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ELABORATION OF METHODOLOGY FOR THE DEVELOPMENT OF THE BUSINESS MECHANISM FOR INVESTMENT PROJECTS AT PRODUCTION ENTERPRISES

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Abstract *A research and methodological approach to the development of the business mechanism of investment projects (IP) at production enterprises is proposed; it is based on the development of the management system of investment projects with regard to the leverages, tools, management methods, financial activity of the enterprise, the efficiency of the investment project; it envisages the assessment of the investment capacities of the enterprise, provided that the project is implemented; this will allow to select the most efficient investment project, enhance the efficiency of the project management with the goal of the rational utilization of the project resources, achievement of the goals determined, the successful implementation of the project, which would contribute to improving the results of the enterprise-related investment activities (IA).*

Keywords: *Methodology; business; investment projects.*

Introduction

IA intensification by production enterprises is the basis for their development, renewal of their functioning, improvement of financial indicators, enhancement of their competitiveness, as well as prerequisite for improving the economic development of Ukraine. However, lowering the share of investment resources is negatively impacting the development of production enterprises. The economy development is characterized by the unstable political system, emergence of crisis phenomena, aggravation of socio-economic problems, which causes complications in the regional development and reduction of financial stability of food industry enterprises. Under these conditions, the investment capital decreases within the country, as well as the level of trust and investors' involvement decrease, causing stagnation of enterprises. Accordingly, crisis developments negatively impact implementation of IP and their efficiency. It is worth mentioning that the safe development, the success of enterprises’ financial activities depends also on the performance of an implemented IP or several projects. To assure implementation of investment projects, protection against the investment market's risks is required, as well as the stable operation of enterprises, stabilization of country's development, provisioning with financial resources, investment capital, involvement of investors etc. Provided introduction of an investment project, the company does not only involve the capital of international investors, but practices also the well-considered investment policy. The company's investment activity provides possibilities for its development, involvement of internal and external investment resources with the goal of profiting. However, the success of IA depends on the level of riskiness and profitability of an IP.

In accordance with the mentioned circumstances, the role and need to apply the company's IP management system increases. The IP management system provides for the successful implementation of the project with the purpose of achieving the determined goals. To improve the management system efficiency, application of the business mechanism for the IP's implementation is important. Application and development of the business mechanism would allow assessing hazards, factors of the investment market, to determine IP's advantages, the scope of available and required investment resources, to organize the successful implementation of the project during each phase of activities.

Analysis of recent investigations and published papers

Issues of the investment management, IP, utilization of the business economics mechanism, specific features of the investment portfolio development and management, introduction of the MBO method (management by objectives) in managing investments have been studied as by foreign, as well as national scientists. The mentioned issues have been studied by the following scientists: K.O. Biliaieva, N.A. Sokolova (2010), I.O. Biianska (2010), I.A. Blank (2001), I.M. Boiarko L.L. Hrytsenko (2011), M.P. Voynarenko , A.V. Cherep, O.I. Gonchar, O.G. Cherep, D.V. Krylov, L.G. Oleynikova (2019), O.V. Hryvkivska, O.V Prokopets (2010), Ye.S. Kuzmin (2012), P.V. Kukhta (2011), P.V. Kukhta (2012), Kh.Z. Makhmudov, I.I. Petrenko (2011), H.A. Makhovykova (2010), O.H. Nastasenko (2010), I.O. Paslavska (2008).

Researchers have quite carefully analyzed specific features of managing investment projects, however issues of developing the IP business economics mechanism on enterprises remains unsolved, as well as the issue of its place in managing the investment projects, the development of the project management system with regard to the business economics mechanism.

Presentation of key topics

The IP management system of production enterprises based on the business economics mechanism consists of a set of successive phases, because their successive implementation provides for implementing the project by taking balanced managerial decisions, by being committed to the established principles, correcting the project implementation process, eliminating deviations, which would help to achieve the expected effect, to reliably implement the project, to meet interests of project participants. The required prerequisite of the IP management system with regard to the business economics mechanism is the implementation of phases in a certain consequence, correspondence to determined rules and requirements to allow for the reliable utilization of the investment, financial, labour project-related resources etc.

