

# ADVANTAGES OF IMPLEMENTING PROJECT MANAGEMENT IN ENTERPRISES

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**Introduction/background:** This article presents the advantages of using project management in an enterprise. The article is developed on the basis of a literary review including the results of the author's own research.

**Aim of the paper:** The goal of the article is to identify the main advantages for the introduction of project management in an enterprise.

**Materials and methods:** The method of writing the article is a literary review, which was made on the basis of research materials from international scientific journals. As an example, the author considers the public sector of the Republic of Kazakhstan.

**Results and conclusions:** Based on the literature review described in the article, the results obtained from the implementation of project management at enterprises allow to reveal in more detail the advantages of using project management. However, the existing problems faced by some enterprises still remain a barrier to achieving certain goals of the enterprises themselves. Based on the author's own research, the article examines the indicators of the implementation and use of project management on the example of the public sector of Kazakhstan. Problems in the implementation and use of project management in the public sector are based on the lack of necessary national standards, qualified specialists and not high involvement of the state authorities in the implementation of project management. According to these problems, recommendations are given that can help solve some problems and improve the overall project management system in the public sector.

**Keywords:** Project management, national standard, project management in the public sector, project management in Kazakhstan.

## 1. Introduction

The experience of human civilization is defined by various standards. According to the definition, a standard is a document established by an authorized body, custom or by common consent as a model (PMBOK, 2017, p. 2). Project management is applied everywhere and to everything. By following the algorithm when implementing projects, a person or a team achieves success. If we turn to the definition, project management is the application of

knowledge, skills, tools and methods to the work of the project to meet the requirements imposed on the project (PMBOK, 2017, p. 10). Many countries with advanced economies have been using project management for quite a long time, and for these countries project management is a system that is used in their daily and professional life (Alibekova, 2012). According to A.F. Tsekhovoy (Tsekhovoy, 2014), project management has acquired a systematic character and provides certain results that are tangible. In this connection, the popularity in the world is growing. Currently, project management is not limited exclusively to projects, it can also be used to manage any objects, even without having a project shade. For example, project management in Kazakhstan contains a multifunctional approach and has been widely used in the public sector of the country. Interest in the application of project management methods in Kazakhstan has grown in recent years in all sectors of the economy (Martsenyuk, 2018). According to I. Adizes, “Management is democracy in decision-making and dictatorship in their implementation” (Levyakov, 2021). The introduction of project management requires taking additional measures aimed at changing the presented approach to the project management of the enterprise, attracting qualified specialists in the field of project management and possibly adapting the organizational structure and culture. At the same time, knowledge and experience in the field of implementation and application of the project management system are required (Almaty: KazgovINTI, 1993).

Thus, the approaches of project management can be adapted to any culture. Project management is a flexible tool for achieving the goals set by any enterprise. It is worth noting that the introduction of project management is necessarily associated with additional financial costs, as well as the cost of a certain amount of time and resources, the use of project management brings many advantages to enterprises, positively affecting their final result.

The article is organized as follows. The next section describes an analysis of the implementation and use of project management based on a literary review. Additional benefits about project management are described in Section 3, after which the next section discusses a number of reasons for implementing project management in the enterprise. At the end of the article, the author gives recommendations on the implementation of project management in state structures.

## **2. Analyses of research on the implementation of project management in an enterprise**

The vast majority of key studies and publications show that the advantages of using project management related to their implementation and development have a positive impact on enterprises (Aleksandrov, 2017). A significant amount of research in the field of project management has been devoted to the factors of success in projects (Ika, 2009). For example,

