CLASSIFICATION OF INFORMATION RESOURCES CREATION PROJECTS OF PROJECT-ORIENTED ENTERPRISES

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***Abstract**: the study is to suggest to apply project approach to the creation and use of information resource of project-oriented enterprises. Modern researches in information resources management are showed. The models classification of information resources management in accordance with the project approach and provision in different areas of project and operation management of the project-oriented enterprise are developed. Signs by which we classify models are presented.*

***Keywords**: information resources, project management, projects classification.*

***ACM Classification Keywords**: K.6.1 − Project and People Management*

Introduction

Today the limited number of approaches is used in the information resources management to their creation and use. In most cases, these issues are considered as part of information technology from the standpoint of the process approach - “how to process information”. Although the process of creating any resource, including information resource, should begin with the question “And what is it for?”, “For whom or for what is this resource?” “What does it give?”, “How much it costs to receive it?”, “Where to get it?”, “What time it is received?”, etc. All of these issues are usually considered as part of the project approach, not the process approach. Answers to these questions can only be obtained with effective project management system that creates an information resource, not just information technology. Therefore, narrowing view of the information that is seen in technologies, constricts process of the information support of managers, which in turn leads to low-quality and ineffective inform the participants of the project and operation activities. This in turn leads to many problems in the coordination and adoption of various decisions, lack of training meetings, the long search for the right information.

Therefore, the paper proposes to apply the project approach to the issue of creation and use of information resource in project-oriented enterprises. The essence of this approach to resource

management is the creation and use of this resource is considered as the project implementation with all the attributes and components of the control system. After all the creation and use of any information resource demands to plan actions (integration and project content management), organize services work, monitor, consider the risks, information communications, human resources, sometimes - procurement, etc. Further, such projects will be called Creation and provision of information resource projects.

Analysis of the latest research and publications

Today there are a lot of studies that focus on the management of information resources [1- 10].

For example, in the paper [7] are introduced the features of a new class of information systems creation - systems of the enterprise information resources management. Disclosed advantages and features of this system and described its application for higher education in Ukraine. Demonstrated structure, algorithms and features of realization of information resource management at Taras Shevchenko National University of Kyiv.

The paper [8] is devoted to solving the problem of creating intelligent management methods of enterprises information resources.

The paper [9] presents a prototype approach for the design and use of training material that provides significant advantages to both the designer-strategic planner (knowledge – content reusability and semantic web enabling) and the user-manager (semantic search, knowledge navigation and knowledge dissemination). The approach is based on externalizing domain knowledge in the form of ontology-based knowledge networks (i.e. training scenarios serving specific training needs) so that it is made reusable.

The authors [10] showed the role of information resources as one of the factors of production, their distinctive features, the need for management within the enterprise, and developed a scheme for the conversion process of information resources. In the first stage a man acquires the information to his needs (information is the subject of work), in the second stage he uses the accumulated knowledge, information, production takes place (resource is the work tool).

Main part

Definition 1 Project of creation and provision of information resource (PCPIR) - this is information-creating project, which purpose is to meet the information needs of users by creating and providing information resource in a convenient way.

The research allowed to classify models of information resources management in accordance with the proposed project approach and provision in different areas of project management and operations of the project-oriented enterprise. Table 1 shows the characteristics for which models classification is performed.

All of the signs should be used selectively, depending on the functional tasks and functional roles that use information resources in the management of project and operational activities of the enterprise. But most importantly, work with information resource should be done with using management models that are adapted to these classes. Such models allow to formally operate processes of resource management, which in turn will make decisions that lead to optimal and quasi-optimal actions to manage projects and programs.

Consider the model of information resource management in the context of the presented classes. This context is required because the forms of information resources specifies the data that best meet essential of management of project and operational activities of the enterprise.

Table 1. **Classification features of projects of creation and providing information resources**

N	Classification feature	Project class	Description
1.	**The duration of projects of creating and providing an information resource**	Short-term	Project duration does not exceed the limit time
		Long-term	Project duration exceeds the limit time
2.	**The urgency of creating and providing an information resource**	Operational	A project that originally was not planned, but the need to implement it explained the unpredictable situation in the enterprise activity.
		Planned	A project, which caused a predictable

			situation on the creation of an information resource
3.	**The complexity of creating and providing an information resource**	Simple	It represents set of actions to create an information resource by one project participant
		Complex	It represents set of actions to create an information resource by more than one project participant
4.	**The kind of an information resource (PCPIR product)**	Standards	The documented rules that regulate the project and operation activities of the enterprise.
		Permission documentation	The documents, which give the right to perform business activities.
		Plan	The document, which defines the sequence of actions to achieve the objectives of the project and operating activities of the enterprise.
		Order	Official authority order.
		Report	Official notification provided for a certain issue, which is based on the involvement of documentary evidence.