The following shall be included into the IP management system tasks based on the business economics mechanism: substantiation of the structure and type of the project; determining the scope of the required resources; substantiation of the project goals; determining the project participants; establishing supervision over the project implementation; assessment of possible risks and hazards of the investment market; setting up the project budget; determining the project implementation deadlines; composing the activities' schedule for each project implementation phase; provisioning the governmental assistance and supervision; monitoring of the project-related personnel implementing their obligations. The investment project management system based on business economics mechanism envisages the project scheduling, setup, organisation, implementation, motivating, and the project supervision and consists of fourteen phases. Each phase of the investment project management system based on the business economics mechanism is considered below.

During the first phase, the project management system is developed. During this phase, special groups are set up, which will introduce the IP implementation process, coordinate the project participants' actions and the group includes representatives of all project participants, the project manager, the project personnel. This phase is characterized by the management of the scheduling process, organization, supervision of works related to the investment project. Coordination of actions during this phase is a prerequisite to the timely completion of assigned tasks and to the sequence of implementing further phases.

During the second phase, characteristics of the IP implementation business economics mechanism are taken into account. Major components of this mechanism are: the managed and managing subsystems; organisational, motivating and economic tools; governmental levers, tax levers, legislative levers, financial levers, innovative-investment levers; management methods; management subsystems. Accounting for components of the business economics mechanism opens up opportunities to determine and coordinate the project implementation process, to account for the cooperation extent between the national, local authorities, investors, company's owners, to decrease the impact of hazards and risks provided coherent implementation of all phases of the mechanism.

During the fourth phase, the investment market factors are assessed, as well as internal and external environment factors, thereby allowing to identify hazards, risks, to develop actions for avoiding those or decreasing the negative impact on the IP implementation (Fig. 1- 3).

The following internal environment factors are worth considering: interconnections and mutual assistance between the members of the project team; level of qualification of project team employees; the management style of the investment project manager; involvement of project team members; the authenticity of the information exchanged by the project participants; measure of responsibility of project participants; timely execution of duties by project team members; the enterprise competitiveness level; organization of the production process; lack of equity funds provided by foreign investors; increase in the volume of raised and borrowed funds; rising prices for manufactured goods; missing the IP activities' deadlines; insufficient implementation of the up-to date equipment; foreign investors leaving the project; reduction of production capacity of the enterprise. It should be mentioned that internal factors could include the possibility of managing and introduce changes in accordance with the IP implementation needs.

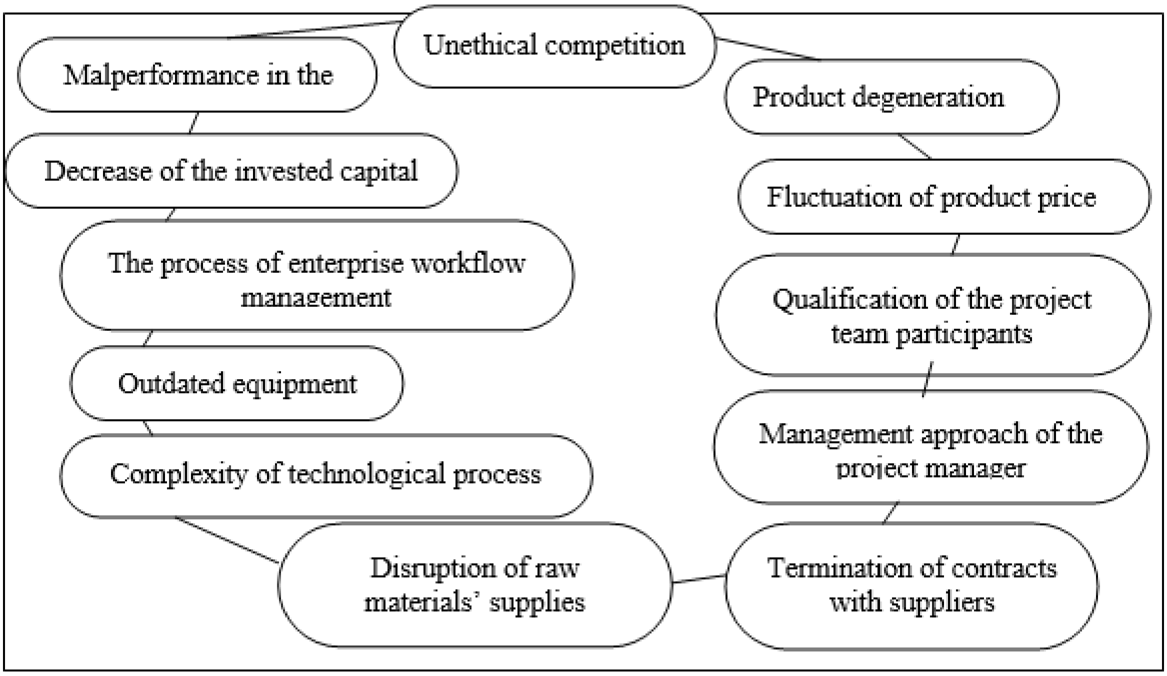

Figure 1. Internal factors impacting implementation of an investment project at food industry enterprises
Source: introduced by authors

