groups differ in size, level of impact on the project, namely: focused on stability/willingness to cooperate or counteraction/resistance to the project. In our study, considering two processes simultaneously - the project product creation process and the project management process - it should be borne in mind that all stakeholders have their own hierarchy of influence (manifestations of power) on the project.

In order to be aware of the priority of value creation for each stakeholder, it is necessary to determine the impact of each of them, the ability to cooperate, counteract, and resist the project. For this, the Mitchell-Agle-Wood approach is used (Table 2).

We consider it appropriate to apply this tool in view of the scale of the project and the number of its stakeholders, which is determined at the previous stage: not a large number of interested parties does not require determining the influence of stakeholders, but a significant number of people in each group necessitate an analysis of the influence of each representative on the project.

Table 2. Hierarchy of influence of stakeholder groups under the Mitchell-Agle-Wood model
(adapted by the authors)

Stakeholder groups	Mitchell-Agle-Wood model attributes			Characteristics of stakeholders	Hierarchy of provision of value expectations
	Power (1/0)	Legitimacy (1/0)	Actuality (1/0)		
Defining stakeholders	1	1	1	Possess the manifestations of all attributes, respectively, they are the most influential in the project	I place
Dominant stakeholders	1	1	0	They have finances, emotions, and legislative influence, but for them the urgency of the project implementation is not essential	II place
Dangerous stakeholders	1	0	1	They have finances, emotions, and need immediate implementation, but there are no regulatory and legislative levers	II place
Dependent stakeholders	0	1	1	They rely on legislation and regulations, need immediate implementation of the project but they lack funding	II place
Passive stakeholders	1	0	0	They have the appropriate power and funds but the desire to implement the project is delayed and there are no legislative levers to implement the project	III place
Controlling stakeholders	0	1	0	They have the support of the authorities and the legislation but lack the finances and emotions, the project is not urgent	III place
Requiring stakeholders	0	0	1	They want to implement the project immediately but they lack the financial, legislative support and emotions	III place

The application of the tools described above is aimed at raising awareness among the project board of what stakeholders surround the project, in what plane are their value expectations (in the process of managing the project or in the project product), and, if necessary, what impact does each of the stakeholders in its group have on the project.

III stage. Balancing and creating the value. The main goal of this stage is to balance the value indicators of representatives of stakeholder groups and create the value using the appropriate tools package (Figure 4).

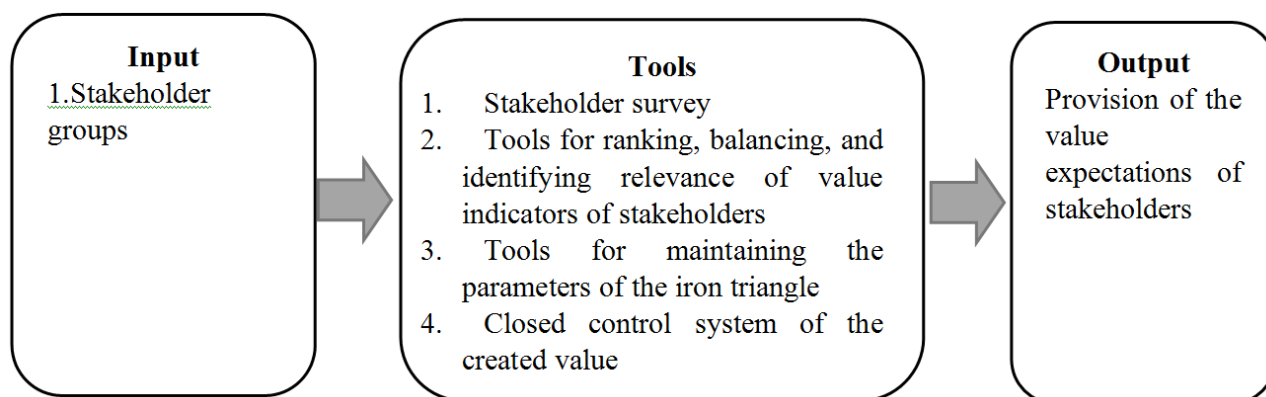


Figure 4. The process of balancing and creating the project value (author's development)

This stage is the most responsible, and taking into account the fact that it is carried out at the project planning and implementation phases, according to the time parameters it is the longest.

This stage of project value management is a series of sequential steps for identifying, creating, balancing, and monitoring the creation of value and checking the relevance of the initial value expectations of project stakeholders. In content, this stage is cyclical in nature, which contributes to the full provision of all value indicators of stakeholders in the project planning and implementation phases.

The first step is to identify the value indicators of stakeholders. Depending on which group the interested person belongs to and which influence it has its group, all its value expectations are documented. The project manager is responsible for this work. Considering that the value expectations of various stakeholders can have a wide range of manifestations and have some differences among themselves, and in some cases contradict each other in the provisioning process, the value expectations should be ranked according to their importance, which is estimated by the stakeholder itself.

Thus, for stakeholders in each group, a survey is conducted and ranks are established (Table 3).

Value indicators shown in Table 3 were presented by the author based on the component of the value. This allows determining which value expectations in the first turn the stakeholders seek to achieve in the project (rank 5), and in which - in the last turn (rank 1).

It should be noted that the presented value expectations in the Table 3 are only advisory in relation to their quantity and content. They can also be expanded or modified depending on the main characteristics of the project and its product. For example, the value parameter I_3^{Sc} "Creating a project product in compliance with the criteria of time, cost, volume, and quality" can be divided into separate components, the generalized parameter I_5^{Sc} - "To improve competitiveness through the project implementation" can be detailed and the like.

Table 3. Possible value expectations of project stakeholders (author's development)

No	Value expectations	Rank (from 1 to 5)
Complex Interests Group (S^c)		
1	Financial and economic result of the project ($I_1^{S^c}$)	...
2	Enterprise development ($I_2^{S^c}$)	...
3	Creation of the project product with time, cost, volume, and quality criteria ($I_3^{S^c}$)	...
4	Experience and new knowledge gained from the project implementation ($I_4^{S^c}$)	...
5	Expansion of sales markets for the enterprise ($I_5^{S^c}$)	...
Management Process Interests Group (S^p)		
1	Financial and economic result of the project ($I_1^{S^p}$)	...
2	Getting intersectoral experience ($I_2^{S^p}$)	...
3	Ensuring the reputation of the enterprise ($I_3^{S^p}$)	...
4	Creation of the conditions for collaboration with other stakeholders ($I_4^{S^p}$)	...
5	Creation of the project product with time, cost, volume, and amount criteria ($I_5^{S^p}$)	...
Project Product Interests Group (S^{Pr})		
1	Receiving project product on time, within budget, with proper quality and QUANTITY ($I_1^{S^{Pr}}$)	...
2	Long-term cooperation with the company $I_2^{S^{Pr}}$	...
3	Project product safety and environmental friendliness ($I_3^{S^{Pr}}$)	...
4	Technical/technological/innovative properties of the project product ($I_4^{S^{Pr}}$)	...
5	Cultural and community benefits of the project product ($I_5^{S^{Pr}}$)	...
Neutral Interests Group (S^N)		
1	Financial and economic result of the project ($I_1^{S^N}$)	...
2	Technical/technological/innovative properties of the project product ($I_2^{S^N}$)	...
3	Cultural and community benefits of the project product ($I_3^{S^N}$)	...
4	Development of the companies that implement the project in the context of expanding sales markets ($I_4^{S^N}$)	...
5	Experience gained from the project implementation ($I_5^{S^N}$)	...

The only condition remains the same number of value parameters for each group in order to make possible their further balancing:

$$\begin{aligned}
 &I_1^{S_c}, I_2^{S_c}, \dots, I_n^{S_c} \\
 &I_1^{S^p}, I_2^{S^p}, \dots, I_m^{S^p} \\
 &I_1^{S^{Pr}}, I_2^{S^{Pr}}, \dots, I_o^{S^{Pr}} \\
 &I_1^{S^N}, I_2^{S^N}, \dots, I_p^{S^N} \\
 &n=m=o=p
 \end{aligned} \tag{1}$$

where is the value expectations of the stakeholder group Complex Interests (S^N); - value expectations of the stakeholder group Management Processes Interests (S^p); - value expectations of the stakeholder group Project Product Interests (S^{Pr}); - value expectations of the stakeholder group “Neutral interests (S^N); n, m, o, p - the number of value expectations for the respective stakeholder groups.

Thus, the value indicators for different projects in terms of quantity and content may differ, and the condition for the same number of value indicators is necessary for the next stage of project value management - balancing.

One of the key tasks in the project value management system is to balance the value expectations of various stakeholders. The positioning of stakeholders (Figure 5) allows identifying groups with common interests and determining the sequence of their support, as noted above.

Table 4. Matrix of the ratio of project value indicators determined by the stakeholders
(author’s development)

Value indicators for stakeholder groups		Value indicators for stakeholder groups								
		Neutral Interests Group (S^N)			Project Product Interests Group (S^{Pr})			Process Management Interests Group (S^p)		
		$I_1^{S^N}$	...	$I_p^{S^N}$	$I_1^{S^{Pr}}$	...	$I_o^{S^{Pr}}$	$I_1^{S^p}$	...	$I_m^{S^p}$
Complex Interests Group (S_c)	$I_1^{S_c}$	...	...	...	...	...	...	...	...	...

