

The Role of Project Office for Project Portfolio Management

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Summary:

The paper focuses on the management of project portfolios as a novel and complex area in the practice of project-oriented organizations. The paper's main goal is to review the role of project management office /PMO/ for enhancing the performance of organizational project portfolio. It considers several core issues and functions related to the process of implementation of PMO in a particular organization. A case study has been conducted in order to provide evidence about the benefits from the introduction of PMO in a company operating in the media sector. Results from the case study analysis shows that this approach to project management in a multi-project environment is to a large extent universal and can be successfully applied in similar organizational context.

Key words: project management, project portfolio, project office.

JEL Classification: M10, M20, O22.

1. Introduction

Project management plays a key role in contemporary company management operating in virtually all commercial or non-

profit areas. A study of the World Bank (Bredillet et al., 2008) reports that 21% of the global Gross Domestic Product is related to capital operations which originate from project-based activities. This largely applies to the so called project-oriented organizations which operate portfolios of projects (Aubry et al., 2010). Put in the organizational context, the management of the project portfolio could be performed in different ways, among which the most innovative and highly effective one is the establishment of the Project Management Office /PMO/.

The management of project portfolios is considered as a novel and complex area in organizational practices. Hence a variety of challenges emerged, which need to be tackled by managers, along with many opportunities for increasing the organizational effectiveness (Boneva, 2014). Some authors assert that – within the project portfolio management area – a range of research issues should be addressed, e.g. balancing of resources, project prioritization, decisions for selection of new projects in conditions of uncertainty, decisions for ceasing the implementation of failed projects, as well as the overall optimization of the scope and number of implemented projects in the portfolio (Cooper et al., 2000; Staneva et al., 2014). When too many projects are to be managed

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simultaneously by an organization and the resources are scarce, the project portfolio requires finding the precise balance of organizational resources. In the process of portfolio management the most difficult task is the prioritization – it requires the regular reassessment of each project in the portfolio and project selection based on clear and adequate criteria.

The main goal of this paper is to reveal the role of PMO for enhancing the effectiveness of project portfolio management. It focuses on the implementation of PMO in view of the following key issues: What is the need to establish a PMO within a particular organization? How an organization could implement PMO functions most appropriate to its specific environment? Which are the benefits from PMO implementation in respect of the strengthening of organizational capacity? The first section is devoted to the role of project office for the management of the project portfolio as considered in contemporary literature. The second section proposes a conceptual model of the process of transformation of PMO. The methodology is tested through a case study on the role of a media company PMO for increasing the effectiveness of project portfolio management. Finally, conclusions are presented with regard to the possible transformations of PMO and suggestions for their practical application.

2. Literature review

The genesis of project portfolio management integrates knowledge from two main strands of theory: contemporary project management and financial investment theory. In this line, some principles and methods originating from investment portfolio management have been adopted within the field of IT projects (de Reyck et al., 2005) and projects for new products development (Cooper et al., 2001). Still, there is a lack of consensus about the terminology in

project portfolio management – concepts like "multi-project environment", "program management", and "project portfolio management" are under discussion in the specialized literature (Elonen and Artto, 2003). Portfolio management was treated as a collection of projects managed by a company – a process related to decision making about project selection, prioritization, and exclusion from the portfolio (de Reyck et al., 2005). Thiry (2006) considers the project portfolio management as a process of resource analysis and allocation within the organization directed to achievement of organizational goals and thus maximizing the stakeholders' value.

Some authors have identified managerial problems which could be resolved by the practice of project portfolio management. Core managerial problems relate to the lack of connection between organizational strategy and project selection process resulting in disbalanced portfolios exhausting too much organizational resources. Other problems originate from the scarcity of resources and, in the same time, lack of priorities in decision making, insufficient data, information overflow, improper competencies, unsatisfactory commitment, unclear roles and responsibilities of project team members, and last but not least – irrational or authoritative decision making (Elonen and Artto, 2003). Kendall and Rollins (2003) consider the lack of interconnection between project management and strategic planning. Project managers focus much more on the issues of scarce resources and related conflicts as well as on hindered multitask operations. They rarely pay attention to the strategic dimensions of prioritization and the resulting effective resource allocation.

