

# The PMO as an innovative tool for the Public Electricity Organization

By

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#### A THESIS REPORT

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# Biography

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Abstract

The value of Project Management for a company or an organization which undertakes projects is known, but unfortunately the majority of Greek organizations are not familiar with project management processes. Especially the public sector has not adopted project management and is stuck at bureaucracy and organizational shrinkage.

The Public Electricity Organization is an extremely lucrative business for the country and plays strategic role in the European market. The organization had big profits for many decades, as it was the only electricity organization in Greece. Recently, this situation changed as the organization has a lot of looses, because of its inability to undertake and adequate control many projects in parallel and of the creation of a competitive company. For this reason, this thesis will study the organization and will propose a solution which will increase the organization's profits and enhance its strength. Through interviews and questionnaires, I will define the level and the problems of the organization. The data derived will be analyzed and based on them I will identify the most suitable solution and I will proceed to my recommendations.

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#### Introduction

*Nature of the Study* 

We live in an extremely competitive environment and for this reason companies seek for improvement in order to have an edge over their competitors. Companies use different strategies, in order to reach the desired level. Which one will be chosen depends on the type of the company, the type of the problem which should be solved, the mission and the vision of each company.

Unfortunately, Greece is one of the countries, which are not familiar with project management. Especially the public sector, does not work according to project management principles fact, which enhances bureaucracy and organizational shrinkage. The Public Electricity Organization had big profits for many decades, as it was the only electricity organization in Greece. Recently, this situation changed through the creation of a competitive company which sells energy cheaper, as it produces renewable power and is being subsidized by the government. For this reason and because of the interest of the executives for improvement of the quality level, the need for re-organization of the company presented. Every year the Public Electricity Organization has a lot of looses, because of its inability to undertake and adequate control many projects in parallel. For this reason, the study of the existing organization and the creation of a project management office are essential, in order to increase the profits and enhance the strength of the organization.

#### Needs Assessment

The stakeholders of the project include, but are not limited to the senior management, the personnel and the customers of the organization. The Senior Management is the highest level of management of the organization and the project management office belongs to it. Senior management has responsibility not only for setting strategies, but also for conflict resolution, whenever nobody else can solve the problem. The Customers are those who order the project and are going to use it, and for this reason have ultimate approval power over the deliverables. The creation of a project management office will be extremely beneficial for the Senior Management as it will focus on improvement in project management competency, it will promote the use of standard management tools and it will provide a centralized point of reference for the project management practice. The customers will take advantage of this establishment as the project management office will reduce overruns, increase delivery and boost their satisfaction through achievements of the deliverables. Moreover, the project manager and the project management team will be availed as they will enhance project management skills and knowledge through training or mentoring, so the productivity of the personnel will be improved.

This thesis will help the stakeholders of the project to have an insight into:

- The definition and roles of the project management office.
- The relationship between the project management office and the business performance.

- The necessary steps for implementing a project management office.
- The benefits of a project management office.

#### Purpose of Study

I expect that this study will identify the problems of the Public Electricity

Organization and will propose a strategy for the creation of a project management

office as an innovative tool which will not only improve the organization's

performance, but also will enhance its maturity.

# Relation to the Program of Study

PM 501, Introduction to Project Management is the course which is fundamentally related with the project which has been undertaken by me. This course provided all the necessary information, in order to understand how projects and project management relate to the various functions of the organization. Also, informed me about the importance of a project management office for an organization and the different strategies which may be followed for its implementation.

Moreover, as the creation of the project management office will bring a big change to the organization, PM 513, Managing Project Change is related. This course helped the author to have an insight into the definition of change, the challenges of change and strategies which will help to build a learning organization. As the project, which been undertaken for the thesis, is innovative and is the first time that takes place, the adequate management of change is crucial in order to deliver a successful project.

Lastly, as the organization is a system and the project management office is part of this system, PM 505, Systems Concepts and Thinking in Project Management is an also extremely important and related course as it gave me the opportunity to understand not only what a system is, but also how it behaves. Through this knowledge, I will not only identify the necessary changes in order to overcome the problems, but also I will find the most appropriate strategy which will benefit the whole organization. As this organization is an open system, it interacts not only with the outside environment, but also with the inside departments, so before proceeding to any changes I should examine their impact to the other parts of this system.

#### **Problem Statement**

The Public Electricity Organization has big profits every year, but because of competition these profits reduced during the years. Its inability to undertake and adequate control many projects in parallel, is the source of this downbeat. For this reason, the operational planning of the organization, preview reduction of the controlled cost. In order to achieve this goal, I will propose the creation of a project management office, which will monitor the total procedures and projects of the organization.

#### Rationale

For many decades almost all the Greek companies were not aware of Project Management. Those who had foreseen the need of Project Management did not know how to include it in their business organization. Even nowadays companies do not have the needed maturity in management and some do not separate the tasks of the Project Manager and the Functional Manager.

Especially the public sector is stuck at bureaucracy and organizational shrinkage. Almost none public company use either maturity models, or methods of measuring the maturity of the company. None is able to monitor and control many projects in parallel and their profits are being reduced year after year.

Because of globalization and antagonism the need for change and productivity is more crucial than ever. As there is competition in Greece about electricity and the Public Electricity Organization is the biggest public company of the country, it is very

important to be strong and healthy. Its earnings are huge every year, so it is crucial to have a right structure. The creation of a project management office will be extremely beneficial for the organization as it will enhance its strength and productivity.

# **Objectives**

This thesis will study the Public Electricity Organization and propose a strategy for the planning and organization of its project management office.

#### Literature Review

# Organizations

"Organizations can be defined as groups of people who must coordinate their activities in order to meet organizational objectives, but this coordination requires strong communications and a clear understanding of the relationships and the interdependencies among people" (Kerzner, 2006, p. 89).

The goal of all organizations universally is profit and quality of service, so as years went through and the number of organizations increased the need for change appeared. Organizations continuously change. Aubry, Hobbs and Thuillier (2007) present us the Schumpeter's perception, that our capitalist system may not be actually a development at which the industrial formations develop steadily. Every new theory nullifies and replaces previous ones, but without them this new perception would not have been found. Each period of organizational revolution ruins former theories and together produces other new.

#### Organizational uprising

Wallace (1963) defined the procreators which led to organizational uprising.

#### These are:

- Uprising of technology.
- Competition and the struggle for profit.
- The high cost of marketing.

 The weakness to foresee the costumers' requests because of high revenue and large variety of options.

#### Organizational structures

Except of the factors which are responsible for the organizational revolution, another equally important issue is what is going on with the activities and departments of an organization. Organizational structure responds to this subject. Organizational structure is a "formal and informal framework of policies and rules, within which an organization arranges its lines of authority and communications, and allocates rights and duties. Organizational structure determines the manner and extent to which roles, power, and responsibilities are delegated, controlled, and coordinated, and how information flows between levels of management" (Business Dictionary, n. d.).

Wickremasinghe (2008) keeps pace with the above definition of organizational structure and identifies three major ways in which an organization's department can be structured. To begin with, the first way is by function (Appendix A). At such an organization's employees who deal with one activity or related activities belong to a department. A functional organization structure is most appropriate for small companies which produce a small variety of products or services. The second way is by product or market (Appendix B). This is also mentioned as organization by division and engages employees, who deal with the production and marketing product, or of related products, or those who are involved with a specific type of customer, or those in a specific geographical area. Lastly, the third way is the matrix formation (Appendix C), which engages employees not only by function, but also by product.

The Matrix Formation is separated into three different forms. The first is the "Weak Matrix", the second is the "Balanced Matrix" and the third is the "Strong Matrix" (Wikipedia, n. d.).

### Project Management

These are the basic organizational structures, but how did organizations led to project management? According to Meredith and Mantel (2006), forces which derived from society, were the reasons which created the need for project management. The first force was the expansion of human knowledge and the second one was the need for a board variety of products and services together with the development of derivation antagonism.

#### Definition of project management

Kerzner (2006) defines project management as "the planning, organizing, directing and controlling of company resources for a relatively short -term objective that has been established to complete specific goals and objectives. Furthermore, the systems approach to management is being utilized by project management, as it has functional personnel (the vertical hierarchy) assigned to a specific project (the horizontal hierarchy)" (p. 4).

Unfortunately, the development of Project management was result of pressure and not of desire. It was not earlier than 1990 when companies began to understand the benefits and necessity of project management. A lot of surveys have contacted all

these years and the majority of the responders mention lower cost, better quality, higher profit margins and increase of the customer's satisfaction.

Organizations seek for improvement in order to have an edge over their competitors and for this reason changed their point of view upon project management.

# Advantages of project management

The following table shows the advantages of project management and how peoples' opinion changed upon this subject.

Benefits of Project Management			
Past View	Present View		
Project management will require more people and add to the overhead costs.	Project management allows us to accomplish more work in less time and with less people.		
Profitability may decrease.	Profitability will increase.		
Project management will increase the amount of scope changes.	Project management will provide better control of scope changes.		
Project management creates organizational instability and increases conflicts.	Project management makes the organization more efficient and effective through better organizational behavior principles.		
Project management is really "eye wash" for the customer's benefit.	Project management will allow us to work more closely with our customers.		
Project management will create problems.	Project management provides a means for solving problems.		
Only large projects need project management.	All projects will benefit from project management.		
Project management will increase quality problems.	Project management increases quality.		
Project management will create power and authority problems.	Project management will reduce power struggles.		
Project management focuses on sub optimization by looking at only the project.	Project management allows people to make good company decisions.		
Project management delivers products to a customer.	Project management delivers solutions.		
The cost of project management may make us noncompetitive.	Project management will increase our business		

Table 1 Benefits of Project Management (Kerzner, 2006).

#### Project Management Office

As already mentioned years passed away and the value of Project Management for a company or an organization which undertakes projects became acceptable and known. For having successful adoption of project management, the first step is the appropriate training upon the theory and processes of Project Management.

But this is not enough, the next step, which is the most important, relates with the organization's executives and the acceptance and support that they show to project management. So, the personnel's training on project management is essential, but it cannot implement all the benefits, which is able to offer to the company, on its own.

The company must be appropriately organized in order to support both the projects and the project managers. Such a corporate organization may be a project management office.

#### Definition of a PMO

Literature provides us with several different definitions for a PMO, but the one that is acceptable by the majority of researchers, is that of PMBOK. PMBOK (2004) states that "a project management office (PMO) is an organizational body or entity assigned various responsibilities related to the centralized and coordinated management of those projects under its domain" (p. 369).

ICB3 (2006) concur with this definition, but goes one step ahead by defining PMO's role. According to this definition, its role is double as, not only sets standards and supports the project managers, but also gathers information and informs upper management.

Moreover, through this definition the responsibility of a PMO is presented and this is to retain the projects in line with the organization's strategy and vision.

Miranda (2003) harmonizes with the ICB3 definition. He agrees that responsibility of a PMO is to lead all the projects to the fulfillment of the organization's goals, but also presents the main responsibilities of a PMO, which are "project portfolio management, capacity planning, scope management, inter-project coordination, overall project oversight, cost estimation, contingency planning, quality assurance, subcontract management, project managers' development, process management and tool support" (p. 1). Through this definition, I can identify that the information from which the occupation of a PMO is defined, derive from the "Master Plan", the "Resource Plan", the "Financial Forecast and the Requirements Dependency Matrix" (pmforum, n. d.).

One more definition which holds with the above is the one formulated by Verzuh (2008). The idea of this definition is the same, as he mentions the same responsibilities with ICB3, but except of support and standards he includes for the first time "technology" among the objectives of a PMO. Exactly the same, but with different terms, is mentioned from Gerald Hill (2008) who also outlines the importance of a PMO, but the innovative element of the approach is that he identifies the PMO as "the essential business integrator of the people, processes, and tools that manage or influence project performance" (p. xvii), for this reason according to Gonçalves (2006), a "PMO can be a key resource in establishing an organizational competency in project analysis, design, management and review" (p. 31).

A different point of view was given by Desouza and Evaristo (2006), who believes that as each company has different working environment and is unique, it would be a failure to implement the same project management office to everyone. For this reason, a definition which would cover all the possible and different structures is extremely difficult. The development of a PMO that is appropriate for a company is "an exercise in both customization and sustained effort" (p. 415). The size, the structure and the accountability offers the different types of project management offices and each one can be beneficial for a company, if it has been created in tune with the company's culture.

