



**ESTABLISHING THE BENEFITS OF  
IMPLEMENTING AN I.T. PROJECT  
MANAGEMENT OFFICE IN THE NELSON  
MANDELA METROPOLITAN AREA.**

by

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PROJECT MANAGEMENT OFFICE IN THE NELSON MANDELA  
METROPOLITAN AREA.**

by

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## **ABSTRACT**

The well-known concept of a Project Manager managing an I.T. project in relative isolation is no longer a viable option for organisations that are running numerous projects simultaneously. Due to the enormous costs and risks involved in many of these projects, there needs to be a means to ensure success. This has led to the establishment of the concept of a Project Management Office (PMO). An autonomous business unit that is responsible for managing all projects within an organisation.

The need for a Project Management Office (PMO) to effectively manage multiple projects is becoming more and more accepted worldwide. The benefits of a PMO are well documented, but whether these benefits will apply to organisations within the NMM area needed to be investigated.

A detailed analysis of the benefits of Project Management and in particular a PMO, have been investigated by means of a literature study. An investigation into the effectiveness of PMO's in South Africa in general, was conducted by means of a survey targeted at a group of I.T. Project Managers located in all the major centres. A further survey was conducted among local I.T. managers to determine their current level of success and their expectations for the future.

When reviewing the expectations of local I.T. management against the performance of Project Managers that are currently operating within PMOs, it is clear that organisations within the NMM area are in need of PMO's and would certainly benefit from their establishment.

## DECLARATION

I, Michael Ronald Charles Martin, hereby declare that:

- The work in this treatises is my own work.
  - All sources used or referred to have been documented and recognised.
  - This treatises has not previously been submitted in full or partial fulfilment of the requirements for an equivalent or higher qualification at any other recognised educational institution.
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## **DEDICATION**

To my wife, Catherine, for her continued support and encouragement without which, this would not have been possible.

To my parents, they would have been proud.

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# **1. INTRODUCTION**

## **1.1 Background**

With the rapid advancement in technology and the advent of global competition, industries are becoming more and more complex. To meet the expectations of their clients, managers (especially in the Information Technology (I.T.) field) are having to employ more formal techniques in the way that they manage projects. To achieve this, the principles of Project Management are becoming an absolutely essential part of the modern day organisation.

The role of the I.T. Project Manager (especially in South Africa) is slowly, but surely, becoming more established and with this maturity comes the challenge of meeting the increasing expectations of the user areas.

## **1.2 Description of focus area**

The concept of a Project Management Office (PMO) is relatively new within the field of Project Management (Block, 2002). The growth in the number of projects being undertaken by most I.T. departments has necessitated a more formal structure of management. The now, well-known concept of a Project Manager managing a project in relative isolation, is no longer a viable option for organisations that are running numerous projects simultaneously (Reiss, 2002). Due to the enormous costs and risks involved in many of these projects, there needs to be a means to ensure success. This has led to the establishment of the concept of a Project Management Office (Bridges, 2002). An autonomous business unit that is responsible for managing all projects within an organisation. A Project Management Office allows project/programme managers to



successfully control multiple projects simultaneously while reducing the risk to the overall business (Reiss, 2002).

### **1.3 Description of specific issues of interest**

Although many PMO's have been successfully established elsewhere in the world, this concept is very new to South Africa and hasn't as yet been implemented in the Nelson Mandela Metropolitan area. The size of the local economy, the types of industry present and the value of the average I.T. project has for some time been a major concern for local I.T. managers. With this in mind, the benefit of establishing a PMO in an organisation in the NMM area is questionable.

### **1.4. Description of problem area**

#### **1.4.1 Conceptual framework of study**

The concept of Project Management is generally known and accepted. It is to ensure that the scope of the project is met on time and within the stipulated budget (Schwalbe, 2002).

If a company is running relatively few projects at a time, no more than 4 or 5, then managing the expectations of the users is achievable. However, when a company starts to run many projects simultaneously, with many Project Managers all operating independently, the risks and complexity of control increases enormously. Senior management are faced with the dilemma as to who controls the integration of all these projects and who manages the Project Managers.

