PROJECT MANAGEMENT: THEORETICAL AND PRACTICAL ISSUES

Integration of Process and Project Management as a Key Aspect of Enterprise Architecture Development

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Abstract

Realization of strategic goals of an enterprise should provide flexible and efficient management system, based on business architecture of a company. Strategic goals are achieved by means of business processes (as a mechanism to provide repetitive operations) and projects (as set of activities to obtain unique results). However, there is still no solution for the integration of process and project approaches that would allow modeling and managing business architecture effectively.

This paper aims at developing an approach to the enterprise business – architecture formation that would allow resolving a lasting conflict between processes and projects within the management system of a company.

The model of enterprise architecture developed in the paper defines the place of process and project management within enterprise architecture. The proposed process model of project management activity can be used in a process – and/or project – oriented company while developing an enterprise business process model. The choice of a particular project management method can be made by a particular decision-maker.

The main results of the research are: the model of enterprise architecture including both processes and projects, the model of project management activity based on the process approach.

Keywords: project management, process management, enterprise architecture.

Introduction

Effective business management in the information society requires companies to have a flexible and effective management system. Such a system (known also as enterprise architecture) is a key factor of long – term competitiveness of a company. The management system is intended to ensure consistency in achieving strategic goals of the company, the stability of the enterprise operating activities; at the same time, it allows adapting easily to a rapidly changing business environment. The latter means that companies have to provide constant and purposeful work with changes. It requires a special approach to the organization of planning, control, resource allocation, allocation of roles and responsibilities in implementing the change. A number of enterprise architecture investigations underline the necessity to introduce a change management mechanism within enterprise architecture (for example, Ross, 2006; Kondratiev, 2007; The Open Group, 2009; Kalyanov, 2013; Korotkov, 2013; Lankhorst, 2013). Under these circumstances, special attention is paid to project management activities.

A project approach to organizing and managing activities is required in the situations where there is a need to introduce changes, to address some unique challenges. This need can be raised both within the enterprise and outside it; that is a dual role of projects in the enterprise: projects for the reorganization of a company itself and projects aimed at processing external orders. Among the projects of the first type it is worth mentioning such widely implemented types of projects as business-processes reengineering, implementation of corporate information systems, implementation of quality management standards, forming and reforming of enterprise architecture, and other projects to address specific business challenges. The second kind of projects form the basic type of activity of the so-called project-oriented companies for which each order for supplying goods or services of the company is a separate project. Typical project-oriented businesses are those from such business fields as construction, engineering services, IT-consulting, development and implementation of IT-solutions, manufacturing on order basis, etc. (Ilyin and Lyovina, 2013).

Taking into consideration all the facts mentioned above, it can be said that a large number of companies in various business fields face the need to solve various business problems that cannot be resolved through an ordinary business–processes approach. It happens because

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certain challenges of the business environment set tasks that are beyond the operational activity of the company. It causes the need for development and implementation of project–based solutions to solve business problems, which states the task of introducing the project approach to an enterprise management system. However, there is still no solution for the integration of process and project approaches that would allow modeling and managing business architecture effectively.

The research aim of the article is to elaborate an approach to the enterprise business—architecture formation based on the principles of strategic, process and project management which would allow resolving a lasting conflict between processes and projects within the management system of a company. The approach consists of a model of business architecture that allows providing for the interests of both process and project management and a model of project management processes that would provide a unified base for a modeling process and project activities.

Existing approaches to enterprise architecture formation

Enterprise management approaches and management culture adopted in a company are reflected in enterprise architecture. Enterprise architecture traditionally means a series of different aspects of the management system and the relationship between them, specifically:

- *Enterprise Architecture* is an interconnected whole of principles, methods and models that are used in the design and building of organizational structure, business processes, information systems and infrastructure (Lankhorst, 2013);
- *Corporate Enterprise Architecture* is a system view of the key structural sections (certain key components and their relationships), applied for various practical problem solving of the organization (Kondratiev, 2007);
- *Enterprise Architecture* is a conceptual design that defines the structure and functioning of the company. The purpose of enterprise architecture is to define how a company can most effectively achieve its current and future goals (SearchCIO, 2013);
- *Enterprise Architecture* is the process of translating business vision and strategy into effective enterprise change by creating, communication, and improving the key requirements, principles and models that describe the state of the enterprise and make possible its evolution (Gartner Group, IT Glossary, 2013).