Companies spend a huge amount of money every year to projects and programs and their main goal is success. Continuous and rough competition is their obstacle. For this reason, organizations have adopted more flexible forms. In these forms, projects are being confronted as not only numerous, but also strategically important.

#### Reasons of PMO existence

This change of the importance of projects for companies is identified by Brian, Hobbs and Thuillier (2008) as the reason of the establishment and implementation of the new entity, of the PMO. The same explanation is given by Projectsmart.co.uk, which determines the PMO as the unit, which reproduce a focalized management structure for a big number of projects.

Meredith and Mantel (2006) is aligned with this point of view, but also state, based on statistics, that there are a lot of reasons for which organizations implement PMOs.

Among these reasons is the need to increase the number of successful projects. Also, the desire to decrease the necessary development and production time together with, the desire to convey lessons learned from the project management department to the rest company. Finally, the need to establish and maintain standard project processes as well as the desire to "enterprise project management system" (p. 207).

# Change for PMO

So, organizations implement PMOs for the above reasons, but the establishment of a PMO or the modulation of a PMO is a big organizational change. According to Hobbs et al. (2008), organizational change takes place at a political environment and PMO's changes are result of political forces. It is crucial to use a methodology and a framework in order to successfully accomplish this change. Unfortunately, as the establishment of a PMO is a change, there is big possibility to occur resistance. So, how can we overcome resistance?

#### Defeat resistance

To begin with, resistance is being separated into two categories. The first one is the "Professional Resistance", which occurs because of the business units' impression that the change will have bad influence on them, and the second one is the "Personal Resistance", which occurs because of the impression that the change will have bad influence on the employees (Tjahjana, Dwyer &Habib, 2009, pp.194-195). In order to "defeat" resistance, Tinnirello (2002) suggests some steps which should be followed.

The first step is to recognize resistance and in case that it comes from senior management, this should be pinpointed immediately, as the PMO cannot continue without senior's management support. The second step is to clearly define which is, the purpose and the role of the PMO. Lastly, the third one is to support employees to communicate their fears and help to overcome them. The PMO sponsors should express the reasons which led them to its establishment and not apologizing for their choice.

#### Need for a PMO

So, the PMO sponsors should explain the need for the PMO, but how can an organization recognize it and what will truly happen if will not implement it? The need for a PMO, according to Kendall and Rollins (2003), can easily be recognized for a lot of reasons. To begin with, as executives are responsible for "ongoing operational results", as well as for improvement and the PMO is the entity which helps the executives to their effort for improvement, the need for its implementation is obvious. Another reason is the wrong perception that the functional managers should be "Gods" and do everything extremely fast, so if not there is a problem. Thus, they are always in front of the question: "How many of our unit's vital projects can we complete this year and how fast can we complete them?" and the PMO is the entity which can answer this question with more accuracy. Also, the fact that the majority of organization's projects involve many departments and "functional areas" and no matter how well each one separately may work, usually are unable to perform well altogether.

Lastly, the need for tune among the organizational units, as each one has "its own language, standards and techniques" (pp. 23-24). So, if the above or something of the above turn up, the organization should consider the possibility of establishing a PMO. In case that the organization will not proceed to the PMO, some dangers exist. As Whitten (2000) supports, the project managers of an organization without a PMO, usually do not exchange knowledge and best practices. Also, may be influenced by the product managers and "make emotionally or politically driven decisions rather than best business decisions" (p. 183). With a PMO, the project managers will have an entity which will train, support, consult and help them to have continuously contact with lessons learned. Moreover, the number of successful projects will increase and the same path will be followed by the professionalism and the maturity of the project managers.

# Development of PMOs

Harold Kerzner (2006), on the other hand, adds and gives special emphasis on the participation of a PMO to professionalism. He characterizes the project management office as "the guardian for the project management intellectual property" (p. 939), but this view did not exist until recently. As Kerzner (2003) mentions in his article "Strategic Planning for a Project Office" the history of project offices can be separated into three periods.

The first period was from 1950 until 1990. During this period, the project office consisted of employees who worked on a certain and usually big project. Each one had different role and responsibilities, but operated along with like a project

management team. The idea for its implementation was that there was a need to come closer to the customer. Technology and schedules were by far more significant than cost, as the customer was usually the one who was paying. This point of view began changing at the 80s as military and government agencies started being more sensitive about cost. Moreover, employees who were not members of the project office started training upon project management. The organizations set new goal, which was project success and for this reason line managers should become familiar with project management and cooperate with project managers.

The second period was from 1990 until 2000. During 90's, management struggled for effectiveness and efficiency and for this reason project management began to play stellar role. Organizations identified the importance and benefits of project management and started adopting this innovative technique. Significance was given to all critical activities which were under the oversight of the PO. "This included such topics as:

- Strategic planning for project management.
- Project management benchmarking.
- Continuous improvement.
- Problem-solving hotlines.
- Maintaining lesson-learned files.
- Methods and standards.
- Training and education" (Kerzner, 2003, p. 14).

The third and last period is from 2000 until today. At the 21<sup>st</sup> century project office was almost always part of an organization. Its responsibilities were the same and only one new added, which was the maintenance of all intellectual property and support of strategic planning. Its role changed, as from serving the customer now was serving the strategic-planning activity. "During the past 10 years, the benefits of using a project office have become apparent. They include:

- Standardization of operations.
- Company rather than silo decision-making.
- Better capacity planning (i.e. resource allocations).
- Quicker access to higher-quality information.
- Eliminations or reduction of company silos.
- More efficient and effective operations.
- Less need for restructuring.
- Fewer meetings that rob executives of valuable time.
- More realistic prioritization of work.
- Development of future general managers" (Kerzner, 2003, p. 15).

Thus, the PMOs took a lot of different forms before reaching the one, which is known nowadays. Duggal (2001), on the other hand is also supporter of the idea of PMO development, but separates PMOs to "Traditional PMO" and "Next Generation PMO". Through the term Next Generation PMO Duggal means a PMO, which has as goal to combine "people, processes and tools to enable and mature enterprise project management capabilities" (p. 1). The following table shows the Differences between a Traditional and a Next Generation PMO:

Traditional PMO	Next Generation PMO
Focus on tactical issues.	Focus on strategic and cultural issues
Science of project management.	Art and craft of project management.
Views organization as a "complex	View organization as a "complex
machine*.	ecology".
Emphasis on monitoring and control.	Emphasis on fostering and nurturing.
Develops Best Practices.	Develops Innovative Practices.
Provides tools similar to a precise	Provides tools similar to a "compass"
"map" to follow.	that show the direction.
Internal Process focused.	Focus on end products, customers
	and outcomes.
Process Driven.	Business Driven.
Standard (heavy) methods and	Adaptable and flexible (light) methods
practices.	and practices.
Follow rules.	Follow rules and improvise if needed.
Defined, repeatable, managed and	Innovative practices and Knowledge
optimized practices.	Management.
Focus on efficiency.	Focus on innovation.
Risk avoidance or minimum risk	Risk exploitation and acceptance.
acceptance.	
Process leadership.	Thought leadership.

Table 2 Traditional PMO versus Next Generation PMO (Duggal, 2001).

Apart from Duggal, Williams and Parr (2004) also referred to Traditional PMOs and their weaknesses. Unfortunately, according to Williams and Parr, traditional PMOs, focus on a specific project and for this reason are unable to help executives in prioritizing. Traditional PMOs use basic tools, systems and fail to merge different units of the organization. "Multiple PMOs" may adopt different methods and standards and often are not aware of each other's needs.

They are not informed about the organization's best resources and senior management is unable to link projects results with expectations. Lastly, the most important weakness is that the Traditional PMOs are excellent in a "particular area of the organization", but this excellence is not passing to the entire organization, so its project management capacity does not upgrade.

#### Impacts of a PMO

All the benefits of a project management office have direct impact on the performance of an organization. The Center for Business Practices Research Report contacted a survey about "The State of the PMO, 2007-2008" and among the findings which presented was the participation of a project management office in "High-Performing Organizations" and in "Low-Performing Organizations". This survey identifies as high-performing organizations those which, after measuring their strategy execution, shareholder satisfaction, customer satisfaction, budget/schedule performance, financial performance, resource allocation, strategic alignment and portfolio performance, been enlisted in the top 25% in overall organizational performance and as low-performing organizations those which enlisted in the bottom 25%. According to the findings, PMOs of high-performing organizations were significantly bigger, older and more mature than in low-performing organizations. Moreover, outsourcing and evaluation of both the project manager and the project team were procedures which were taking place more frequently to high-performing

organizations. Also, "high-performing organizations are more likely to have an enterprise PMO, steering committees and a PMO which performance includes strategy formulation, portfolio risk management, benefits realization analysis, contract preparation, outsourcing, project opportunity, process development, resource assignment process development, management of a staff of project, planners/controllers and business relationship managers, and resource identification and optimization" (Center for Business Practices Research Report, 2007, p. 5). So, according to the above survey, a project management office affects the performance of an organization, but the extent of this effect differs depending on the type and on the roles and responsibilities of each project management office.

#### Types of PMOs

A lot of different opinions exist, about the types of a PMO, but of course the structure which will be chosen depends on the organization. According to Aubry et al. (2007), "nearly 75 unique functions have been identified, some traditional some innovative" (p. 331). Turner (2007) sustains that the most basic separation, produces two types of a PMO. The first one is a PMO which is implemented for a specific project or program and the second one is an organizational project management office. In contrast with this fundamental dissociation, Kendall and Rollins (2003), recognize four different models of a PMO. The first model is the "Project Repository Model", at which the PMO is responsible for providing all the projects of the organization with information, standards and methods. This one is characterized by the authors as "low or no value model".

The second one, which is a development of the Repository Model, is the "Coach Model". This PMO has the role of a consultant and is responsible for the communication among the functions, for the training of the inexperienced or inefficient project managers and the monitoring of the performance.

Unfortunately, in case of success this type of a PMO does not receive any recognition, but in case of failure the PMO undertakes all the blame and for this reason this PMO Model will be always under controversy. The third type is the "Enterprise Model". This PMO adds risk management during project initiative and maturity among the procedures of the development cycle. Usually, this type of PMO takes senior project managers from their function, embody them and then resign them as project managers. So, the question is whether this procedure adds value to the organization or not. Finally, the fourth type is the "Deliver now Model", which has as purpose to add measurable value to the executives within six months. This one has a lot of goals; among them is improvement of strategic planning, coaching, mentoring, training and "project portfolio".

Another interesting suggestion is the one made by Snyder and Parth (2007), who present five different types of a PMO. The first type is a "Center of Excellence PMO". Such a PMO is trainer, expert and consultant for employees who either are project managers for first time, or employees who are obliged to undertake a project. The second type is an "Administrative PMO". This one is found at matrix-type or project driven organizations and has the same responsibilities with the Kendall and Rollins (2003) "Project Repository Model", as well as the identification of project categories. The third type is a "Business Unit of Project Managers".

This one is also found at a matrix organization and its responsibility is to gather all the employees who are either project managers, or have relationship with the projects of the organization. The benefit of this type is that all the project managers work together, so they have the opportunity to communicate and exchange ideas and knowledge.

The fourth type is the "Strategic Project Management Office". This one is found at a strong matrix organization, has maturity on project management, is at the executive level and is responsible for the "organization's portfolio". The fifth type is the "Project-Specific Project Management Offices" and is usually been created for large projects. This one gathers employees from different functions and after the completion of the project, staff go back to its previous position.

Three types of a PMO have been presented by Billow (2008). The first one is the "Weather Station". This PMO gathers information and makes reports about the progress of the projects. It does not implement any standards and is not responsible for any decisions. The second one is the "Control Tower". This PMO is an advisor. Leads the project managers on methodology and informs them about forthcoming problems. The last one is the "Command Central". This one has significant role in project evaluation, as consults the executives and also often has a "configuration management role" (Billow, 2008, p. 6). According to Billow each of the above types is beneficial for organizations depending on their stage of development.

Moreover, Jeston and Nelis (2008), in their book "Management by process: a roadmap to sustainable business process management" enhance Billow's suggestion

by adopting two of his three types and add other four types of a PMO. The first one is the "Strategic or enterprise PMO", which supports executives in portfolio management. The second one and the third one are those which are similar with Billow's, as the second is the "Weather station", which responsibility is to monitor all the projects and make reports upon their progress and the third is the "Control tower", which responsibility is to settle project management standards. The fourth one is the "Resource Pool", which has a "pool of trained project managers", who undertake the organization's projects. The fifth is the "Coaching and Training PMO", which is responsible for the "coaching and training" of the project managers and team and finally, the "OAR (Ownership, Accountability and Responsibility) PMO". This one is responsible for the outcomes of the organization's projects.