The following internal environment factors are worth considering: interconnections and mutual assistance between the members of the project team; level of qualification of project team employees; the management style of the investment project manager; involvement of project team members; the authenticity of the information exchanged by the project participants; measure of responsibility of project participants; timely execution of duties by project team members; the enterprise competitiveness level; organization of the production process; lack of equity funds provided by foreign investors; increase in the volume of raised and borrowed funds; rising prices for manufactured goods; missing the IP activities' deadlines; insufficient implementation of the up-to date equipment; foreign investors leaving the project; reduction of production capacity of the enterprise.

Amongst external environment factors, the following should be emphasized: investment ambitions of enterprises; development of the tax system; investment climate in the country; the tax load; development of the banking system; conditions of enterprise operation; effectiveness of the current legislation; instability of the political system; level of economic development; implementation of information technologies; environmental standards for products; welfare of population; population living conditions and life standards; state regulation and support of IA enterprises, provision of guarantees to foreign investors and protection of their rights; use of risk insurance system for foreign investors; stock market regulation; examination of investment projects. External factors continuously impact the IP implementation, they impact its development and can not be controlled, however they are to be adopted to in accordance with the determined project's goals.

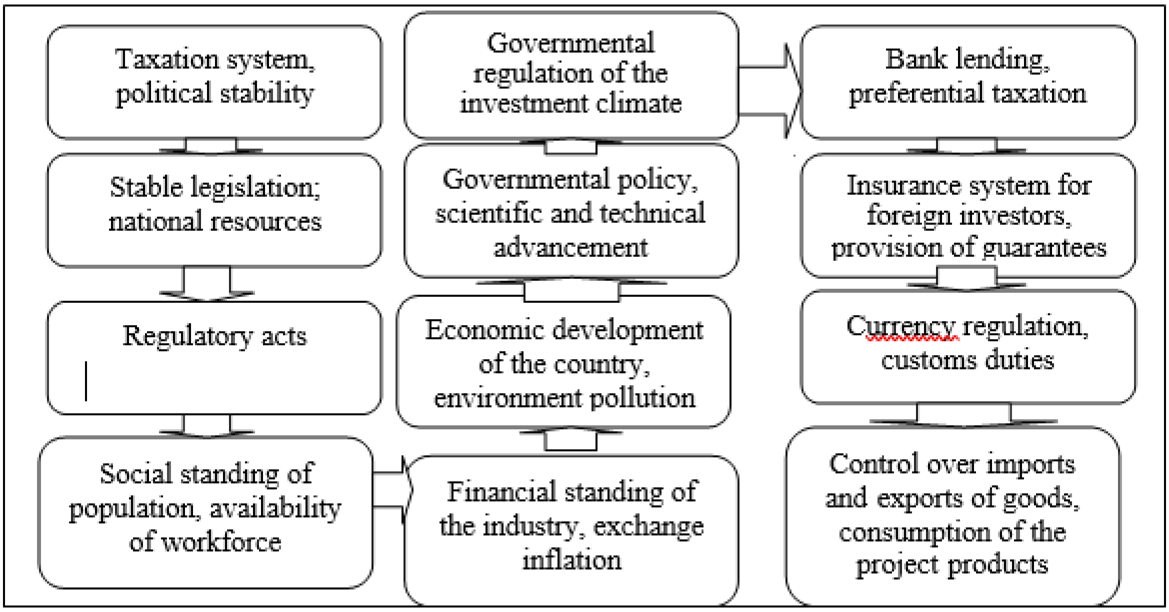

Figure 2. External factors impacting implementation of an investment project at the food industry enterprises
Source: introduced by authors