	$I_n^{S_c}$	...	...	...	...	...	...	...	...	...
Process Management Interests Group (S^p)	$I_1^{S^p}$	...	...	...	...	...	...
			
	$I_m^{S^p}$	...	...	...	...	...	...
Project Product Interests Group (S^{Pr})	$I_1^{S^{Pr}}$	...	...	...			
						
	$I_o^{S^{Pr}}$	...	...	...			

where, “+1” - the processes of providing value indicators do not contradict each other; “0” - the processes of providing value indicators are independent of each other; “-1” - the processes of providing value indicators contradict each other, their provision is not possible

However, the proposed approach has certain limitations. For example, for a wide variety of projects and their stakeholders, a situation may arise where the most influential interested person will be a surrounding’s representative who is part of the Neutral Interests Group (S^N). In this case, its value expectations will be provided last, which complicates the implementation of the project.

Let’s consider another example where the project customer (if he is an external stakeholder for the enterprise) can fall into the stakeholder group Project Product Interests (S^{Pr}), since such value indicators as the frequency of communications, long-

term contracts with suppliers and contractors, the development of the enterprise implementing the project, and the like are not important for the representative. However, ensuring its value expectations is the main task of the project.

Further, it is necessary to determine the most influential stakeholders in each group in order to reflect their ranked value indicators in the matrix (Table 4). After that, the coefficient of balance between the value indicators of stakeholders is calculated based on the relationship between the pairs of indicators. For a positive result, to ensure both value parameters, it is indicated at the intersection of them +1, neutral 0 or a negative value -1.

Further, to calculate the coefficient of balance of value indicators, the sum of indicators for each pair of the interested persons of stakeholder groups is determined by the formula (2).

$$B_v = (S_*, S_{**}) = \sum_{j^* = 1}^{V_*} \sum_{j^{**} = 1}^{V_{**}} r(I_{j^*}^{S_*}, I_{j^{**}}^{S_{**}}) \tag{2}$$

where $B_v = (S_*, S_{**})$ is the coefficient of balance of value indicators for two groups of stakeholders; S^* is a representative of the stakeholder group $\{S^C, S^P, S^{Pr}, S^N\}$, S^{**} is a representative of the stakeholder group $\{S^C, S^P, S^{Pr}, S^N\} \setminus \{i^*\}$, j^*, j^{**} is a value parameter of stakeholders S^* and S^{**} respectively, V^*, V^{**} is the maximum number of the value parameters of stakeholders S^* and S^{**} respectively, V^*, V^{**} is the ratio of value parameters (j^*, j^{**}) of representatives of stakeholder groups S^*, S^{**} .

When determining the balance of value expectations of stakeholder groups, the coefficient (B_v - Balancing value's) between stakeholder groups may have:

$B_v < 0$ - negative value; $B_v > 0$ - positive value; $B_v = 0$ - neutral values.

This methodological approach allows consistently determining the impact of the stakeholder value indicators on each other. $B_v \wedge 0$ indicates that the value indicators are balanced and the processes of their provision do not contradict each other. If $B_v < 0$, this means that there are conflicts between value indicators for different stakeholders, which necessitates re-identification and prioritization of expected value as foreseen by the project value management algorithm.

Table 5. Tools for provision of the value indicators for stakeholder groups
(author's development)

No	Value characteristics	Value indicator	Project value creation tools
Complex Interests Group (S^c)			
1	Financial and economic result of the project ($I_1^{S^c}$)	Profit	Cost and benefit analysis
2	Enterprise development ($I_2^{S^c}$)	Market share	Competitive profile matrix
3	Creating a project product with observance of time, cost, volume, and quality criteria ($I_3^{S^c}$)	Expected characteristic of the project product	Qualitative analysis of the project product. Network graphics. Project implementation calendar. Control of project costs.
4	Experience and new knowledge gained from the project ($I_4^{S^c}$)	Improvement of project management	Added value. Experience curve

5	Expansion of sales markets for the enterprise ($I_5^{S^c}$)	Goodwill. Profit	Goodwill evaluation methods. Determination of profitability index.
Process Management Interests Group (S^p)			
1	Financial and economic result of the project ($I_1^{S^p}$)	Profit, premium	Motivation system.
2	Getting intersectoral experience ($I_2^{S^p}$)	Acquisition of new knowledge and competences	Added value. Experience curve
3	Ensuring the reputation of the enterprise ($I_3^{S^p}$)	Goodwill	Goodwill methods
4	Creation of conditions for collaboration with other stakeholders ($I_4^{S^p}$)	Personal competencies	Test complex "Labor Motivation Structure"
5	Creation of the project product that meets the criteria of time, cost, amount, and volume ($I_5^{S^p}$)	Expected description of the product project	Qualitative analysis of the project product. Network graphics. Project implementation calendar. Control of project costs.
Project Product Interests Group (S^{Pr})			
1	Receiving the project product on time, within budget, with proper quality and QUANTITY ($I_1^{S^{Pr}}$)	Expected characteristic of the project product	Qualitative product analysis of the project. Network graphics. Project implementation calendar. Control of project costs
2	Long-term cooperation with the company ($I_2^{S^{Pr}}$)	Business reputation of the enterprise	Network graphics. Project implementation calendar. Control of project costs. Goodwill evaluation methods
3	Safety and environmental friendliness of the project product ($I_3^{S^{Pr}}$)	Compliance of the project product with regulatory requirements	Qualitative product analysis of the project
4	Technical/technological/innovative properties of the project product ($I_4^{S^{Pr}}$)	Public importance	Functional and cost analysis of the project product
5	Cultural and socially beneficial properties of the project product ($I_5^{S^{Pr}}$)	Social and cultural significance	Functional and cost analysis of the project product
Neutral Interests Group (S^N)			
1	Financial and economic result of the project ($I_1^{S^N}$)	Profit	Determination of profitability index
2	Technical/technological/innovative properties of the project product ($I_2^{S^N}$)	Public importance	Functional and cost analysis of the project product
3	Cultural and socially beneficial properties of the project product ($I_3^{S^N}$)	Social and cultural significance	Functional and cost analysis of the project product
4	Development of the companies implementing the project in the context of expanding sales markets ($I_4^{S^N}$)	Market share	Competitive profile matrix
5	Experience gained from the project implementation ($I_5^{S^N}$)	Interindustrial and professional experience	Added value. Experience curve

The next step is to create value for representatives of stakeholder groups in accordance with their ranked priorities and at the same time to check the relevance of their value preferences using the tools presented in Table 5.

It is worth noting that against the background of creating conditions to ensure the value expectations of stakeholders, their relevance is checked. Given the duration of project implementation and the variability of the project's external environment, value priorities may be changed, transformed in part or substantially. This leads to a systematic confirmation of the desire to obtain the stated initial value from the project management processes and the future project product, or by agreement of the parties to change the value parameters to more relevant for stakeholders.

Depending on the duration of the project and the personal experience of the project manager, the latter should initiate regular meetings with leaders of stakeholder groups. It is believed that, in the first turn, the most important issue is the confirmation of the value created by the customer of the project, because it is this person who initiates the project and accepts its result. Confirmation of the immutability of the value expectations of this stakeholder should be documented and stored in the project archives. As for other stakeholders, it may be advisable to hold meetings less frequently but it is imperative to inform the customer in the event of a change in the preferences of any stakeholder and to re-balance current value expectations.

In the process of project planning and implementation, the task of monitoring value provision is important. Due to the fact that each stakeholder group has its own value indicators, the monitoring of their provision should also be carried out separately for each group. It is believed that this will help identify potential obstacles and accelerate response to changes related to verifying the relevance of the expected value as it is created.

Discussion

It is worth paying attention to the fact that the long-term results of the manifestation of the created value of the project may prompt the implementation of new projects. In order to gain experience and understand the impact of value on each stakeholder, it is worth paying attention to replenishing common databases based on the results of an implemented project, analyzing the results of the interaction between stakeholders, determining the usefulness of the project product and the results of its use.

It is believed that the post-project period allows determining how fully the value expectations of interested parties have come true, which qualitative and quantitative characteristics are inherent in the created project value, what can contribute to the long-term use of the project product and its results, and improve project management processes in the future.

Thus, the proposed concept of the project value management provides a system of actions aimed at identifying, balancing, and creating value for the main interested parties of the project using a set of relevant methodological approaches and tools.

Conclusion

Constructive elaboration and generalization of the scientific literature of the studied problem field has shown that modern developments in the theory of the project management for managing the project value are not well-established, this necessitates rethinking the key criteria for assessing project success. The author's vision of the project value as the benefits of the project product and the project management process, which are expected and provided during its implementation, taking into account all stakeholders, focuses on increasing the scope of managerial impacts relative to the circle of interested parties and directions of ensuring the project value characteristics throughout all phases of the project life cycle and post-project period.