In addition, another equally significant proposal, about the types of a PMO, is the one made by Reiling (2007), who supports that there are three different types of project management offices. The first is the "Supportive PMO", which is responsible for templates, information and methodology. The second one is the "Controlling PMO", which not only "provide support, but also requires that the support will be used" and the third one is the "Directive PMO". This PMO provides the organization's projects with experienced project managers and ensures a high level of "consistency of practice" for all projects.

Thus, there are a lot of different points of view about the possible types of a PMO, but apart from the types is there any possibility to meet different levels at PMOs?

## Levels of a PMO

Desta, Root and Diederichs (2006) in their article about the project management office in German, note that the PMO can be faced like the organizational project management maturity model. A PMO may have many levels where "level-one PMO might support a single project, level-two PMO would support several projects under the same program, a level-three PMO would support a division or departments of an organization with all its projects, level-four PMO would support the organization within its projects and a level-five PMO would be placed strategically at an executive level and would support business strategy and resource allocation at the enterprise level" (Rad & Levin 2002, p. 125). According to the authors, the first level is the Project Office. This PMO helps the project manager of a big and complex project to control it. Its role is "that of the implementer" and its responsibility to ensure the implementation of project management standards. The second level is the Basic PMO. This PMO supervises many projects and a lot of times, is called "program office" (Marsh, 2000). It is responsible for the project management standards of the organization and analyzes organization's projects in order to foresee problems and ensure success. The third level is the Standard PMO. This PMO supervises and controls project management activities and its role is to enhance the maturity and the competency of the organization. The fourth level is the Advanced PMO. This PMO "tries to create a projecticed business environment" (Desta et al. 2006, p. 49). Finally, the fifth level is the "Centre of Excellence", which takes into consideration the strategy of the organization and its goal is to lead project management to improvement.

Hill (2004) also accepts the option of different levels and has adapted the below figure (Figure 1), in order to present some of the responsibilities and activities "to be effected by the different levels of the PMO".

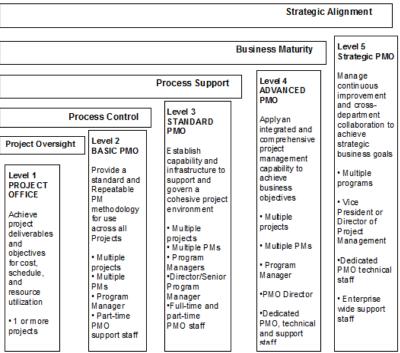


Figure 1The different levels of the PMO continuum (Hill, 2004).

So, not only different types of PMOs exist, but also different levels. For this reason, each organization has the responsibility to choose the most beneficial and appropriate PMO according to its needs and strategy.

# Roles & Responsibilities of a PMO

Also, another factor which affects the performance of an organization is the roles and responsibilities of a PMO. There are a lot of different opinions about the roles and responsibilities of a project management office. Based on literature review, Dai and Wells (2004) suggested six different roles and responsibilities of a project management office.

The first is the development of project management standards for the organization, which will lead project managers to success without eliminating creativity. The second one is to gather lessons learned of previous projects in order to enhance knowledge and avoid similar mistakes in the future. The third one is "administrative support", because of the increasing rate of projects, and the fourth one is participation in the identification of the appropriate and qualified project manager and team. The fifth role is that of the consultant for project management and lastly the sixth one is that of the trainer, in participation with the human resource department. Desouza and Evaristo (2006), based on this suggestion, go ahead and not only group the above, but also identifies three dimensions on the roles and responsibilities of PMOs the strategic, the tactical and the operational. The strategic dimension involves the monitoring of each project, in order to be in accordance with the long-term objectives of the organization and beneficial for both the business and the project management policies and practices. The tactical dimension involves the need for tune among the projects of an organization and the "knowledge sharing" inside the project team. Furthermore, it involves the quality assurance of the product or service which been produced, together with the aim to deliver projects which are in time, on budget and within the specifications. The operational dimension involves except of status reports and communication with the customer, creation of a process which will be responsible to check changes of the projects and knowledge transfer through gathering all the lessons learned of previous projects. In addition, Fox and Waldt (2007), based on the above suggestions identified some more responsibilities. Firstly, they added participation in prioritizing of the

projects and guidance and support during planning. Also, added gathering of data and risk assessment and finally included control of the productivity. Bender was one more person, who based on the suggestions of not only Dai and Wells (2004), but also of Desouza and Evaristo (2006). Bender (2010) innovates by identifying as PMO's responsibility, the translation of the business objectives to project requirements and the help to project managers in order to overcome risks, political problems and resource problems.

On the other hand, PMO4web identifies the roles and the responsibilities of a PMO from a more general perspective and recognizes two parameters, which determines the role of a PMO. The first one is the bandwidth of its services. Here is included both the operational and the strategic dimension as, according to its services, the PMO will either enhance the operational performance or participate in strategic issues. The second one is the "degree of involvement in supply-side activities, or demand-side activities" (p. 3). Through supply-side defines the resources of each project and through demand-side defines the benefits of investment and portfolio management.

### Location of a PMO

Another equally important issue is the location at which the PMO will be placed and then the foundations which should be put by the organization. As far as the location is concerned, Snyder and Parth (2007) state that PMOs are either line organizations or support organizations. In a line organization the PMO has direct

authority and operates as a functional department which is responsible for all the project activity of the organization. The PMO of a line organization is shown at the below figure (Figure 2).

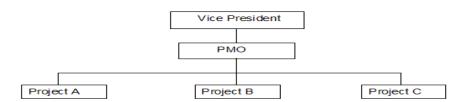


Figure 2 PMO in a Line Organization (Snyder & Parth, 2007).

On the other hand, in a support organization the PMO does not have direct authority and operates like a supporter for both the project managers and the upper management. The PMO of a support organization is shown at the below figure (Figure 3).

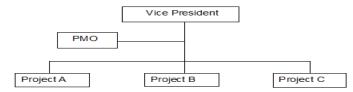


Figure 3 PMO in a Support Organization (Snyder & Parth, 2007).

# Foundations of a PMO

The organization will choose where to locate the PMO and then the foundations of the PMO should be placed. Of course, a small organization will set different foundations than a larger one and as Astrello (2009) points out in his article "Establishing the foundation for your Value Added PMO", it is crucial to understand that in a larger organization a variety of employees work, people with completely different goals and needs. A PMO of a larger organization should monitor and control the organization's projects in such a way that will timely provide information to management, support the project managers and advise them in a lot of areas, guide the project management team and set standards and methodology. The implementation of a PMO needs support and guidance by management and as management seek for success and improvement the implementation of a value added PMO is the ultimate goal. "If a PMO is going to be established, and is going to simply be there to enforce rules and run 'rough shod' over the performing programs and projects, it will fail long term, and fail miserably. It is imperative that Governance and Oversight be established and put into place, but it has to be executed so that the organization fosters and allows the performing groups to grow and improve" (Astrello, 2009, p. 1).

# Establishment of a PMO

After the seating of the foundations, the organization is obliged to proceed to the establishment of the PMO and then to its implementation. The establishment of a PMO is extremely difficult and does not guarantee project management improvement.

In order to be successful and overcome the next retrenchment, it should have a clear mission, support by management and results.

Taylor (2006), states that the establishment of a PMO should be faced like a project. The bellow table shows the "project life cycle – that is concept, plan, design and build, implement, transition and maintenance and support- and the issues likely be encountered during each phase" (p. 197).

Concept	Plan	Design and Build	Implement	Transition	Maintenance and Support
Concept phase issues	Plan phase issues	Design/Build phase issues	Implement ation phase	Transition phase issues	Maintenance and support phase issues
<ul> <li>Establishin g a new staff function or department</li> </ul>	•Probably require a prototype	•The model design must be supported	issues •Managem ent enthusias	•Defining when the project has ended	•Charge- backs.
•The PMO does not generate revenue.	methodology to design and deliver the PMO.	•Agreement on the PMO model is a	m may dwindle. •Organizati	and the new PMO takes over	
•PMO's function is primarily	Probably require using the rolling wave approach.  Plans will be continuously revised.	goal  •A life cycle cost model is recommended  •Implementation schedule must be realistic	onal culture may resist change		
Appears to some that			•Value of a PMO may be		
PMO adds more red tape.			<ul> <li>questioned</li> <li>Manager</li> <li>chosen to</li> <li>lead the</li> <li>PMO may</li> <li>not be the</li> <li>best</li> </ul>		
A business case may not be clear on the					
strategic value- added.			person for the job		

Table 3 PMO life cycle phases and potential issues (Taylor, 2006).

Specifically, the PMOs of the public sector, as Wirick (2009) notes, are established "in oversight agencies such as central information technology offices" and usually miss its validity, result of its bond with central administration.

"Public-sector PMOs are most successful when they:

- Have clearly defined goals.
- Operate outside of the information technology office.
- Are supported by management.
- Delay the deployment of enterprise project management software until the organization develops some project management maturity.
- Are staffed with proven experts who know the business functions of agency.
- Demonstrate their ability early with quick wins and visible successes" (Wirick, 2009, p. 33).

# Implementation of a PMO

About the implementation of a PMO Desouza and Evaristo (2006), state that there are two ways in order to implement a PMO. The first one is by a "top-down approach" and the second one is by "bottom-up approach", which one will be used depends on the "organizational structure". In case of a "centralized" organization, the top-down approach will be the most suitable as at such an environment, a process-driven PMO will be adopted easier. On the other hand, on a "decentralized" organization the bottom-up approach will be more suitable, as a PMO which is result of collaboration among project managers of the organization, will be adopted easier.

On the other hand, Cappels (2004) identifies three phases which are essential for the substantiation of a PMO and are being presented at the below table.

Assessment	→ Planning —	▶ Implementation	
Senior management	Responsibilities	Scope definition	
support			
Organization	Staffing levels	Work package plans	
goals/objective			
Project environment	Level of PMO manager	Project schedule	
goals			
Stage of corporate	Systems needed	Resource analysis	
growth			
Future of PMO	PMO operating	Budget	
	procedures		
Current project	Education and training	Control process	
management systems		definition	
How PMO is visualized	Staff		
	assessment/certification		

Table 4 Phases of PMO Implementation (Cappels, 2004).

# PMO failure

Unfortunately, a lot of PMOs are not successful. According to Tennant (2001), one of the major problems that PMOs face is the wrong perception of executives about the reason of existence of a PMO. The PMO is not a solution for "saving projects that are failing" (Meredith & Mandel, 2006, p. 209), but it is a medium to improve project management in the long term. On the other hand, Kendall and Rollins (2003) identify seven reasons which lead to PMO failure and recommend that a PMO should not only focus on portfolio management, but also help organizations to go beyond its delivery obligations. To begin with, the first reason is that the PMO does not determine its merit.

All organizations set goals and the PMO is there in order to assist fulfilling them. The second one is that the PMO is not seen as a factor which affects the delivery capacity of a project.

The PMOs which give information to executives and are responsible for the project management processes, "have a declining value curve" and is presented at the below figure (Figure 4), (Kendall& Rollins, 2003, p. 34).

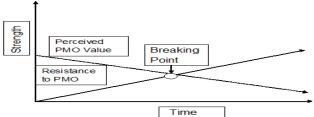


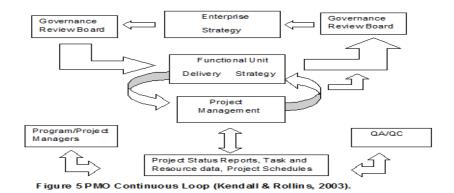
Figure 4 PMO Value Curve (Kendall & Rollins, 2003).

This type of PMOs, begin with an extremely important issue, which is the collection of information. Unfortunately, often PMOs push without helping and for this reason receive resistance from both the project managers and the organization. This resistance increases through years and employees, in order to avoid problems, either hide information or demonstrate PMO's inability to help them. This fact has as a result the reduction of PMO's significance as "when the combined resistance of a few functional units exceeds the perceived value, the PMO has no tangible value to prove its worth" (Kendall& Rollins, 2003, p. 33). The third reason is that the PMO is faced like a menace, which has increased authority and the fourth one is that the PMO is placed at an extremely low level of the reporting formation.

