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Boguslaw Slusarczyk,
Doctor of Economics, Professor,
Karpacka State University in Krosno, Poland
https://orcid.org/0000-0003-0567-8470

Malgorzata Gorka,
Doctor Engineer, Adiunkt,
Karpacka State University in Krosno, Poland
https://orcid.org/0000-0003-2763-2780

Agnieszka Wozniak,
Doctor, Adiunkt,
Karpacka State University in Krosno, Poland
https://orcid.org/0000-0002-8711-7898

VALUE BASED CONCEPT OF PROJECT MANAGEMENT ON ENTERPRISES

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Abstract. *The expediency of realization of procedures for managing the project value on the basis of structural-logical sequence of processes with appropriate tools is substantiated. Complex application of the author's value based project accountability scorecard and its balance matrix enables the use of indicators to control and maximize the added value for the key stakeholders in the project management process, and to monitor and balance fair value sharing among the stakeholders during project implementation. It is established that application of the proposed methodological approach to balancing the project value makes it possible to minimize the negative impact on the project performance at the planning stage, provided that the stakeholders' initiative is reduced already at the stage of project work implementation. It is determined that deployment of program of implementation of a group of processes of value management to the system of processes of project management of the enterprise requires the stage-by-stage procedures of preparation, personnel training, approbation of the corresponding processes and start-up. The expediency to consider the issues of functioning of project value management processes at the enterprise through the lens of the role distribution of functions is substantiated. The described rights, responsibilities and the proposed algorithm of interaction of roles at different stages of project implementation make it possible to adapt management innovations to different organizational structures.*

Keywords: *project, stakeholder, Value Based Project Accountability Scorecard, balance matrix, management processes.*

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Introduction

The current market environment creates requirements for continuous development and introduction of innovations by business entities. Effective change management in the dynamic atmosphere of the external and internal environment of business structures functioning requires the use of project management staggering resistant tools based on the management activity process organization.

The implemented changes level of success in the activity of business entities is determined by the extent to which the needs of all stakeholders are taken into account and realized. The latter appear in business activity as specific individuals or groups that have their own beliefs, influence and value expectations of the project. Perception of project results is differentiated by the stakeholders, and, as a rule, it is possible to observe opposite interests through the prism of finding the best conditions for distribution and consumption of created goods. In general, successful implementation of the project is possible only if the interests and value expectations of all the stakeholders are taken into account. That is why the application of value-oriented process approach is the most important condition for successful implementation of projects at the enterprise, which in the long term provides with additional competitive advantages and stable development.

Value centered orientation of economic activities of the subjects of market relations acquires features of one of the main concepts of the economy of the new millennium, forming target orientations for management of companies in interaction with their shareholders, consumers and partners. Strengthening the competitive position of market players requires finding the best ways to meet consumer needs. Such a search implies the need for development in different business areas. Any development of the organization is inextricably linked to a series of successfully implemented projects: either market or internal organizational development projects.

Literature Review

Nowadays, there is an increasing number of approaches in the scientific literature to determine project success by such criteria as the level of satisfaction of identified individual and collective interests, expectations and needs of the stakeholders (for example: the criteria of "satisfaction of all stakeholders" Batselier, J., & Vanhoucke (2017), “project participant satisfaction” Burtonshaw-Gunn, SA (2017), etc.).

Thus, all identified desired and justified target results (which are laid down in the project mission, the tree of the project goal hierarchy) and the project outputs to be achieved within a specified timeframe under the given conditions of implementation are the benefits created by purposeful human activity.

In economic theory, the ability of a product to meet consumer needs is defined as a benefit (Fewings, P., & Henjewele, C. (2019)). In other words, the project results in the form of material items and / or information created that meet the needs of the stakeholders (actually the users of such information and material items) are useful to such stakeholders.

Unfortunately, the criterion of benefit does not give a thorough answer to the question of the practicability of goods production (project implementation, participation in the project, creation of other purposeful results of work).

The results of comparison of these extremes give us an idea of the change in well-being – the material support of our life (Hopkinson, M. (2017)). So, if the benefits we get from using the good outweigh the cost of getting that good, then our well-being increases, and vice versa.