These problems became glaringly obvious in most first world countries where many companies, with massive I.T. needs, were running dozens of projects simultaneously (Englund *et al*; 2003). Many of these projects span a number of years with large project teams and massive budgets. The potential for failure is huge and the repercussions massive. As the stakes have increased, so has the need for the establishment of a formal mechanism to manage all projects within a company (Parviz and Levin, 2002). This has led to the formal establishment of the concept of a Project Management Office, a business unit that is responsible for ensuring the success of all projects (Englund *et al*; 2003). A PMO is usually run by a Programme Manager. He is responsible for all the Project Managers and is accountable for their performance. The PMO operates across all divisions/business units and the Programme Manager usually reports directly to a board member (Reiss, 2003).

#### **1.4.2 Identification of problem area**

The potential need for and the benefits of a Project Management Office have been established, the question of whether this will be of benefit to an organisation operating in the local economy has to be answered. The concept of a PMO has been fairly well accepted overseas for a few years already and their methodologies, structures and implementation has been well documented (Bridges, 2002). However, the introduction of PMO's in South Africa has been much slower. This could be due to numerous factors, namely the "brain drain", the rapid end of the "dot com" era or the incredible pace with which technology is developing. Many individuals suspect that our smaller economy and weak currency has a lot to do with it. South Africa has relatively few organisations with the resources to tackle large I.T. related projects. This has often resulted in the role of I.T. being relegated to the "necessary evil" category. With this

perception, many organisations are reluctant to appoint qualified Project Managers, never mind establish a formal Project Management Office (Barnes, 2002).

The benefits of Project Management and PMO's are slowly starting to filter through, with the result that a number of PMO's have been established in some of the major centres in South Africa. However, there has yet to be a single formal PMO in the entire Nelson Mandela Metropolitan (NMM) area. The potential benefits for a local organisation need to be investigated further.

### **1.4.3 Rationale**

Most of the existing research and literature is based on the successes of PMO's in large international corporations. These are companies that undertake large projects with huge budgets. They have virtually limitless resources and a massive pool of qualified Project Managers (Parviz and Levin, 2002).

I.T. Project Management in South Africa, is still in a development phase with most organisations having a low maturity level. Many of the concepts are not well known and the benefits questioned. The role of the Project Manager in many organisations has not been generally accepted, often due to budgetary constraints. This is further exacerbated in the NMM area owing to the smaller economy, which often results in smaller projects with smaller budgets and limited resources. Whether a PMO can successfully be established by a local company in the NMM area needs to be investigated.

## **1.5 Problem Statement**

The basic principles of Project Management are now widely known (as defined in detail in the Guide to the Project Management Body of Knowledge). The need for a PMO to effectively manage multiple projects is becoming more and more accepted in most first world countries. The benefits of a PMO are well documented. Whether these benefits will apply to organisations within the NMM area need to be investigated.

## **1.6 Research objectives**

### **1.6.1 Primary research objectives**

- Establishing a business model for a successful PMO in South Africa.
- Analyse the potential for a PMO in the NMM area.

### **1.6.2 Secondary research objectives**

- Determine the benefits in general of Project Management with particular reference to Project Management Offices.
- Determine the requirements for establishing a successful Project Management Office.
- Determine the Critical Success Factors for operating a successful Project Management Office.
- Determine the conditions under which successful South African PMO's operate.

## **1.7 Research methodology**

### **1.7.1 Research methods and procedure**

A detailed analysis of the benefits of Project Management and in particular a PMO will be investigated by means of a literature study. This will encompass resources on the Internet, available Project Management material and resources available from the local academic libraries. These benefits will then be analysed against the back-drop of local industry and the type of I.T. related projects that are being conducted by a local organisation.

A further investigation into the effectiveness of PMO's in South Africa in general, will be conducted by means of a survey targeted at a sizable group of I.T. Project Managers located in all the major centres. Both quantitative and qualitative research methods will be used. Correlating the results of the survey with a general overview of projects managed by local organisations, to determine the benefits for a local organisation in establishing a PMO in the NMM area.

