METHODOLOGICAL BASIS OF ORGANIZING THE ACTIVITIES OF PARTICIPANTS OF INVESTMENT AND CONSTRUCTION PROCESSES AND THE NEED TO PROPOSE A NATIONAL MODEL

Abduvaliyev Bekzod Mukhiddin o‘g‘li
PhD student at Samarkand State University of Architecture and
Civil Engineering named after Mirzo Ulugbek
bekzodabduvaliyev9191@gmail.com

Abstract

This article sheds light on the methodological foundations of management through a systematic analysis of the complex multi- stakeholder structure of investment and construction processes, their interactions, powers and functions. The study substantiates the functional role of the customer, contractor, designer, technical supervision, state bodies and financial institutions and the need to effectively organize their mutual integration. In particular, recommendations are given on increasing efficiency by digitizing activities, ensuring transparency, clarifying the decision-making chain, and integrating international approaches (BIM, PMBOK) into the national system. Based on empirical analysis and tables, the level of competence of participants and information exchange are assessed. Existing problems in the conditions of Uzbekistan, their causes and consequences, and areas for improvement are considered in detail.

Keywords: investment-construction process, participant system, methodological foundations, customer, contractor, technical supervision, conflict of interest, project management, information exchange, monitoring, transparency.

Introduction

In the modern economy, investment and construction processes are recognized as one of the most important factors determining the socio-economic development of the country, its infrastructure potential and the standard of living of the population. Priority areas such as urbanization of the population, expansion of industry and service sectors, modernization of transport and communication systems, and renewal of social infrastructure (education, healthcare, housing) are directly related to the effectiveness of investment and construction activities.

However, one of the most important problems in this area is the inconsistency of the activities of entities participating in the investment and construction processes, the lack of an effectively organized methodological approach to their interdependence. Many stakeholders, such as investors, customers, contractors, design organizations, technical supervisors, state bodies,

financing institutions, are involved in construction activities. As a result of the incomplete definition or duplication of the functional role, authority and responsibility of each participant

– the implementation period of projects will be extended;
– inefficiency in the use of financial resources;
– project quality indicators are provided at a low level;
– the risk of corruption increases;
– institutional and legal problems arise.

In particular, the Resolution No. PQ-228 of the President of the Republic of Uzbekistan dated June 21, 2024, identified the issues of a systematic approach to combating corruption and ensuring the transparency of state procurement as urgent problems. In the implementation of this Resolution, there is a need to coordinate the activities of stakeholders involved, especially in construction and investment projects, improve their mutual information exchange, distribution of responsibilities, and monitoring systems.

Therefore, a systematic study of the interactions of participants in investment and construction processes, a clear definition of their functional tasks, the development of cooperation mechanisms, and the proposal of a national model based on international methodological approaches to organizing activities are urgent scientific problems from a scientific, theoretical and practical point of view.

Analysis of literature on the topic

The issue of organizing the activities of investment and construction processes and stakeholders involved in this process has long been at the center of scientific and practical discussion at the international level. In particular, many concepts have been developed regarding project management, stakeholder theory, construction economics, systemic management, and ensuring a balance of risks and benefits.

Internationally, the PMBOK Guide, developed by the Project Management Institute (PMI) and currently the most widely used methodology, emphasizes that a project cannot be effective if the roles, responsibilities, and relationships of project stakeholders are not clearly defined. In the PMBOK, “stakeholder engagement” and “integration management” are distinguished as one of the main management functions [1].

According to the stakeholder theory proposed by Freeman RE , each project entity should act not only in its own interest, but also in order to maintain the balance of the overall system. Otherwise, the project will lose its internal balance. This approach has been the basis of many studies adapted to the construction sector [2].

Turner JR [3] and Morris PWG [4] proposed management models based on communication, responsibility and transparency between project stakeholders. In particular, in the EPC (Engineering, Procurement, Construction) model, the cooperation system between the

customer, the contractor and the technical supervisor is considered as the main success factor of the project.