The question of the value of goods in economic theory is viewed through the prism as subjective (when value is analyzed in relation to a particular individual subject) (Kerkhove, LP, & Vanhoucke, M. (2017)) and objective (when value is abstracted from the psychology of a particular individual and is considered in the context of objective results) grounds (Kerzner, H. (2019)).

One of the common features in the author's definitions of project value is that the content of value is associated with a certain benefit that the stakeholders receive from the project: profitability (Lock, D. (2017)), positive changes (Meredith, JR, Mantel Jr, SJ, & Shafer, SM (2017)), satisfaction of needs (Moradi, N., Mousavi, SM, & Vahdani, B. (2017)), etc.

Among the main differences and in the author's definitions of the project value it is necessary to note, first, the lack of a unified view of the recipient of the value: an abstract definition of the aggregate benefit to the entity, a benefit to the organization or a benefit to all project stakeholders (Narbaev T, A. (2017)), and secondly, not all definitions carry the relative nature of the value category as a benefit received from spent resources (Nicholas, J. M., & Steyn, H. (2017)).

Analyzing these preconditions for value creation, it is quite logical to say that the maximum value of the project can be achieved due to the synergy of the results of both preconditions (Smith, C. (2017)).

Thus, this issue is in the plane of building a unified project management methodology focused on project value creation (Varajão, J. E. (2018)).

Thus, according to functional cost analysis, when using a product, the consumer acquires two types of value:

1. Use Value (Muller, R. (2017)) - the value of satisfying a basic need: for example, for a vehicle - the ability to be used as a means of transportation; for a mobile phone - the ability of wireless communication; for a pen - the ability to create text on paper; for the process of motivation - creating the necessary incentives to ensure productive work.

2. Esteem Value (Muriana, C., & Vizzini, G. (2017)) - the value that arises when satisfying the accompanying and additional needs and desires. For example, a premium car makes it possible to satisfy the need for recognition, more comfortable conditions for travelling and the feeling of the car power, to emphasize the status of the owner. Cell phones and pens, decorated with precious metals, produce more usefulness than just the ability to create text. Thus, by focusing on this approach to product value, the organization receives potential competitive advantages in positioning the project product.

However, a coherent theoretical, methodological and applied approach to addressing and balancing value expectations of different stakeholders in project management has not yet been developed.

The issues of value-process organization of project management activities also need further study. Considering a significant contribution of scientists to the problem of project management process organization, it should be noted that some aspects and methods of building an effective system of project management processes have not yet received a comprehensive justification. In particular, the issues of developing a universal system for diagnosing and analyzing development of single processes in the field of project management have not been sufficiently investigated. There are a number of unresolved issues related to the study of approaches to modeling and assessing maturity of project management systems. The need to address a range of issues led to the choice of research topic, defining its purpose, objectives and logical-structural construction of the study.

Methods

The following general and special methods of cognition were used in solving the set tasks: qualitative analysis and synthesis (to study theoretical approaches to determining the structural and system characteristics of the process and value-oriented approaches to project management at the enterprise, as well as to synthesize the concept of constructing an appropriate system of process-value project management); economic forecasting (to predict changes in project management performance from implementation of a group of project value management processes); benchmarking (to study the dynamics of change in maturity and project management performance after implementation of a group of project value management processes); statistical, structural and decomposition analysis, methods of grouping and coefficients (to form generalized quantitative results of maturity assessment and balance of development of project management processes system at the enterprises under study); interviewing (for interviewing and collecting primary information on the level of maturity and development of the system of single processes of project management at the enterprises under study); formalization (to establish the mathematical relationship between the indicators that affect the effectiveness of project management); tabular and graphical (for systematization and visualization of digital information obtained as a result of calculations and building structural diagrams); abstract-logical (for theoretical generalization, building logic-structural schemes and drawing conclusions in the research work).

The information base of the research consists of provisions and results of theoretical developments and practical approbations on the researched subject, published in scientific works of scientists, materials of scientific conferences, periodicals and open sources in the Internet, as well as normative-legal materials, international and national standards, corporate statistical and analytical materials and results of the author own researches.