Muller and Turner (Müller, Turner, 2010) investigated the importance of managerial skills and attitudes for the success of the project. Gemunden and others (Gemünden et al., 2005) investigated the impact of autonomy on the success of a project when developing a new product. Other studies have focused on common success factors in projects, such as the study conducted by Murphy (Murphy et al., 1974), Pinto and Slevin (Pinto, Slevin, 1987), Cook-Davis (Cooke-Davies, 2002). In recent years, there has been a growing trend to take into account factors that represent important values in projects, such as trust, commitment, loyalty and openness (Schein, 1990; Anantatmula, 2010; Andersen, Dysvik, Anne, 2009; Maurer, 2010; Belassi, Kondra, Tukel, 2007; Small, Walker, 2010; Hussein, Hafsel, 2016; Zidane, Hussein, Gudmundsson, Ekambaram, 2016) Fortune and White (Fortune et al., 2006) reviewed many publications that focus on critical success factors in the project management literature in order to study the correspondence between these publications with respect to project success. Wateridge et al. (Wateridge, 1995) concluded that there is limited agreement in the literature on the factors influencing the success of the project. The lack of agreement on the factors influencing the success of the project prompted researchers to focus on the use of a conditional approach to determine the success factors in projects (Hanisch, 2012). For example, Shenkar et al. (Shenkar et al., 2002) distinguish between general and specific factors of project success. The work of Rolstados et al. (Rolstadås et al., 2014) and Shenkar and Dvir (Shenkar et al., 2007) showed that in order to achieve success, it is necessary to adjust the way of project management in order to adapt it to the project context. According to Larsen and Myers (Larsen et al., 1999) an important conclusion from recent studies of project success suggests that projects are not always unique and may have different contextual factors and a different degree of these contextual factors at different stages of the implementation process. Therefore, each project requires a different approach, depending on the degree of each characteristic of the project and the stage of implementation.

Sylvius and Schipper (Schipper et al., 2018) are of the opinion that sustainability concepts should be integrated into the way projects are planned, organized, executed, managed and regulated. This perspective of sustainable development in project management (Novak et al., 1984) has turned into the concept of sustainable project management, which is defined as “planning, monitoring and control of project implementation and support processes, taking into account the environmental, economic and social aspects of the resource lifecycle, processes, results and effects of the project, aimed at realizing benefits for stakeholders and implemented in a transparent, fair and ethical way that includes active participation of stakeholders”.

Based on the general theory of management developed by leading foreign researchers (N.A. Vitke, A.M. Omarov, T. Parsons, A.I. Prigozhin, A. Fayol etc.), it can be noted that flexible, organic, adaptive control systems can be effective. The conceptual justification of the adaptive approach as a scientific approach is studied, for example, by N.A. Zaruba. The author determines that the concept of adaptive approach in management is based on the idea of “adaptation”, which is considered in science as a strategy of adaptation (Zaruba, 2014).

The concept of an adaptive approach in management, in her opinion, is that in real life, the strategy of any organization (institution, etc.) is a combination of the most profitable courses of action, taking into account factors not only external, but also internal environment. According to the author, management actions are aimed at actively using the strengths of the system and simultaneously braking, and this can also manifest itself in ignoring and containing the negative trends of the system.

N.A. Zaruba notes that “there is a need to understand the adaptive management process as the one based on an adaptive approach that contributes to obtaining the desired results through managerial influences based on the use of flexible management methods” (Zaruba, 2012).

According to Aarseth W., Ahola T., Aaltonen K., Økland A. and Andersen B. (Aarseth et al., 2017) the number of studies devoted to the integration of sustainable development in project management in the field of project management is only growing. A well-thought-out project management system increases the efficiency of the enterprise as a whole, and also allows to minimize the risks of the project (Al-Kilidar, Davis, Kutay, Killen, 2011). To structure the tasks assigned to the enterprise, there is a need for a centralized structural unit that could unify the tasks of the project and conduct all the activities of the enterprise. To do this, enterprises create a project management office. In organizations, the Project Management Office (PMO) plays a leading role in project management standards, methods and practices (Carboni, González, Hodgkinson, 2013). According to the majority of opinions that project management is considered as a tool for guaranteed achievement of results, many enterprises in Kazakhstan, decided to implement and use existing methods and approaches in project management, without creating something new for the country. For Kazakhstan, project management is currently an important tool in achieving the goals set by the Government of the Republic of Kazakhstan. Project management is especially important for the implementation of large projects of national importance in the country. However, it is not possible to use all the mechanisms of project management in the public sectors, since there is a general problem in the absence of clear algorithms and mechanisms for project implementation. As a result, there is lack of efficiency or a complete failure of the project deadlines. In this regard, since 2017, the Government of the Republic of Kazakhstan has been actively engaged in the implementation of Project Offices in ministries in various sectors of economic activity. One of the most popular industries where the introduction of a Project Office is primarily necessary is the information technology industry. In the era of rapid digitalization of Kazakhstan (Pererva, 2017), Project offices began to be actively created in ministries. The author's own research has shown the presence of 18 ministries in Kazakhstan, where Project offices have started functioning in only three ministries. As for local executive bodies, only four of the existing 17 have established Project Offices.