The fifth reason is that PMOs does not "have buy-in from the senior functional managers". A lot of PMOs start by taking actions, which deal with the project managers and resources. So, these actions not only keep project managers away from the organization's projects without informing them about the goals of functional managers, but also use some of organization's resources fact which may cause problems to the delivery and success of projects. Thus, the organization will press the project managers to go back to their projects as it will choose project success instead of improvement. So, the organization will invalidate the PMO. The sixth reason is that usually employees cannot understand the importance and help of a PMO and characterize it as a needless "overhead". Finally, the seventh reason is the option that "the PMO is micromanaging and trying to control each project directly" (Kendall& Rollins, 2003, p. 36). So, what should be done in order to overcome the above reasons of failure? How can we establish a successful PMO?

### Successful PMO

Kendall and Rollins (2003), recommend that, in order to overcome failure and have a successful PMO, this PMO should focus on "portfolio management of project investments, resources, assets and strategic objectives", and help "organizational entities to meet and/or exceed project delivery commitments" (Kendall & Rollins, 2003, p. 27). This PMO is identified as a Return on Investment (ROI) engine and is presented through the below figure.



Thus, the major objective of a PMO is extremely complex and difficult. As Perry (2009) mentions, the PMO complexity may take a lot of different "shapes and forms". Almost all PMOs deal with a variety of projects and this fact is one of the main reasons for its complexity. Moreover, "project complexity drives other areas of PMO complexity, such as tool and application, process and methodology, and communication and collaboration complexity" (Perry, 2009, p. 166).

# Training for a PMO

So, as a PMO is a complex entity and this entity operates at an extremely competitive environment, continuous training of its personnel is mandatory.

According to Rozenes and Vitner (2009), aim of the training is to help the personnel to become more familiar with project management principles and standards while target of training is to understand what is a project, to identify potential project management problems, to identify project constrains and to "use quantitative and qualitative methods" (p. 38). They propose to organizations to carry out workshops at which the senior management will take part, in order to illustrate the

importance of this activity, together with the personnel, which will participate to discussions and assignments. All the participants will choose a "real life project" and will use project management methods. Through this procedure the training will be accomplished and employees will recognize the significance which has project management for the organization.

To conclude, from the above analysis derives that a PMO adds value to an organization. Each organization, according to its mission and vision, chooses different PMO type and assigns it different roles and responsibilities. It is extremely important for the PMO's personnel to be trained continuously and must be prepared not only for resistance from the organization's other employees, but also for the perception that the employees after a while do not need the PMO as they have the necessary knowledge to succeed on their own(Pellegrinelli & Garagna, 2008).

### Case Study

The Public Electricity Organization was established in 1950 with the purpose to determine and implement a national energy policy, which through the powerful exploitation of domestic resources would make electrical power the property and right of all citizens. Since 2001, the organization operates as an S.A. company and today is the largest power generation company of the country. It is the country's major power supply company, providing electricity to approximately 7.4 million customers and is the only company with a fully owned power transmission system.

The organization owns 93% of the installed power capacity of the country, generated by lignite, fuel oil, hydroelectric and natural gas power plants, as well as by Aeolic and Solar energy parks. It owns the country's two large lignite mines and today fully covers the country's rapidly increasing power needs.

The Public Electricity Organization is a matrix structured organization (Appendix D) and one of the largest businesses of the country in terms of assets. In 2007 the organization recorded revenues amounting to 5.15 million €and pre-tax profits amounting to 276 million € It holds 99.7 % of the electricity market and apart from the 249 offices for network services; it also has 154 sales stores throughout the country.

The Public Electricity Organization has achieved 6, 7% evolution of its efficiency during the last seven years (Appendix E), but international high level benchmarks

confirm that the organization is underperforming (Appendix F) and that has 750 million€variation profitability from the European best practices.

For this reason, the organization planned to invest 11,5billion€during 2009-2014 (Appendix G). The organization has set three goals. The first one is to enhance its capacity. This will be fulfilled by the building of new plants with best available technology. Also, by decommission of old, inefficient and polluting plants, and lastly, by accelerate the completion of large hydro projects. The second goal is to improve customer service. This will be fulfilled by increasing the network reliability and by improving the network efficiency. The third goal which has been set by the organization is to achieve 20% market share in renewable energy. This will be accomplished through the utilization of wind, solar, small hydro and geothermal.

# Methodologies and Procedures Used In the Study

In previous chapters of this thesis, I have identified as purpose of study the proposal of a strategy for the establishment of a PMO, as an innovative tool which will not only improve the performance of the Public Electricity Organization, but also will enhance its maturity. In order to fulfill this goal; the main issues which should be addressed are the determination of the current state of the organization and the identification of the problems of the Public Electricity Organization.

The methodology used in this thesis is based on the "Evaluation project", as at this study I will examine the project management procedures of the organization and I will validate whether they deliver the prospective results or not. This study has been separated in two sections. The first one was the research of professional and academic literature, which helped me to have a deeper insight into the issue, and the second one was a combination of interviews, contacted by me, and of questionnaires, also designed by me.

The research of the literature was separated into three main parts. The first section was about organizations. At this part I presented the definition of an organization, as well as their structures. The second one was about project management. At this part I presented the definition of project management, as well as its benefits. Lastly, the third one was about the project management office and its impacts.

Main goal of the research of literature was to identify what exactly is an organization and what is a PMO.

Which was the PMOs' development and why organizations need them. Moreover, which were the reasons of their existence, which is the impact of a PMO in an organization and through surveys, I pinpointed the degree at which the performance of some organization affected by the implementation of a PMO. Also, which are the potential types of a PMO, their roles and responsibilities and how can an organization choose the most appropriate one.

The second section of the study derives from interviews, with employees and executives of the organization, and completion of questionnaires. In order to have a clear view of a PMO and its benefits, both the interviews and the questionnaires contacted by me, after the completion of the literature review. In order to preserve the good status of the questionnaires I based on older questionnaires and when the questionnaires were ready I asked by the executives of other companies for corrections and recommendations. The purpose of this action was not only to define which the existing state of the organization was, but also to ensure validity of the results. For this reason, questionnaires have been answered by both the employees and the employments.

The questionnaires which been completed were 120 and were consisted of 18 questions, which were separated into four types of questions. The first type included general questions about the interviewer. The second one included open questions that were given to the interviewer. The interviewer had the opportunity to freely outline his thoughts and believes.

The third type included specific questions, in order to gather details and facts and the final type included closed questions that required a yes or no answer. From a general perspective we can separate the questions into two categories. The first category included questions 2-7, which concerned the view that had the interviewers about their work and the second one included questions 8-18, which concerned evaluation of the current state of the organization.

More specifically the first unity of questions was developed in order to gather information about the organization's employees and the work they are doing, while the second unity of questions was developed in order to gather information about the importance and the level of project management of the organization. The third unity of questions was developed in order to gather information about the project management principles and the project management processes which are being followed by the organization. It is important though to highlight the fact that the questionnaires tended to collect information about the organization's performance on crucial issues, which are usually among the responsibilities of a PMO, and that the responders had to answer whether a PMO would increase organization's success. The full version of the questionnaires can be viewed in the Appendix H.

The interviews were taken in order not only to have a face to face contact with "key employees" of the organization, but also to make a more thoroughly discussion upon the questionnaire's questions. Through this friendly and cozy discussion I gathered information about the current state of the organization, according to their

point of view, about the problems they have to deal with and about the changes that they believe that are necessary.

The data obtained by the literature, the interviews and the questionnaires were analyzed through statistics, in order to be compared with the theoretical background. This thesis is a quantitative study, as the data not only gathered in numbers, but also analyzed and reported similarly. It is expected that this study will identify the problems of the organization and will provide a solution which will lead the organization to success.

#### Results

#### Introduction

This chapter is extremely important as not only is the outcome of the research which been contacted, but also constitutes the baseline of the following chapter. It is the results as they arise from the processes and procedures mentioned in methodology. The results have been separated into two portions, like the procedures of methodology, and provided me a lot of important findings. The first portion is the literature findings and the second one is the interviews/questionnaires outcomes.

## Literature findings

Generally literature justifies and supports the thesis, as there is effect in implementing a project management office. This effect is been reflected not only in project outcomes and project management processes, but also in organization's performance. Moreover, it presented the different types of a project management office, the different levels of a project management office and the different roles and responsibilities which have.

In this research the literature has been separated into three parts. The first one is about organizations. At this part, I have firstly presented the definition of an organization and I have identified the procreators which led to organizational uprising. As the goal of all organizations is profit and customer satisfaction, the appearance of the above procreators led to changes of the departments and activities

of an organization. These changes created new organizational structures, which been also presented and described.

The second part is about project management. At this part I presented another equally important finding, which was the introduction of project management in organizations and the different views which exist about its advantages. The expansion of human knowledge, the need for a board variety of products and services and the development of derivation antagonism were the reasons which forced organizations to insert project management. Of course, peoples' opinion upon what they would gain from this adoption changed over time and this progress has also been presented at literature.

The third part is about a project management office. At this part I started by presenting several different definitions for a PMO. Here I outlined the most acceptable definition and then what exactly been added to this one by other professionals and researchers. Furthermore, I identified the reasons which led to PMO existence and which are the necessary moves that must be done by an organization in order to successfully proceed to PMO adoption.

Also, the procedure through which the organizations will recognize the need for a PMO is part of this literature review. Unfortunately, no matter how obvious may be the need for the PMO, usually is obliged to deal with resistance. As the implementation of a PMO is a big change, like any other change, there is big possibility to be faced with fear. For this reason, this thesis presents a framework which will help organizations' to defeat opposition.

In addition, apart from the different types of PMOs, the different levels also identified, which may be created, and the benefits of each one. Each organization should choose, based on its mission and vision, the most appropriate and beneficial type of a PMO. Similarly each organization should choose the level, as well as the location of the PMO, as each one serves different needs.

Another interesting finding is the description of the foundations of a PMO together with the procedure which should be followed in order to establish and implement the PMO. The phases which been thoroughly analyzed helped me to continue to the next step, which was the identification of the reasons that lead to PMO failure. Here I pinpointed the most common causes of debacle and how can be overcome.

Finally, the research has shown that a PMO is an extremely complex entity and for this reason continuous training of the personnel is mandatory. The basic issues of which should be covered, as well as the training processes are been described.

In a summarization of all the above I have identified that the project management office positively affects organizations and improves their performance. It plays extremely important role as not only improves project management processes, but also helps project managers and increases project success. To conclude, organizations operate in an antagonistic environment and for this reason are looking for an edge over their competitors. The project management office gives this edge.

### Questionnaires & Interviews

The second portion of the research was based on interviews, which been taken by the organization's employees, and on the fulfillment of questionnaires. The interviews, which been contacted by me, were a deeply discussion of the questionnaires. Through a friendly and face to face conversation I had the opportunity not only to gather information about the problems of the organization, but also to insist on specific obstacles which seemed the most important ones. As there is no significant variation among the answers given during the interviews and the answers given in the questionnaires, I will outline the results of the questionnaires and I will use the information of the interviews in order to proceed to my proposals.

The questionnaires have been created in order to firstly define the state of the organization and secondly define the obstacles of success. The identification of project management level of the organization was one more goal. As the organization is a public organization and the number of the completed questionnaires was 120, there were no significant limitations in conducting this study. The organization is obliged by the government and the law to clearly post in the website its quantitative data, as well as its business plan, mission and progress. So, as far as the data is concerned I did not face any problems. Unfortunately, the main difficulty which I had to overcome was bureaucracy. I was obliged to follow a specific procedure in order to send and collect the questionnaires. So, this procedure required much time and patient.

On the other hand, the only vital limitation was the climate and the culture of the organization as these two had significant effect on the study's results since produced essential differences in the answers at the questionnaires.

To begin with, the first four questions were general questions were the interviewer had to give information about himself. These questions were included in order to give me the chance to understand the organization's employees. The second question (Appendix I) concerned the gender of the responders and the third one (Appendix J) concerned their age. The majority of the responders where males, while only 27% of them were females. Moreover, the plurality of the responders picked the choice 41-50, with 31-40 being the second in number proportion. The fourth question (Appendix K) concerned their highest qualification. At this question, 22% responded that they have A Level qualifications, while 32% answered that they have degree or even higher and 28% that they have diploma. So, based on these introductory questions the majority of the employees, who participated in this research, were males, among 41 and 50 and with degree or higher qualifications.