Results

The project, as a set of interrelated activities aimed at implementation of specific tasks and achievement of clearly defined results within given time interval with set resource constraints, includes involvement of purposeful intellectual and physical activity of a person. The socio-economic system of the enterprise is open to the external environment, and during implementation of the project changes in well-being and in the economic activity effect not only participants directly involved in the activities of the entrepreneurial structure. For this reason, the stakeholders (or beneficiaries of the project activities) of the project are considered all subjects or groups of subjects, who directly or indirectly influence results of activities of the organization or the subjects, whose activities are influenced by effects of such projects. In case of interaction of such subjects with the socio-economic system of the enterprise, in the process of planning, organizing and creating product of the project activity, a complex of individual and collective interests, expectations and needs that they seek to fulfill is formed.

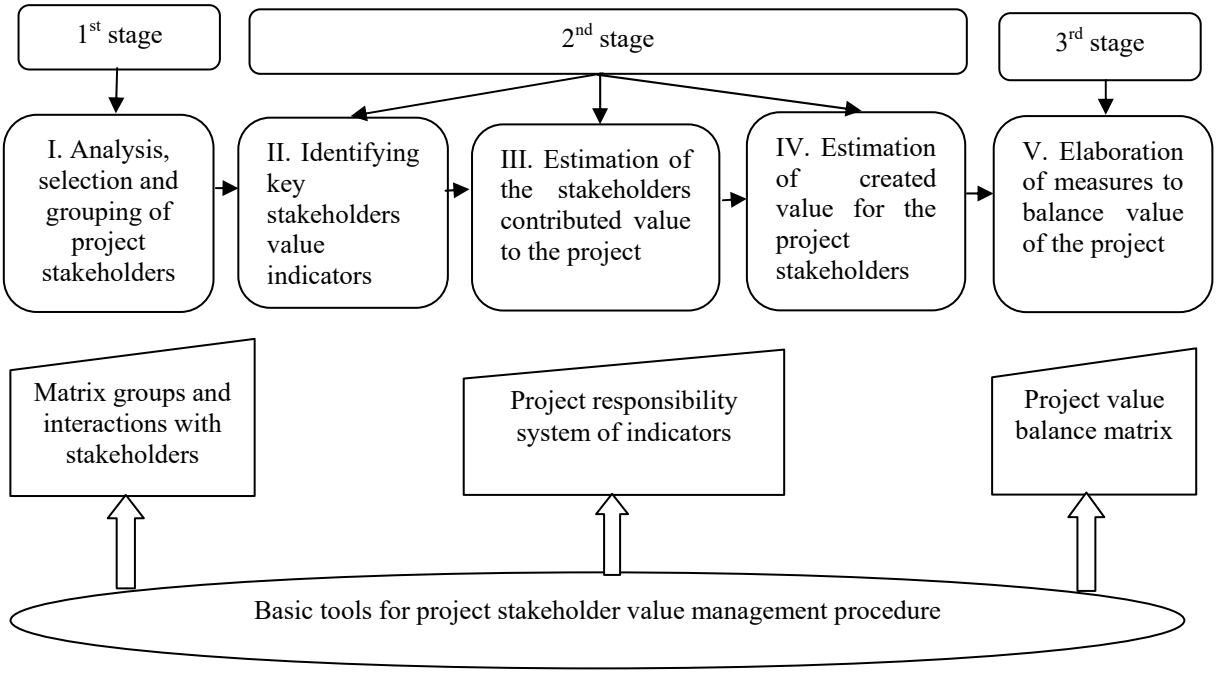

Figure 1. Project stakeholder value management procedure basic tools (author development)

The dynamism and turbulence of modern economic conditions can influence the customer's attitude to the desired project results. In certain cases, vital projects over time become unnecessary and burden the client. Such projects, though carried out under guidance of professionals, may, in the case of irrelevant circumstances, ultimately create low value or no value at all for the external or internal customer. That is why we suggest focusing the research on development of value management tools for the project stakeholders. Optimizing the project management process in this way, under the vector of value orientation of the final results of projects, requires improving procedures of interaction and taking into account expectations of the project stakeholders - the consumers of the value that creates the project.

Revealing the content of the components of the value-process management system of the project, within the framework of this section of the work we will consider the issues of general stakeholder value management within the value management of the project results.

Thus, the proposed stakeholder value management system has a set of interrelated procedures and tools, as shown in Fig.1.

In the first stage, the procedure of selection of stakeholders - individuals and legal entities, which can influence the project results and whose activities are influenced by the project results, is carried out. In the second stage, the contributed and created value, which takes the form of quantifiable indicators, achievement of which by the stakeholders forms the added value for the organization and by the direct and indirect results of the project - the added value for the stakeholders respectively, is analyzed and estimated. The third stage involves development and implementation of measures to tactically and operationally balance the value of the project results for the stakeholders.