One of the first successful examples of the implementation of project management in the state structures of Kazakhstan is the Prosecutor General's Office of the Republic of Kazakhstan. The initiator of the transformation of the Prosecutor General's Office of the Republic of

Kazakhstan was the head of this department. By his order, a Project office was formed in 2016. The functions of the Project Office of this department are to monitor the implementation of projects and tasks of the change program, provide methodological support and assistance to project teams, implement project management standards and tools, and develop a system for motivating project personnel. The work in the Prosecutor General's Office was structured, where the system of its work developed the following rules: at the initial stage, employees form a list of problems, then in the project office they structure the list and develop a project passport, which indicates the resources spent on the project, roles, benchmarks and the expected result. Finished projects are defended before a board consisting of members of the change team. The project passport, which is a kind of contract between the management, which acts as the customer, and the project manager in this case is in the role of the performer, allows to maintain continuity in the implementation of goals and objectives, if the performer changes. When the contractor has any questions, he returns to the project office, where he is consulted. The entire methodology developed in the Prosecutor General's Office is based on the experience of the department, combining tools based on PMBOK, PRINCE2 and other national standards. As a result of the transformation of this department, the Prosecutor General's Office has achieved a higher level of communication when interacting with other state bodies. The visible result of the changes made it possible to automate criminal cases into an electronic format (Nikolayeva, 2018).

The experience of the Prosecutor General's Office has shown that Kazakhstan's state structures have a potential in the field of project management. In 2017, the “Regulations of Project Management in the Government of the Republic of Kazakhstan” was adopted, which became an impetus for the further introduction of Project offices at Kazakhstani enterprises.

### **3. Advantages of implementing and using project management**

There are many studies on the advantages of implementing and using project management. Project management provides an opportunity to move from ideas to results, providing a wide range of tools and methods that can make projects successful. Today, individuals, organizations and countries are interested in project management, becoming a separate profession with excellent opportunities for career growth, with bachelor's, master's and certification programs (Chmielarz, 2015; Hobbs, 2009).

The use of project management can also provide other benefits for enterprises. Among the most important ones described in the literature are marked in Figure 1.