The second set of questions includes questions 5 to 7, which deal with the interviewers' work. The purpose of those questions was to identify with what exactly the interviewers deal with and what proportion of their work they spend on projects. 53% answered that they weekly spend more than 66% of their working hours on projects. Only 22% answered that they spend less than 33%, while all the others picked the choice 33-66% (Appendix L).

A variety of different answers were given to the following two questions, question six (Appendix M) and seven. At these questions the interviewers had to firstly characterize the work they do and secondly state which their position in the organization is. The majority of them characterized their work as managerial, while 35% chose the description Professional/ Engineering. Concerning their position, a 28% stated that their position is functional managers, while a 20% stated that their position is project managers.

The eighth question opened the second unity of questions, which concerned the importance of project management for the organization. This question enquired the duration that the organization integrates project management processes. By far the largest number of those surveyed reported that the organization adopted project management five years ago and only one quarter of those questioned expressed that the adoption took place seven years ago.

The ninth question was based upon the previous one and was a more specific question. Through this question the interviewer had to identify which were the reasons which led to project management adoption and mark the degree of magnitude of each one. From the six reasons proposed, only one, quality assurance, did not have very high participation in the decision for project management adoption. On the other hand, the other five reasons, market demand, efficient use of resources, cost reduction time management and customer service, were marked as very high reasons with the first four receiving 40% each one and with the last one receiving 60% (Appendix N).

The following two questions were also specific questions at which the interviewers had to proceed to evaluation. The tenth question was about the degree at which the project management procedures affected the organization and the eleventh question was about the degree at which the project management affected the organization's strategic plan (Appendix O). At the tenth question, 45% of those surveyed answered that the project management procedures have mediocre affection to the organization; while 26% answered that the affection is low. So, it is obvious that the organization is affected, but the employees do not see or feel spectacular changes and for this reason they did not give high or very high rate. Almost the same fact presented at the next question, with mediocre receiving 50%, low receiving 30% and very low receiving 20%. So, according to the interviewers the strategic plan does not have important affection. In my opinion, this happened because in the organization does not exist that department which will not only evaluate the results of each project, but also provide to the organization's executives the projects' results in order to proceed to strategic planning.

The next two questions also requested from the responders to proceed to evaluation. The twelfth question concerned the project management level of the organization (Appendix P). This question had been placed in order to understand whether the employees are content with the organization's progress or not. With mediocre receiving 22% and low receiving 44%, I think that the employees do not have the best view for their organization and that they believe that there is big capability for upgrading.

In addition to this, question thirteen, which is about the sufficiency of the operational regulation (Appendix Q), presented even worse results with low receiving 30% and very low receiving 35%.

The following question opened the third unity of questions which included project management principles and processes followed by the organization. At this question, the interviewers had to grade some issues. In order to easier study them, I separated them into three groups. The first group was about the determination of the operations of each function, the learning of the organization and the monitoring and controls (Appendix R). To begin with, the majority of the responders characterized the determination of the operations as low, while 25% characterized it as very low. Based on these percentages and on question thirteen, I understand that there is not clarity about the roles and responsibilities of each function, generally, and of each employee, specifically, so a lot of problems and misunderstandings occur, especially at project tasks. Moreover, the 40% of those questioned characterized the organization's learning as very low, 30% as low and only 7% as high. So, these percentages, together with the eleventh question, pinpoint the absence of that department which at the end of each project, gather data and information of its progress and evaluate its results. The same bad picture presented for the monitoring and control, with mediocre receiving 38% and low receiving 35%.

The second group concerned organization's time management, cost management and risk management (Appendix S). Time management was evaluated by the majority of the responders as mediocre, while 30% evaluated it as high. Risk management evaluated by the 38% of those questioned as mediocre, while 22% evaluated it as high and cost management evaluated by the 40% of the interviewers as mediocre, while 25% stated that it is low. So, the organization has adopted time management, cost management and risk management, but because of the mediocre rate which been given by the majority of the interviewers, I can understand that all of them did not credit the prospective.

The third group concerned quality management, human recourse management, communication management and scope management (Appendix T). As far as quality management is concerned, 45% of those who responded believed that it is high and 25% believed that it is very high. Thus, quality management and therefore quality lies at an extremely good level in the organization. The same view presented for scope management, as 45% of the responders believed that it is at a high level and 25% believed that it is at a very high level. In addition, 45% of the interviewers stated that the human recourse management is at a high level, while 25% stated that it is at a mediocre level. On the other hand, communication management did not have the same good representation. Only 5% of the responders stated that it is at a very high level, whilst 35% stated that it is low and 30% stated that it is very low. Thus, communication management needs immediate improvement.

The fifteenth question closed the specific questions. This was a question at which the interviewers had to proceed to evaluation. As the issues, which had to grade, were a lot I also separated them into three groups. The first group (Appendix U) concerned executives' support and guidelines, employees' project management knowledge, clarity of roles and responsibilities and customer services. To begin with, the majority of those questioned were of the opinion that executives' support is low, while a 25% was of the opinion that it is very low. So, according to these percentages, I believe that the employees do not feel free to be creative and innovative as they suffer from insecurity, as they do not have proper support. Also, by far the largest numbers of those asked stated that the employees' knowledge is low and only 10% characterized it as high. Thus, the employees believe that they have basic knowledge on project management, which needs immediate enhancement. Moreover, low rates were given to the clarity of roles and responsibilities. 40% of the interviewers stated that the clarity is low, while 22% stated that it is very low. Thus, through this answer I can understand why at question thirteen the operational regulation of the organization had so low rates. On the other hand, customer services presented an extremely good view, with high receiving 40% and very high receiving 28%.

The second group concerned data information system, availability of information and organizational innovation (Appendix V). A significant percentage of those who responded expressed that the organizational innovation is at a mediocre level, while 28% stated that it is at a high level and a 20% that it is at a very high level. On the other hand, neither the data information system nor the availability of information

received good rates from the interviewers. Unfortunately, 40% of those questioned reported that data information system is low and 25% that it is very low. Also, 35% reported that the availability of information is very low, so the employees clearly expressed their disappointment and disapproval for the existing system. They surely face problems with the information they need. No matter whether there is a specific system which provides information to the employees, if the employees have difficulty in accessing it, it can be thought that it does not exist.

The third group concerned meeting frequency, personal motives, adequate training, coordination and leadership (Appendix W). The majority of the responders believed that the personal motives are high and 25% that are very high. I think that the explanation for those high rates is the productivity bonuses which been given, at the end of each year, to the employees who successfully accomplish their work and participate in the fulfillment of the organization's goals. High rates were also given to coordination and leadership, which received 38% to high option and 22% to very high option. In my opinion, these percentages were prospective. The Public Electricity Organization is an extremely lucrative business for the country and plays strategic role in the European market, thus the government appoints the executives, who are efficient managers. Moreover, the low rates which been given by the interviewers to the meeting frequency explains partly the low rates which been given to communication, which been asked at question fourteen.

Also, the 45% of those questioned which reported that the training is low help me understand the low rate which was given to project management knowledge, that been asked at question fourteen.

Finally, the following question was an open question at which the interviewers had the opportunity to freely outline their thoughts about the critical changes that should take place in the organization, in order to enhance its competitiveness in the Greek market and the last two questions were closed questions at which the interviewers had to choose among yes, no and no answer. The last two questions were placed in order to check the employees' opinion for a PMO. At question seventeenth (Appendix X) over the half of those surveyed answered that the adoption of a PMO is possible and at question eighteenth, 43% of those surveyed answered that this adoption will increase the success of project management, while another 20% skipped the question.

The issue observed was the agreement, in the majority of questions, among the interviews, which been contacted, and the questionnaires, which been completed. Also, extremely important was the fact that I found disagreement upon similar subjects. Thus, these subjects are the organization's problems which need solutions and will be thoroughly discussed in the following chapter.

### Discussion, Conclusions and Recommendations

### Introduction

In the global market and especially in the developed countries, new facts are been created in order to proceed to efficient organization and administration. These facts are based on processes and projects and include methodologies, tools and techniques, which are similar with what the technical companies were using for decades in order to achieve not only efficient constructions, but also efficient coordination of the technicians.

# **Findings**

The Public Electricity Organization, as it participates in the global market, faces significant challenges in relation not only to its operational performance, but also with the limitations and the requirements imposed by the regulatory framework in the country and in the European Union. For this reason, the organization is obliged to proceed to immediate changes. The necessary changes are being defined through the interviews which been contacted and the questionnaires which been completed. To begin with, from the questionnaires I understood that the adoption of project management, which took place approximately seven years ago, affected the organization, but made only partial changes, as it enhanced only specific areas. For this reason, while time management, cost management, risk management, quality management, human

resource management and scope management were graded with mediocre or high rates, organizational learning and communication management were graded with extremely low rates. Thus, the organization has a good level in time, cost and quality, while communication and learning need changes.

The need for change in organization's communication management enhances the fact that the employees graded with similar low rates the frequency of meetings. So, based on employees' answers I can understand that the communication is not adequate and that the organization should create a department which will produce a communication plan and will be responsible for its performance. Moreover, the need for change in learning is being enhanced by the low rates which been given not only to project management knowledge, but also to adequate training. Thus, the employees believe that they have basic knowledge in project management, which needs immediate enhancement through training. So, the organization should create a department which will continuously train the employees and make them familiar with project management principles and best practices.

Moreover, the low rates which been given to availability of information and to data information system, pinpoint the absence of that department which will gather data and information. So, the organization should make one more change, which should be the creation of a department which will not only gather project information, but also will evaluate them together with its results and give to the employees the opportunity to have access on them whenever they want.

The absence of the above department justifies why project management had low affection in strategic planning, as a department like that would not only evaluate the results of each project, but also would be responsible for the portfolio management. So, such a department would undertake return on investment analysis, risk management and cost management for the forthcoming projects and would deliver the results to the executives who would proceed to strategic planning.

Another equally important change which derives from both the interviews and the questionnaires is in the operational regulation of the organization. Based on the answers which I collected, I can say that the employees are not content with the operational regulation as there is no clarity of their roles and responsibilities and this fact creates a lot of problems and misunderstandings, especially during project execution.

The last change which should take place in the organization is related with support. This one occurs by the fact that the employees did not feel that they had the executives' support and as the working environment and especially support plays significant role in the employees' performance, the organization should create a department which will help and support the employees, in order to stop feeling like "lonely cowboys".

Thus, based on both the results of the interviews and the questionnaires I understood that the organization should rapidly proceed to measures and actions in order to, increase efficiency by reducing controlled expenditure.

Moreover, the organization should take actions in order to enhance support, improve communication, empower training, improve the production process and the successful implementation of the investment program for extension, as well as to achieve renewal and modernization of production capacity with the aim to create an efficient, competitive and reliable company as demands its size and its great national role.

In my opinion, the attainment of the above actions requires a holistic vision of functions and upcoming projects, which traverses the entire key operational functions, harmoniously incorporates the initiatives of the general departments, detects and manages efficiently the interdependencies of actions across functions and finally ensures the successful implementation of major investment projects.

#### Recommendations

Based on the literature review and on the last two questions of the questionnaires, I believe that the optimal way which will not only monitor and operate such a holistic approach, but also will help the organization to overcome all the above mentioned problems is the creation of a project management office, which will not only monitor and coordinate the implementation of the businesses Operational Plan (2009-2014), especially in the area of saving controlled expenditures, but also will monitor and control the whole organization, its progress and its performance.

A Project Management Office has specific objectives within the framework of its roles and responsibilities, which are directly connected with the administration of the projects of the organization and it is responsible to provide central guidance.

Also, it is responsible to monitoring and reporting the status of projects executed, in order to contribute to their successful completion and to manage and organize the information in order to assist the management in the context of the strategic and administrative decisions.

### Mission of the PMO

Reviewing the data that derived from the interviews which I contacted and the results of the questionnaires, I suggest that the mission of the PMO should be the establishment of project management culture based on matching techniques appropriate to the specific needs of the enterprise, with the aim of the central monitoring and supervision of projects. Moreover, mission of the PMO should be the timely and authoritative informing of the administrative commission of the operational plan, as well as the establishment of methodologies and best practices for the project management. Also, mission of the PMO should be the support and contribution to the needs, which arising during the life cycle of projects, regarding compliance with the procedures and practices to be followed.