Indeed, very often organizational projects are aligned in little extent with the corporate strategy neither they are precisely balanced regarding the variety of

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organizational objectives set at the overall level of the portfolio. Levine (2005) identifies a set of issues related to mechanisms for implementation of project portfolio management, e.g. ranking of values and benefits, evaluating the scope of project portfolio, dealing with risks and uncertainty of projects and project portfolios, etc.

Among the new insights in project management the concept of Project Management Office emerges as an effective solution for many problems in contemporary project portfolio management. Its conceptual definition is still under discussion and because of this, it is used interchangeable with other terms such as "project office", "program office", "project-oriented organization", "project-based organization", etc. Ward (2000) defines "project office" as an organizational unit founded in order to manage a one or a series of projects and governed by a project/program manager. This definition is extended to Project Management Office / PMO/ by precisely assigning the following functions: to assist project managers, project teams, and different management levels in dealing with strategic organizational issues when implementing project management principles, practices, tools, and techniques (Ward, 2000). By introducing a PMO, a project oriented organization adopts an overall strategy termed by the concept of "management by projects".

In a business or non-profit organization PMO emerges as a department or special team constituted within the organization which introduces and maintains standards related to project portfolio management. PMO emphasizes on standardization of project work throughout the various projects executed by the organization, and moreover, PMO supports project managers and teams to adopt professional standards of project management (PMI, 2008). PMO acts as a formal unit with centralized control

and coordination which typically links top management to project management within the organizational structure (Singh et al., 2009).

Introducing such an organizational entity like PMO is often a hard task because of the specifics of each organization – each PMO needs to be unique in order to reflect the features of the organizational strategy and culture. As stated by Valle et al. (2008), PMO acts as a center of intelligence and coordination which links the strategic organizational goals to the expected project results by the mechanisms of project portfolio management. PMO roles and responsibilities extend from delivering support functions to project managers to taking the obligations for the direct management of one or more projects.

In general, the literature on PMO focuses predominantly on a range of professional issues and technical implementation aspects. The majority of the sources treat mainly three topics: justification for introducing PMO as an organizational innovation; PMO roles and functions; particular steps for its introduction. The emergence of PMO is related to the expansion of the project-based activities and the sophistication of the projects in the business world which brought in some degree of centralization (Marsh, 2000). Nonetheless, the reality of project management implementation is substantially diverse. Numerous distinctive functions have been identified where PMOs were found to have a core responsibility regarding some specific functions. Some authors indicate that PMO was found to have a main role in personnel management within project-oriented organizations (Huemann et al., 2007) as well as tighter connection to the control functions (Huemann & Anbari, 2007).

PMOs have proved to operate effectively in respect of one major target of project portfolio management, namely, to appraise and prioritize the projects in order to

boost their inputs to the achievement of the organizational goals. Furthermore, the function of PMO to narrowly monitor the performance of the projects ensures that they would be effectively completed. This way the utilization of a PMO provides additional value to the general utility of project management, more specifically, the precise operating and tracking multiple projects, coordinating their cumulative interactions when utilizing organizational resources (table 1). Portfolio management through PMO shows also specific divergence from the traditional project management, e.g. focusing on the strategic issues of organizational vision and development as well as critical success factors supporting the long-term targets of the organization (SEI, 2011).