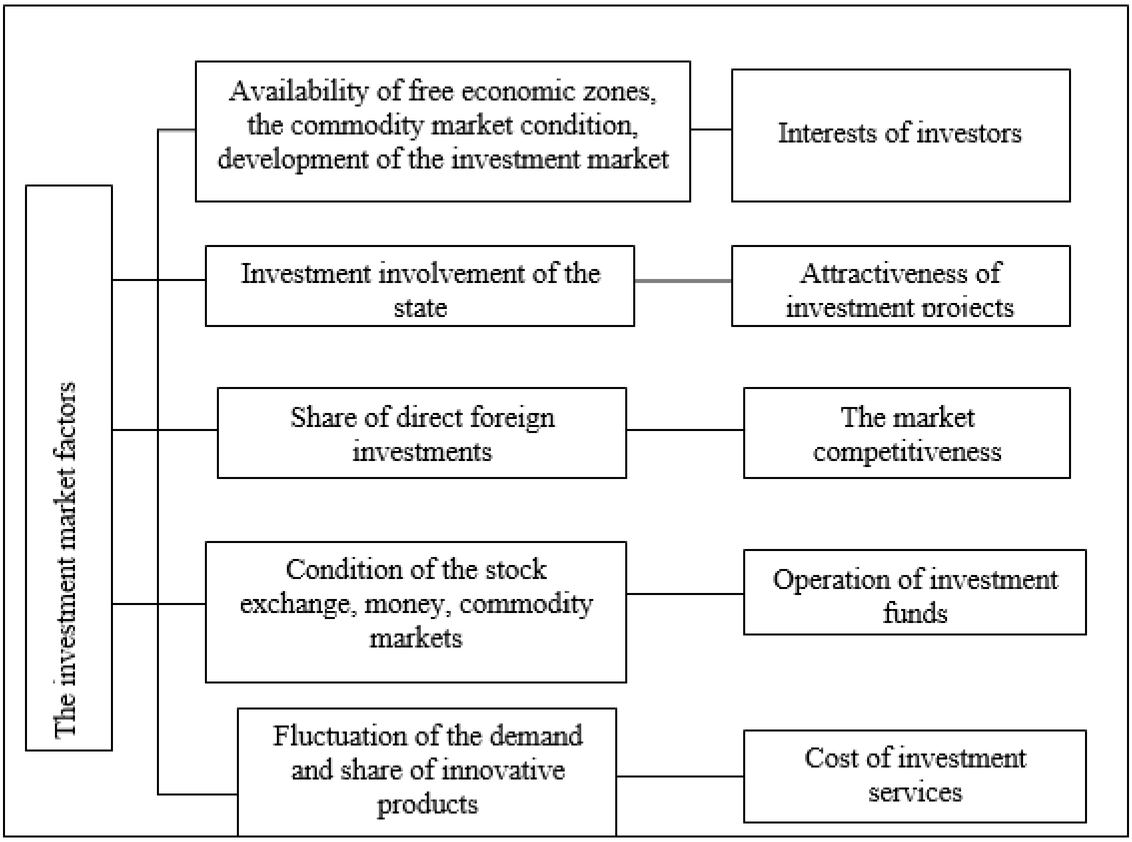

Figure 3. Investment market factors impacting implementation by the food industry enterprise of an investment project
Source: introduced by authors

The following are the investment market factors: market infrastructure; the investment market participants; development of the investment sphere; change of investors' interests; development of the investment market; appearance of new products on the market; the demand change, interests of international missions; the attractiveness of the country on the world market; establishment of international trade; operation of international investment funds; condition of the stock market; credit and deposit rates proposed by commercial banks; prices for investment services; demand for capital goods; volume of direct investments; share of domestic and foreign investment market; international assistance; money market; real estate market; commodity market conditions; investment activity of enterprises; availability of free economic zones; investment activity of population; IA of banks. To conclude, the investment market factors listed below play an important role; they have to be taken into account during then development, configuration and implementation of an investment project, as they impact the IP effectiveness and its expected results.

Planning is performed during the fourth phase the project, in other words goals and purposes of the investment project are determined, as well as goals of the business economics mechanism, and plans concerning achievement of those goals are developed and drafted.

In accordance with goals determined within the project management system, they can be corrected provided there are deviations, with the purpose of achieving expected results. During this phase the project team is set up, including investors, owners of the enterprise, representatives of the governmental and local authorities, the project manager, the project accountant, the project engineer, head of logistics department, the auditor of the project, the construction head, manager responsible for endorsing contracts, personnel, suppliers, agents, support organizations, consultants, i.e. representatives of each participant of the project (Fig. 4).