In recent years, BIM (Building Information Modeling) technology has been actively used not only for project management, but also as a platform that allows for increased coordination between participants, real-time information exchange, and digital management of project details. A World Bank report [5] shows that countries that have implemented BIM technology have increased construction efficiency by an average of 20–30%.

If we pay attention to the analysis of local literature, in the scientific works of M. Kh. Khudoyberdiev [6], A.A.Mirakmalov [7] and other scientists, the main problems in improving the construction and investment processes in Uzbekistan are the lack of openness of state orders, creation of a competitive environment in tenders, and the monitoring system. Also, although the Construction Code of the Republic of Uzbekistan [8], Presidential Decrees (including Decree No. PQ-228) [9] and other regulatory legal acts are aimed at clarifying the responsibilities and functions of participants, there is a lack of mechanisms and methodologies for their implementation in practice.

although the scientific foundations of organizing the activities of participants in investment and construction processes have been developed in the literature , their modification in the national context, implementation strategy, and integration with digital management platforms have not yet been fully covered. In particular, there is a lack of research on systematizing the interaction of participants, managing information flows, and clearly defining functional roles in decision-making.

Therefore, while existing scientific literature serves as an important theoretical basis for covering this topic, their practical application in the conditions of Uzbekistan and the development of improved methodological approaches are an urgent scientific task.

Research methodology

multifaceted analysis of the economic content, management mechanisms and practical features of investment and construction processes. The study is based on classical economic theories, project management concepts, and methods of risk and efficiency analysis.

is built on an interdisciplinary (economics, management, finance, law) basis, using the method of systematic analysis, comparative analysis, empirical analysis methods, economic-mathematical modeling, expert assessment, and SWOT analysis.

Analysis and results

Investment and construction processes are fundamentally different from other economic processes in their complexity, multi-stage structure and resource requirements. These processes require the active participation of many stakeholders, each of which has a separate

function and plays an important role in the success of the project. This section systematically analyzes the classification of participants in the investment and construction process, their functional tasks and interdependence.

Table 1 **Categories of entities participating in the investment and construction project**

Category	Participants	Scope of activity
Main participants	Investor, customer, contractor, project organization, technical supervisor	Project initiation, financing, construction, supervision
Additional participants	Consulting firms, banks, auditors, environmental experts, notary services	Consulting, financing, inspection, expertise
Government agencies	Construction control, tax, tender and licensing authorities	Regulatory documents, certification, monitoring
Civil society	Public oversight, media, NGOs	Ensuring transparency and social evaluation

Functions of the main participants:

1. Investor
– allocate or attract financial resources for the project;
– profitability analysis, risk assessment;
– financial control and profitability monitoring.
2. Customer (client)
– initiating and managing the project ;
– selection of contractors (tendering);
– monitoring the implementation of projects, commissioning of the facility.
3. Project organization
– development of architectural, engineering, and design documentation;
– development of construction technology and technical solutions;
– Calculating the estimated cost, conducting an examination of project documents.
4. Contractor (contractor)
– direct execution of construction and installation works;
– use of construction equipment, management of labor resources;
– compliance with deadlines, quality and safety requirements.
5. Technical supervisor (engineer-consultant)
– control of compliance of construction works with the project;
– assessing the quality of construction materials and works;
– preparing reports and providing technical advice to the customer.

Auxiliary and indirect participants

1. Banking and financial institutions

– opening credit lines, financial due diligence;
– assessing investment portfolio risks.

2. Consulting organizations

– competition analysis, preparation of tender documents;
– strategic planning and project management.

3. Government agencies

– issuing permits and certificates for construction work;
– construction supervision and ensuring compliance with technical regulations;
– Organizing public procurement processes and ensuring transparency.

4. Auditors and independent experts

– verifying the accuracy of expenses and financial flows ;
– assessing the reliability of reports and project documentation.