The multidimensional nature of the manifestations of the project value necessitates clarification of its components (the value of the characteristics of the obtained project product, their socio-cultural and public significance, the value experience of the organization and members of the project team, the solution of strategic tasks, the strengthening of the company's competitiveness and financial stability, etc.), and expansion of varieties, which provides an integrated approach and consideration of features in the process of identification and assurance of versatile manifestations of value for all stakeholders of the project.

An analysis of the content and value orientation of the prevailing concepts and standards of the project management, the arrangement of the existing instrumental apparatus for managing the project value by the phases of its life cycle enabled the development of the methodological platform for this activity presented in the work, and also revealed the insufficient assurance of the processes of identification and balancing of the value expectations of stakeholders with the necessary tools, which significantly reduces the effectiveness of the implementation of the relevant tasks and results of project activities.

The substantiated conceptual model of the project value management, which provides for the identification of the value, assurance of its balance, creation, verification of relevance, and assessment within a specific project allows ensuring the value expectations of stakeholders during all phases of the project life cycle. This model is comprehensive and combines the main stages, goals, objectives, and tools for managing the project value, which correspond to the phases of its life cycle. The detailing of the model was reflected in the work in the form of an algorithm for managing the project value.

The introduction of the distribution of project stakeholders into groups in accordance with their expected value (from the project product or from the project management process) and determination of their priority enable further balancing of the project value indicators, as a result of which the project management process is subject to lower risks.

References

- Boyle, G. (2017). *Design project management*. Routledge. URL: <https://www.taylorfrancis.com/books/9781315258133>
- Carvalho, M. M., & Rabechini Jr, R. (2017). Can project sustainability management impact project success? An empirical study applying a contingent approach. *International Journal of Project Management*, 35(6), 1120-1132. URL: <https://www.sciencedirect.com/science/article/abs/pii/S0263786317302478>
- Fewings, P., & Henjewe, C. (2019). *Construction project management: an integrated approach*. Routledge. URL: <https://www.taylorfrancis.com/books/9781351122030>
- Fleming, Q. W. (2019, January). *Project procurement management: contracting, subcontracting, teaming*. Project Management Institute. URL: https://books.google.com.ua/books?hl=uk&lr=&id=duGGDwAAQBAJ&oi=fnd&pg=PT7&dq=project+management&ots=bg85EBrbvc&sig=eLoVI2DbdnJS0JQp-itgzVJFu9A&redir_esc=y#v=onepage&q=project%20management&f=false
- Fuller, M. A., Valacich, J. S., George, J. F., & Schneider, C. (2017). *Information Systems Project Management: A Process and Team Approach*, Edition 1.1. Prospect Press. URL: <https://dl.acm.org/citation.cfm?id=3159154>
- Harrison, F., & Lock, D. (2017). *Advanced project management: a structured approach*. Routledge. URL: <https://www.taylorfrancis.com/books/9781315263328>
- Heldman, K. (2018). *PMP: project management professional exam study guide*. John Wiley & Sons. URL: https://books.google.com.ua/books?hl=uk&lr=&id=XB9KDwAAQBAJ&oi=fnd&pg=PP1&dq=project+management&ots=l2781wJ1wJ&sig=xnovJRSyFQpDUPdAnEVr-z_JOC8&redir_esc=y#v=onepage&q=project%20management&f=false
- Huemann, M., Keegan, A., & Turner, R. (2018, September). Human resource management in the project-oriented organization. Project Management Institute. URL: https://books.google.com.ua/books?hl=uk&lr=&id=FN9yDwAAQBAJ&oi=fnd&pg=PT7&dq=project+management&ots=9TzWJbDIcq&sig=X_sFRzZFQIebT-wgNmEBQLMTK28&redir_esc=y#v=onepage&q=project%20management&f=false
- Kerzner, H. (2017). *Project management: a systems approach to planning, scheduling, and controlling*. John Wiley & Sons. URL: https://books.google.com.ua/books?hl=uk&lr=&id=xIASDgAAQBAJ&oi=fnd&pg=PR19&dq=project+management&ots=Xb6l_OPYDV&sig=w CGI EsDc_n6Cz-vQGaQAqJUkeNw&redir_esc=y#v=onepage&q=project%20management&f=false
- Kerzner, H. (2018). *Project management best practices: Achieving global excellence*. John Wiley & Sons. URL: https://books.google.com.ua/books?hl=uk&lr=&id=ss5QDwAAQBAJ&oi=fnd&pg=PR13&dq=project+management&ots=qwtRjYBTNE&sig=S49n5wclbcaZW_z5ccpbIkvkafo&redir_esc=y#v=onepage&q=project%20management&f=false
- Kivilä, J., Martinsuo, M., & Vuorinen, L. (2017). Sustainable project management through project control in infrastructure projects. *International Journal of Project Management*, 35(6), 1167-1183. URL: <https://www.sciencedirect.com/science/article/abs/pii/S0263786317301886>
- Kliem, R. L., & Ludin, I. S. (2019). *Reducing project risk*. Routledge. URL: <https://www.taylorfrancis.com/books/9781315245089>
- Lock, D. (2017). *The essentials of project management*. Routledge. URL: <https://www.taylorfrancis.com/books/9781315239941>
- Martens, M. L., & Carvalho, M. M. (2017). Key factors of sustainability in project management context: A survey exploring the project managers' perspective. *International Journal of Project Management*, 35(6), 1084-1102. URL: <https://www.sciencedirect.com/science/article/abs/pii/S0263786316300163>

- Meredith, J. R., Mantel Jr, S. J., & Shafer, S. M. (2017). Project management: a managerial approach. John Wiley & Sons. URL: https://books.google.com.ua/books?hl=uk&lr=&id=ipZXDwAAQBAJ&oi=fnd&pg=PA1&dq=project+management&ots=Qwp3xFFyqW&sig=ELoLefXB5QE2ITRqKrSUNCRtb-M&redir_esc=y#v=onepage&q=project%20management&f=false
- Nicholas, J. M., & Steyn, H. (2017). Project management for engineering, business and technology. Routledge. URL: <https://www.taylorfrancis.com/books/9781315676319>
- Papke-Shields, K. E., & Boyer-Wright, K. M. (2017). Strategic planning characteristics applied to project management. *International Journal of Project Management*, 35(2), 169-179. URL: <https://www.sciencedirect.com/science/article/abs/pii/S0263786316302952>



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JEL Classification: C40, E58, G20, O33

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IMPACT OF FINANCIAL TECHNOLOGIES ADOPTION ON THE PERFORMANCE OF DOMESTIC SYSTEMICALLY IMPORTANT BANKS IN NIGERIA

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Abstract. *The purpose of this study is to investigate the impact of financial technologies adoption on the performance of domestic systemically important banks in Nigeria from 2015-2019. Data was extracted from the audited annual financial statements of domestic systemically important banks in Nigeria. The author adopted the panel regression to analyse data collected from the audited annual financial statements of domestic systemically important banks in Nigeria from 2015-2019. Findings shows that Automated Teller Machine, Point of Sale and mobile transfer/web increased the performance of domestic systemically important banks in Nigeria from 2015-2019. Furthermore, investments in financial technologies possessed a positive impact on performance of domestic systemically important banks in Nigeria for the period under review. Policy options and limitations of the study are proffered in the main text.*

Key words: *financial technologies, domestic systemically important banks, return on assets, return on equity, return on capital employed, Nigeria.*

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Introduction

Information and Communication Technology (ICT) is generally accepted as the centrifugal force behind increase in organisational competitiveness in the modern day business environment. Drawing into specifics, ICT apart from its domineering influence on a multiplicity of human activities, it still wields a greater influence on the banking sector. Overtime, banks have been at the forefront of industrialisation as seen in the case of Germany and till date some countries operate a bank-based economy while others operate a market-based economy; the aforementioned reiterates the importance of banks to economic growth of certain sovereign nations. Globalisation has increased the level of competition amongst banks in the industry which indirectly increases their efficiency. In a bid to remain competitive, ability to adapt to the prevailing dynamics of the business environment in which they operate. In a sharp response to the change, banks put in place operational processes that ensure greater customer convenience, better delivery of and increased accessibility to financial services and products.

In the aftermath of cashlite policy, financial technologies has disrupted the payment system in several African countries changing how daily financial transactions are carried out owing to a proliferation of variants such as the Automated

Teller Machine (ATM), Point of Sales machines (POS) and the mobile transfer platforms (USSD, mobile app and internet banking). Before the advent of the aforementioned financial technologies in the Nigerian Banking system, the banking halls were besieged by eager bank customer for a variety of transactions ranging from deposits, local money transfer, passbook withdrawals, international money transfer, accounts complaints and cheques settlements. At this stage, banks depended on maximum manpower and possessed high operating costs due to the analogue system operated deemed tedious to all staff cadres with focus on employees in operations. Inter-bank settlements at clearing houses routinely serves as a practical example to describe the Nigerian deposit money banks prior to proliferation of the aforementioned financial technologies. The Nigerian banking industry has witnessed significant change and improvement in the structure of the banking industry via investment in ICT over the last decade (Adewale and Afolabi, 2013). Investments in ICT has seen the introduction of financial innovations replacing the traditional processes with multiplier effects pronounced in the ease and speed of financial services within the offering of deposit money banks to its clientele.