# Objectives of the PMO

Moreover, there are a lot of objectives for the PMO. For this particular organization, one major objective is to provide central guidance, to monitor the organization's projects and adequate train the employees. Another objective is reporting the status of projects, which been executed, in order to contribute to their successful completion.

Lastly, one more objective is to manage and organize the information in order to assist the management in the context of the strategic and administrative decisions.

# Critical Success factors of the PMO

The creation of a PMO is a big change and like any change there is big possibility for resistance. Though the last two questions of the questionnaire I understood that the majority of those questioned were positive to a PMO adoption, but apart from them there was a percentage which was negative and a percentage which skipped the questions. Of course, with appropriate handling those who skipped the questions can become positive to such an adoption. On the other hand, those who are negative may are of the opinion that none change is good, so the organization and the project manager who will undertake this project must help them see the benefits of such an action and help them defeat their fear. As already mentioned in the literature review, in order to create a successful PMO and defeat resistance, apart from the clearly stated mission and objectives there are also some critical success factors which should be taken into consideration. For the Public Electricity Organization there are four critical success factors. To begin with, the organization's management should support the organization and the establishment of the PMO. Secondly, the organization's executives company should participate and support every effort or directive of the PMO, like to participate in organizing meetings, in order to ensure a smooth and uninterrupted operation of the PMO. Thirdly, the executives should clearly determine which are exactly the roles and responsibilities of the PMO, at a way that this can be understood by all stakeholders.

Lastly, one more critical success factor is the effective implementation of methodologies and best practices for the PMO's project management.

#### Location of the PMO

Based on the interviews which been taken from the executives of the organization, I propose that the PMO should elapse between the Steering Committee, which is the commission which is responsible for the operational plan, and the Liaisons, who communicate and collect information from the general departments (Figure 6). As already mentioned, core appositeness of the PMO is the collection and evaluation of information, coordination of activities for the observance of good project management processes and the preparation of information and actual reports of the progress of the projects to the Steering Committee. In my opinion, the PMO should define two project categories, the "internal", that are those in which the company is responsible for the successful completion of the project, and the "external", that are those in which the organization entrusts to sponsor the implementation of the project, participates as internal advisory group and has an interest in the successful completion of the project. In this case the PMO of the organization receives the information from the subcontractor's project managers of the project.

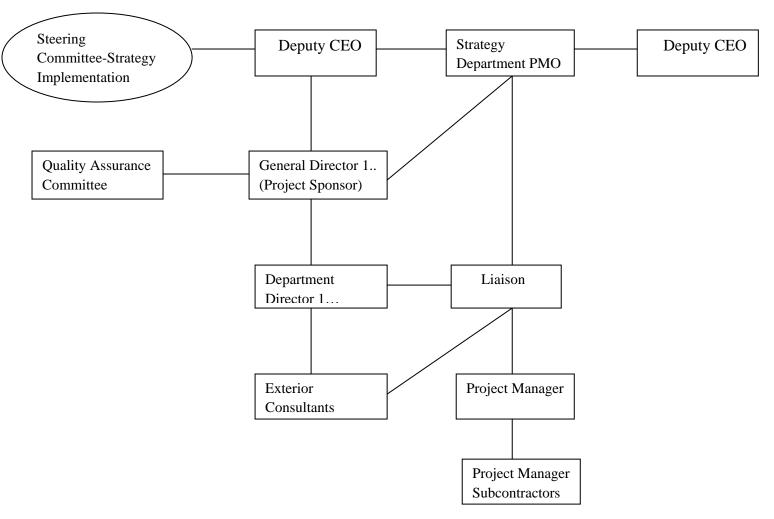


Figure 6 Organizational Structure monitoring the business plan.

### Responsibilities of the PMO

As already mentioned, the solution of the organization's problems is the responsibilities of the PMO. To begin with, as the interviews and questionnaires presented low rates in monitoring and control, responsibility of the PMO is the development and maintenance of administrative procedures and methodologies for the successful management of projects. Furthermore, responsibility of the PMO is to specify its functional methodology and to specify its operation guide.

Also, as the interviews and the questionnaires presented low rates in data information system and availability of information, the PMO must be the reference point, at which are being concentrated and maintained historical information. As the interviews and the questionnaires presented low rates in support, the PMO must direct and advise the organization's employees for the proper fulfillment of the above procedures and practices, as well as to preserve the development of the project management software, that will be used in the operation of the PMO. Moreover, as the adequate training also presented low rates, as well as the project management knowledge, the PMO should be responsible for the planning and execution of training on project management. In my opinion the PMO should follow a specific method in order to successfully accomplish training. Based on the literature review, I suggest that the PMO should firstly define which the employees' needs are, secondly analyze and grade the training needs, thirdly design and develop the training program, fourthly implement the training program and lastly survey the results of the training and make recommendations for the future. I totally agree with the literature review that one of the most effective training programs is workshops with real life projects. The PMO is also responsible for the solution of issues, as well as for the changes and the risks which cannot be handled by the project management team. In such a case, the PMO must collect all the necessary information and inform the executives, who will decide, about the situation.

As far as quality management is concerned, the PMO is responsible to assess the quality of the information posted in the forms and to check whether the coding standards and directives which has communicated to the users of the system, are being

followed or not. Also, the PMO is responsible to check if the predefined time for information, as well as for the expected approvals or discharges in possible issues, changes or risks is being followed and to check at regular periods if maintained properly and with the appropriate structure the document workspace.

Another important problem, which presented through both the interviews and the questionnaires, was communication management. Thus, the PMO should be responsible for the communication plan. I think that the PMO should follow four steps for its accomplishment. Firstly, the PMO should identify the interested parts, in order to define their roles, their responsibilities and their fields of actions. Secondly, the PMO should determine the communication topics in order to inform and keep alert all the stakeholders. Thirdly, should implement tools and techniques that will contribute to the establishment and adaption of communication best practices in daily work and lastly, should develop communications calendar which will define the dates that the meetings for the progress of projects will take place. There are a lot of different techniques for communication which can be adopted by the PMO, depending on the subject and the parts. To begin with, face to face meetings where specific topics will be explained in detail. Also, training sessions which will have as subject the specific project management issue. Another communication technique is through discussion groups, which will be created according to the experience and the department at which the participants belong. Furthermore, the E-mails can be a good reminder of the best practices of communication and project management, as well as the periodically send of newsletter by the PMO, which will cover a set of practical, day-to-day cases

and their resolution. Lastly, the updating of the organization's website with issues, practices and developments which deal with project management.

One more responsibility of the PMO is the fulfillment of reports. I believe that the reports about the projects of the organization should be prepared by the PMO on a monthly basis and presented to the Steering Committee a week after their completion. The PMO will be responsible to schedule meetings with the Steering Committee and all the stakeholders.

#### PMO's WBS

Based on the literature review, the creation of a PMO will solve the organization's problems, so in my opinion, the Public Electricity Organization should proceed to its adoption. The establishment of the PMO, in order to be successful, should be handled like any other project, thus I propose the below work breakdown structure (Figure 7).

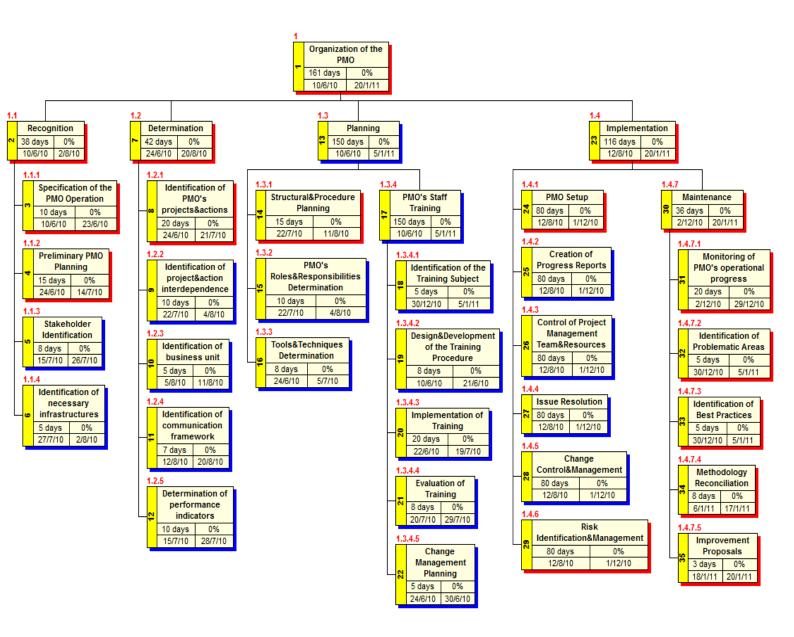


Figure 7 PMO's Work Breakdown Structure

#### Conclusion

To conclude, I believe that the most appropriate solution for the Public Electricity Organization is the establishment of a PMO. Based on the literature review and the results of the interviews and the questionnaires, which I contacted I proposed above the mission, the objectives, the responsibilities and the location of the PMO. Moreover, I outlined the critical success factors and the work breakdown structure of this project. I strongly believe that if the organization will follow my recommendations will successfully establish and implement the PMO. This thesis will be of much help for the organization and can be used by the organization for future evaluation of the PMO.

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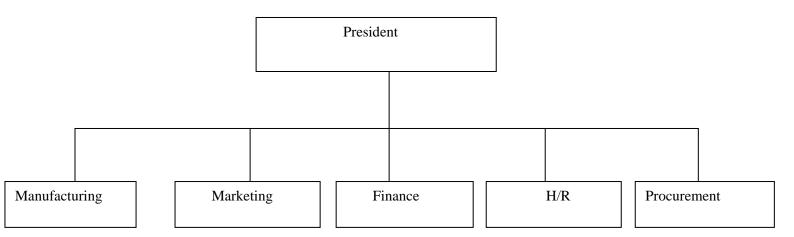
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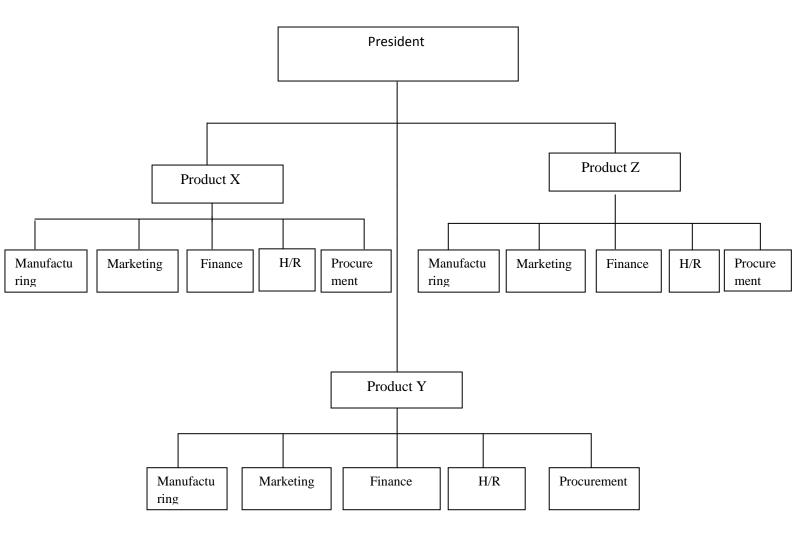
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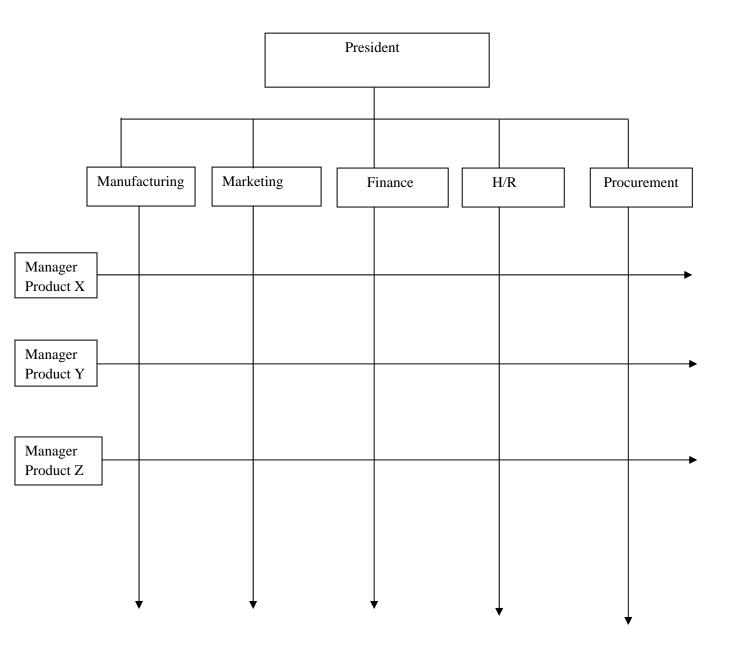
# Appendices