The Center for Information System Researches (CISR) of the Massachusetts Institute of Technology (MIT) defines enterprise architecture as 'the organizing logic for business process and IT capabilities reflecting the integration and standardization requirements of the firm's operating model. We view architecture as a strategic, rather than technical, exercise. A firm's architecture describes a shared vision of how a firm will operate – thus providing a shared understanding of the role of IT. We have found enterprise architecture to be a critical tool for

aligning IT and business strategy and for driving business value from IT' (CISR MIT, 2013).

These definitions allow us to conclude that enterprise architecture is a complex management tool which is designed to provide effective enterprise management solutions in response to the challenges of a business environment. Heterogeneous structure of enterprise architecture requires constant work on alignment of its components (layers) and the need to follow the realities of today's business requirement causes permanent reform and development of enterprise architecture.

Currently, the management of many companies realizes the need for the development, formalization, and implementation of the management system, embodied in the form of corporate enterprise architecture. The need for the implementation of projects (a system of interrelated projects) on architectural restructuring is caused by the following reasons:

- 1. Absence of a precise strategy of management architecture development;
- 2. Absence of an integrated architecture adaptability to market conditions;
- 3. Discrepancy between organizational structure and increased business demands;
- 4. Discrepancy between the organizational structure of companies and organizational structures of projects;
- 5. Absence of common corporate standards of project management;
- 6. Absence of precisely prescribed roles and responsibilities in current organizational structure;
- 7. Absence of detailed and transparent business processes;
- 8. Need for the implementation of the enterprise information system (Ilyin, Lyovina, 2013);
- 9. The need for alignment of different architectural components business architecture and system architecture.

A specific characteristic of enterprise architecture is its heterogeneous composition. Traditionally, the components of enterprise architecture can be represented as a set of layers comprising a set of structural components (Kalyanov, 2013):

- Corporate mission and vision, strategic goals and objectives;
- Business architecture: business processes, organizational and staff structure, workflow system;
- System Architecture (IT architecture) applications, data, and hardware.

Kalyanov (2013) states that according to ISO 15704 (Industrial Automation Systems – Requirements for Enterprise-Reference Architectures and Methodologies, 1999) enterprise architecture should include the role of people, process descriptions (functions and behavior), and the presentation of all the subsidiary technologies throughout the life cycle of the enterprise. Architecture (in accordance with the Federal Enterprise Architecture Framework.

| Architecture Principles, Vision, and Requirements Preliminary Architecture Vision | | | |
|---|--------------------|---------------------------------------|----------------------------|
| Architecture Requirements | | | |
| Business Architecture Motivation Organization Function | Informatio Data | n Systems Architecture Application | Technology Architecture |
| Architecture Realization Opportunities, Solutions, and Migration Planning Implementation Governance | | | |

Figure 1. Content framework by ADM phases (The Open Group, 2009)

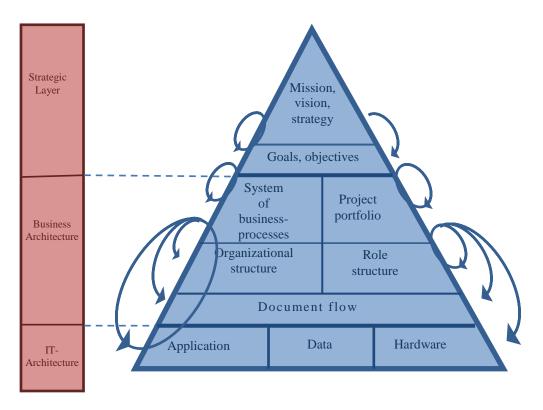


Figure 2. Logic levels of enterprise architecture

Dev. by The Chief Information Officers Council, USA) is a strategic information basis which supports the:

- structure of the business;
- information necessary to run business;
- technologies used to support business operations;
- transformation processes of development and transition needed to implementation of new technologies in response to a change/the appearance of new business needs (Kalyanov, 2013).