The analysis, selection and grouping of the most important project stakeholders is the first step in managing the project's value and an integral part in creating a Value Based Project Accountability Scorecard (VBPASC). Based on the recommendations of the US Project Management Institute, we propose to consider the following possible stakeholders (stakeholder groups) within the project (Webb, A. (2017), Wren, A. (2018)).

Customers (users, consumers) are individuals or organizations that will use the product, service or result of a project and may be internal and / or external to the organization of the project contractor. The customers should be looked upon as entities that acquire product of the project, and users / consumers - those who will directly use it.

A sponsor is a person or a group of persons (legal or natural) who provide financial resources for a project and act as a representative to senior management to seek support throughout the organization and to facilitate benefit from the project. The sponsor follows the project throughout the contact entry and selection process prior to obtaining formal approval and plays an important role in developing the initial content and statute. In addition, the sponsor may also be involved in other important issues, such as approving content changes, final phase analysis, and making accept - reject decisions, when risks are particularly high.

Portfolio manager (portfolio review committee). Portfolio managers are responsible for managing at high level a set of projects or programs that can be both dependent and independent of each other. Portfolio Review Committees are teams, usually composed of organization officials, who act as the selection committee for the project. They consider each project in terms of cost effectiveness, value, risks associated with project implementation and other aspects of the project.

Program manager - the person in charge of managing related projects, coordinating actions to achieve benefits and levels of management that are not attainable in the case of individual management of the projects. The program

manager interacts with all project managers to support and issue orders for individual projects.

The Project Management Office (PMO) is a unit of an organization or body that performs various functions related to the centralization and coordination of project management within its competence.

Project managers are persons who manage all aspects of the project, who are responsible for sharing information with all project stakeholders, appointed by the executive body to achieve the project objectives. The project manager should be able to understand the project in detail, but at the same time manage it based on the complex vision of the project. The project manager is at the center of the interaction between the project stakeholders and the project itself.

The project team consists of a project manager, a project management team and other team members who carry out the work but are not necessarily involved in the project management. This team consists of representatives of different functional groups who have knowledge in a specific subject area or a set of specific skills and work on the project.

Functional managers are key individuals who play a leading role within the administrative or functional area of an enterprise, such as the HR department, the finance department, the accounting department, or the supply department. They are assigned their own full-time staff to perform on-going work and they have clear instructions to manage all tasks within the functional area of responsibility. A functional manager may provide expert assistance in the subject area or his function may be to provide services for the project.

Operations managers are individuals who play a leading role in the core business of an enterprise, for example, in research and development, manufacturing, testing, or maintenance. Depending on the type of project, a formal transition takes place at the final stage to submit technical documentation for the project and other permanent storage documents to the representatives of the respective operations management team. The operations management team then integrates the transferred project into standard operations and provides it with long-term support.

Suppliers and contractors are third parties that have contracted to provide the components or services required for the project.

Business partners are also third-party companies, but they have a special relationship with the business, sometimes acquired through a certification process. Business partners provide specialized expertise or perform certain functions, such as installing and commissioning equipment, customer training or support.

Competitors are a group of stakeholders whose economic performance is influenced by the results of external (market-oriented) projects indirectly due to changes in the proportion of solvent consumer demand. This stakeholder group can also influence the value expectations of consumers by developing and proposing substitute project outputs.

State and local self-government bodies are parties that satisfy their interests by obtaining taxes from project participants, raise and support environmental, social and other community and state requirements related to the project implementation.

Other entities or stakeholder groups that may influence achievement of the organization's goals and / or the interests of which are affected by the achievement of the project objectives of the project contracting organization. This group also includes local population that does not have representation in local governments but could potentially have a significant impact on project implementation.

The need for stakeholder analysis is determined by the fact that in the process of project planning and implementation, different stakeholders (or groups) sometimes raise economic expectations that are contrary to the economic content of the project outcomes. Thus, when project stakeholders have positive expectations about the project, it is in their best interests to facilitate its successful implementation. The interests of the negative stakeholders of the project impede implementation of the project. Failure to recognize the project's negative stakeholders is likely to increase the probability of failure. An important part of the project manager's responsibilities is managing project stakeholders' expectations, and one of the project manager's primary responsibilities is maintaining a balance between these interests and ensuring that the project team interacts with project stakeholders professionally and from a collaborative perspective.