### **1.7.2 Sources of information**

- The Internet
  - General papers and articles
- A number of well recognised Project Management books.
- Papers in the local academic libraries.
- A survey conducted among a number of South African Project Managers
- A survey conducted among local I.T. managers.

## **1.8 Summary**

The chapter has outlined the basic principles and benefits of a PMO. The question as to whether a PMO will benefit organisations in the NMM area has been asked. The following chapter will cover in more detail the principles of Project Management, its history and its benefits.

## 2. AN OVERVIEW OF PROJECT MANAGEMENT

### 2.1 Introduction

The first chapter clearly defined the field of study for this project. This chapter focuses on the definition of a project, the definition of Project Management, the history of Project Management and some of the benefits of employing Project Management in industry today.

### 2.2 The definition of a project

According to Maylor, a project can be defined as a "*non-repetitive activity*". However, this needs augmenting by other characteristics:

- It is goal oriented – it is being pursued with a particular end or goal in mind.
- It has a particular set of constraints – usually centred around time and resources.
- The output of the project is measurable.
- Something has been changed through the project being carried out (Maylor, 1996).

Schwalbe (2002) defines a project as a temporary endeavour undertaken to accomplish a unique purpose. Projects normally involve several people performing interrelated activities, and the main customer of the project is often interested in the effective use of resources to complete the project in an efficient and timely manner.

Schwalbe states that the following attributes help to further define a project:

- A project has a unique purpose.
- A project is temporary.

- A project requires resources, often from various areas.
- A project should have a primary sponsor or customer.
- A project involves uncertainty.

Baguley's (1995) definition of a project is a sequence of activities, which are:

- Connected.
- Conducted over a limited period of time.
- Targeted to generate a unique but well-defined outcome.

## 2.3 What is Project Management?

Project Management includes planning, organising, directing and controlling activities; in addition to motivating what are usually the most expensive resources on a project – the people (Maylor, 1996; Gido, 1999; Lock, 1992). Planning involves deciding what has to be done, when and by whom (Verzuh, 1999; Lientz and Rea, 2001). Resources are organised through activities such as procurement and recruitment (Schwalbe, 2002; Barnes, 2002). Directing the activities of project resources towards a set objective is a major Project Management role. These activities also need controlling to ensure that they deliver the requirements as specified by the customer. 'PRINCE' (Projects in Controlled Environments) defines a project in terms of its products (Verzuh, 1999).

These are categorised as:

- Management – the planning, documentation and control actions of management.
- Technical – the planning, documentation and review of technical aspects of the project.
- Quality – the planning, documentation and review of the quality control of the project.



PRINCE is a Project Management shell or structure within which plans can be formulated and actions controlled throughout the project lifecycle (Verzuh, 1999; Kerzner, 2000a). PRINCE's major benefit is providing a standard methodology that can be used on all projects. This allows Project Managers to concentrate on the details of their specific project because they are confident in a recognised and proven method (Kerzner, 2000a).

Project Management differs from general management largely because projects differ from what is referred to as a non-project (Morris, 1997; Meredith and Mantel, 2000). The naturally high level of conflict present in a project means that the Project Manager must have special skills in conflict resolution (Kimmons, 1990; Barnes, 2002; Baguley, 1995). The fact that projects are unique, means that the Project Manager must be creative and flexible and have the ability to adjust rapidly to changes (Mantel and Meredith, 2000). Cleland (1985) states that when managing non-projects, the general manager tries to "*manage by exception*". In other words, for non-projects almost everything is routine and is handled routinely by subordinates. The manager deals only with the exceptions. For the Project Manager, almost everything is an exception (Cleland, 1985; Kerzner, 2000b; Meijias, 2004). General management's success is dependant on good planning. For projects, however, planning is much more detailed and a project's success is absolutely dependent on this planning (Thiry, 2002; Kerzner, 2000b). The project plan is the immediate source of the project's budget, schedule, control and evaluation (Schwalbe, 2002; Forsberg and Haal, 1996; Cleland and King, 1988). Careful planning is a major contributor to project success. Project budgeting differs from standard budgeting, not in the way that the accounts are managed, but in the way that the budgets are constructed. Budgets for non-projects are usually modifications of budgets for the same activities in the previous year. Project

