

# PROJECT BASED ORGANIZATION - AN INTEGRATED APPROACH

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## *Abstract:*

*As a consequence of globalization, application of new technologies, turbulent economic environment, the uncertainties affecting markets, organizations must cope with ongoing transformational process. In this context, the project-based organization (PBO) emerges as an ideal alternative of organizational structure to deal with the emerging features of the temporary and unique demands, within a complex market. This paper brings a new approach through integration of general management functions with project management activities. The methodology of the proposed approach covers the whole Deming PDCA (Plan, Do, Check, Act) cycle, involving quality management in project-based organization's success.*

*Keywords: projects, project management, project-based organization, organizational structure, project teams*

## **1. Introduction**

The evolution of the current economic situation and the growing of competition pressure led the organizations to assume new notions of management. These developments begin with focusing on control, customers' requirements, continuous improvement and project management methodology. Project management is one of the most important and demanding fields of management. Increasingly more organizations from both business and non-profit sector become project-based organizations.

Gareis describe the PBO as an organization, which "defines project management as an organizational strategy, manages a project portfolio of different project types, has specific permanent project oriented structures, applies project management methodology, and perceives itself, as being project-oriented" (Gareis, 2003). Mitsuru considers a PBO "incorporates the meaning of an organizational

structure specially formed for a temporary period to enable a project-based organization execute a specific task" (Mitsuru, 2007). Hobday describes PBOs as pure projectized organisations with no functional links, and distinguishes six types of organisational forms from functional to project-based (Hobday, 2000). Thiry states that PBOs "conduct the majority of their activities as projects and/or privilege project over functional approaches, they can include: departments within functional organizations; matrix organizations; projectized organizations other forms of organisations that privilege a project approach for conducting their activities" (Thiry, 2011).

In the literature there are many studies on PBOs. Project management methodology deal with processes, methods, tools necessary for an organization to carry out a project. Few paper works have studied the problem of managing multiple simultaneous projects, and how it affected the organizational structure by running the

organizational activity through several projects. In recent years, several researchers have addressed the PBO both in the organizational management area (Gann and Salter 2000; Hobday, 2000; Lindkvist, 2004) and in the project management domain (Gareis, 2004; Keegan and Turner 2002; Thiry, 2011; DeFillippi and Arthur, 1998), but they report that there is little knowledge on how project-based organizations actually operate in practice.

Most researchers focus on project management failure to adapt to traditional mechanical organizational structures (Winch, 2004). Presently, most organizations are hierarchical-functional structure which makes PBOs structures being still mechanical (O'Sullivan, 2000; Tsoukas & Chia, 2002). They are still a combination of vertical organization (hierarchical) and horizontal (team project), a combination that has led to a new type of structure - the matrix. (O'Sullivan, 2000; Tsoukas & Chia, 2002). Managerial approach of current PBOs is basically an adaptation of project management to classic organizational structure, which obstructed these organizations to become more dynamic and innovative. (Moore, 2000; Richards, 2001).

My research was conducted through review of literature about general management, project management, quality management, direct observation of the characteristics of project management in PBOs. The research can be classified as exploratory, representing an initial study that deals with the issue of the application of the Deming PDCA cycle in the PBO to replace mechanical structure with new structure more suitable to work in project teams.

## **2. Project management evolution**

The emergence of project management was hastened rather by the necessity than the desire. Slow

growth can be attributed to resistance to assimilation of new management techniques necessary for its implementation. A fear of new has led managers refuse to accept the imminent organizational change.

In the evolution of project management can be distinguished three stages: (Kerzner, 2001)

- 1) Empirical stage (1960-1985),
- 2) Modern stage (1986-2000),
- 3) The post-modern stage (2000 - ...).

### *1) Empirical stage (1960-1985) - project management in informal version*

In the '60s, more and more managers began to seek new management techniques and organizational structures that allow rapid adaptation to the changing environment. During this period, project management became functional only in organizations whose work involves a high degree of complexity (aerospace, IT, construction of buildings, etc). In other organizations, project management has spread in the informal version. There is a project manager whose job was just coordinating the activities, the other attributes of management remaining in the responsibility of the hierarchical managers.

In the '70s and early '80s, more and more organizations have abandoned the informal project management and have adopted structures to allow a formal project management (such as R&D department). Others have experienced parallel running of the project management in the informal and formal version. Yet there have been organizations that have consider that they do not need of project management due to the simplicity of their activities.

### *2. Modern stage (1986-2000) - formalized project management*

In the late '80s and early '90s, organizations have realized that project

management is not a matter of choice but necessity. Producing companies were convinced of the need for project management by complexity and large number of products made.