For the analysis and selection of stakeholders, we propose the following sequence of operations.

1. Identification of all stakeholders. At this stage, a complete list of all stakeholders, groups and organizations is compiled as a baseline analysis database.

2. Determining the level of importance of each stakeholder. Ranking the level of importance of each stakeholder involvement makes it possible to concentrate efforts on the most influential groups. The ranking is based on assessment of the level of impact on the successful implementation of the project and involves formation of three stakeholder groups by importance of their involvement in the project management. This stage involves determining the actual ability of stakeholders to facilitate or hinder implementation and successful completion of a project.

3. Evaluation of interest. The main task is to identify the nature and the level of interest in the successful implementation of the project or its failure. In this case, we suggest assigning numeric values from 1 to 3 with the corresponding identifying characters "+" or "-".

4. Identification of emotional affiliation to the project. There are examples of situations in project management practices when emotional attitude of the stakeholders differs from their actual interests. This component of stakeholder analysis becomes an integral source of information to formulate a project communication plan.

Following the steps of the above analysis of the project stakeholders, this form is to be formulated to integrate evaluation results (Table 1).

The proposed form provides for the establishment of weighting factors to adjust the level of significance of the parameters under which the stakeholder assessment is carried out. According to the results of the integrated evaluation, a ranked list of stakeholders is drawn up for which the analysis of the input and the added value is carried out on the basis of relevant indicators of project responsibility.

Table 1. Form for recording the results of the analysis and evaluation of project stakeholders (author's development)

List of stakeholders	Level of importance (influence)		Level of interest		Level of emotional affiliation		Integral rating
	Weighting factor	Score	Weighting factor	Score	Weighting factor	Score	
1	2	3	4	5	6	7	8 = 2 x 3 + + 4 x 5 + + 6 x 7
a							
b							
n							

It is clear that the necessary and sufficient composition of project stakeholders is ultimately determined by the management of the implementing organization, but it is appropriate and recommended that the key stakeholders of the project be selected in the selection process as an additional approach to their selection according to the type of project.

Table 2. Grouping key stakeholders by project type (author development)

Type of project depending on the area of activity	Key stakeholder groups in the order of sampling	Stakeholders
Social projects	First group	1. Consumers of goods and services of the enterprise
		2. Population
		3. Personnel of the organization
		4. Competitors
	Second group	1. The project team
		2. The project manager
	Third group	1. Formed according to recommendations of the organization management
Public and community projects	First group	1. Territorial communities
		2. Public organizations
		3. Non-governmental organizations (associations)
		4. Local communities
	Second group	1. The project team
		2. The project manager
	Third group	1. Formed according to recommendations of the organization management
Economic projects	First group	1.Investors
		2. Business partners
	First group	3. Shareholders
		4. Suppliers
	Second group	1. The project team
		2. The project manager
	Third group	1. Formed according to recommendations of the organization management

The type of project is determined according to the areas of activity in which the project is implemented. Depending on the area of activity, there may be a

predominance of interests, requirements, expectations, evaluation and direct impact on the project of relevant stakeholders (stakeholder groups). Thus, some authors suggest to differentiate stakeholders depending on the scope of the project. Developing the idea of differentiating key stakeholders depending on the type of project, we propose the following form of initial target group selection for further analysis (Table 2).

Application of both of these approaches makes it possible to formulate a list of key stakeholders for the project under review.

The next step will be to identify and build a Value Based Project Accountability Scorecard (VBPASC) as a management tool, developed on the basis of the traditional ASC model and proposed to maximize and balance (harmonize) the values and interests of the organization, customers, contractors and other stakeholders in the process of project planning and implementation.

To build a VBPASC, it is necessary to follow the steps stated below:

1. Determination of actual or potential added value (tangible and intangible investments / contribution to the project) received from each stakeholder (or stakeholder groups) for successful implementation of the project. This step defines a list of indicators against which to evaluate the level of investment (input) of value into the project by different stakeholder groups.