Several authors has investigated the impact of ICT on bank performance in Nigeria but there still exist a trailing controversy in empirical literature in the case of Nigeria. Okonkwo, et al. (2015) in their attempt to investigate the impact of investments in ICT on bank performance in Nigeria found that investments in ICT does not translate to improvement in bank performance in the case of Nigeria. Aggreh, et al. (2020) towed the same line as Okonkwo, et al. (2015) positing that ICT investment does not result in instantaneous positive effects on ROE in the immediate period rather expected in subsequent years. However, the study of Dabwor, Ezie & Anyatonwu (2017) objected to the stance taken by Okonkwo, et al. (2015) and Aggreh, et al. (2020) positing that the investment and adoption of ICT such as (Automated Teller Machine, Web based transactions, and Mobile payments) in the banking industry resulted in a proportionate increase in the profit level. Muhammed & Kebbi (2014) is in harmony with the findings by Okonkwo, et al. (2015) and Aggreh, et al. (2020) positing that the use of ICT, from random effects model, does not improve bank performance in the Nigerian commercial banks. Lebanese-based study conducted by Mahboub (2018) reiterated the stance of the majority stating that application of Automated Teller Machines, internet banking, telephone banking and point of sales terminals does not significantly affect banks performance in Lebanon. The purpose of this study is to investigate the impact of financial technologies adoption on the performance of domestic systemically important banks in Nigeria from 2015-2019.

We therefore intend to add to the body of knowledge through the following states of action; a) employing three measures of bank performance to increase reliability of expected findings different from other empirical studies in the case of Nigeria on the above topic b) investigating the impact of financial technologies on bank performance in its post-integration stage which no author has attempted in the case of Nigeria.

Literature review

Theoretical Review

ICT is a combination of information technology and communication technology. It merges computing with high speed communication link carrying data, sound and video. It deals with the collection, storage, manipulation and transfer of information using electronic means. Communication technology refers to the physical devices and software that link various computer hardware components and transfer data from one physical location to another (Laudon, 2001). The relationship between ICT and performance has attracted the attention of researchers in recent times. Several studies have been conducted to investigate this relationship. It is however worthy of note that there has never been a consensus on whether ICT contribute to organizational performance or not. Different theoretical approaches have been adopted by researchers to investigate the nature of the relationship between ICT and firm performance over the years. Transaction cost theory, Value chain analysis and Resource-based view which is a more recent theory that is widely embraced by many such as Ordanini and Rubera (2010), Fahy and Hooley (2011); Rashidirad, Syed and Soltani (2012) and Onyeiwu, Muoneke & Abayomi (2021). The resource-based view (RBV) of the firm posits that firms compete on the basis of “unique” corporate resources that are considered to be valuable, rare, difficult to either imitate or substituted by other resources. The theory stemmed from the area of strategic management research and widely attracts attention as a suitable tool to examine the value delivered by IT resources (Melville, 2004; Wade & Holland, 2004). The resource-based theory rationalizes firm’s superior performance to organizational resources and capabilities. Extant literature reveals that firms do compete on the basis of unique corporate resources that are valuable, rare, difficult to imitate, and non-substitutable by other resources (Barney, 1991; Corner, 1991; Schulze, 1992). RBV operates under the assumptions that the resources needed to conceive, choose and implement strategies are heterogeneously distributed across firms whose differences remain stable over time (Barney, 1991). Resources can be broadly defined to include: assets, knowledge, capabilities, and organizational processes (Bharadwaj, 2000). Grant (1991) however distinguishes between resources and capabilities and further classifies resources into tangible, intangible and personnel-based resources. The tangible resources include: financial capital and physical assets of the firm such as plant, equipment, and stocks of raw materials whereas, intangible resources include reputation, brand image, and product quality while personnel-based resources include technical know-how, and other knowledge assets including dimensions such as organizational culture, employee training, loyalty, etc. The ability of a firm to create competitive advantage depends on its capability, which is the extent to which the organization can assemble, integrate, and deploy valued resources to create or sustain competitive advantage in the industry to which it belongs (Russo and Fouts, 1997). The resource-based view of the firm links the performance of organizations to resources and skills that are firm specific, rare and difficult to imitate or substitute (Barney, 1991). Hence, it is a theory that is mostly preferred by researchers in this area of study. This paper consequently is based on this theory.

Empirical Review

Mohammad (2011) in their study on the impact of ICT investment on profitability in Pakistani banks shows ICT channels has increased competition among banks, absence of long queue, reduction in manual banking, increase in banks profit though it has borne considerable cost of implementation. Sadr (2013) investigated the relationship between ICT investment and profitability in selected Asian countries, the results suggesting that there is a short run steady-state relationship between this variable for a cross-section of countries and vice versa. Two common measures of bank profitability was used, namely; the return on assets and return on equity. The findings show that ICT has a positive effect on profitability. Oyewole, Abba, El-Maude, and Gambo (2013) assessing investment in ICT and bank performance: evidence in Nigeria. The study examines the impact of e-banking on ROA, ROE and NIM from a period of 2000-2010, Panel data comprised of audited financial of eight banks that has adopted e-banking. The research reveals that investment ICT begins to contribute positively to bank performance in terms of return on assets (ROA) and net interest margin (NIM) with a time lag of two years, while a negative was witnessed in the first year of adoption. Dabwor, et al. (2017) examined how the adoption of Information and Communication Technology (ICT) affects the competitive performance of banking sector using independent sample t-test. Findings from the study revealed that a positive relationship exists between ICT and banks performance in Nigeria. This implies that a marginal change in the level of the investment and adoption of ICT such as (Automated Teller Machine, Web based transactions, and Mobile payments) in the banking industry resulted in a proportionate increase in the profit level. Makinde (2014) examined correlation between IT investment and corporate performance in the Nigerian banking sector. The study made use of secondary data sourced from the Central Bank of Nigeria statistical bulletin, the National Bureau of Statistics and archives of the four (4) selected banks (using their websites) for the variables between 1986 and 2011. Using the Pooled regression techniques; our study revealed that there is a strong positive relationship between the banks' net income and the annual investment in ICT by the selected banks. That is, ICT has greatly impacted positively and significantly on bank operations in Nigeria given the period of study. Nguyen (2021) investigated the impact of ICT on bank performance in Vietnam. By using data from 20 Vietnamese commercial banks in the 2007-2019 period and the ICT index set of indicators for commercial banks, we see that readiness for IT development and application has had a significant impact on bank performance, among other factors such as the size of the bank, the ratio of equity to total assets and the ratio of deposits to loans. Adebola (2018) examined the impact of Information Communication Technology on Bank Performance of selected banks in Ondo State. The findings reveal that technology innovation has influenced Nigerian banking industry performance. The introduction of information technology communication has influenced customer satisfactions. Thus the followings are drawn. The implication of information communication technology had really enhanced the profitability of banks. Also it reduces management costs of banks. Also, it was concluded that information communication technology has contributed to the effectiveness of staff thereby aiding accuracy and speed. This study found out that the

use of information communication technology had reduced stress in banks operations, despite all the implications of information communication technology had brought to the stakeholders, it was concluded that the business environment in Nigeria hinders the smooth operations of internet banking in the country. Syed (2018) explored the relationship between Information Technology (IT) investment and banks' performance. This study is conducted on Dhaka Stock Exchange (DSE) listed banks and especially five commercial banks are selected for this research. Based on secondary data, this research is quantitative and longitudinal in nature. The correlation and regression models have been used to measure the relationship between Information Technology (IT) investment and banks' performance. Bank's performance has been measured by Return on Investment (ROI), Net Profit Margin (NPM), Return on Equity (ROE) and Return on Asset (ROA). The findings of this study reveal that a positive relationship exists between IT Investment and banks performance.

Chibueze, Maxwell and Osundu (2013) examined the effect of ICT investment and bank performance in Nigeria from a judgmental sample of four banks being quoted on the Nigerian stock exchange. The study aimed at looking at the effect on return on equity and return on assets. The research employs the use multiple regression and t-test in data analysis of data from books of account of the four banks. The finding from data obtain on the activities of these bank reveals that the ICT has positively and significantly improved the return on equity (ROE) of Nigerian bank. Adesola, et al. (2013) examined the impact of information and communication technology on the Nigerian banks operations in term of speed of banking operations, and efficient service delivery, workers' performance and bank's profit level, using United Bank for Africa (UBA) Plc. as a case study. The result showed the usage of ICT contributed significantly to the speed of banking operations, and efficient service delivery, workers' performance and bank's profit level. On the contrary, it has not significantly improved return on assets (ROA). Willy and Obinne (2013) assessed the impact of IT investment on bank returns for a sample of four banks in Nigeria. By depending greatly on historic data that were extracted from annual financial reports of the sampled banks for a seven year period from 2005 to 2011. The findings suggested that IT expenditure has a negative relation with bank profitability demonstrating that IT expenditures of all the studied banks do not increase bank profitability, but rather declines it insignificantly. Wasilwa & Omwenga (2016) investigated ICT strategies in the area of automated teller machines, internet banking and mobile banking. These strategies were studied in relation to their effect on commercial banks' performance indicators namely: profit before tax, customer deposits and effectiveness. Data was collected using Likert's scale questionnaires which were self-administered. Secondary data was obtained from financial statements of Equity group records. Correlation analysis was used to give an insight into the relationship between ICT strategies and performance. The findings reveal that ICT strategies had statistically significant influence on income, profitability and customer deposits of commercial banks in Kenya and tests for significance also showed that the influence was statistically significant. The findings also revealed that mobile phones had a higher effect than Internet services on the ICT strategies when influencing

performance of commercial banks in Kenya. Based on the findings of the study, it can be concluded that ICT strategies influence performance of commercial banks in Kenya positively.