3. Project management office as an innovation tool

As stated above, the basic unit to operate effectively the management of organizational project portfolio is the project management office. It is necessary to note that overall maintenance of a PMO provides an innovative tool for centralized management of the portfolio of projects executed by the organization. For the purposes of the present study, a basic definition of PMO provided by the Project Management Institute (2011) is accepted: "An organizing body or agency assigned by multiple responsibilities associated to centralized and coordinated management of projects". From our point of view, PMO's responsibilities can range from providing

Table 1. Key differentiators of project portfolio management versus traditional project management

Characteristic	Project management	Project portfolio management
Scope	Control and manage scope against project specific requirements	Select projects with scope that supports organizational goals
Time	Manage tasks due dates and dependencies to ensure project delivery	Monitor all project timelines against short- and long-term goals
Resources	Utilize provided resources effectively and efficiently	Monitor and manage resource utilization across the portfolio
Tools	Project plans, budget spreadsheets, project charters	Dashboards, resource levelling, PPM applications
Impact on change	Manage change within the purview of individual project to control scope	Measure change across the entire organization to foster user acceptance
Industry evolution	N/A	Measure and evaluate future state against industry and portfolio

Source: SEI (2011), p.2.

The goal of introducing or upgrading a PMO is an exclusive organizational challenge which, in many cases, is a fragment of a more comprehensive organizational change. This way, a specific methodology accompanied by a revealing framework is necessary in order to apprehend the dynamic complexity of such a change (Hobbs et al., 2008). This paper adopts an approach to investigate a PMO in an organizational context with its challenges and perspectives.

support for the management of projects to functions related to direct management of projects.

This broad definition includes a large set of possible tasks for organizational design and programming that can be applied from the PMO for management of single and/or portfolio of projects. Thus, this definition is not much tractable because it does not specify which organizational functions or activities are affected. The definition only

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reflects a lack of knowledge about the core impact of PMO and the lack of consensus on how to introduce it. This ambiguity stimulated the current study which focuses on the PMO exploring its specific roles for the organization. A common question such as "What are the factors of success of every PMO which satisfy any mix of different targets?" is too broad to allow research progress or for the generation of cumulative evidence for the future. Pellegrinelli (2011) made similar notes about the names "project" and "program" that using the wrong one and/or out of place limits the research results and does not allow placing them in a precise framework.

Project management theory provides a limited number of models for a PMO based on specific typologies. The study of Gartner Research Group in year 2000 suggests 3 models: (a) project repository; (b) coach; (3) enterprise. Other authors suggest maturity models assuming a progressive enhancement of PMO's functions, like the Organizational Project Management Maturity Model (OPM3) proposed by the Project Management Institute (PMI, 2008). In order to stabilize its organizational role, a PMO should be encouraging to the infiltration of the project management culture through the whole organization. Only this way project portfolio management could be integrated into the organizational procedures at the required degree of effectiveness (Aubry et al., 2010).

In practice, several basic models are established for the operation of PMO (Kendall and Rolling, 2003). A PMO applying the "PMO- information base" model plays the role of a repository for information about projects, methods and standards adopted in the project-oriented organization. Most often, the model is used in organizations which have low expressed centralization and decentralized operation of the functional units responsible for the implementation of projects in the portfolio.

The model "PMO-Advisor" is an upgrade of the previous one and reflects the intentions of the leadership of the organization to implement the methodology of project management in its all functional divisions. In this case the PMO is the focal point for communications between these divisions. The Office is responsible for the creation of documents and monitoring the process of implementation of the projects.

The model "PMO-Enterprise" requires more investment but creates a solid foundation, has well-defined objectives, standards and rules, and in addition, enjoys substantial support from senior management. A distinctive feature of the model from the previous two is that PMO has a leading role in the process of initiation and completion of projects, a leading role in the implementation of the project portfolio, and a function to detect and remove the narrow (critical) places that obstruct the work of the project teams. The Office collects the information necessary for its project portfolio and manages the information about all the important projects in the organization.

4. PMO at Media TV Co. Ltd.

This study aims to examine the degree of development of project management practice in an international television media company, to outline the possibilities for building a project management system with a view to improving the activities of the organization in respect of the management of a portfolio of projects. The interest in the management of project portfolio is determined by the progressively increasing number of projects managed by the organization in particular in the media sector. Here a question arises as to what combination of projects could yield the best results and will help to achieve the objectives set by an international television company.