2. Determining the actual or potential value created for each stakeholder. This step is characterized by the fact that the list of indicators is determined jointly with the project stakeholders, since the nature of the indicator should reflect the value category that is acceptable to the specific project stakeholders (group of project stakeholders); and the values of such actual / estimated indicators reflect how well the project meets the requirements and expectations of the stakeholders and, accordingly, generates value. The process of generating project value indicators requires from responsible persons on the part of organizing close interaction with stakeholders and professional knowledge in the subject area of value formation. Such focus is to take into account true requirements and expectations - which take into account both subjective stakeholder assessments and expert advice to be provided by specialists regarding the objective components of the project results generated by the laws and trends. The latter provide an up-front character and potential readiness for changes in preferences and expectations of the stakeholders being evaluated. This constitutes preventive measures to maximize the value of project results.

3. Setting the maximum, minimum, actual (or estimated) indicators for the input and added value at the time of valuation. The value (+/-) depends on the economic nature of the indicator.

4. Providing a 10-point rating of the actual (estimated) input and added value, taking into account the project stakeholders' capabilities and the project's potential as a whole.

Indicators of the project's input and added value are constituent and evaluated outputs of the project, the implementation of which ultimately affects satisfaction of stakeholders and, consequently, achievement of which directly affects the project's value for stakeholders.

Based on the generalized experience gained, we determine that there is a typical - most common for application list of indicators recommended by us to evaluate the input and added value of the project for certain groups of stakeholders.

However, it should be noted that the necessary and sufficient composition of such indicators is determined individually for a specific project and can vary significantly depending on the specificity of the project product and the type of economic activity of the enterprise.

Following the example of a value-based system of project accountability indicators, it is possible to be guided by the following recommendations for application of the project value indicators to stakeholders.

FOP project indicators (estimated (bonus, employee rate) - an indicator of added value for internal relative to stakeholder organization (project manager, project team, specialist or manager of functional unit, etc.). Determined on the basis of market values: maximum value - maximum salary for specialists of the relevant qualification, minimum value - the average market salary for specialists of the relevant qualification.

SPI (Schedule Performance Index) CPI (Cost Performance Index), SI (Schedule Index), CI (Cost Index) - indices of added value for the project team (including project manager, portfolio, program, project office, etc.) that reflect ongoing assessment of the effectiveness of implementation of a particular stage of the project or the project as a whole in terms of time and cost. The maximum and minimum indicators are determined in accordance with the production programs of the enterprise, internal and external benchmarking of similar projects' implementation, as well as in accordance with the instructions of the ODA.

Unit Price Indicator - an indicator of consumer input value is determined on the basis of market values: maximum value is the maximum price of a similar product (substitute product) on the market, minimum indicator is the minimum price of a similar product (substitute product) on the market offered by competitors.

Consumption Value Indicator - added value indicator for the consumers of the project product. It is determined on the basis of market values: maximum value - the maximum operating costs established by the manufacturer and incurred by the consumer in the course of using competitor's goods during one calendar year, minimum value - the minimum operating costs established by the manufacturer and incurred by the consumer in the process of using the competitor's goods during one calendar year.

Indicator of a set of operational (technical) parameters - is an added value indicator for consumers of the project product. It is determined on the basis of the analysis of the technical component of the enterprise product competitiveness indicator. The maximum value of the indicator corresponds to the results of assessment of the industry leader or the perfect sample of the project product. Minimum value - corresponds to the parameters of a similar product of the market outsider.

Invested capital volume indicator - is an indicator of the input value for investors, shareholders and other stakeholders responsible for raising working and

non-working capital of the project. The maximum value is the amount of capital that meets the needs of the project, taking into account all the necessary works, material assets, risks and planned discount rates. The minimum value - the total amount of capital generated from the calculation of the minimum market discounted value of all necessary resources for the project implementation.

Indicators of financial return on the project (Net present value (NPV), Discounted cash flow (DCF+), etc.) are indicators of added value for the stakeholders responsible for raising working and non-working capital of the project. The maximum value is set based on ODA targets and can be reflected in the project's optimistic financial estimations. The minimum value - corresponding to the self-sustainability of the project on economic estimates of break-even point.

Indicators of social and budgetary effects (increase in the number of jobs; increase in production achieved by reducing the number of days of incapacity for work of employees and improving their skills; increase in aggregate demand through the system of social transfers at the expense of budgetary means; cost savings by reducing accidents in housing and communal services - added value indicators for social and public projects that reflect the interest of the relevant public authorities. The maximum and the minimum values of the indicators are determined according to the scenarios of the territorial development programs.