The last point of the above list confirms that some researchers of enterprise architecture recognize that dealing with change is the reality of today's enterprises. Enterprise architecture is a dynamic management tool which requires a build–in mechanism for managing changes. This fact, in particular, is underlined in the enterprise architecture development approach of the TOGAF standards, known as the Architecture Development Method (ADM) (Figure 1). This method claims, among other components, a phase named

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'Architecture realization', bringing together various aspects of change activity performance related to enterprise architecture: 'Architecture Realization artifacts capture change roadmaps showing transition between architecture states and binding statements that are used to steer and govern an implementation of the architecture' (The Open Group, 2009).

Hence, the need to address unique challenges and achieve unique results determines feasibility of incorporating the project management technology into an overall management system of the company. Every modern company needs project management as a mechanism ensuring the flexibility and conformity of decision making in a rapidly changing business environment.

The role of project activity in an enterprise indicated above causes the need to add the project viewpoint to the business architecture model (represented, for example, in Kalyanov, 2013). As a result of the integration of process and project management approaches there is a need to provide such enterprise architecture which offers an effective mechanism to balance the interests of the operating and innovation activities of the enterprise, i.e. coordination of the interests of process and project management approaches based on the unity of strategic guidelines. The authors propose the following vision of the enterprise architecture structural components and the relationships between them (Figure 2). Proposed in this paper, the concept of enterprise architecture describes a structural representation of inter-connected and interdetermining logic levels of enterprise architecture which includes the project approach as a component of business architecture.

The structural elements of enterprise architecture (Figure 2) are connected and determine each other as described below. The activity of any enterprise is focused on and determined by business objectives of its establishment. Therefore, the starting point for the formation of enterprise architecture is the definition of such categories as mission, vision, and strategy - these categories are on the top of the management pyramid (Figure 2). They define a desired image of business and determine the direction of movement towards it. Mission, vision, and strategy are specified by a set of strategic goals and objectives that define the key components of the desired image, and set the roadmap for business. Setting such high level categories as mission, vision, strategy, goals, and objectives is the responsibility of enterprise owners and/or top-management.

Regardless of the specifics of a particular system, systems theory identifies two types of objectives for each system: the goals of stabilization and the goals of development. The goals of stabilization are aimed at preserving the achieved level of development and operation. The goals of development are aimed at creating additional resources that the system does not have, or achieving some new states to which it aspires. It also makes sense for an enterprise as a business system: the goals of stabilization serve to provide effective operations and stability in the present, while the goals of development are responsible for dealing with changes that allow business to grow and be competitive in the long term. Different types of goals require different approaches to the organization of activities of their achievement: the system of business processes – to achieve the goals of stabilization, the portfolio of projects – to achieve the goals of development (Figure 2).

A business process is 'a special process that intends at the implementation of the basic objectives of the enterprise (business objectives) and describes the central sphere of its activity' (Becker et al., 2010). Business processes as 'a stable (regularly repeated), targeted set of interrelated activities which, according to a certain technology, transforms inputs into outputs with a value to a consumer (client)' (Repin, 2013) define the organizational structure of an enterprise. Organizational structure is a stable set of interrelated and inter-subordinate organizational units to coordinate human resources of a company. 'The process approach to management is a construction of a system of processes, control of these processes in order to achieve the best results, improving efficiency and customer satisfaction' (Repin, 2013). In modern enterprises, implementing process management involves description, regulation, keeping up to date, and reforming of the business processes system and organizational structure which ensure business processes performance. The purpose of the implementation of the process approach is to ensure the stability and reproducibility of the results.

A *project* is traditionally defined as 'a temporary organization that is created for the purpose of delivering one or more business products' (OGC, 2009). A project management approach has its own characteristics:

- consideration of a project as a unique combination of processes of project implementation;
- rights and responsibility for project results achievement belonging to the project manager and a project team;
- allocation of the project budget;
- use of a special design of the project organizational structure and specific motivation of project participants;
- the development and application of specific standards for realizing project processes (Kondratiev, 2007).

Projects as well as business processes aim at creating a certain result, but, in contrast to business processes, projects create unique results; after achieving them, the project structure has no more reasons for existing. Despite the fact that the implementation of various projects involves the implementation of a typical set of business processes, the managed objects, the owners and performers of these business processes differ from project to project. That is why the implementation of each project requires a clear framework of roles and responsibilities, the so-called role structure, the positions of which in various projects are performed by various individuals. The purpose of the implementation of the project approach is to provide effective solutions to unique challenges which occur on the development path of the company due to the need to respond to changes in the business environment.