3) The post-modern stage (2000-....) – *project-based organization*

In the '90, the most advanced high-tech and multinational corporations have been transforming their traditionally hierarchical organizations to flatter, speedier, and more flexible and horizontally-integrated structures based around teams and projects (Child and McGrath, 2001)

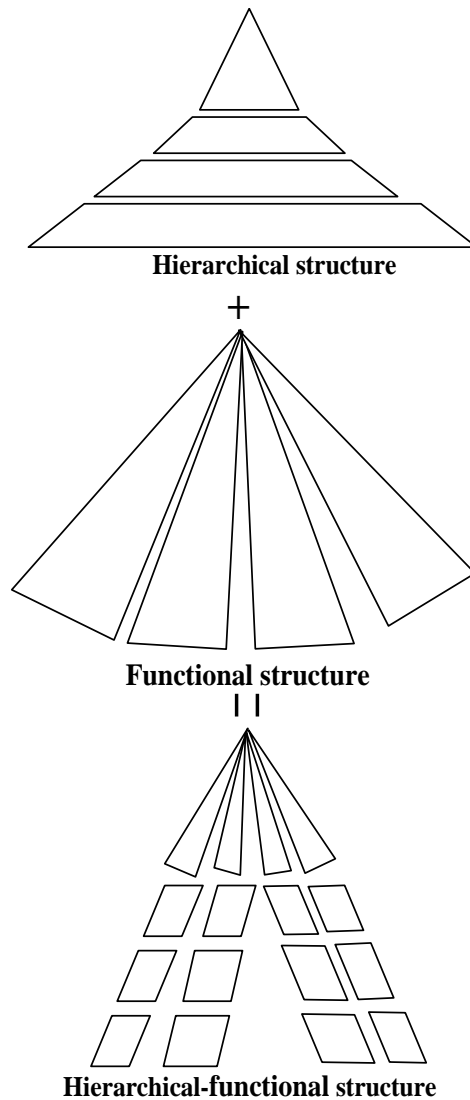
PBO is the challenge of the twenty-first century. The success of such an organization is assured that it will be able to reconcile the hierarchical leaders with project managers, removing any tension that can appear on the lines or columns organizational matrix.

### **3. Organizational structures**

An organization can be divided into four ways: (Constantinescu and all, 2008).

- 1) hierarchical structure,
- 2) functional structure,
- 3) hierarchical-functional structure (which combines the functional with the hierarchical one); most organizations today have such a structure,
- 4) matrix structure (the structure for PBOs).

While the hierarchical structure of an organization has the disadvantage of differences between hierarchical levels ("caste differences"), functional structure has the disadvantage of occurrence of the disagreements between functional departments. If overlap differences (disagreements) between the hierarchical levels of differences between the functional departments we get a series of operational "islands" (specific organizations with hierarchical-functional structure) who refuses to communicate with each other in order to take themselves the merits of a success (Figure 1). Project manager responsibility is to ensure transversal and longitudinal communication between these operational "islands".

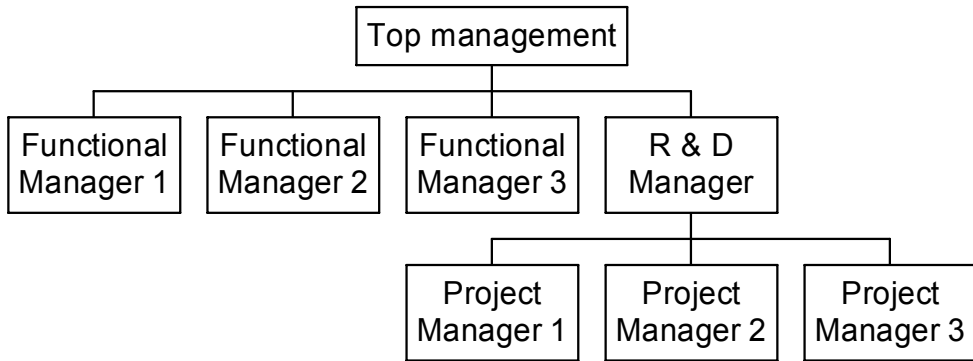


**Figure 1. Gaps between hierarchical and functional managers**

*Source: Developed by the author*

The first form of organizational structure adopted by PBO was to establish a R&D department in which projects were carried, other functional departments acting with functional role (Figure 2). This structure was used in areas with a high degree of innovation