Project input value, score	Actual (potential) created value of the project, score				
	1-2	3-4	5-6	7-8	9-10
9-10					
7-8					
5-6					
3-4					
1-2					
A group of potentially dissatisfied stakeholders who are likely to reduce project input value		A group of stakeholders for whom the input and retained value of the project are balanced		A group of stakeholders who receive extra value from the project	

Figure 2. Project Value Balance Matrix (author development)

Indicators of government allocations (investments, subsidies, etc.) - an indicator of the input value to the public authorities and trust funds. The maximum value is the amount of capital that meets the needs of the project, taking into account all the necessary work, material assets, risks and planned discount rates. The minimum value - the total amount of capital formed on the basis of the calculation of the minimum market discounted value of all the necessary resources for the implementation of relevant projects by order or with the participation of the state.

Sometimes it may be necessary to evaluate the input or the added value for a particular stakeholder (stakeholder group) of the project by using two or more indicators. In such cases, we propose to determine the arithmetic average score on the relevant benchmarks for comparison or to set weight factors if there is information about the priority in achieving certain project indicators.

One of the most important points that should be emphasized is that it is advisable to define and focus on the main interests of the project stakeholders in formation of the project's added value indicators, since quantifying them takes the form of a project's value creation target.

Based on the results of scoring of the value added and value created indicators, an additional management tool is built - the project's value balance matrix (Fig. 2).

Based on the results of the matrix construction, three possible groups of project stakeholders are formed:

1) a group of potentially dissatisfied stakeholders (for this stakeholder group there is a likelihood of a quantitative reduction in the project input value);

2) a group of balanced value;

3) a group of stakeholders who receive extra value from the project.

This tool makes it possible to visualize potentially dangerous areas of initiative cooling for specific stakeholder groups. Active engagement with the latter in the direction of reducing dissatisfaction with the project's potential outputs enhances the acceptability of the project results, thereby guaranteeing a greater likelihood of project implementation according to the plan.

A value-oriented balanced project accountability system and the project stakeholder value balance matrix serve as key tools in a value-oriented project management organization that seeks to maximize and harmonize (balance) project values across key project stakeholders or stakeholder groups through the projects results.

The procedure of implementing content value management processes is an internal project for the recipient organization, which has a set of target parameters, characteristics and needs an appropriate management approach.

The main task of a value management process implementation project is to build and systematically integrate a group of processes whose purpose is to quantify the project stakeholders' requirements and expectations, compare them with the results of their contribution to the overall project activity, balance and distribute the project outputs to satisfy to maximum extent needs of the key project stakeholders.

Depending on the size of the organization and the level of resistance, the timeframes for implementing the project's value management processes may change, but the recommended course of action is as follows.

Stage I. Preparatory. At this stage, measures are taken to inform the functional units of the enterprise involved in the project activity about opening of the project on integration of value management processes. The project information is entered in the project register and placed in the corporate information / knowledge base. At the preparatory stage, the powers are delegated and a supervisor of this project is

appointed, whose responsibilities include coordinating implementation procedure and monitoring this step-by-step procedure.

Project management processes groups	Indicators that determine the input and created value of a project by groups of stakeholders																							
	Project manager				Project team				Project investor			Consumers / customers of the project product			Shareholders / Top management of company				Suppliers / subcontractors			Public authorities		
	IV	VC			IV	VC			IV	VC		IV	VC		IV	VC			IV	VC		IV	VC	
	SPI, SI	CPI, CI	Project bonus	Career growth	SI	ToR requirements	Project bonus	Career growth	Investment size	DBB	NPV	Price	Product quality	Timeliness	Project budget	Workforce	EVA	Dividends / Bonuses	Price	Quality of material assets / services	Timeliness	Permissions, licenses, rights of use	Taxes	Development program support
Project quality management processes			Z			Z	Z						Z							Z				Z
Project value management processes	Z	Z	Z				Z		Z	Z	Z	Z			Z		Z	Z	Z			Z	Z	
Project schedule management processes	Z	Z			Z	Z			Z	Z				Z	Z	Z					Z			Z
Human resource management processes						Z			Z		Z			Z		Z	Z					Z		Z
Project risk management processes	Z	Z			Z					Z	Z			Z			Z				Z	Z		
Contract and supply management processes	Z	Z			Z	Z			Z		Z	Z	Z	Z	Z		Z		Z	Z	Z	Z	Z	
Project communication management processes					Z	Z							Z	Z		Z				Z	Z			
Project Stakeholder Management Processes	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z