The investment project's participants can include (Fig. 5): the customer, i.e. the project owner investing money and determining the cost and duration of the project; investor, i.e. organization, which directs funds to the project and has a share in the project's capital (investor can be also the project's customer); the project team managed by the project manager and which is active along the entire project implementation term; the project manager, i.e. a legal entity with an authority delegated by the project's customer concerning the supervision, scheduling, organization of work of the project's staff. IP participants can also be the following parties: consultants offering consulting services to employees in accordance with the approved contract; suppliers providing raw materials and products required for the project; an architect, i.e. the person who develops the design and estimate documents and is responsible for the project management; engineer, i.e. the person who is scheduling and supervising the product's manufacturing process, implements tests and is responsible for product sales.

The project involves also the subcontractor, i.e. person responsible for timely implementation of works according to the terms determined by the project; governmental authorities, which receive tax payment and govern environmental and social norms of the project implementation; consumers, i.e. persons consuming the investment project's final product and provide for revenues; competitors; licensing organisations issuing licenses permitting the use of certain territories; owners of the land plot – persons who give the customer the right to use the land plot they own on a contractual basis; legal entities; project sponsors. Choice of the project team plays an important role as obligations are distributed and the extent of responsibilities is determined; achievement of the desired goals depends on their coordinated work.

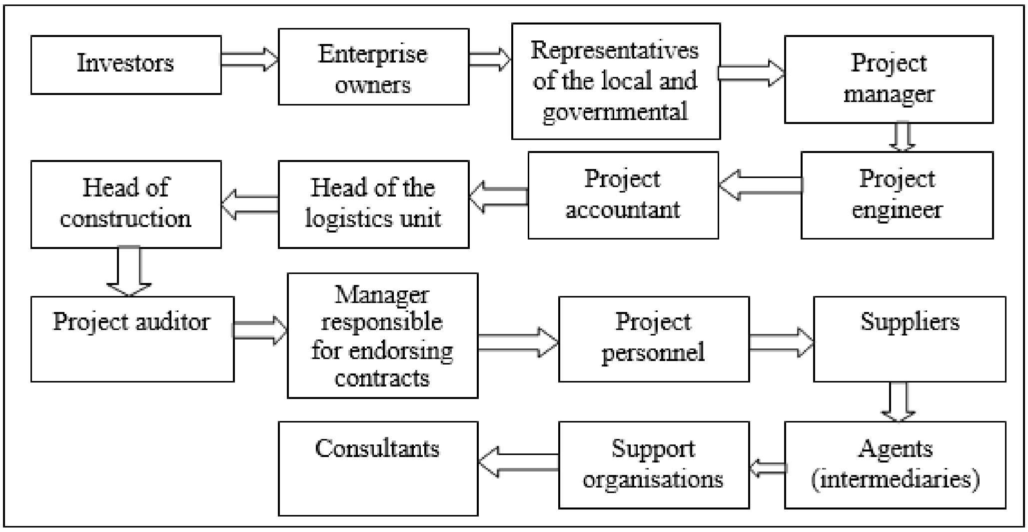

Figure 4. Composition of the investment project team on the food industry enterprises
Source: introduced by authors

The fifth phase is featured by the determination of the required scope of investment resources and the choice of financing sources.