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A detailed description of the IT-architecture is beyond the scope of this paper.

Modeling business architecture

The modeling of business architecture is an integral part of the whole enterprise architecture modeling. Thereby it is useful to define a common framework for modeling the formation and development of the enterprise business architecture.

As for business processes, an official history of their modeling began in the 70s of the 20th century with the establishment of a methodology for functional modeling called IDEF0. Thus, business processes modeling has more than 40–years history by now and many modern business model tools (such as ARIS, Business Studio) are equipped with a full range of functional languages (notations) for business process modeling (IDEX, EPC, BPMN, etc.).

To identify the basis for project activity modeling it is necessary to analyze the most common approaches to project management, the so-called project management standards. This will reveal a common basis for modeling a projects management system.

Currently, there are numerous world-wide recognized project management methodologies developed by leading professional associations and organizations. These methodologies are the result of analysis, synthesis, and formalizing of real-business best practices in project management. For the effective implementation of project management activities it seems appropriate to introduce a enterprise-wide corporate single standard. Its implementation is intended to provide а general goals understanding of project management and procedures by all project participants to provide all of them with a common methodology and uniform terminology to guarantee more effective communications within and outside the project team. As a basis for the corporate standard of project management in a particular company it is possible to implement one of the well-known methodologies adopting it to the company environment.

The most famous approaches within the world professional society are those developed by such organizations as the Cabinet Office (United Kingdom), PMI (USA), IPMA (Switzerland), Microsoft (USA), etc. The methodology of each organization is documented in the form of guidelines - Managing Successful Projects Using PRINCE2 (Cabinet Office), PMBoK (PMI), ICB (IPMA), MSF (Microsoft) correspondingly - and is associated with a certain system of professional certification. Here is a brief review of the above-mentioned methodologies. In addition to the list of standards mentioned above, it is worth mentioning that in September 2012 a project management standard ISO 21500 was adopted by the International Organization for Standardization, based at the PMBoK and approved as a standard project management by Rosstandart (Russia). For project management system modeling within a business architecture model of a particular enterprise it is acceptable to use any of the world-wide recognized standard methodologies mentioned above or own corporate project management standards developed in a company.

PRINCE2 (Projects in a Controlled Environment) is a structured project management method developed by the Cabinet of Ministers of the United Kingdom of Great Britain and Northern Ireland (Cabinet Office), which is a *de facto* standard for project management of the Government of the United Kingdom and some European countries. The structure of PRINCE2 method is presented by the following elements:

- 7 principles the basic rules that underpin the management of a project and require to constantly follow them throughout the project life cycle;
- 7 themes dynamic objects of project management having a particular relationship between each other;
- 7 processes structured list of activities aimed at achieving project objectives (OGC, 2009).

A feature of PRINCE2 methodology is a clear delineation of responsibility for decision – making in the management of a project through the levels of management. The method focuses on how to operate the project at various stages and provides a clear algorithm for organizing the management of the project, which makes it possible to tailor a project for any size and business field. The disadvantage of the method is often a lack of specific techniques to implement certain activities in the project (eg., budgeting, scheduling, etc.). Other experts consider it to be a certain degree of freedom provided by this method: each company is able to choose a particular – adopted in a company – approach of performing different activities within project management.

PMBoK (Project Management Body of Knowledge) is the body of knowledge in Project Management Institute (PMI) which is widely used by companies in the USA and beyond. Under this methodology the following stand out:

- 5 groups of processes covering project management throughout project's life cycle: the processes of initiation, planning, executing, process monitoring and controlling, closing;
- 10 knowledge areas that must be managed in each project: project integration management, project scope management, project time management, project cost management, project quality management, project human resource management, project risk management, project procurement management, project stakeholders management (PMI, 2013).

Within each knowledge area, PMBoK identifies a number of related procedures and prescribes, in sufficient detail, tools and methods for their implementation. Thus, PMBoK interprets a project as a set of structured processes, lists the actions to be taken in the management of each knowledge area, completeness of coverage of different well–known problems of project management; at the same time, it does not provide a clear holistic project management algorithm: when, how often, what processes should be applied.