Advantages	Success	Efficiency	Benefit	Strategic goal	Innovation	Results
<ul style="list-style-type: none"> <li>The basement on the following principles of the enterprise: strategic alignment, roles, responsibilities and accountability, decision-making structures and powers, risk management, communication management and stakeholder management (PMI, 2016)</li> </ul>	<ul style="list-style-type: none"> <li>Projects are important tasks for organizations, and ensuring that projects comply with the strategy is one of the key factors for the success of organizations (Petro, Gardiner, 2015)</li> </ul>	<ul style="list-style-type: none"> <li>The project has the potential to develop completely new business models, products and services, as well as significantly improve operational efficiency (Kagermann, 2014)</li> </ul>	<ul style="list-style-type: none"> <li>Project management is carried out in a coordinated manner to obtain additional benefits. An organization can benefit from the use of a project management system by increasing the efficiency of human efforts in the organization while simultaneously increasing the effectiveness of these efforts (Badewi, 2015)</li> </ul>	<ul style="list-style-type: none"> <li>Project management is a set of concepts, tools and methods that allow projects to be completed on time, within budget and in accordance with customer requirements in the context of a clear company strategy (Morris, 2013)</li> </ul>	<ul style="list-style-type: none"> <li>The project organization has become an indispensable organizational form in the modern innovative economy (Gann, Salter, 2000), (Cattani, Ferriani, Frederiksen, Täube, 2011)</li> </ul>	<ul style="list-style-type: none"> <li>Project management is fundamental for achieving the final results of a project, managing its participants and results, as well as identifying and evaluating alternatives to meet the needs of various stakeholders (Crawford, 2010)</li> </ul>
<ul style="list-style-type: none"> <li>Killen, Hunt, Kleinschmidt emphasize that organizations with project management capabilities work better, compete effectively and maintain a competitive advantage (Killen, Hunt, Kleinschmidt, 2008)</li> </ul>	<ul style="list-style-type: none"> <li>Spalek claims that the success of project management is closely related to the success of the entire organization (Spalek, 2014)</li> </ul>	<ul style="list-style-type: none"> <li>The project-related management function helps to increase work efficiency (Rehof, Vrchota, 2018)</li> </ul>		<ul style="list-style-type: none"> <li>Kerzner draws our attention to the importance of project management in developing the correct planning, organization and control of organizational resources to achieve short-term goals, specific goals or even broader goals (Kerzner, 2010)</li> </ul>	<ul style="list-style-type: none"> <li>According to Naughton, Kavanagh, project management is a set of methods for effective change management, and change is synonymous with innovation (Naughton, Kavanagh, 2009)</li> </ul>	<ul style="list-style-type: none"> <li>Söderlund points out that project management is an approach that aims to help organizations solve complex problems (Söderlund, 2004)</li> </ul>
<ul style="list-style-type: none"> <li>In order to remain competitive, modern organizations implement project management practices, defined as the application of knowledge, skills, tools and methods to meet the requirements and goals of projects by implementing appropriate processes and methodologies, as part of their strategy and as a critical factor in the development of competitive advantages (Crawford, 2010)</li> </ul>	<ul style="list-style-type: none"> <li>Project management is considered to play an important role in promoting the success of innovations (Kerzner, 2006)</li> </ul>	<ul style="list-style-type: none"> <li>The effectiveness of project management can be measured using various tools of evaluation procedures (Adams, Bessant, Phelps, 2006)</li> </ul>		<ul style="list-style-type: none"> <li>Project management can be defined as the process of monitoring the achievement of project goals (Mohammadjafari et al., 2011)</li> </ul>	<ul style="list-style-type: none"> <li>To purposefully manage their innovation, organizations of the national economy need project management. Project management allows achieving strategic goals by minimizing risks (Owens, 2006)</li> </ul>	
		<ul style="list-style-type: none"> <li>Coordination of project management and business strategy can significantly increase the chances of organizations to achieve their strategic goals, as well as to increase efficiency (Kerzner, 2009)</li> </ul>				

**Figure 1.** The benefits of using project management in an enterprise.

In addition to the advantages of project management at the enterprise, the use of information technologies developed specifically for project management allows to implement the planned project more efficiently and with the least risks. Information technology is a strategic auxiliary function in organizations that exists to help organizations achieve their intended strategic goals. This plays a crucial role in the activities of organizations. As a result, organizations continue to invest in IT technologies in order to work better, remain competent in the global market and make a profit (Joslin, Muller, 2016).

The role that information systems play in supporting organizational processes and maintaining the competitive advantages of modern enterprises has been analyzed by many authors (Toffolon, 1996; Dewett, Jones, 2001; Gurbaxani, Whang, 1991). These authors demonstrated how information systems affect organizational characteristics and results. In particular, Dewett and Jones emphasize that information efficiency and information synergy are among the main advantages in project management that increase productivity, and identify five main organizational results of the use of IT that embody these advantages. In addition, these authors discuss the role that information systems play in regulating the relationships between organizational components, including structure, size, training, culture and inter-organizational relations (Lucas, Baroudi, 1994).