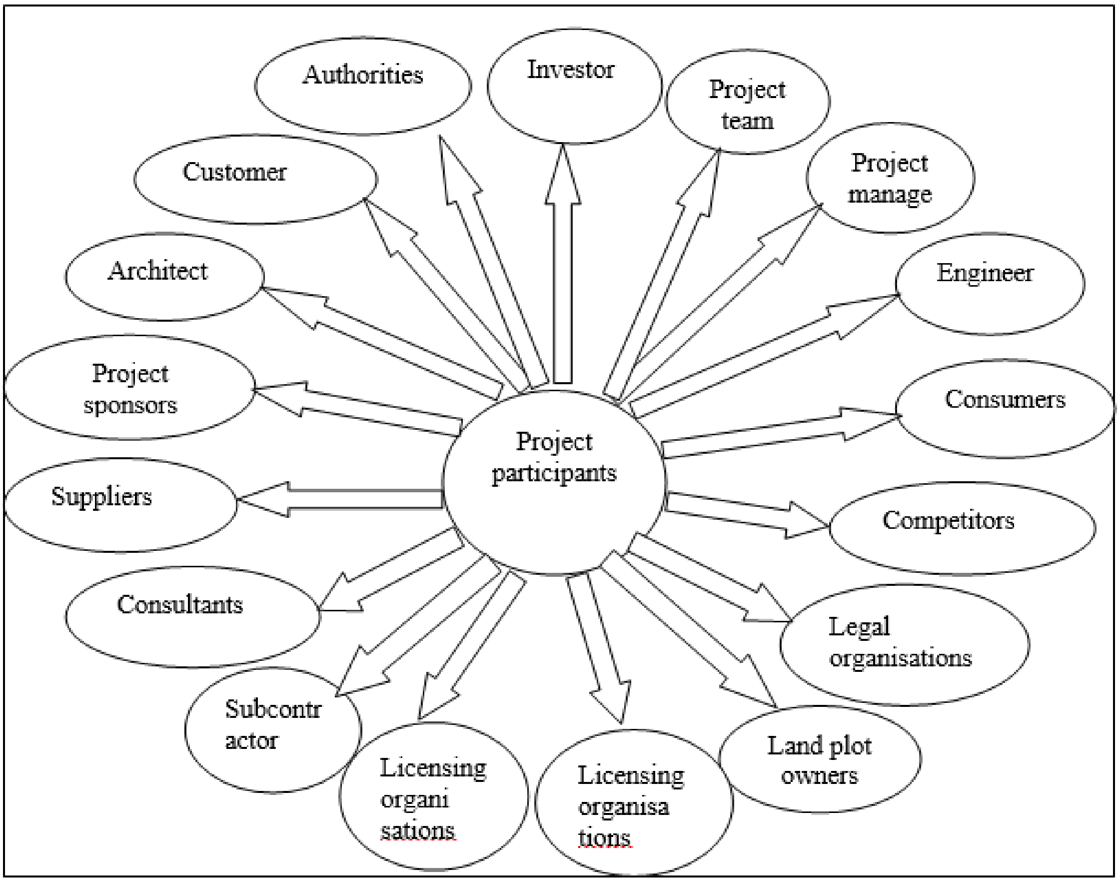

Figure 5. Participants of the investment project implemented on food industry enterprises
Source: introduced by authors

This phase plays an important role as the efficiency of the development and implementation of the investment project depends on the scope of provisioning with resources. Respectively, the financing sources are: bank loans, the governmental financing, investment capital, internal funds, awarded tenders. The rational distribution and use of investment resources will allow setting up the investment project organisational process.

During the sixth phase, competitors are assessed, namely the competitiveness level and financial independence of the enterprise are analysed, the level of company's competitive activity is determined, availability of similar investment projects is assessed, their strengths and competitiveness are determined, effects from implementation of projects are compared, the projects' scales are assessed, commercial, budget, social results of those projects are identified.

Thereafter, the competitive environment of the investment project is assessed, envisaging the following: analysis of competitor's expenditures; assessment of the share of each investment project on the market; characteristics of types of competitor's projects; comparison of economic, production, scientific components of investment projects; assessment of the efficiency of competitors' investment projects; characteristic of products produced by competitors; assessment of advertising activities' efficiency; comparison of the support and financing provided by foreign investors; determining possibilities of competitors and their strategies; assessment of projects' customers; determining the investment market challenges.

During the eight phase, several investment projects are compared with the goal of assessing their efficiency, profitability, to determine challenges, possibilities, advantages and disadvantages allowing to enhance profitability of the own project, to take into account experience of other existing projects, to avoid possible external hazards and to enhance the project management efficiency. Comparison of projects is performed based on the consideration of projects implementation terms, the scope of resources allocated, determination of challenges and uncertainties, the size of the expected income and expenses, on determining the project's payback periods.

Thereafter, the investment project budget is established and the project implementation schedule development process is managed. During this phase, possible expenditures related to the implementation of the project are determined, as well as the scope of available resources and their financing sources, possible proceeds from the project implementation are considered and the budget is set up. The following is included into the project expenditures: fuel, energy; labour remunerations; raw and consumable materials; components; technological upgrading of obsolete equipment; overheads; procurement of equipment and mechanisms; procurement of buildings and structures; payment of taxes to the budget, etc. The investment project budget is set up based on the balance between the project expenditures and earnings with regard to the funds attracted (attracted, borrowed and own investor's assets) and shall be precisely timed (month, week, decade). In compliance with the business economics mechanism structure, the identified risks are determined, as well as the investment market challenges, the extent of provisioning with financial resources, provisioning with labour resources, the duration of the investment project.