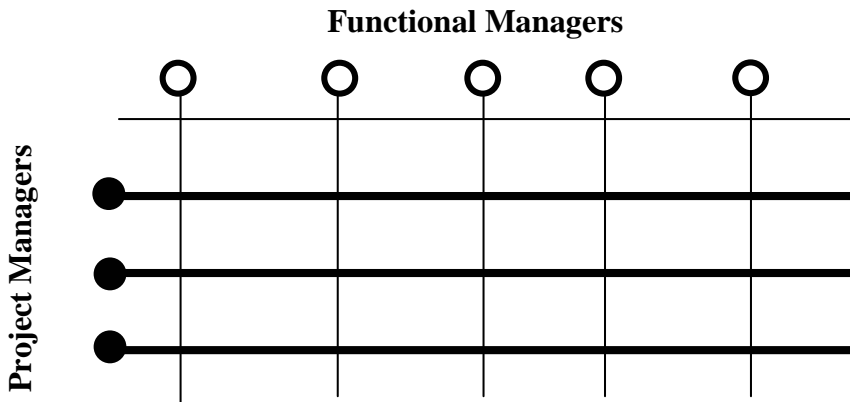
(aeronautics, aerospace, IT, etc.). In this type of organization concepts like cooperation, autonomy, aggregation and self-organization became important and more and more applicable (Sato, 2005).



**Figure 2. R&D structural organization**  
 Source: *Developed by the author*

To meet the needs generated by the organization through projects, many organizations have used the matrix structure (Figure 3). Project-based matrix structure implies the existence of cross-functional teams for each project consisting of participants from different departments of the organization that cooperate to achieve a goal (Rozman,

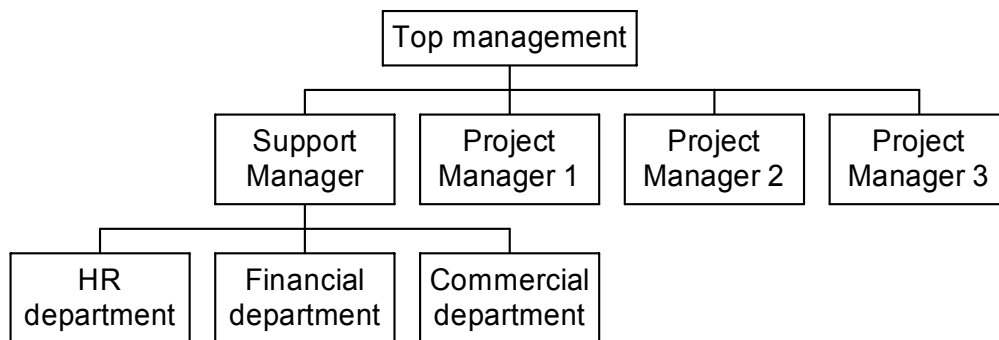
2002). Many authors consider that the matrix structure is a huge breakthrough in structural organization of the PBOs. In contrast, other authors (Graham and Englund, 1997) believe that matrix approach is a marginal change, because functional managers still have great power and influence, hindering development projects.



**Figure 3. Matrix approach**  
 Source: *Developed by the author*

The next trend in PBOs structuring will consist of running processes within organizations through projects (Figure 4). Other functional departments (human resources, marketing, finance, and accounting) are united into one providing logistic support (human, financial and material resources

management required for each project). The manager of this department is responsible for coordinating these employees, they being only under the authority of project manager during the project. This way it eliminates tension between project managers and functional managers (Sato, 2005).



**Figure 4. New PBO structure**  
*Source: Developed by the author*

#### 4. PBOs structure model

PBO is different from the classical organization. The transition from classical organization that runs projects sometimes to project-based organization is difficult. However, the failure rate of projects and increased customer dissatisfaction boost addressing of this issue. Transition requires multiple organizational changes. The importance of structural departments and hierarchical lines will be reduced, employees giving the competences to various project teams within the organization.

Removing the strict hierarchy and thinning departments and divisions limits facing increased resistance from departmental managers. To successfully complete all projects, PBO must to diminish the authority of hierarchical departmental managers to make room for the cross functional authority and competences of project managers. Autonomy project teams are essential to the success of the organization.

Another important issue to be solved by the classic organization in its transition to the project-based organization is to develop a mechanism for prioritization of projects and activities. Lack of prioritization system leads to excessive consumption of resources, to a failure of some projects,

and will affect both customer activities and profit organization.

To achieve a successful integration of simultaneous multiple projects within a PBO, projects have to be clustered. Clustering result is a "chaining" or "networking" of projects based on established criteria: applied technology, common customers, geographical area, the production process, etc. (Gareis, 2003).