Construction and investment processes are, by their nature, multi-participatory, complex and dynamic systems. Therefore, for their effective organization, a management model based on modern methodological approaches is necessary.

– between participants (communication, decision-making chain, information flow) based on a systematic approach;
– modeling activities based on the principles of digitization, monitoring, transparency, and functional separation;
– Application of organizational management models:

Systemic problems encountered in local construction practice are identified in the following main areas:

Practical disadvantages:

– a large number of projects with delays, deadlines and budget overruns;
– Violation of financial discipline - the costs determined at the beginning of the project are actually exceeded;
– conflict of interest – improper coordination between the customer and the contractor;
– Irresponsibility and lack of control – delays in technical examinations, problems in determining responsibility.

Reasons:

– institutional inconsistency – the unclear functional boundaries between state and non-state actors;
– legal gaps – weak contractual frameworks, insufficient dispute resolution mechanisms;

– Low human resource capacity - shortage of qualified specialists in project management, estimating, and monitoring.

between participants in construction projects serves to clearly define their roles and responsibilities.

Table 2 **Distribution of functions and powers**

Participant	**Resolution level**	**Responsibility + Information provision**
Customer	High	High
Designer	Medium	High
Technical control	Limited	High
Contractor	Medium	Medium

Construction - investment in projects of the participants authorization level and responsibility and information in supply place their functional from the duties come comes out. To the table mainly as follows conclusion to do possible :

Customer - project initiator and financier as the most high to authority has was is the subject. He project according to strategic decisions acceptance does, all other of the participants activity coordinates and their over control done Therefore, both its level of permission and level of access to information are considered high.

the entity responsible for developing technical documentation, defining architectural and structural solutions for the project. Although his authorization authority is medium, he has a high level of responsibility for ensuring the quality of the project, technical parameters and the correctness of the documentation. The designer is also required to have access to various information flows.

Technical supervision - although its authorization authority is limited, it performs functions such as assessing the technical quality of construction work being performed, checking compliance with norms and standards, and conducting an examination of documents. Therefore, the subject of technical supervision is a subject that must have a high level of information, but has limited decision-making rights.

The contractor is the direct executor of the project and performs construction and installation work. He has a medium level of authority, and his main activity is to perform construction work based on technical specifications. The level of responsibility and access to information is medium, which is due to his role as an executor.

Conclusion

The success of investment and construction processes relies, first of all, on a clear functional division between participants, transparent information exchange and effective management.

The results of the study show that the existing legal and institutional mechanisms are not fully functioning in practice, insufficient coordination between stakeholders, the presence of information asymmetry lead to problems such as project delays, increased costs and low quality. Therefore, it is urgent to develop an integrated management model based on international best practices - in particular, a methodological platform adapted to the conditions of Uzbekistan, combining BIM technology and the PMBOK approach. Such an approach will reduce the risk of corruption in investment projects, increase efficiency, strengthen the accountability of participants and monitoring.

References:

1. Project Management Institute (2021). A Guide to the Project Management Body of Knowledge (PMBOK® Guide) – 7th Edition. Newtown Square, PA: PMI.
2. Freeman, RE (1984). Strategic Management: A Stakeholder Approach. Boston: Pitman.
3. Turner, JR (2000). Handbook of Project-Based Management. McGraw-Hill.
4. Morris, P. W. G. (2010). The Management of Projects. Thomas Telford Publishing.
5. World Bank (2023). Global Construction Outlook and BIM Integration Report.
6. M. Xudoyberdiev (2022). “Ways to improve the construction project management system in Uzbekistan ”, Scientific Journal of Economics and Innovations.
7. AA Mirakmalov (2021). "Theoretical and Practical Foundations of Increasing the Efficiency of Public Investments", Scientific Bulletin of the TSU.
8. of the Republic of Uzbekistan, 2023 edition.
9. Uzbekistan No. PQ-228, dated 21.06.2024.
10. ISO 19650:2018 – Organization and digitization of information about buildings and civil engineering works, including BIM.