budgets are created for each project and often cover several accounting periods into the future (Lewis, 1995; Lock, 1987; Kezsbom, 1989). The project budget is based on the scope of requirements as defined in the project plan. The requirements relate to activities, which require resources, and these resources are the heart of the project budget (Lock, 1987; Gido and Clements, 1999).

In a non-project manufacturing line, the sequence in which various things are done is set when the production line is designed. The sequence of activities usually doesn't change when a new model is introduced. On the other hand, each project has a unique schedule (Kimmons, 1990; Wissing, 2006; Lock, 1992). Previous projects with similar deliverables can provide a rough template for the current project, but its schedule will be set by the projects unique plan and by the date on which the project is due for completion (Baguley, 1995; Cleland, 1985).

The routine work of most organisations takes place within a well-defined structure of divisions and departments. A typical project usually cannot succeed under such restrictions (Thiry, 2002; Morris, 1997). A project's need for technical knowledge, information and special skills almost always requires that departmental lines be crossed (Schwalbe, 2002; Mejias, 2004). Projects need to have an inter-disciplinary character and cannot be bound by normal organisational structures. When projects are conducted in parallel with other routine activities, the result is usually chaos (Gido and Clements, 1999; Cleland and King, 1988). Normal management activities rarely cross organisational boundaries, but projects tend to cross them freely.

In general management, there is a reasonably well-defined managerial hierarchy. The relationships between superiors and subordinates are known and lines of authority are clear. In Project Management this isn't always the case. The Project Manager may be relatively low in the organisational chain of command (Kimmons,

1990; Lock 1992). This does not, however, reduce his responsibility for completing a project successfully. Project Managers generally have substantial responsibility within a project, but have very little authority within the organisation. This is so common as to be the rule, not the exception (Kimmons, 1992). With very little legitimate authority, the Project Manager has to depend on his skills to gain the co-operation of the many departments in the organisation that may be asked to assist with the supply of technology, information, resources and personnel for the project (Cable, 1989; Frame, 1994). Each department within an organisation has their own objectives, priorities and personnel. The project is not their responsibility and the project tends to get the leftovers, if any, after the departments have satisfied their own need for resources. Without any real line management authority, the Project Manager often has to negotiate for almost everything the project needs (Meredith and Mantel, 2000; Frame, 1999). Project Managers spend a great deal of their time negotiating while General Managers spend relatively little. Skill at successful negotiating is a requirement for successful Project Management (Dinsmore, 1993; Kezsbom, 1989).

## **2.4 The history of Project Management**

According to Van Der Walt (1998), the origins of Project Management can be traced to the building of the pyramids in Egypt and the Great Wall of China. The study of Project Management started just before the 2<sup>nd</sup> World War in the chemical industry. Project Management techniques, however, were first applied in the 1<sup>st</sup> World War when Henry Gantt made diagrams of projects (Van Der Walt and Knipe, 1998; Gido and Clements 1999). These Gantt charts were used mainly to manage the construction of naval vessels during the war. In the 1950's a methodology was created

which has developed into what is today known as Project Management (Van Der Walt, 1998).

Most experts on the subject agree that Project Management isn't new. The Egyptian pyramids and Roman aqueducts would most certainly have required the skills of an expert Project Manager. Many of the individuals who supervised the construction of some of the world's great historical landmarks would have experienced all the torments of a modern day Project Manager: incomplete specifications, insufficient labour, unsure funding and a difficult customer (Lientz and Rea, 2001). Although it is generally accepted that Project Management has been practised for thousands of years, it was only in the 12<sup>th</sup> century that the title of Project Manager was used and the discipline of Project Management emerged (Verzuh, 1999; Barnes, 2002).