# Appendix A

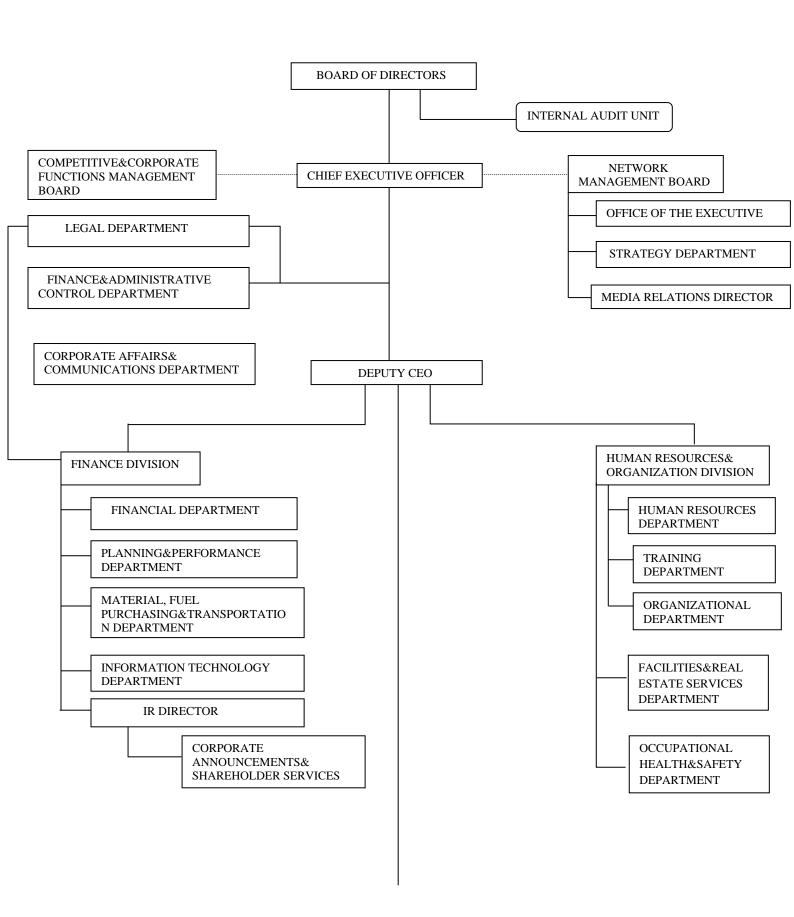


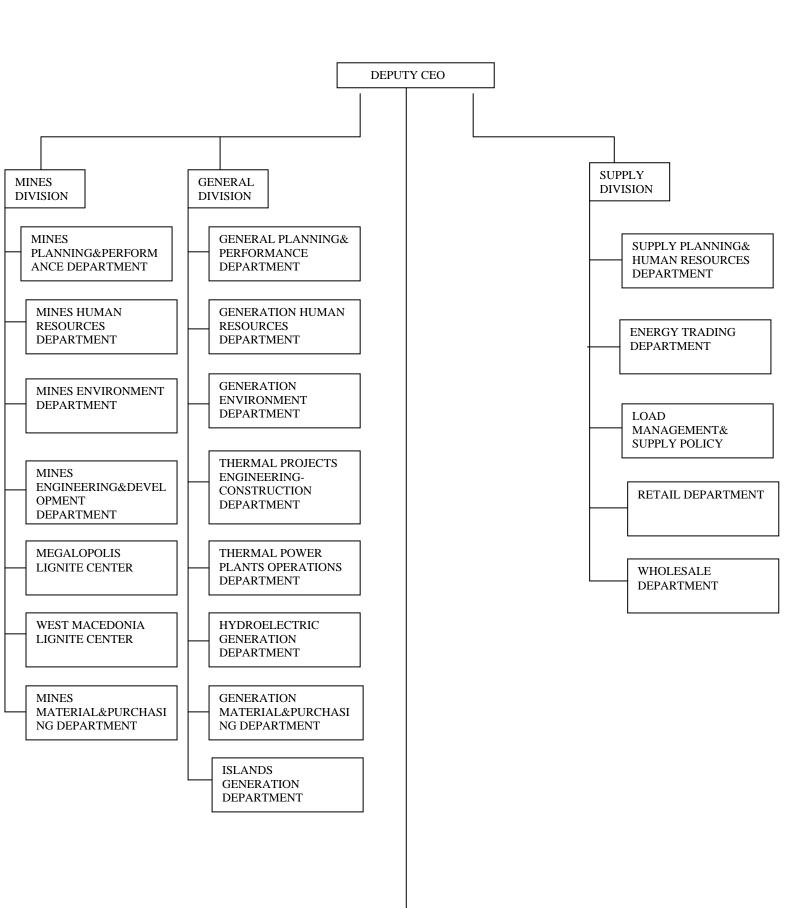
# Appendix B

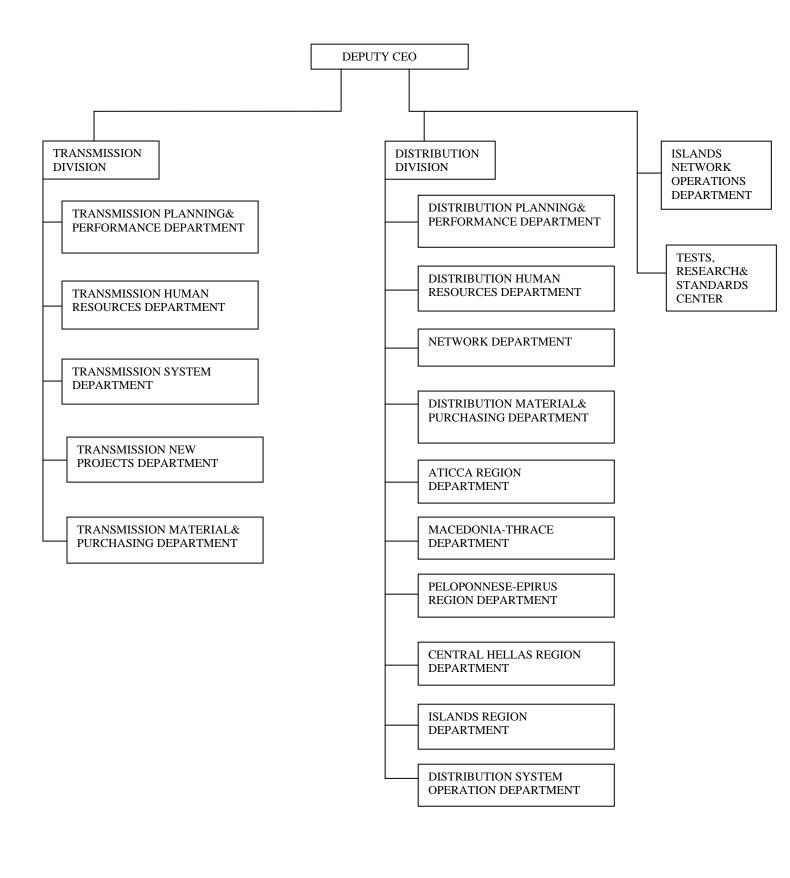




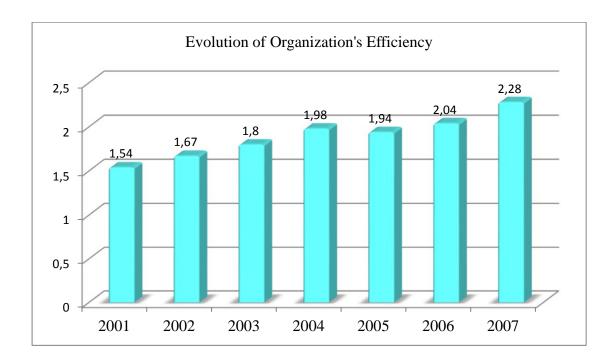
Appendix D - Organizational Structure





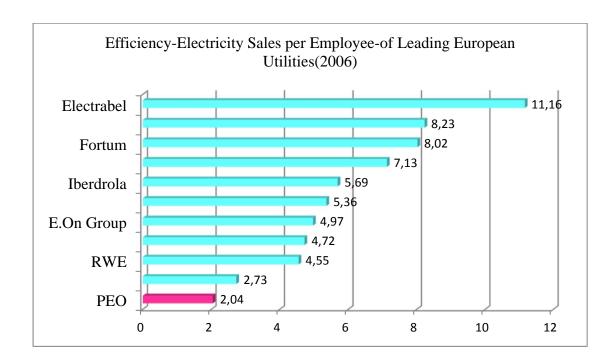


# Appendix E



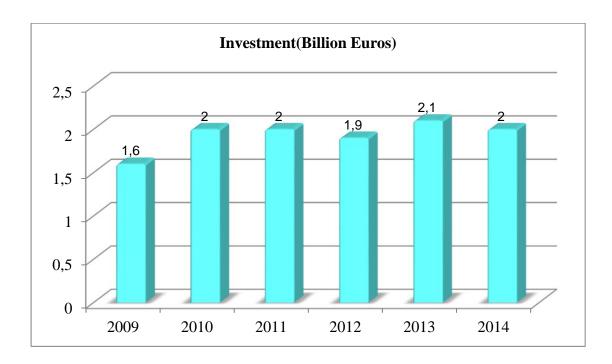
Evolution of Organization's Efficiency (Annual reports, company information).

## Appendix F



Efficiency-Electricity Sales per Employee-of leading European Utilities 2006 (Annual reports, company information).

# Appendix G



Investment (Public Electricity Organization Business Plan 2009-2014).

# Appendix H

Question 1:
Do you use project management process in your organization?
Yes
□No
If your answer is «Yes», please continue to the below questions.
If your answer is «No», thank you very much for your time.
Unity A'
Question 2:
Gender
☐ Male ☐ Female
Tenate Tenate
Question 3:
What is your age?
$\square$ 20 years or under $\square$ 21 – 30 $\square$ 31 – 40 $\square$ 41-50 $\square$ 51-60

Question 4:					
What is your highest qualification?					
□None [ ] 7					
GCSE (O-Level)					
A Level					
Diploma					
Degree or Higher					
Question 5:					
	Less than 33%	33-66%	More than 66%		
On average, what proportion of your working week do you spend on projects?					
	<u> </u>				

Question 6:				
	Administrati on/Secretari al	Professiona l/Engineeri ng	Mana gerial	Other
How would you describe the work that you do?				