The methodology of IPMA, known from the guidelines called ICB (IPMA Competence Baseline), describes the requirements for the competence of an expert

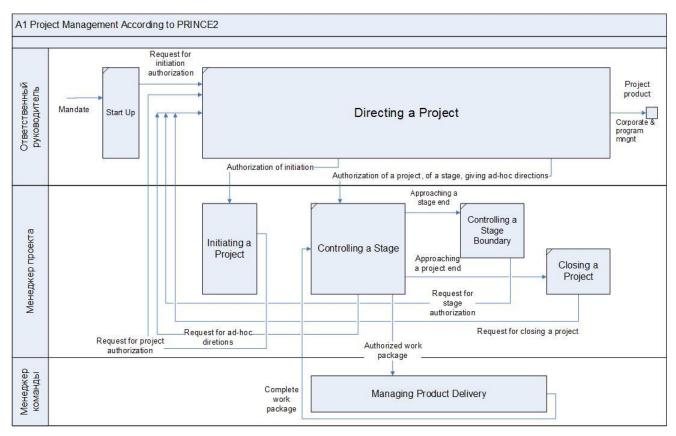


Figure 3. Landscape of business processes of a PRINCE2 project management standard

in the field of project management. ICB identifies 46 elements of competence which are divided into 3 groups:

- technical competence (20 competencies) project management techniques;
- behavioral competence (15) the professional behaviour of personnel engaged in project management;
- contextual competence (11) dealing with the project in the context of programs and portfolios.

It can be stated that the ICB, more than other methodologies, is focused on considering a project as ethical and institutional category, rather than a strictly structured system. This approach addresses individual managers, focusing on the acquisition and implementation of competence in the field of project management, rather than on companies planning to implement a corporate project management standard.

The basis of the MSF approach (Microsoft Solution Frameworks) by Microsoft is a typical practice used by software development methodology. The MSF technology consists of the following elements:

- 2 models: a MSF team model and a MSF governance model;
- 3 disciplines: a project management discipline, a risk management discipline, and a training management discipline.

Regarding the organization of the project team, MSF offers an original approach to integrate team members in role clusters, typical of IT-projects. The process model also suggests splitting a project into phases, following the logic

of the implementation of projects in the field of IT– solutions, and is characterized by certain flexibility by eliminating strictly prescribed procedures.

The proposed review of project management standards allows us to conclude that the basics of project management standards are:

- guideline,
- a set of aspects that describe some certain sections of project management,
- the system of business processes.

As each project management standard requires the implementation of certain system processes, the current paper's methodology has been based on the fact that a certain project is implemented as a set of specific actions related in some way to achieve one's business goals, which determines a unique solution of the problem faced by the project management team. This set of actions determines the system of business processes of the project. Therefore, consideration of the project as a temporary process– oriented organization provides the possibility of modeling project activities on the basis of the process approach.

As a methodological basis for a demonstration model of project management processes (performed in a business modeling program Business Studio 4.0) the PRINCE2 methodology was chosen (Figure 3). This choice has been made due to the following characteristics of this methodology:

• systematic understanding of the project management process model with prescribed inputs, outputs, events that initiate the process;

- decomposition of the main processes (up to the third sub-level of decomposition), representing a clear algorithm of project management at various management levels;
- a clear definition of roles ('process owners' in terms of process management) and responsibilities in all project management processes;
- a document flow system which accompanies all processes of project management and the availability of appropriate document templates.

Figure 3 shows a model of 7 processes of PRINCE2 which form the landscape of business processes (processes of the first level of decomposition) of project management (using the process modeling notation 'Procedure'): starting up, directing a project, initiating a project, controlling a stage, managing product delivery, controlling a stage boundary, and closing a project.

A detailed description of sub-processes within the seven PRINCE2 processes allows decomposing each of the processes and creating a model of all processes in any notation corresponding to the rules of decomposition. The modeling of project processes allows systemizing the project activity of the company by creating a certain regulation for project processes and responsibilities. This creates a unified basis for modeling enterprise architecture in order to provide effective business performance.