Figure 3. Example of linking a project value management process group to an organization's project management process system through a system of input (IV) and created (VC) value indicators across project stakeholder groups (author development)

Stage II. Study of processes. At this stage, the responsible persons are acquainted with the general concept of value-based project management and the tools of the project management process group. During training, it is important to convey the importance of implementing and functioning of a group of value management processes. Properly communicating the importance of this group of processes will

serve as motivation for the employees involved. This is the stage of familiarizing with the process description and determining the place of the processes in the overall system of project management processes of the organization.

Thus, the project value management processes are an integrated group of project management processes aimed at implementing procedures for planning, evaluating and controlling the achievement of those project targets that determine the key value expectations of project stakeholders, including, in the long term, project participants involved in the implementation of this group processes to the system of processes of organization project management. Project value management processes are a group of end-to-end processes that are strongly interconnected with other project management processes.

Relationship between these project management processes is continuous and cyclical. Transformation of information and management decisions from process to process affect the parameters of the entire project. That is why evaluation and monitoring of indicators within the project value management processes, which digitize the main parameters of the project implementation, ultimately affect the course of implementation of other processes, which also effect the change of project parameters. Such interaction reveals the relationship of a group of value management processes with the system of project management of an organization.

The link between the project value management processes and the enterprise project management system can be revealed in more detail through the system of indicators of added and created value for the key project stakeholders (Fig. 3).

Project value management is characterized by the reactivity of measures at the stage of project implementation and control, with subsequent adjustment and re-planning of project works. The starting points for the value management processes are the planned and actual data on the progress of the project implementation, obtained during the monitoring and intermediate control phase and feedback from the project stakeholders.

Discussion

Optimizing the processes of project management under the vector of value orientation of the final results of projects requires improvement of interaction procedures and management tools to take into account expectations of project stakeholders - consumers and producers of value that project creates. In order to more efficiently meet the project stakeholders' expectations, a conceptual approach to the project value management process, within which the structure of the value management process group, relationships with other project management processes, and basic tools for evaluation and balancing (harmonization) values of the project, was proposed.

The proposed project value management processes are integrated group of project management processes aimed at implementing procedures for planning, estimation and controlling the achievement of those project targets that determine the key value expectations of project stakeholders. The group of value management processes include: the process of quantifying the project's value creation - a process

of quantifying the requirements and expectations of project stakeholders; the process of quantifying the input value of the project - the process of quantitative estimation of key project parameters relevant to the project stakeholders activities and the process of balancing (harmonizing) the project's value - identifying, planning and implementing measures to balance the project's input and created values. All processes are closely interconnected, both within the group and with the processes of other areas of project management knowledge.

Conclusion

An indispensable tool for the project value balancing process is the proposed value-based balanced project accountability scorecard and the project stakeholders balance value matrix, which when used in complex opens up the following opportunities: use of indicators to control and maximize value creation for the key stakeholders in the processes of project management; monitoring and balancing equitable value distribution among the stakeholders during project implementation; creation of a system of work incentives, which is based on a direct proportional dependence of responsible persons' motivation from the level of balancing of the input and created value for stakeholders as a result of the project implementation.

The issue of formation of the process-value management in organization is considered from the angle of role distribution of functions in the project, since this approach makes it possible to eliminate the complexity of implementation of a single approach to different internal organizational structures of enterprises (organizational, legal, administrative, financial structures of organizations).

The growth of economic efficiency and value of the implemented projects as a result of implementation of measures to increase maturity of the project management is confirmed by empirical research data. The main economic and value effects of increased maturity of project management in various industries are determined by the following: mobilization of internal resources of the organization, increasing competitive advantages, ensuring the process of achieving the strategy of the organization, reducing the number of unsuccessful projects, reducing the average level of excess budget, increasing productivity, increasing satisfaction of customers, reducing the average delay in the project schedule, increasing achievement of the project goals, etc.

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