5.	**By way of creation of an information resource**	Automatic	An information resource is created in the information systems environment, without the involvement of people.
		Traditional	An information resource is created by employees of the project oriented enterprise or external persons without use of computers.
		Automated	An information resource is created by the complex interaction between employees of the project oriented enterprise or external persons and computer technologies.
6.	**По формі надання інформаційного ресурсу**	Text	- Analytic note. - Table. - List. - Definition (rule).
		Diagram	- Histogram. - Chart. - Diagram. - 3D image.
		Graph	- Workflow. - Network graph. - Tree graph (hierarchical graph). - Bipartite graph. - Semantic network.

		Figure	- Map. - Arbitrary drawing. - Photo.
		Mixed	It is a form of representation that includes various types of information resources visualization.

These features form a set of class PCPIR. Any need for information for project management will depend on the situation in the project, in the enterprise, in the project management system. In turn, such a situation will form the values for these attributes for information management system of the enterprise. This will specify the PCPIR class and develop project realization templates in this class. A set of templates will create some project management methodology for creating and providing an information resource. In this case, each PCPIR is included at the same time in separate classes for each of the given signs and in the intersection of classes (subclasses) that generated by set of all features (Figure 1.).

There are 1200 subclasses with the proposed classification. It is clear that the PCPIR control system should be sufficiently complex, multidimensional, based on strong methodological basis to meet the needs of project-oriented enterprises in the information resources management. But it is impossible to create a system that contains a set of management practices for each of the subclasses. Therefore, the task of creating an effective management system is to bring together subclasses in such groups, which are used for the same methods and controls PCPIR.

To solve the problem of creating a system of management PCPIR we first need to formalize the given PCPIR classification, to identify management classes and to create appropriate methods for implementing management functions on the basis of created PCPIR management classes.

On the basis on given classifications we need to develop projects models for individual classes. The purpose is to determine the information intersections of these classes from the viewpoint of creating the management system with identical methods and means.

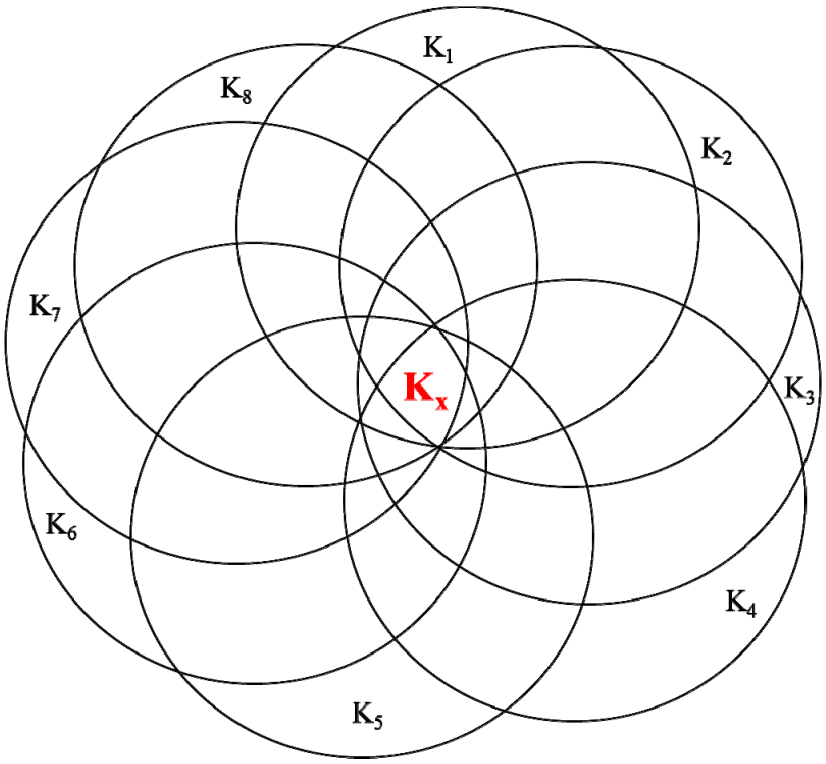

Figure 1. PCPIR subclasses

Conclusions

Classification of creation and provision of information resource projects will allow to develop a management model. Each model will be presented by different tools of implementation project management functions. And this models can be used to control many subclasses PCPIR.

These models will give the opportunity to optimize the functions of planning, organization and control processes necessary to request, creation and provision of information resources of project-oriented enterprise, which will increase the efficiency of its project and operation activities.

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