Conclusions

In this paper, the authors have developed a traditional view of business architecture of a company as a set of business processes, organizational structure, and document flow, adding to it a portfolio of projects and the corresponding role structure. Such a vision of business architecture allows to fully realize strategic objectives of the company, which are formulated to ensure the sustainable development of the company in the present and in the future. Business architecture formed according to this approach will create preconditions for the further growth of the business allowing performance of a constant change management. Development and implementation of the strategy for the formation and development of the enterprise architecture within a company is aimed at achieving its strategic goals, and hence the costeffectiveness of business.

As a result, the following models have been developed:

- 1. the model of logical layers of enterprise architecture;
- 2. the structural model of business architecture components such as processes and projects;
- 3. the process model of the project management.

The models developed are intended to ensure effective communication of process and project activities within the same management system and would provide practitioners with an instrument for modeling processes and projects within a single enterprise architecture model.

References

- 1. Becker, J., Vilkov, L., Taratuhin, V., Kugeler, M., Resenmann, M. (2010). *Process Management*. Moscow: Exmo.
- 2. CIRS MIT (2013). Retrieved May 10, 2013, from http://cisr.mit.edu/research/
- 3. Gartner Group, IT Glossary (2013). Retrieved May 10, 2013, from http://www.gartner.com/it-glossary/
- Ilyin, I. V., & Lyovina, A. I. (2013). Project management issues of formation of engineering companies architecture. Practice and Perspectives Second International Scientific Conference on Project Management in the Baltic Countries April 11 – 12, 2013, Riga, University of Latvia, 57-66.
- Kalyanov, G. N. (2013). Enterprise architecture and instruments of its modeling. Retrieved May 10, 2013, from http://www.vshu.ru/files/IR01a.pdf
- Kondratiev, V. V. (2007). Projecting corporate architecture. Moscow: Exmo.
- Korotkov, A. (2013). Enterprise Architecture. How to make IT work for your company? Retrieved May 10, 2013, from www.andrey-korotkov.ru
- Lankhorst, M. (2013). Enterprise Architecture at Work. Modelling, Communication, Analysis. Springer–Verlag. http://dx.doi.org/10.1007/978-3-642-29651-2
- OGC (The Office of Government Commerce). (2009). Managing Successful Projects with PRINCE2TM. London: TSO.
- PMI (Project Management Institute). (2013). A Guide to the Project Management Body of Knowledge: PMBOK(R) Guide (5th edition). Project Management Institute.
- 11. Repin, V. V. (2013). Business-processes. Modeling, implementation, management. M.: Mann, Ivanov and Ferber.
- 12. Ross, J. W. (2006). Enterprise Architecture: Driving Business Benefits from IT. CISR WR No.359.
- 13. SearchCIO (2013). Retrieved May 10, 2013, from www.SearchCIO.com
- 14. The Open Group. TOGAF Version 9. The Open Group Architecture Framework (TOGAF). (2009).

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Procesų ir projektų valdymo integracija – esminiai įmonių architektūros vystymo aspektai

Santrauka

Efektyvi verslo vadyba informacinėje visuomenėje reikalauja, kad įmonės turėtų lanksčią ir efektyvią valdymo sistemą. Tokia sistema (kitaip vadinama įmonės architektūra) yra svarbus ilgalaikio konkurencingumo veiksnys. Valdymo sistema yra skirta tam, kad įmonės strateginių tikslų būtų siekiama nuosekliai, įmonė dirbtų stabiliai ir prisitaikytų prie aplinkos. Tai reiškia, kad įmonės turi nuolat tikslingai dirbti su pokyčiais. Tam reikia ypatingo požiūrio į planavimą, kontrolę, išteklių paskirstymą ir pan. Įvairūs įmonės architektūros tyrimai pabrėžia būtinybę įdiegti pokyčių vadybos mechanizmą (pavyzdžiui, Ross, 2006; Kondratiev, 2007; The Open Group, 2009; Kalyanov, 2013; Korotkov, 2013; Lankhorst, 2013). Tokiomis aplinkybėmis ypatingas dėmesys skiriamas projektų valdymui.