Binuyo and Aregbeshola (2014) evaluated the effect of ICT on the performance of four biggest banks in South African using bank annual data over the period 1990–2012 using the orthogonal transformation approach. The results indicated that the usage of ICT increases return on capital employed (ROC) as well as ROA of the South African banking industry. The study realizes that more of the contribution to performance emanates from ICT cost efficiency contrasted to investment in ICT. Victor, et al. (2015) investigated the effect of ICT and financial innovation on the performance of selected eleven commercial banks in Nigeria over the period 2001 to 2013 based on a data collected from the banks' annual reports and CBN fact-books. The results revealed that an increase in banks' profitability performance increases commercial banks' ROE. However, investments in e-banking services and ATMs do not certainly enhance banks' performance. Aggreh, et al. (2020) investigated the longitudinal nature, extent and magnitude of the return on ICT investment in the banking industry in Nigeria. The findings of the study reveal that ICT investment does not always result in instantaneous positive effects on financial performance in the immediate period. However, the result shows evidence of a dynamic pattern in the response as positive effects of ICT investment is observed to begin from the following year (ICT +1) and significant at 10% and is even stronger the year after (ICT +2) and significant at 5%. Mahboub (2018) contributed to the ongoing debate regarding the contribution of ICT to BP by looking at the impact of ICT investments on the performance of a sample of 50 Lebanese banks for the period 2009-2016. Using multivariate OLS model, the results demonstrate that the application ATM, IB, TB and POS terminals does not significantly affect banks performance. However, the application of MB and offering BC to customers significantly and directly affects performance of banks in Lebanon. Muhammed & Birnin-Kebbi (2014) investigated the relationship between Information and Communication Technology (ICT) on bank performance and economic growth in Nigeria. The ordinary least squares (OLS), among the commonly used models in analysing panel data were used. Results of the study reveals that the use of ICT, from random effects model, does not improve bank performance in the Nigerian commercial banks. Al-Busaidi & Al-Muharrami (2016) assessed the impact of ICT on bank performance in Oman from 2001-2015. This study found that ICT asset value is positively correlated with financial indicators such as operating income, profit before tax, and yearly profit; whereas it is negatively correlated with financial ratios such as return on average assets, return on average equity, and return on investment.

Methods

Justification of the Study Sample

The sampling technique adopted by this research is the purposive sampling technique. This research selects domestic systemically important banks (D-SIBs) due to its huge asset base and relative regulatory importance. Including them in the

research sample enhances the meaningfulness and usability of proposed research findings. The sample size for this research will include banks in the D-SIBs category identified by the Nigeria Deposit Insurance Corporation in their 2018 Annual Report, popularly referred to as FUGAZ; First Bank of Nigeria Plc, United Bank for Africa Plc, Guaranty Trust Bank, Access Bank Plc, Zenith Bank Plc with the inclusion of another D-SIB, Fidelity Bank Plc.

Data Sources and Collection Instrument

This research is dependent on secondary data, and data employed emanates from commercial banks' audited annual financial statements in the D-SIBs category. The study period's choice correlates with the availability of financial information released for public consumption by banks in the D-SIBs category from 2015-2019.

Model Specification

This study adopts a research model in perfect alignment with the research questions and hypotheses raised in the introductory part of this research. The research model emanates from the researcher's quest to assess the effect of financial technologies adoption on D-SIBs' performance for the period under review.

The classical regression model; more focused on two or more independent variables, for this study and the nature of data warrants a specification of a multiple panel regression model and follows the form as specified below:

$$Y_{it} = \alpha_0 + \beta X_{it} + \mu_{it} \quad (1)$$

A detailed description of equation (1) shows that Y_{it} represents the dependent variable, i signifies the number of cross-sections, and t represents the periods covered i.e., annually, quarterly, or thereabout. X_{it} represents a vector of the independent variables; α signifies the model's intercept, and μ_{it} represents the error term.

Furthermore, the researcher states the model in its mathematical and functional form is seen below:

$$ROA_{it} = f(ATM_{it}) \quad (2)$$

$$ROE_{it} = f(POS_{it}) \quad (3)$$

$$ROCE_{it} = f(MTW_{it}) \quad (4)$$

After stating the mathematical form of the proposed model, we can proceed to state the model in its econometric form.

$$ROA_{it} = \beta_0 + \beta_1 ATM_{it} + \mu_{it} \quad (5)$$

$$ROE_{it} = \beta_0 + \beta_1 POS_{it} + \mu_{it} \quad (6)$$

$$ROCE_{it} = \beta_0 + \beta_1 MTW_{it} + \mu_{it} \quad (7)$$

Components of equation (5, 6 and 7) is labelled thus:

The " i " represents the six cross-sections in our sample, while the " t " represents periods from 2010-2019. The dependent variable, bank performance, is ably proxied

by the return on asset (ROA), a requisite indicator showing banks' profitability relative to its total assets. The independent variables chosen by the researcher include; ATM; Automated Teller Machines, POS; Point of Sale machines, and MTW; Mobile transfer/web. The coefficients in the model (2) are β_1 , β_0 is the intercept, and the error term is represented by μ_{it} .

Results

This section presents a detailed econometric analysis cum findings on the topic ICT and financial performance of deposit money banks. The data was obtained from audited financial reports of five selected commercial banks with ROA (Return on Assets), ROE (Return on Equity) and ROCE (Return on Capital Employed) as dependent variables while ATM (Automated Teller Machine), POS (Point of Sale) and MTW (Mobile Transfer/Web) as independent variables in order to ascertain the effect of information communication technology on the financial performance of domestic systemically important banks from 2015-2019. E-views version 12 was employed to analyze data collected from the financial statements of D-SIBs from 2015-2019.

Descriptive Statistics

Table 1. Descriptive statistics for ROA, ROE, ROCE, POS, ATM and MTW

Variables	Observations	Mean	Std. Dev.	Minimum	Maximum
ROA	25	2.11	1.5	0.36	5.62
ROE	25	14.71	8.3	2.62	32.08
ROCE	25	6.9	5.61	1.41	21.27
ATM	25	37445.96	69582.15	720	196272
POS	25	26025.68	34091.1	2970	156931
MTW	25	113474.3	132472.6	11040	604730

Source: Authors Computation

Table 2. Correlation Matrix

Variables	ROA	ROE	ROCE	ATM	POS	MTW
ROA	1	0.94	0.97	0.93	0.73	0.19
ROE	0.94	1	0.92	0.81	0.7	0.11
ROCE	0.97	0.92	1	0.91	0.74	0.14
ATM	0.93	0.81	0.91	1	0.7	0.23
POS	0.73	0.7	0.74	0.7	1	0.16
MTW	0.19	0.11	0.14	0.23	0.16	1

Source: Authors Computation

Evident from the correlation matrix in Table 2 presented above, there is a strong and positive correlation amongst ROA, ROE, ROCE, ATM and POS, however, with the exception of Mobile Transfer/Web which showed a positive but weak correlation with ROA, ROE and ROCE.

Empirical Analysis*Test of Hypothesis One (Ho1)*

Research Objective 1: To determine the effect of ATM transactions on return on asset of domestic systemically important banks.

Research Question 1: What is the effect of ATM transactions on the return on asset of domestic systemically important banks in Nigeria?

Research Hypothesis 1: There is no significant relationship between ATM transactions and the return on asset in domestic systemically important banks in Nigeria.

Table 3. Pooled OLS E-views Output for Hypothesis One

Model Estimates	ROA
	0.0000201
ATM	0.0000016 (0.0000)
	1.361717
Constant	0.126119 (0.0000)
Adjusted R ²	0.86
R ²	0.87
F-statistic	153.8630*** (0.0000)
Jarque-Bera	0.070449 (0.9653)
Breusch-Pagan LM	18.50294*** (0.0470)
Pesaran CD Test	-1.21216 (0.2255)
Durbin-Watson Stat	0.38

Source: Authors Computation (2021)

Evident from Table 3, the F-statistic provides justification for joint significance of ATM in determining variations in the dependent variable ROA. Model adequacy is further buttressed by the F-statistic and normal distribution is established by the Jarque-Bera stat in the table above. However despite having a favourable R², the estimated model is plagued with the issues of serial correlation and heteroskedasticity. Pesaran CD stat shows the absence of cross-section dependence in the model estimated in Table 3, in light of the aforementioned problems, there is extant need to re-estimate the model above to solve problems of serial correlation and heteroskedasticity.