Maylor states that although some people might argue that the building of the Egyptian pyramids and the Great Wall of China could be considered projects, the more modern concept of Project Management began with the Manhattan Project, which the U.S. military led to develop the atomic bomb (Maylor, 1996). The military has been the key industry behind the development of several Project Management techniques.

In 1917 Henry Gantt developed the famous Gantt chart as a tool for scheduling work in job shops (Morris, 1997; Lewis, 1995). Project Managers drew Gantt charts by hand to show the tasks that had to be performed against a calendar timeline. The Gantt chart became a standard format for planning and reviewing all the work that needed to be done on early military projects. Gantt charts list the tasks that need to be done and the time needed to perform them in a common calendar format. A Gantt chart can also display the actual time it took to complete tasks, which helps Project

Managers measure performance (Schwalbe, 2002; Barnes, 2002; Maylor, 1996).

Network diagrams were first used in 1958 for the U.S. Navy's Polaris missile/submarine project (Kerzner, 2000a; Meredith and Mantel, 2000). These diagrams helped Project Managers model the relationships among project tasks. This allowed them to create even more realistic schedules. By the 1970's, the military had begun to use software to help manage large projects (Lewis, 1995; Gido and Clements, 1999; Schwalbe, 2002). Early Project Management software products were expensive and ran on mainframe computers. A full-time person was often required to run the complicated software and expensive plotters were used to draw the network diagrams and Gantt charts. As computer hardware became smaller and cheaper and software became more graphical and easy to use, Project Management software became less expensive, easier to use and more popular. Today, many different industries use Project Management software on all types and sizes of projects (Verzuh, 1999; Barnes, 2002).

## **2.5 The benefits of Project Management**

Schwalbe (2002) states that many organizations claim that using Project Management gives them numerous advantages. These advantages are as follows:

- Better control of finances.
- Better control of physical and human resources.
- Improved customer relations.
- Shorter development times.
- Lower costs.
- Higher quality and increased reliability.
- Higher profit margins.
- Improved productivity.
- Better internal coordination.

- Higher worker morale.

## 2.6 The key dimensions of Project Management

Numerous people fall into the trap of thinking about a project only in terms of its final outcome. Baguley (1995) states that there are other dimensions of a project that can also exert a significant influence upon the project process. Therefore, when we define, manage, plan, monitor and control a project we need to do so by taking into account all the interrelated key dimensions of that project (Maylor, 1996; Baguley, 1995). Traditional Project Management has focused on only 3 dimensions, namely:

- Performance - the nature of the outcome.
- Duration - the time taken or needed to achieve that performance.
- Cost - the costs of all the resources used in the project.

The interaction of these dimensions and their influence on a project are commonly referred to as the triple constraint (Cleland, 1985; Mejias, 2004; Kerzner, 2000b).

However, by the end of the 20th century, the influence of quality with its focus on the provision of customer satisfaction resulted in a fourth and complementary dimension, namely quality or fitness for purpose (Rosen, 2004; Forsberg and Haal, 1996). The quality dimension relates the project to the needs of the customer.

These 4 dimensions of time, cost, performance and quality are the key dimensions of all projects (Baguley, 1995). As such they must be:

- Clearly defined at the beginning of the project.
- Monitored throughout its duration.
- Carefully managed and controlled at all times.

It has been argued that the importance of these factors is so great that the failure to define all four correctly at the beginning of the

project will result in an unsuccessful project. These dimensions are both connected to and dependent upon each other (Baguley, 1995; Dinsmore, 1993).

## **2.7 Project Management Knowledge Areas**

### **2.7.1 Resource Management**

Resource management includes all the processes that will be required to identify, secure and maintain an effective project team. According to Thiry (2002) these processes should include the following:

- Creation of the project team.
- Defining the team structure.
- Defining the project team roles and responsibilities.
- Managing team communication and team building.
- Conflict resolution and training.