Projektinis požiūris į veiklos organizavimą ir valdymą reikalingas tada, kai reikia atsižvelgti į kokius nors pokyčius ar iššūkius. Poreikis gali atsirasti tiek organizacijos viduje, tiek ir už jos ribų. Taip pasireiškia dvejopas projektų vaidmuo įmonėje: tiek pačios įmonės reorganizavimas, tiek išorinių užsakymų tenkinimas. Iš pirmojo tipo projektų paminėtini: verslo procesų reorganizavimas, įmonės informacijos sistemos kūrimas, kokybės vadybos standartų įdiegimas. Kitos rūšies projektais užsiima į projektus orientuotos įmonės, kurioms kiekvienas užsakymas yra projektas. Tokios įmonės veikia statybos, inžinerijos, informacinių technologijų sektoriuose ir pan. (Ilyin, Lyovina, 2013).

Atsižvelgiant į visą tai, galima teigti, kad daugelis įmonių įvairiose verslo šakose turi spręsti problemas, neišsprendžiamas remiantis įprastiniu požiūriu į verslo procesus. Taip atsitinka, nes kai kurie verslo aplinkos iššūkiai kelia uždavinius, kurie nepatenka į operatyvinės įmonės veiklos sferą. Tada reikia kurti projektais paremtus sprendimus, kuriuos reikia integruoti į įmonės valdymo sistemą. Tačiau vis dar nėra sprendimų, integruojančių procesinį ir projektinį požiūrius, kurie leistų efektyviai modeliuoti ir valdyti įmonės architektūra.

Straipsnio tikslas yra pagrįsti požiūrį į įmonės veiklos architektūros formavimą, kuris remtųsi strateginio, procesų ir projektų valdymo principais bei leistų išspręsti konfliktą valdymo sistemoje tarp procesų ir projektų. Tam pateiktas veiklos architektūros modelis bei projektų valdymo procesų modelis, atsižvelgiantys tiek į procesų, tiek ir į projektų valdymą.

Veiklos architektūros modeliavimas yra visos įmonės architektūros modeliavimo dalis. Straipsnyje pagrindžiamas bendras karkasas įmonės veiklos architektūrai modeliuoti.

Šiuo metu egzistuoja daug pasauliniu mastu pripažintų projektų valdymo metodologijų, kurias išvystė profesionalų asociacijos bei organizacijos. Straipsnio autoriai teigia, jog prasminga parinkti vieną standartą visos įmonės projektų valdymui. Jo diegimas turi suteikti visiems projekto dalyviams bendrą supratimą apie projektų vadybos tikslus ir metodus. Be to, tai leidžia projekto dalyviams efektyviau komunikuoti tarpusavyje ir su išore.

Kiekvienas iš atitinkamų projektų valdymo standartų (pavyzdžiui, PRINCE2 (Cabinet Office), PMBoK (PMI), ICB (IPMA), MSF (Microsoft)) reikalauja tam tikrų procesų sistemos įdiegimo. Šių procesų gausa nustato projekto veiklos procesų sistemą ir leidžia modeliuoti projekto veiklas, remiantis procesiniu požiūriu.

PRINCE2, straipsnio autorių nuomone, yra labiausiai procedūrinis iš visų standartų. Detalus PRINCE2 procesų sudedamųjų dalių aprašymas leidžia dekomponuoti visus procesus ir sudaryti visų procesų modelį bet kuriuo dekompozicijos taisykles atitinkančiu aspektu.

Straipsnio autoriai vysto tradicinį požiūrį į veiklos architektūrą, kuriuo remiantis, ji yra veiklos procesų, organizacijos struktūros ir dokumentų srautų visuma, papildydami ją projektų portfeliu ir atitinkama vaidmenų struktūra. Tokia veiklos architektūros vizija leidžia visiškai suprasti strateginius įmonės tikslus. Šį požiūrį atitinkanti veiklos architektūra sukurs prielaidas tolesniam įmonės augimui ir leis nuolat valdyti pokyčius. Įmonės architektūros strategijos kūrimas ir diegimas padeda pasiekti įmonės strateginius tikslus ir veiklos efektyvumą.

Įmonės architektūros sluoksnių modelis skirtas užtikrinti efektyvų komunikavimą tarp projektinių ir procesinių veiklų toje pačioje valdymo sistemoje. Tiek projektinės, tiek ir procesinės veiklos gali būti modeliuojamos naudojantis procesų modeliavimo priemonėmis.

Reikšminiai žodžiai: projektų valdymas, proceso valdymas, įmonės veiklos architektūra.

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