Indeed after re-estimation using lag 2 of the ATM variable, the problem of serial correlation and heteroskedasticity is resolved evident by Breusch-Pagan LM stat with a p-value greater than 5% stating that all error variances are equal (homoscedastic) and DW stat between 1 and 2 as not explosive and worrisome.

Results from Table 4, shows that automated teller machine transactions improved the financial performance of deposit money banks in Nigeria evidenced by its positive and significant coefficient at 1, 5 and 10% level. All variables held constant, return on asset of deposit money banks will increase by 134%.

Table 4. Re-estimation of Pooled OLS for ROA and ATM

Model Estimates	ROA
	0.0000247
ATM	0.0000015 (0.0000)
	1.347940
Constant	0.103514 (0.0000)
Adjusted R ²	0.95
R ²	0.96
F-statistic	292.0349*** (0.0000)
Jarque-Bera	0.844754 (0.6554)
Breusch-Pagan LM	13.11650*** (0.2172)
Pesaran CD Test	-0.6445 (0.5192)
Durbin-Watson Stat	1.21

Source: Authors Computation

From the above econometric evidence, the researcher can reject the null hypothesis positing that ATM transactions possesses a significant effect on the financial performance of domestic systemically important banks in Nigeria.

Table 5. Pooled Ordinary Least Squares (OLS) E-views Output for Hypothesis Two

Model Estimates	ROE (Return on Equity)
	0.000169
POS	0.000036 (0.0001)
	10.30054
Constant	1.5437 (0.0000)
Adjusted R ²	0.48
R ²	0.46
F-statistic	21.57731*** (0.0001)
Jarque-Bera	1.063952 (0.5874)
Breusch-Pagan LM	20.07286*** (0.0286)
Pesaran CD Test	-0.14457 (0.8850)
Durbin-Watson Stat	0.59

Source: Authors Computation

Test of Hypothesis Two (Ho2)

Research Objective 2: To investigate the effect of Point of Sale (POS) on the return on equity of domestic systemically important banks in Nigeria.

Research Question 2: What is the effect of point of sale (POS) on the return on equity of domestic systemically important banks in Nigeria?

Research Hypothesis 2 (Ho2): There is no significant effect of point of sale (POS) on the return on equity of domestic systemically important banks in Nigeria.

From the above Table 5, it is clearly visible that the model is plagued with problems of serial correlation and heteroskedasticity and inference from the above estimated model may be misleading and inconsistent owing to violations of the classical assumptions of the linear regression model.

At this point, the researcher has to re-estimate the model to address the violations of the assumptions of the CLRM.

Table 6. Re-estimated model for POS and ROE

Model Estimates	ROE
	0.000395
POS (-1)	0.000062 (0.0000)
	5.488669
Constant	0.9674 (0.0000)
Adjusted R ²	0.68
R ²	0.69
F-statistic	40.93732*** (0.0000)
Jarque-Bera	2.274031 (0.320775)
Breusch-Pagan LM	15.67223*** (0.1094)
Pesaran CD Test	0.132292 (0.8948)
Durbin-Watson Stat	1.42

Source: Authors Computation

After addressing the problem of heteroskedasticity and serial correlation, we can conclude that there is no existence of cross-sectional dependence and problems of normal distribution either evident by the presented Jarque-Bera statistic. The F-statistic accounts for joint-significance of independent variables in explaining variations in the dependent variables and in our case is significant stating that our model is adequate. Econometric test results shows that point of sale yields a significant effect on the return on equity of deposit money banks in Nigeria at 1%, 5% and 10%. All variables held constant, ROE will increase by 5.48%. The researcher, in the light of present econometric evidence, can reject the null hypothesis and accept the alternate hypothesis that point of sale has a significant effect on return on equity of deposit money banks in Nigeria.

Test of Hypothesis Three

Research Objective 3: To ascertain the effect of mobile transfer/web on the return on capital employed (ROCE) of domestic systemically important banks in Nigeria.

Research Question 3: What is the effect of mobile transfer/web on the return on capital employed (ROCE) of domestic systemically important banks in Nigeria?

Research Hypothesis 3: There is no significant effect of mobile transfer/web on the return on capital employed (ROCE) of domestic systemically important banks in Nigeria.

Table 7. Pooled OLS E-views Output for Hypothesis Three

Model Estimates	ROCE
	0.000006
MTW	0.000008 (0.4992)
	6.220758
Constant	1.5066 (0.0004)
Adjusted R ²	0
R ²	0
F-statistic	0.471393*** (0.4992)
Jarque-Bera	4.9207 (0.0854)
Breusch-Pagan LM	21.84967*** (0.0159)
Pesaran CD Test	-0.811868 (0.4169)
Durbin-Watson Stat	0.18

Source: Authors Computation

Table 8. Re-estimated model for ROCE and MTW

Model Estimates	ROCE
	0.000076
MTW(-2)	0.000020 (0.0023)
	1.919267
Constant	1.8031 (0.3065)
Adjusted R ²	0.49
R ²	0.52
F-statistic	14.2030*** (0.002)
Jarque-Bera	2.5993 (0.2726)
Breusch-Pagan LM	12.3969*** (0.2594)
Pesaran CD Test	1.6434 (0.1003)
Durbin-Watson Stat	1.33

The model estimation in Table 7 is plagued with problems of serial correlation, model inadequacy and heteroskedasticity. F-statistic further proves that the model estimated is not adequate and therefore, re-estimation is needed to rid the model free of the aforementioned problems.

After re-estimation, the model is free from problems of serial correlation, heteroskedasticity and model inadequacy evident from the DW stat, F-stat and BP LM stat. Mobile transfer/web possesses a significant effect on the return on capital employed of domestic systemically important banks in Nigeria at 1%, 5% and 10%.

Owing to evidence provided in Table 8, the researcher can reject the null hypothesis and accept the alternate hypothesis that mobile transfer/web possesses a significant and positive effect on return on capital employed of domestic systemically important banks in Nigeria from 2015-2019.

Discussion

This section recapitulates peculiar findings from this study emanating from the testing of hypotheses raised in the course of this study. Conclusions and recommendations are in line with the research findings.

After estimation of data collected by the researcher from the full disclosure financial statements of D-SIBs in Nigeria produces the following set of findings;

Findings from the three estimated econometric models (5, 6 and 7) shows that automated teller machines, point of sale and mobile transfer/web actually increases the performance of domestic systemically important banks in Nigeria significant across the three adopted measures of performance comprising ROA, ROE and ROCE. Our study tows the line suggesting that investment in financial technologies actually increases performance of banks, however in our case, is the too-big-to-fail banks which is christened the domestic systemically important banks in Nigeria. Our findings deviates from some already established empirical evidence such as Willy & Obinne (2013), Mabhouh (2018) and Dabwor, et al. (2017) where the three studies concluded that investment in financial technologies does not elevate the performance of banks. However, our findings is in line with already established empirical evidence residing in Mohammad (2011), Chibueze, Maxwell and Osundu (2013), Oyewole, Abba, El-Maude, and Gambo (2013), Sadr (2013), Makinde (2014) and Victor, et al. (2015). Fierce competition in the post-integration stage necessitates excellent service delivery from commercial banks in a bid to gain a competitive edge against its rivals. Facilitating day-to-day transactions at malls, markets, online stores, supermarkets, spars, salon, eateries, clubs and other businesses with ease without carrying physical cash increases the volume of flows within the digitised payment system alongside maintenance charges across the aforementioned channels increases the profitability of D-SIBs alongside its huge customer base.

Conclusions

The novelty of this empirical masterpiece lies in the lacuna unexploited by previous authors and sits perfectly as a fantastic addition to the body of knowledge by investigating the impact of financial technologies adoption on the performance of too-big-to-fail banks in Nigeria. In addition, previous studies relied on one measure of performance whilst this study employed three popular measures of performance to increase the reliability of their findings. After proper econometric protocol execution, findings shows that Automated Teller Machine, Point of Sale and mobile transfer/web increased the performance of domestic systemically important banks in

Nigeria from 2015-2019. Furthermore, investments in financial technologies possesses a positive impact on performance of domestic systemically important banks in Nigeria for the period under review. Limitations of this study emanates from a small statistical sample which limits the variety of econometric test applicable, unfortunately, the sample for D-SIBs are fixed all around the world and only a cross-country study can adequately capture more banks from multi-jurisdiction and this may serve as an area for further studies for futuristic researchers.

Recommendations

Policy options available to the regulators, industry participants and investors in the financial system are itemised as follows:

1. Increased investment in more viable financial technologies will increase speed in banking operations, efficient service delivery, customer retention and overall performance of domestic systemically important banks in Nigeria.
2. Optimal utilisation of available financial technologies spurs performance of D-SIBs more compared to additional investments in financial technologies.
3. Regulators such as the Consumer Protection Council, CBN complaints unit and the Ombudsman must focus on protecting the consumer of financial services from undue exploitation of too-big-to-fail banks in Nigeria.