Because of the rapid development of this segment "Media" needs to host small, medium-sized and large projects at the same time, which operate by sharing organizational resources. This leads to the necessity to migrate from a system for management of individual projects to the project-oriented type of organization. Such organizations are characterized by a particular interaction between the functional and matrix elements in their organizational and management structures. The management of the project portfolio is different ***due to the enhanced interaction between its projects***. The application of traditional approaches and methods for project management often proves ineffective in managing the large number of projects of different scale and subject matter.

This raises the need for theoretical reflection, methodological and practical feasibility argumentation of changes in management approaches and methods, functions, organizational structures, etc. for successful realization of projects in a TV media company. It is here we observe evolution in the company's project management, particularly in the timeliness and importance of the problems associated with the construction and improvement of project portfolio in the media sector. This induces a need for a more detailed analysis, evaluation and identification of the approach for their execution.

The purpose of this case study is to provide understanding about the way an organization could implement PMO functions which are most appropriate to their specific environment (both external and internal). Moreover, we suggest an identification of key stimulus to successful utilization of PMO functions which link the project goals to the organizational strategy. The type of this case study is exploratory as far as it outlines some directions and effects from the implementation of a PMO within a particular organization.

The current study applies the method of in-depth interviews with 27 respondents: top managers, functional managers, project managers, members of project teams, etc. The purposive sampling design has been applied in order to select respondents with relevant experience – individuals with participation in at least one project implemented by the company in focus. Understandings acquired by this research could be of particular help by offering constructive guidelines to top managers and PMO managers dealing with emerging issues of project portfolio management.

In the media sector the implementation of a PMO implicates a dynamic interaction of project team members, business processes and high technologies. PMO supports processes such as initiation, planning, execution, monitoring and control in the organization. This case study tries to reveal how PMO functions contribute to the achievement of the organizational goals in the framework of budget and resource constraints as well as strict project deadlines. It is conducted by a qualitative method which explores the PMO implementation and execution of its functions. Such a method allows the researchers to utilize the flexibility of techniques permitting in-depth exploration and derivation of a variety of conclusions.

The object of the current study is "Media TV Co. Ltd." which operates a number of projects related to the linear broadcasting: television channels, their migration from SD to HD, preparation of technical base for UHD, as well as entering the sector of "non-linear content delivery" to end mobile devices in parallel to the traditional TV. The choice of this company is motivated by the dynamic development of the media sector in Bulgaria and the necessity of introducing project-based activities in the operation of media business units.

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A number of facts support the hypothesis that a media viewer wants to receive more information about the observed content. If we compare the information that reaches a contemporary individual to the former generations, the same volume of information reaches our predecessors 100 years ago but for all their lifetime. The strategic goal of a media company is to meet the needs of consumers, so the problems are not just related to lack of technology but rather to the specific requirements of the customers. There was a significant progress in the development of safe and cost-effective technologies for optimizing the content delivery, however, increasing the resolution and the volume leads to an increase in speed transmission on the Internet, which in turn affects the end prices.

TV Media Co. implements numerous projects, some of which are:

- Upgrade of Network architecture by enhancing 8 times the transmission speed;
- Virtualization of all servers;
- Replacement of disk arrays to enhance the space 3 times;
- Installation of a new type of the System for Delivery and Acceptance of the transmitted content;
- Upgrade of the System for Integrated Content Management;
- Centralization of corporate information in a common database;
- Introduction of additional software for financial management;
- Development of software for CRM and market trends analyses.

The main argument for choosing the object of this study is the fact that organizations take advantage of project portfolio management as a form of complex solutions of certain tasks in a dynamic

environment. TV Media Co. implements both external and internal projects which aim in creating new products and/or implementing organizational changes. Its organizational strategy is directed towards continuous improvement of the competitiveness, efficiency and expansion of its operations.

In line with this, the main reason for the implementation of PMO in Media TV Co. reflects the identified need for a standardized approach to the management of the constantly increasing number of projects. These projects lifted the degree of complexity of all activities related to their management as well as the assignment of roles, document turnover, chains of commands, etc. On the other side, this amplified complexity is accompanied by limitation in available resources and emergence of problem situations. This way it became essential to establish one unit for analysis, coordination, and control of all major projects executed in Media TV Co. This organizational change should facilitate the work of Project Managers in their efforts to manage effectively their teams in a much better regulated internal environment and conflict resolution.