	Question 7:						
State which is your position to the con	npany?						
B' Unity:							
Question 8:							
How long your organization integrates	project	manage	ment process	?			
Question 9:							
What were the reasons which lead to	Very	Low	Mediocre	High	Very		
What were the reasons which lead to project management adoption?	Very Low	Low	Mediocre	High	Very High		
What were the reasons which lead to	_	Low	Mediocre	High			
What were the reasons which lead to project management adoption?	_	Low	Mediocre	High			
What were the reasons which lead to project management adoption?  Market Demand	_	Low	Mediocre	High			
What were the reasons which lead to project management adoption?  Market Demand  Efficient use of Resources	_	Low	Mediocre	High			
What were the reasons which lead to project management adoption?  Market Demand  Efficient use of Resources  Cost Reduction	_	Low	Mediocre	High			

Question 10:						
	Very Low	Low	Mediocre	High	Very High	
Point out the degree at which your organization was affected by the project management procedures.						
Question 11:						
	Very Low	Low	Mediocre	High	Very High	
Point out the degree at which project management affects the strategic plan of your organization.						
		ı				
Question 12:		ı				
Question 12:	Very Low	Low	Mediocre	High	Very High	
Question 12:  Grade the project management level of your organization.		Low	Mediocre	High	_	
Grade the project management level		Low	Mediocre	High	High	
Grade the project management level		Low	Mediocre	High	High	
Grade the project management level of your organization.		Low	Mediocre	High	High	

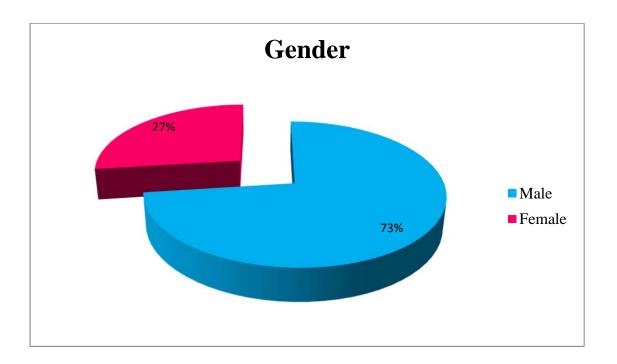
C'	C' Unity:						
Question 14:							
Overall in your working environment, do you grade the following:							
		Very Low	Low	Mediocre	High	Very High	
a.	Determination of the operations of each function						
b.	Organization Learning						
c.	Monitoring and Control						
d.	Time Management						
e.	Cost Management						
f.	Risk Management						
g.	Quality Management						
h.	Human Resource Management						
i.	Communication Management						
j.	Scope Management						
	Question 15:  Overall in your working environment, do you grade the following:						
		Very Low	Low	Mediocre	High	Very High	
a.	Executives Support and Guidelines						
b.	Employees Project Management Knowledge						
c.	Clarity of Roles and Responsibilities						

Question 17:						
	Yes	No	No Answer			
Is the adoption of a PMO possible?						

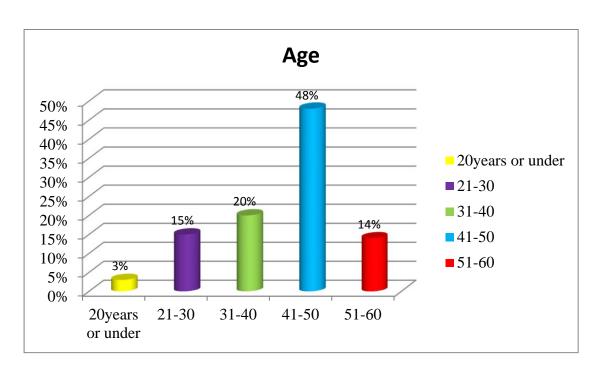
Question 18:			
	Yes	No	No Answer
The implementation of a PMO would increase project management success?			

Thank you very much for your time!!!!

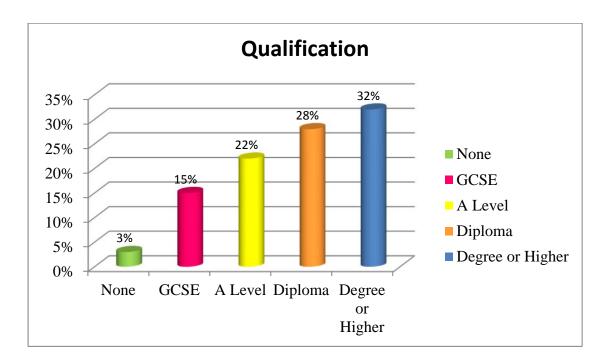
# Appendix I



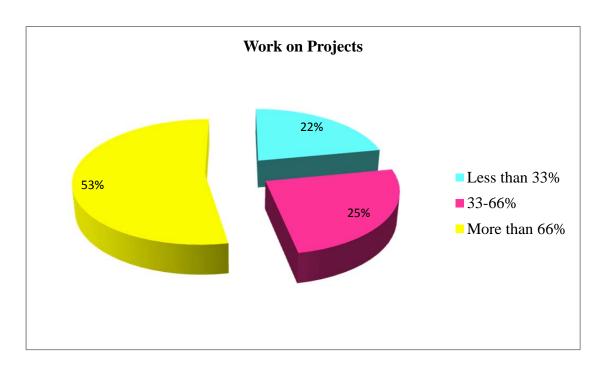
# Appendix J



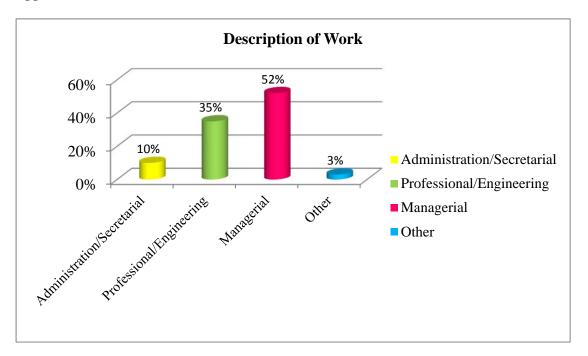
## Appendix K



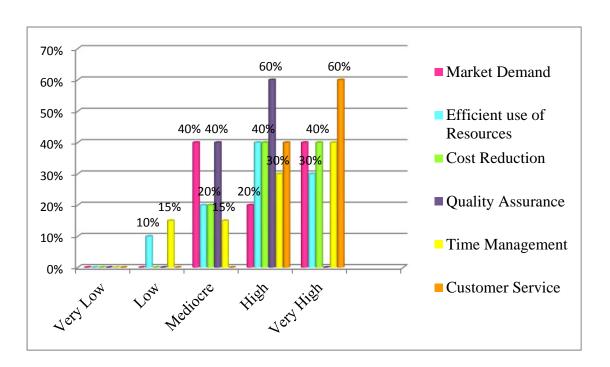
## Appendix L



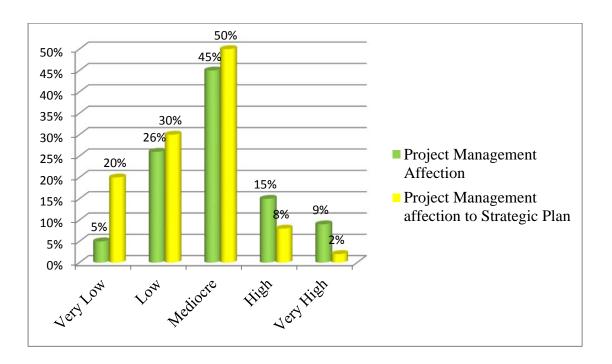
### Appendix M



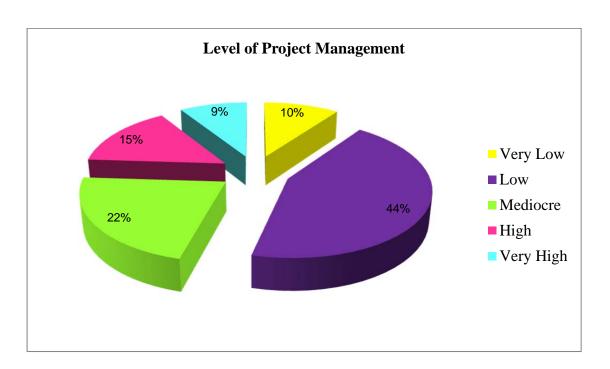
### Appendix N



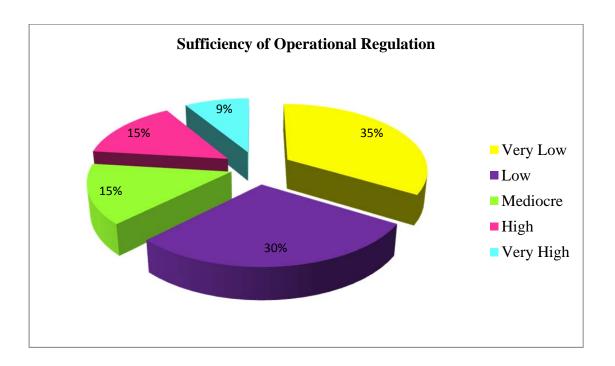
### **Appendix O**



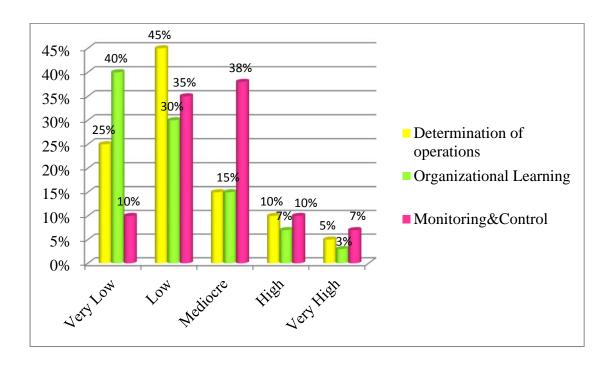
### Appendix P



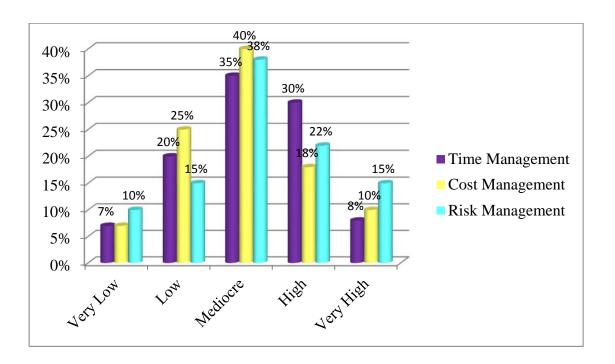
## Appendix Q



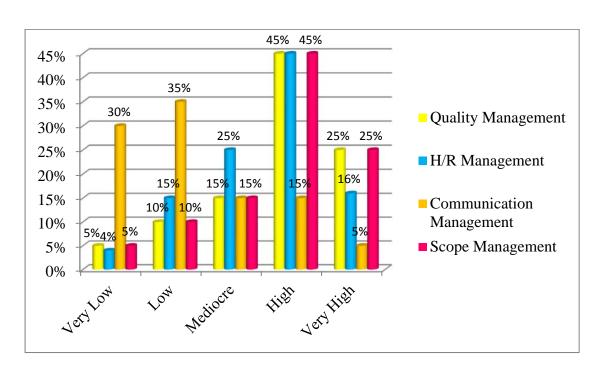
### Appendix R



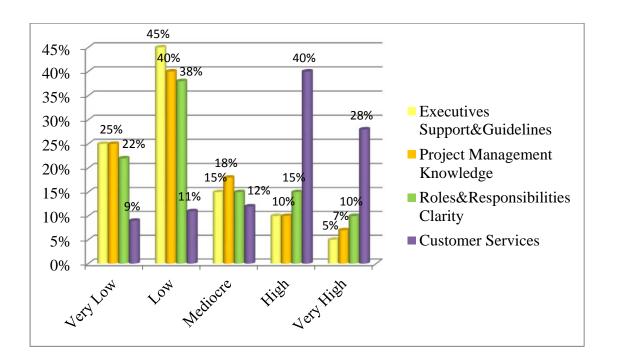
### Appendix S



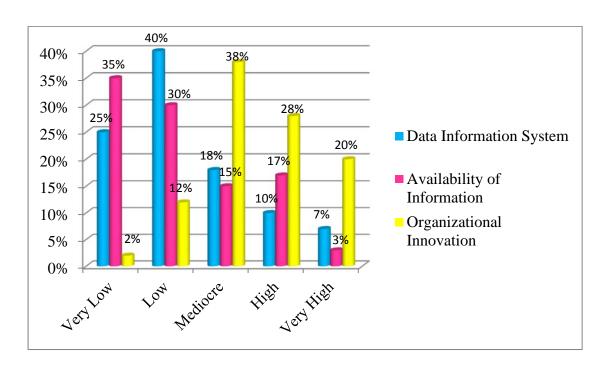
### Appendix T



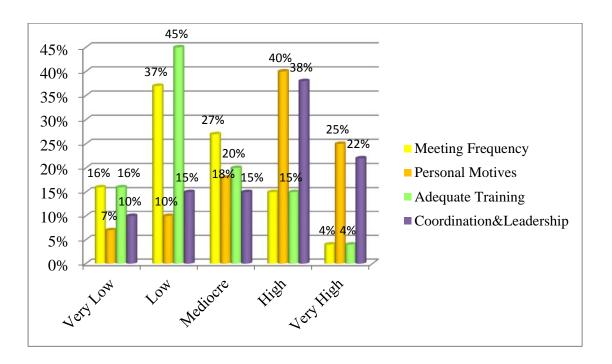
### Appendix U



#### Appendix V



## Appendix W



### Appendix X