References

- Adebola, B.D. (2018) Impact of Information Communication Technology on Bank Performance of Selected Banks in Ondo State Nigeria. *International Journal of Business Tourism and Applied Sciences*. Vol. 6(2); 22-30.
- Adewale, A.A., & Afolabi, B.A. (2013). The effects of ICT on the growth of Nigerian banking industry: a study of five quoted banks in Nigeria. Retrieved September 20, 2014 from
- Adesola, M.A., Moradeyo, O.A. & Oyeniyi, K.O. (2013). Impact of Information and Communication Technology on Nigerian Banks Operations; a Study of United Bank for Africa (UBA) Plc. *International Journal of Business and Management Invention*. Vol. 2(9); 7-12.
- Aggreh, M., Malgwi, C.A. & Aggreh, M.S. (2020). ICT Investment and Banks Financial Performance in Nigeria. *International Journal of Finance and Accounting*. Vol. 9(1); 1-6.
- Al-Busaidi, K.A. & Al-Muharrami, S. (2016) "Do ICT Investments improve Banks Performance in Oman? Research in Progress (35). UK Academy for Information Systems Conference Proceedings 2016. 4: <https://aisel.aisnet.org/ukais2016/4>
- Barney, J.B. (2001). Is the Resource-based View' a Useful Perspective for Strategic Management Research? Yes, *Academy of Management Review*, 26 (1), pp. 41-56.
- Bharadwaj, A.S. (2000). A Resource-Based Perspective on Information Technology Capability and Firm Performance: An Empirical Investigation, *MIS Quarterly*, 24 (1), pp. 169-196.
- Binuyo, A.O. and Aregbesola, R.A. (2014). The Impact of Information and Communication Technology (ICT) on Commercial Bank Performance: Evidence from South Africa. *Problems and Perspectives in Management*, 12(3), 59-68.
- Conner, K.R. (1991). A Historical Comparison of the Resource-Based Theory and Five Schools of Thought within Industrial Organization Economics: Do I Have a New Theory of the Firm, *Journal of Management*, 17 (1), pp.121-154.

- Chibueze A. Z., Maxwell O. O. & Osundu N. M. (2013). Electronic banking and bank performance in Nigeria. *West African Journal of Industrial and Academic Research* 6(1) 21-37.
- Dabwor, T.D., Ezie, O. & Anyatonwu, P. (2017). Effect of ICT Adoption on Competitive Performance of Banks in an Emerging Economy: The Nigerian Experience. *IOSR Journal of Humanities and Social Science (IOSR-JHSS)*. Volume 22(8); 81-89.
- Fahy, J. & Hooley, G. (2011). Sustainable competitive advantage in electronic business: towards a contingency perspective on the resource-based view, *Journal of Strategic Marketing*, 10 (4), pp. 241-253.
- Grant, R.M. (1991). The Resource-based Theory of Competitive Advantage, *California Management Review*, 33 (3), pp. 114-135.
- Laudon, D.P. & Laudon, J.P. (2001). *Management Information Systems: Organisation and Technology in the Network Enterprises*, 4th ed. Prentice Hall International in US.
- Mahboub, R.M. (2018). The Impact of Information and Communication Technology Investments on the Performance of Lebanese Banks. *European Research Studies Journal*. Vol. 21(4); 435-458.
- Makinde, H.O. (2014). The Correlation between IT Investment and Corporate Performance In The Nigerian Banking Sector. *British Journal of Economics, Management & Trade*. Vol. 4(3); 349-365.
- Melville, M., Kraemer, K. & Gurbaxani (2004). Information technology and organizational performance: an integrative model of IT business value, *MIS Quarterly*, 28 (2), pp. 283-322.
- Mohammad K. M. (2011). The impact of e-banking on the profitability of banks: a study of Pakistani banks. *Journal of Public Administration and Governance*, 2(1) 12-22.
- Muhammed, A. & Birnin-Kebbi, H.S. (2014). Impact Analysis of Information and Communication Technology on Finance and Economic Growth in Nigeria (2001-2011). *European Scientific Journal*. Vol. 10(1); 400-424.
- Nguyen, V.T. (2021). ICT and Bank Performance: Empirical Evidence from Vietnam. *Journal of Contemporary Issues in Business and Government*. Vol. 27(2); 1-5.
- Okonkwo, I.V., Obinozie, H.E. & Echekoba, F.N. (2015). The Effect of Information Communication Technology and Financial Innovation on Performance of Nigerian Commercial Banks (2001-2013). *International Journal of Accounting Research*. Vol. 2(7); 51-66.
- Onyeiwu, C., Muoneke, O.B. & Abayomi, A.M. (2021). Effects of Microfinance Bank Credit on Small and Medium Scale Businesses: Evidence from Alimosho LGA, Lagos State. *The Journal of Entrepreneurial Finance*: Vol. 22: Issue 2, pp. 49-65. Available at: <https://digitalcommons.pepperdine.edu/jef/vol22/iss2/4>
- Ordanini, A., Rubera, G. (2010). How does the application of an IT service innovation affect firm performance? A theoretical framework and empirical analysis on e-commerce, *Information & Management*, 47, pp. 60-67.
- Oyewole, O.S., Abba, M., El-Maude, & Gambo, J. (2013). E-banking and bank performance: Evidence from Nigeria. *International Journal of Scientific Engineering and Technology*, 2(8), 766-771.
- Rashidirad, M., Syed, J. & Soltani, E. (2012). The strategic alignment between competitive strategy and dynamic capability and its impact on e-business, *International Proceedings on Economic Development and Research*, pp. 52-54. Accessed on 2021/08/08.
- Russo, M.V. and Fouts, P.A. (1997). A Resource-based Perspective on Corporate Environmental Performance and Profitability, *Academy of Management Journal*, 40 (3), pp. 534-559.
- Sadr, S.M. (2013). Consideration the effect of e-banking on bank profitability; case study selected Asian countries. *Journal of Economics and Sustainable Development* Vol. 4(11) 112-117.
- Schulze, W.S. (1992). The Two Resource-Based Models of the Firm: Definitions and Implications for Research, *Academy of Management Best Paper Proceedings*, pp. 37-41.

- Syed, M.R. (2018). Impact of Information Technology (IT) Investment on Banks' Performance: A Study on Dhaka Stock Exchange (DSE) Listed Banks of Bangladesh. *Journal of Information Engineering and Applications*. Vol. 8(2); 8-12.
- Victor, O.I., Ebuka, O.H. and Echekeba F.N. (2015). The Effect of Information Communication Technology and Financial Innovation on Performance on Nigerian Commercial Banks (2001-2013). *European Journal of Business and Management*, 7(22), 162-171.
- Wade, M. & Hulland, J. (2004). The resource based view and information systems research: review, extension and suggestions for future research, *MIS Quarterly*, 28 (1), pp. 107-142.
- Willy, U. and Obinne, U.G. (2013). Evaluation of Information Technology (IT) Investments on Bank Returns: Evidence from Nigerian Banks. *Research Journal of Finance and Accounting*, 4(4), 155-164.



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**SOCIAL ENTREPRENEURSHIP AS AN INNOVATIVE AND
INFORMATIONAL TOOL OF SOCIAL SECURITY**

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Abstract. *Social entrepreneurship as an economic phenomenon allows focussing on solving important social problems, creatively combining and implementing social and business approaches to simultaneously achieve a social and economic mission. The result of the effective functioning of social enterprises is the solution of pressing problems of employment, support for socially vulnerable categories of citizens, their adaptation to public life, the provision of social assistance and support for people with disabilities, and then allows for the provision of better and timely social benefits and services to the population under the conditions of acute shortage of budgetary resources. Unlike other types of economic activity, social entrepreneurship harmoniously combines the effective functioning of business structures and improvement of the quality of life of the population.*

Keywords: *social entrepreneurship, information support, social project, traditional entrepreneurship, social assistance.*

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Introduction

Social entrepreneurship as an economic phenomenon allows focussing on solving important social problems, creatively combining and implementing social and business approaches to simultaneously achieve a social and economic mission. The result of the effective functioning of social enterprises is the solution of pressing problems of employment, support for socially vulnerable categories of citizens, their adaptation to public life, the provision of social assistance and support for people with disabilities, and then allows for the provision of better and timely social benefits and services to the population under the conditions of acute shortage of budgetary resources.

Against the background of these problems, economic and social issues are aggravated, namely: the growth of inflationary processes, the decrease in the level of real wages, pensions, social benefits for the population, financing of the social sphere according to the residual principle, and so on. Under these conditions, the idea of social entrepreneurship attracted the attention of many scientists, practitioners, public organizations, entrepreneurs, becoming a new paradigm of entrepreneurial thinking, and intensified social initiatives.

In many countries of the world, the practice of cooperation of social enterprises (SE) with state organizations at both the national and local levels is based.