#### **4. Recommendations for the implementation of project management in state structures**

Improving the efficiency of the public administration system is the key to sustainable economic growth in many countries. In the modern community, the development of Kazakhstan is in improving and modernizing the approaches of the public administration system through the introduction of project management. For successful project management in the state structures of Kazakhstan, it is necessary to identify several recommendations that can significantly affect the state management system (Algiev, 2013).

Development of national standards in Kazakhstan. In market conditions, representatives of professional management schools are engaged in research, analysis and systematization of modern experiences and methods of project management, as well as the development of standards. Guidelines and standards are the basis for the international and interdisciplinary nature of project management (KazInform, 2020). In the world practice, project performers carry out their work in accordance with a single methodology and the requirements of standards. The standard is more voluntary in nature. This is confirmed by the definition of the term “standard” in the Law of the Republic of Kazakhstan “On Technical Regulation” of November 9, 2004 (Law of the Republic of Kazakhstan No. 603-II of November 9, 2004). However, in accordance with this law, a standard is a document that, for the purpose of repeated and voluntary use, establishes rules, general principles and characteristics for objects of technical regulation. Currently, international organizations engaged in the development of project management standards are improving the competencies, knowledge, and skills of project managers by creating unified standards. Table 1 presents project management standards of various levels that describe and combine all generally accepted approaches in the implementation of state programs and projects.

**Table 1.***Common standards used for the management of state programs and projects*

<b>Name</b>	<b>Developer</b>	<b>Status</b>
ISO 21 500:2012. ISO – International organization for standardization	International Organization for Certification (ISO)	International
ICB IPMA – International Competence Baseline of the International Project Management Association	International Project Management Association (IPMA), Switzerland	International
PRINCE2 (PRojects IN Controlled Environments)	OGC – The Office of Government Commerce, Great Britain	International
A Guide to the Project Management Body of Knowledge (PMBOK)	PMI — Project Management Institute, USA	International
P2M – The Guide book for Project and Program Management for Enterprise	Project Management Association of Japan – PMAJ	National
GOST R 54 869-2011 – Government standard “Project management. Project Management Requirements”	Russia	National
ST RK ISO 21500 – 2014. “A guide to the project management”	Kazakhstan	National
AS/EN/JISQ 9100 – “Quality management systems. Requirements for aviation, space and defense organizations”	International Aerospace Quality Group (IAQG) AS 9100 in North America, EN 9100 in Europe, and JISQ 9100 in Asia	Industry-specific

Note: GOST – Government standard, ST RK ISO – International organization for standardization Standard Republic of Kazakhstan

In recent years, special attention has been paid in the Republic of Kazakhstan to the development of national standards for project management, taking into account foreign experience (Shymkent Panorama, 2020). Since January 1, 2016, the national standard ST RK ISO 21500 – 2014 “Project Management Guidelines” has entered into force in the Republic of Kazakhstan. This standard can be used in organizations of any type, including public, private or public, and for any type of projects, regardless of complexity, size and duration. An important role in public project management is played by the PRINCE2 standard, developed by The Office of Government Commerce (OGC) of the United Kingdom. The PRINCE2 methodology is used in the state structures of Kazakhstan and has certain visible results in its application (Esengeldieva, 2015). However, this methodology has not yet received increased attention. Within the framework of the standards indicated in Table 1, it is necessary to note their effectiveness in state structures in the world community and their possible usefulness in state structures of Kazakhstan (Regulations of Project Management, 2021). Taking into account the specifics and features of project management standardization in Kazakhstan, the following conclusions can be drawn: apply the classification of project management standards in Kazakhstan, divide by the scale of action (international, national (state), industry and corporate standards), and divide by detail into basic and professional qualification standards), which will be structured in all state structures of Kazakhstan as a result.