### **2.7.2 Communication Management**

Project communication management includes all the activities that will be used to meet the reporting and communication requirements of all project stakeholders (Lewis, 1995). Effective reporting and communication ensures that the stakeholders have a clear understanding of the status of the project's deliverables, project risks and any issues that may affect the project's progress and any other important aspects of the project that may ultimately affect the success of the project (Badiru, 1988; Dinsmore, 1993).

### **2.7.3 Risk Management**

Risk management includes strategies that will be used to identify and avoid or mitigate the project risks throughout the life cycle of a project (Thiry, 2002; Mejias, 2004). The Project Manager should utilise a detailed risk management plan for large or risky projects.

For smaller, less risky projects the risk plan can be included as a section of the project plan.

Risks generally come from 3 different sources (Thiry, 2002):

- Risks originating from the customer.
- Project risks – risks originating from the team.
- Technical risks.

#### 2.7.4 Configuration Management

Project configuration management should include a change control procedure and a file naming convention (Kimmons, 1990; Verzuh, 1999). The configuration management procedures are usually determined during the development of the project plan in the define phase and are carried out as an ongoing Project Management activity (Thiry, 2002). The procedures are normally documented in a configuration management plan. This plan should aim to ensure that the integrity of all project documentation is maintained (Lock, 1992).

- This plan lists the items of the project that have been placed under configuration management.
- Documents how changes to these items will be controlled, recorded and reported.
- Documents how the items will be audited to verify that they have conformed to the requirements.

#### 2.7.5 Quality Management

Quality management includes all the activities that are used to ensure that project activities and their deliverables adhere to the relevant standards that have been developed by the organisation (Lientz and Rea, 2001; Baguley, 1995). The evaluation and testing of project deliverables will contribute to the overall quality of the project, but this does not constitute the whole quality management process (Cable, 1989; Flannes and Levin, 2001). A quality



management plan should be developed as part of the project plan during the define phase of the project (Frame, 1994).

#### 2.7.6 Time Management

Project time management includes the processes and techniques that a Project Manager must use to ensure that the project is completed on time (Mejias, 2004; Thiry, 2002). It involves the development of the project's schedule and the careful management of the project work activities (Frame, 1994). During the define phase, a detailed project schedule and work breakdown structure should be developed based on the details contained in the scope document and agreed to in the project contract (Cleland and King, 1988). On small projects, the sequencing of tasks, the estimation of the time required to complete the tasks and the development of the schedule can be recorded in a single document. On large, risky projects these activities must be carefully planned, documented and executed to ensure the project's success (Kharbanda and Stallworhty, 1992; Rosen, 2004).

#### 2.7.7 Cost Management

Project cost management encompasses the processes that are used to ensure that the project is completed within the approved project budget (Lewis, 1995; Cavendish and Martin, 1982). Usually the resources and the budget required for the project are detailed in the project scope document and agreed to by the project Sponsor or Steering Committee. This is further detailed as part of project planning in the definition phase. Although project cost management's primary concern is with the cost of the resources needed to complete the project, the Project Manager may also need to consider the effect of project decisions on the final outcome of the project (Leavitt and Nun, 1994; Bailey, 2000).

## **2.8 Conclusion**

The origins of Project Management have been discussed, clearly showing that the core principles of Project Management have been in place and utilised for centuries. Many of the benefits mentioned have, however, only been realised by industry in the last few decades. With the recognition of these benefits, numerous students of the subject have undertaken a more detailed study of the principles of Project Management. These principles will be discussed in the following chapter.

## **3. THE PRINCIPLES OF PROJECT MANAGEMENT**

### **3.1 Introduction**

Having discussed the definition, origins and benefits of Project Management, this chapter focuses on its principles. When one thinks of the principles of management they usually associate them with the management of people. The management of people includes defining what the business unit will do, planning for the number and type of staff who will do it, organising the staff, monitoring their performance of the tasks assigned them, and finally bringing a close to their efforts. Those same principles also apply to projects.

### **3.2 Scope definition**

One of the first tasks that a Project Manager needs to do on a project is to define the work that needs to be done (Maylor, 1996). The same task applies in general management when managing people. In Project Management, however, the defining phase is very formal while in general management it can often be informal (Baguley, 1995; Boyatzis, 1982).