Literature Review

Currently, there is no single, unified, and generally accepted definition of social entrepreneurship. Based on the study, four approaches to its determination are substantiated.

The first approach is generalized and broadside, its essence lies in the fact that social entrepreneurship is understood as an activity, the end result of which is the achievement of social goals. According to this approach, it can be both a traditional business with a social component, and non-governmental profitable and nonprofit organizations (Bacq, S., & Eddleston, K.A. (2018)).

The third approach is innovative (Hlady-Rispal, M., & Servantie, V. (2018)). Its essence lies in the interpretation of social entrepreneurship as an innovative method of solving social problems. A special feature of this approach is the highlighting of the innovative component of the activity and, accordingly, the involvement of social enterprises introducing innovations. In addition, limiting those that don't introduce them. This approach is rather one-sided and excludes social enterprises, which are an investment source of financing of the social sphere without using innovations (Urban, B., & Kujinga, L. (2017)).

The last approach is a problem-oriented approach, advocated by Muralidharan, E., & Pathak, S. (2018). According to this approach, social entrepreneurship is an activity whose social results are aimed at solving the problems of a particular social group of citizens (people with disabilities, internally displaced people, people with drug or alcohol addiction, and others) (Reuber, A.R., Knight, G.A., Liesch, P.W. , & Zhou, L. (2018)).

Thus, the presence of several approaches indicates that social entrepreneurship combines many different aspects of the activities of organizations and is a relatively

new, not yet fully explored concept. Comparing the approaches considered, it is worth saying that they all provide for a social orientation in the enterprise activity. The difference between them is to determine the extent of its functioning.

Methods

The general scientific, special methods of scientific knowledge have been used in the work. System analysis and synthesis, deductive and inductive methods, the method of analogies and generalizations have been used in the study of the essence of the concept of “social entrepreneurship”. When studying the experience, methods of comparison and generalization have been used.

Results

Social entrepreneurship has the same criteria as traditional entrepreneurship, in particular such as: financial independence; initiativity; innovativeness; large scale; risky character. At the same time, specific features are inherent in it, in particular: priority of the social goal; reinvestment of profits in the development of a social enterprise; openness and transparency of activities and public reporting. A necessary element of social entrepreneurship is the organization’s mission, which clearly indicates what social value the enterprise will generate, as well as the measurement of this value.

Table 1. The main differences between social entrepreneurship, charity, and traditional business (systematized by the authors)

Criteria	Social enterprise	Charitable organization	Traditional business
Purpose of the activity	Solving social problems	Providing support and assistance to vulnerable groups of the population	Receiving a profit
Sources of financing	Funds of SE participants, profit from own activity, grants, microfinance	Grants from international foundations and organizations, donations	It does not depend from external funding sources
Distribution and use of profits	Profit is reinvested or funded in certain social projects	It does not make a profit	Profit distributed among shareholders

For traditional enterprises, effective activity is measured by the amount of profit it receives at the end of the reporting period. A social enterprise whose social value cannot be determined is not such. In the mission of the organization, together with an indication of the purpose of the activity, the criteria for its evaluation are indicated. This may be the number of people whom the enterprise helped, the amount of funds that was aimed at solving social problems, or the number of products that have certain utility parameters.

As a conclusion, one can say that the SEs are not limited in the choice of the direction of its activity but most of them are focused on activities in the most significant areas of public life.

One of the distinguishing features of the SE is the presence of a specific goal and purpose, the achievement of which will have a positive effect for solving a specific social problem: unemployment reduction, support of vulnerable groups, cultural development, information support (consulting, free training), etc. In addition, quite often there is a combination of several types of activities to deepen the efficiency of the enterprise and quickly achieve its goals, which, in our authors' opinion, is most effective (for example, a restaurant whose profit is aimed at providing financing for social projects, and employees are people with physical disabilities).

The most common activities are selling goods of own production, employing representatives of vulnerable groups and supporting social, cultural, and/or sports events, projects, programs. Separate enterprises carry out unique types of activities for SE: providing consultations, means of production, repeated financial assistance, etc.

Table 2 presents a comparative description of the activities of social enterprises in the EU and the USA.

Table 2. Comparative characteristics of social enterprises in the EU and the USA
(systematized by the authors)

EU countries	USA
Emphasis on collective ownership or management of social enterprises by members of a community or company.	Emphasis is made on individual management, having a leader, finding innovative and unique ways to solve social problems.
A special role is played by democratic governance, shareholder participation in the distribution of profits and the presence of supervisory boards.	Absence of specific regulations and requirements regarding the legal status and methods of management of the social enterprise.
The main goal: achieving a social mission (especially in Italy and Poland), and not making a profit. SEs exist through subsidies, donations from religious institutions, and grants.	The main goal is to make a profit that will allow continuing investing in the social sphere in the future.
The activities of the SEs have a local impact on the provision of public services, are characterized by a small number of types of services, focused on a specific branch of the social sphere, in particular, on which the state has reduced budget funding.	The activities of SEs have a global impact on the provision of public services, are characterized by a large number of types of services, focused on the whole social sphere, and don't depend on the amount of budget financing.

Thus, at the present stage, the activity of the SEs extends to various components of social life, however, more attention is focused on the employment of vulnerable groups of the population, because this makes it possible for such persons to realize themselves, supporting the country's economy. In the authors' opinion, this trend is the most objective and justified, because with the intensive development of social enterprises, this approach will reduce not only the unemployment rate in the country, but also reduce the total amount of unemployment benefits and, as a result, will lead to an increase in budget revenues. Consequently, the state will allow citizens to sustain themselves and take a step towards sustainable economic development and social security.

The activity of the SEs is measured not so much by the amount of profit received, as the degree of achievement of the social effect.

Thus, all subjects of financial relations are interested in the effective functioning of the SEs: the state, legal entities, and individuals - founders of social enterprises and citizens who are provided with social services or various kinds of assistance.

In particular, the state's interest is manifested through replenishing the budget when paying various types of tax payments (from income, property, resources) by legal entities and individuals during the functioning of the SEs, reducing the costs of local budgets for social benefits and services and directing the released funds to other important areas of economic activity of administrative territorial units, ensuring employment of the population, including persons with physical disabilities (handicapped persons). The interest of legal entities and individuals in the functioning of the SEs is to solve the problems of the social nature of the territorial community and the self-assertion of the individual entrepreneur, to develop and introduce new ways to solve problematic issues in the form of a service or product.

Thus, social entrepreneurship provides a partial and dynamic solution to the acute problems of society. From the perspective of citizens - recipients of social services and benefits of functioning, the SEs are the key to material well-being or receiving high-quality social services from additional sources (except for local budgets).

Discussion

Any enterprise starting its activity needs financial assistance or support; a social enterprise is no exception. In most cases, it needs financing throughout its activities since the main goal is to create social value, and not to receive profit.

One should consider the state financial support of social enterprises, which is provided indirectly by choosing other organizational and legal forms of business (public organizations, charitable foundations, other non-profit enterprises, business structures on a common and simplified tax system, etc.) due to the lack of legislative bases for the functioning of these enterprises. These are preferential taxation; interest-free or low-interest loans for the development of their activities; creation of favorable conditions for doing business by social enterprises and advertising their activities, goods, and services in the media and social networks of the Internet; assistance in attracting grants from international organizations.

Conclusion

In the macroeconomic dimension, the performance of social enterprises can be measured by the level of decrease in general roughness and poverty indicators of the population, and at the micro level, social effects consist of easing the financial situation of certain socially vulnerable categories of citizens by increasing their well-being. Social enterprises using innovative resources that can create a real competitive environment and added value, which will contribute to the development of the country's economy.

Regarding the participation of the state in the activities of social entrepreneurship, it is advisable to combine different approaches (American and European) and, as a result, create a system in which there will be a balance of support for the activities of social enterprises from the authorities and their self-dependence.

Provided that all these opportunities are correctly and efficiently used, the activities of social enterprises over time will significantly reduce the expenditures of local budgets on the social sphere and help the community secure its own powers, reduce unemployment and thereby provide additional income to budgets of different levels. Social entrepreneurship will become an integral part of the country's economy.

References

- Bacq, S., & Eddleston, K. A. (2018). A resource-based view of social entrepreneurship: how stewardship culture benefits scale of social impact. *Journal of Business Ethics*, 152(3), 589-611.
- Hlady-Rispal, M., & Servantie, V. (2018). Deconstructing the way in which value is created in the context of social entrepreneurship. *International Journal of Management Reviews*, 20(1), 62-80.
- Muralidharan, E., & Pathak, S. (2018). Sustainability, transformational leadership, and social entrepreneurship. *Sustainability*, 10(2), 567.
- Reuber, A. R., Knight, G. A., Liesch, P. W., & Zhou, L. (2018). International entrepreneurship: The pursuit of entrepreneurial opportunities across national borders.
- Urban, B., & Kujinga, L. (2017). The institutional environment and social entrepreneurship intentions. *International Journal of Entrepreneurial Behavior & Research*, 23(4), 638-655.



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