In the process of change induced by the PMO establishment the need for urgent updating of the competences of project management experts has evolved. From some point of view, PMO appeared also as an opportunity for a career development for some employees. The PMO implementation in Media TV Co. resulted in enhanced project outcomes along with improved organizational performance and more efficient utilization of the organizational resources. Now the company has one centralized unit where the top management can turn to when a

particular project must be evaluated in the framework of the organizational project portfolio. Along with that, the project management procedures changed in order to provide normative basis for the PMO to implement unified standards on a broader scale of project operations.

The results from the survey about the extent of project activities in the organization show that the largest share of respondents (48.6%) declare that their involvement in project-based activities is very high (61 to 80% of the total workload). This means that every second determines the organization as a project-oriented one. These data give us reason to conclude that project management is currently imposed as the main approach to the operations of the company. The experience of respondents in project management is revealed by the question: "How many projects implemented by your organization you have participated in?" – the largest share of respondents were

involved in up to 5 projects. It is known that the participation in more projects contributes to the accumulation of practical experience at both managers and members of project teams. Essential for the functioning of PMO is the formation of project-oriented culture and behavior in the organization.

The next question is related to the type of projects. The large proportion of respondents (47,2%) indicated their participation in projects implementing a kind of introduction of a new technology or equipment. Obviously, such type of projects acts as the main driver of the formation of project-oriented organizational culture.

The recent trend in activities of the company in the media sector is related to the reconstruction and modernization of the broadcasting program. For this reason, the percentage of respondents participating in projects related to the development and improvement of business processes is about one-third (31,8%). Significant share

Table 2. Results regarding the execution of the timetables of projects in the portfolio

Result about timetables	% of respondents
Projects meet the deadline	59,8
Projects finish earlier by 10-20% of the total term	7,2
Projects finish earlier by over 20% of the total term	4,5
Projects finish later by 10-20% of the total term	19,3
Projects finish later by over 20% of the total term	6,4
Don't know / Cannot answer	2,8

Table 3. Results regarding the execution of the budgets of projects in the portfolio

Result about budgets	% of respondents
Projects spend according to the budget plan	41,3
Projects finish by 10-20% economies	5,2
Projects finish by over 20% economies	–
Projects finish by 10-20% overspending	36,3
Projects finish by over 20% overspending	3,8
Don't know / Cannot answer	13,3

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of the interviewed persons (19.2%) also participate in groups of projects (programs). The experience of nearly one-fifth of the participants is in the management and realization of the project portfolio. In respect of the significance of the projects realized by the organization, the respondents are primarily grouped around high and medium statements regarding the projects importance (respectively, 48,2% and 35,3%).

One eighth of the respondents identify the projects managed within the portfolio as vital for the organization. The evaluation of the results of these projects leads to conclusions about the relationship between the methodology of project management and practical aspects of its implementation. Under exploration are the life-cycle of the projects, the application of the timetable, the scope of project activities, the efficiency of project budgeting, etc.

Table 2 shows that most of the projects in the portfolio of TV Media Co. are completed

in due term (59,8%). This could be explained by the practices of selection of reliable subcontractors, the financial capacity of the organization, and precise assignment of project tasks to subcontractors.

Typically, project budgets cover the entire project lifecycle providing financial support to project activities and ensuring the achievement of the objectives set in the project plan. Compliance with budget restriction is generally important for any project within the portfolio. The evaluations provided by respondents show that a substantial share of the executed projects finish within the planned budget (41.3%). Rarely projects succeed to save a minor share of the planned expenditures. As expected, frequently the projects needed to overrun their financial plans (over one third), but this was in a low ratio to the total projected budget amount.