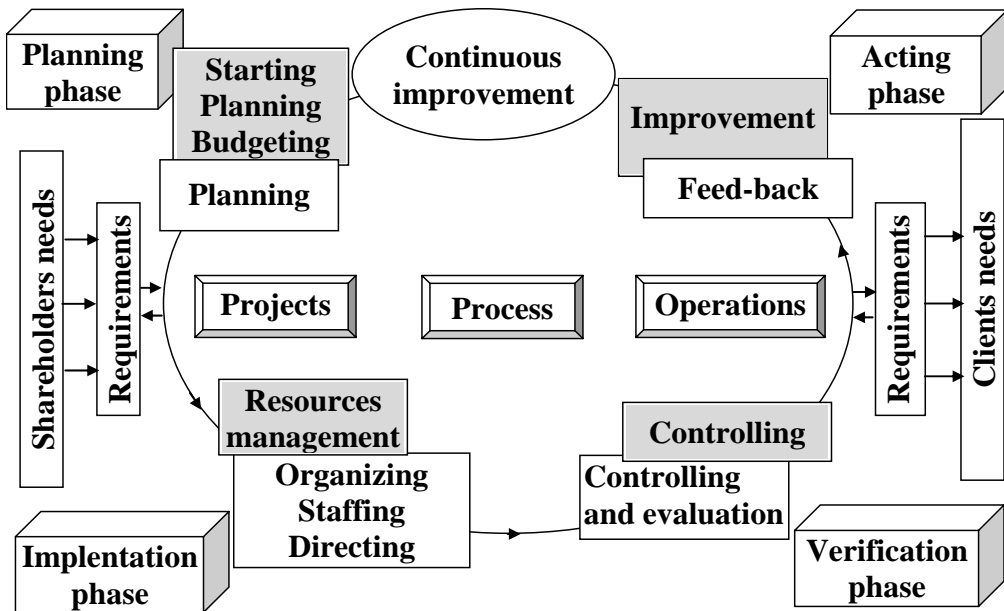
Thiry and Deguire (2007) have identified three major issues to improve organizational structure at PBO level:

- 1.a horizontal integration process of projects across the product life-cycle,
- 2.a vertical integration approach of projects across the project portfolio, to link it to the corporate strategy.
- 3.integrative project governance structures to create and deliver value.

Consequently I propose a model that integrate classical management functions (planning, organizing, staffing, directing, controlling and evaluation) with project management activities (starting, planning, budgeting, resources management, controlling). In addition to these functions and activities I have added feedback involving the prevention of risks, making corrections and continuous improvement.

Integrating model of project management with classic management are based on continuous quality improvement cycles - Plan, Do, Check,

Act (Deming’s PDCA cycle), their implementation without the achievement of an effective integration causing confusion, inconsistency and incompatibility (Figure 5).



**Figure 5. Integrating model (general management function, project management activities, PDCA cycle)**

*Source: Developed by the author*

The *planning phase (PLAN)* allows understanding the current situation and defining the requirements, tools, methods, responsibilities and resources for each process, project and operations.

*Implementation phase (DO)* involves the implementation of the plans.

*Verification phase (CHECK)* involves comparing the standards set in the first phase with achieved results to determine the level of objectives' fulfillment.

*Acting phase (ACT)* requires readjustment of plans in order to adequately achieve the objectives.

The main advantage of my approach and, further, of the proposed model, is the connection between the components of the model, whose integrated implementation leads to the

achieving organizational goals.

**Conclusions**

Mergers and acquisitions have created a growing number of multinational companies that dominate the world economy and operating through projects. By overcoming national boundaries, project management will determine creation of standards that will be recognized and enforced internationally, as is the case of quality standards. We can say that now all organizations understand the fundamentals of project management, but only those who had achieved excellence in this area will be successful.

PBOs act in a very dynamic environment, with boundaries hard to define and constantly changing. The number and size of projects varies

continuously, temporary and permanent human resources are highly mobile, strategic alliances change frequently depending on the projects managed. PBOs are the most innovative and dynamic organization, although many of them failed to find an optimum structure to provide a strategic advantage. PBOs need a structure to create synergy between organizational strategy, projects, processes and operations.

In this respect, the paper proposed an integrating model of project management with classic management. The approach covers the entire Deming cycle PDCA (Plan, Do, Check, Act) and ensures, from first time, a coherent path for PBO to achieve their objectives in the absence of tensions between project managers and functional managers.

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