Forecasting possible results of implementing the investment project is performed during the tenth phase. Presence of the efficient project management system, application of the business economics mechanism will allow forecasting the size of the expected profit, the investment's payback period, investments' profitability, the invested capital recovery rate and the size of capital return, the project implementation costs, economic effectiveness of the project implementation, the amount profited by the investor, the enterprise, governmental authorities in accordance with their invested share and to assess the feasibility of the investment project. Provided forecasting of the investment project, the following factors are considered:

professional attitude of employees and project managers; availability of documented contracts; correct drafting and execution of project documentation; use of project management plan; availability of resources and availability of time reserves for the project implementation; financial stability of the enterprise; interaction between all project participants and subdivisions; minimization of borrowed funds and prevalence of own funds; implementation of the project at successive stages.

The management structure is organised during the eleventh phase and envisages distribution of responsibilities amongst the personnel, determining the terms of works execution, appointment of responsible persons for each department, drawing up a work execution schedule, defining terms of project financing, accepting managerial and organizational and technological decisions, endorsing contracts, drafting and approval of reporting documentation. Also, during this phase, the managers' responsibilities are determined, their duties are assigned, managerial decisions are made, and project resources are divided between units. If the process of implementing the investment project is implemented on the basis of existing plans, available resources are used and works are coordinated, changes are introduced in the project implementation process, goals are achieved.

During the twelfth phase, the system of motivating persons responsible for implementing the project management system is introduced, as well as motivation of personnel namely implementing the investment project. It is envisaged to develop the moral and material incentives for employees responsible for the development and implementation of managerial decisions, for performing actions related to configuring the investment project. The system of incentives should include: financial rewards; letters of recognition; offering additional paid leave days; reduction in working hours; sponsoring recreational tours; salary increase, etc.

Investment project is monitored during the thirteenth phase, which envisages the development of the monitoring system over works being done in compliance with the determined deadlines during each phase and generally over the project term, as well as monitoring of the enterprise's investment project in general. This phase allows controlling the correct and timely implementation of tasks by the project team with the purpose of applying methods for eliminating the deviations revealed, introducing corrections, correcting the identified errors, making decisions on introducing changes to the project and modifying tasks. During the monitoring phase, the following decisions are made: decision-making on adjusting the work of managers in order to eliminate the revealed deviations; control over the process of work execution at each stage of the project and within each subdivision; evaluation of the overall status of the project and its implementation; evaluation of project effectiveness; checking the effectiveness of work at specified intervals, etc.

During the final phase, managerial decisions are taken concerning expediency of implementing the investment project provided disclosure of deviations; the obtained results are assessed and compared against the planned results. During this phase, measures to reduce investment risks are elaborated, efficiency of the investment project management system is estimated, and methods to eliminate the identified system's weaknesses are composed. Determining the efficiency of the investment project management system with regard to the business economics mechanism allows for finding flaws and weaknesses of this system, to develop methods for enhancing its efficiency with the purpose of adjusting the rational utilization of the investment project's resources, accounting for the investment market's challenges, macro- and microenvironment factors, creating conditions for managing the project implementation process.

It should be emphasized that in some cases, in the process of applying the investment project management system, foreign investors make a decision to terminate the project, in particular: the emergence of more efficient and profitable projects; delays in the project implementation; increase of expenses for the project implementation compared to the planned amounts; increased competition in the sales of similar products; slowdown of the country's economic development; reducing the level of economic activity of the enterprise. The reason for foreign investors to exit the project is the increase of the investment market threats and aggravation of internal problems of the investment project.

Conclusions

Application of the proposed investment project management system within an enterprise would allow implementing an investment project through rational utilization of the project resources and by adopting well-reasoned managerial decisions, promoting to create a project team, special groups to manage the investment project implementation. An advantage of the described management system is the incorporation during its creation and further application of the project implementation business economics mechanism's components, which allow for assessing the investment market hazards, as well as involving foreign investors, increasing the invested capital, organizing the process of implementing investment projects. Therefore, the investment projects management system based on the business economics mechanism provides an opportunity of managing the following processes: scheduling; implementation; control; organisation; monitoring; motivation.

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