Certification in the field of project management in the state bodies of Kazakhstan. The domestic management, which is still found in the state structures of Kazakhstan, does not allow a comprehensive approach to project management. Preparation and certification in the



field of project management is an important step forward. Professional certification in the field of project management can contribute to the successful professional development of a state body (KazInform, 2015). The value of certification lies in the following aspects:

- it is based on Kazakhstan and international standards recognized in Kazakhstan, takes into account the best practices and trends in the development of certifications in the world;
- corresponds to the national system of professional qualifications and the main project roles in state and commercial organizations;
- provides the basis for a system for improving and maintaining the qualifications of managers and specialists at the corporate and industry levels;
- corresponds to the time and tasks.

In state structures, the full implementation of project management will serve as a continuity to actions and changes due to changes in internal and external factors (Bassam, 2019). Project management will allow state bodies to monitor any emerging changes in the world, to offer clearly formulated methods to take them into account. Employees of public services should be not just performers, but participants in decision-making processes, which implies the delegation of some powers of the authorities. It is necessary to move from the traditional hierarchical structure to the horizontal one, that is, it implies the use of team management, where certain powers are transferred from the head of the department to the head of the team. Thus, the responsibility for achieving the project goal is distributed among all participants and is not concentrated in the hands of one manager who stands above the others. The application of the project approach will contribute to the transition to management models of commercial companies, that is, a change in the corporate culture and style of work of the authorities, which will lead to timely fulfillment of tasks, the effectiveness of joint activities of various departments and compliance with a high level of discipline. Professional managers can assist state institutions in the implementation of any projects, select and adapt project management models for a specific project. Thus, mandatory certification of employees of state structures will help to improve the work of state structures, increase the flexibility and transparency of their work.

## 5. Conclusion

Project management has a positive impact on the functioning of the enterprise, in particular on the organizational culture and structure of the enterprise. Project management has acquired a systematic character and provides certain results that become tangible at enterprises. The described advantages associated with the use of project management are an important reason for its implementation at enterprises, including at enterprises with a state structure that

strive to achieve a number of goals set by the Government of the country. Improving the quality of project management, the desire to better adapt to changing conditions, limiting the costs associated with the implementation of individual project risks, or the desire to better use potential opportunities are factors that motivate enterprises to implement and develop a project management system. However, in many cases, the decision to implement project management is also influenced by external factors, such as the lack of national standards, qualified specialists, and budget funds for the implementation of a project management system at the enterprise.

Kazakhstan is considered as an example of the implementation of project management in the public sector. The problems in the project management of the public sectors of Kazakhstan are mainly based on the lack of specific algorithms and mechanisms for managing projects of national importance. Qualified specialists are also the foundation for achieving maximum results in the implementation of state projects. However, for the full implementation and management of projects in the public sectors of Kazakhstan, it is necessary to apply a number of recommendations that will facilitate and structure the work of state activities. The adoption of national standards contributes to repeatedly and voluntarily establish rules, general principles and characteristics for the objects of organizations. For this purpose, Kazakhstan pays special attention to the methodologies of project management of foreign experience. One of the results for project management is the adopted national standard ST RK ISO 21500-2014 “Project Management Guidelines”, which can be used in organizations of any type, including public, private or public, and for any type of projects, regardless of complexity, size and duration.

In general, the project approach and the introduction of national standards will allow synchronizing the activities of public administration structures in Kazakhstan. For correct project management, it is necessary to possess the basic project management tools that can be used in the implementation of state projects. In this case, government employees need to learn popular project management methods, for example, the PRINCE2 methodology, which is highly adaptable to the Kazakh state management structure. The use of tools and approaches of this methodology can allow the implementation of state projects of various scales. At the same time, it is necessary to increase Project offices in the ministries of the Republic of Kazakhstan, where there are still no such offices. To date, Project offices have been created only in 3 ministries out of 18 existing ones. The project Office will be a centralized department in the ministries providing support for project management in the ministries.

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