Responses have been obtained also in respect of the achievement of predefined

Table 4. Results regarding the achievement of the objectives of projects in the portfolio

Result about objectives	% of respondents
Projects achieve practically 100% of the goals	69,5
Projects achieve an expanded set of goals	3,4
Projects fail to achieve only goals with minor importance	17,4
Projects fail to achieve goals with major importance	5,2
Don't know / Cannot answer	4,5

Table 5. Project resolution results worldwide

In % of total projects	2004	2006	2008	2010	2012
Successful	29	35	32	37	39
Failed	18	19	24	21	18
Challenged	53	46	44	42	43
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Time	84	72	79	71	74
Cost	56	47	54	46	59
Features	64	68	67	74	69

Source: SGI (2013), pp.1-2.

project objectives (table 4). The vast majority of respondents (almost 70%) indicated that the projects generally achieve practically all project targets. One should have in mind that the media sector with its specific nature of production and dissemination requires a very high rate of achievement of the objectives. In cases when such goals are not met, these are mainly targets with no substantial importance for the project. Many specific constraints, rules and regulations enacted within the media sector are imposed to the project teams managing and implementing projects which supports these findings.

The results about the media company look much positively as compared to the world practices in project management. According to the 2013 Standish Report only 39% of projects were considered successful for year 2012, 18% have failed, and 43% were challenging, i.e. completed with some time and/or budget overruns (SGI, 2013).

The positive trend since the lowest point (29% in 2004) for the successful projects can be explained by few major factors related to the improvement of the entire project environment (processes, methods, skills, team working, costs, tools, decisions, optimization, internal and external influences, etc.). Another vital determinant of the increments in success rates is the development of project management as a profession and expanded involvement of trained project management professionals (SGI, 2013).

In the same time, no trend is observed in the dynamics of the rates estimated in respect of the main project success measures. The experts of the Standish Group review each challenged project

finding that in year 2013 a slight increase in both cost and time overruns is observed. Cases of project overspending amplified from 56% to 59% for the period 2004-2012 and cases with time overruns have increased their share up to 74% in 2012. Project delivered features decreased from 74% to 69% for 2010-2012. The experts suggest an explanation of this result by the better focus of the project-oriented organizations on the high-value client requirements at the expense of other (considered of minor importance) project deliverables (SGI, 2013).

The introduction of a special coordination unit in TV Media Co. as PMO to deal with the overall organization of planning, implementation, monitoring and control of projects in the portfolio was identified as a major task for the top management. This immediate conclusion is drawn by more than 70% of the respondents who are familiar with the modern forms and methods of project management. The implementation of the new trends in project management needs, however, special trainings that are aimed at creating the appropriate skills and competencies for the team members to work on complex dynamic projects. In relation to this, the senior management has recognized the benefits of project portfolio management that could strengthen the organizational capacities by:

- Specialized training in project management;
- Provision of anticipated information (e.g. monthly newsletters containing information on the projects to be implemented and will be implemented in organizations);
- Improved quality control of the projects;

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- Targeted organizational change implemented through specific projects, etc.

Conclusions

On the basis of this study results we can suggest a general conclusion that the optimization of project management in an organization can be realized by the introduction of PMO. This is valid for the organization chosen as a subject of the study but can be extended to all other organizations which operate in a multi-project environment. Such an optimization requires the implementation of three types of activities /roles/ – coordination, monitoring and support. To sum up, PMO is an organizational unit, normally at a higher level in the organizational hierarchy (if not at the highest management level), which can be assigned multiple tasks depending on the needs of the project-oriented organization.

In order to improve its overall performance such type of organization should also ensure the mitigation of a major risk – emergence of contradictory effects of the three simultaneous roles on project managers. Currently, the assistance necessary to support the operation of individual project managers by a PMO is well recognized by the project experts and managers within the analyzed organization. At the same time, they can become suspicious of receiving support from a unit that simultaneously takes decisions as well as monitors and controls their projects. Such a situation can induce some extent of disobedience of project managers and potentially can become an obstacle to efficiently achieve the objectives. To prevent this risk, all roles must be integrated and executed with a

special focus on any problematic aspects emerging within the project portfolio.

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