For the Project Manager, defining the tasks to be done is a preliminary phase of the project life cycle (Kerzner, 2000b). In this phase, the customer and the Project Manager come to an agreement about all the important aspects of the project. Lewis believes that regardless of the format used, every good defining phase will answer 5 basic questions:

- What is the problem or opportunity to be addressed?
- What is the goal of the project?
- What objectives must be set to accomplish the goal?
- How will we determine if the project has been successful?

- Are there any assumptions, risks, or obstacles that may affect the project's success? (Lewis, 1995)

A project's definition phase sets the scope of the project. This phase forms the basis for deciding if a particular function or feature is within the scope of the project or not (Lock, 1987; Lewis, 1995). The scope of the project can change for a variety of reasons. These changes are called "*scope creep*" and are generally a way of life in many of today's organisations (Kimmons, 1990; Lock, 1992). Scope creep can become a huge problem for a Project Manager if it is not dealt with effectively. Scope creep can occur for a variety of reasons, from something that the client forgot to include in the business requirements document to a change in business priorities that must be incorporated into the project.

The Project Manager must respond to scope creep by clearly documenting the required changes and their impact on the project plan (Lock, 1992, Lewis, 1995). A good Project Manager will have a formal change management process in place to address scope creep (Maylor, 1996; Baguley, 1995).

### **3.3 Project planning**

Despite the fact that planning is often thought to be a waste of time, the project plan is critical to ensure a successful project. It clearly denotes what work is to be done and how it will be done. Furthermore, the plan becomes a tool for decision-making (Cleland, 1985). The plan suggests alternative approaches, schedules, and resource requirements from which the Project Manager can select the best alternative (Morris, 1997; Kerzner, 2000b). Understanding that a project is dynamic, Project Managers must expect that the plan can change during the project. A complete plan will clearly state the tasks that need to be done, why they are necessary, who will do what, when it will be completed, what resources will be

needed, and what criteria must be met in order for the project to be declared complete and successful (Frame, 1999; Meredith and Mantel, 2000; Kezsbom, 1989). There are 3 benefits to developing a project plan:

- Planning reduces uncertainty among the project team and the customer.
- Planning increases understanding of the work to be done.
- Planning improves efficiency of the project team.

(Meredith and Mantel, 2000)

### **3.4 Project execution**

The execution of a project plan is the equivalent of instructing staff members to perform certain tasks that define their respective jobs (Cleland, 1994). Each staff member should know what is expected of him, how to accomplish that work, and when to have it completed. According to Cleland (1994), executing the project plan involves 4 steps:

- Identify the resources that will be required to accomplish the work defined in the plan.
- Assign workers to each activity.
- Schedule activities with specific start and end dates.
- Launch the plan.

### **3.5 Project control**

During the planning phase, a project schedule is created. A schedule lists the following:

- What must be accomplished in the project?
- When must each task be accomplished?
- Who is responsible for completing each task?
- What deliverables are expected on completion of the project?

(Cleland and King, 1988; Lewis, 1995)

No matter how thorough the Project Manager is when creating the schedule, the project will not always go according to plan. A schedule's timing can slip – this is the reality of Project Management. The Project Manager must have a system in place that constantly monitors the project progress or lack thereof (Lock, 1987; Kimmons, 1990). This monitoring system should summarise the completed work measured against the plan and also look ahead to forewarn the team of potential problems (Barnes, 2002). Problem escalation procedures and a formal change management process are essential to effective project control (Cable, 1989; Kerzner, 2000b).

### **3.6 Project closure**

Closing a project is the formal means of signalling the completion of the project tasks and the delivery of the end product to the customer (Meredith and Mantel, 2000; Cleland and King, 1998). In general management, the equivalent action is to signal the end of a task with some sign of completion and assign the individual to another task. The closing phase should include the evaluation of what occurred during the project and the archiving of project information for use in the planning and execution of future projects (Maylor, 1996; Baguley, 1995). Every good project closure should answer the following questions:

- Do the project deliverables meet the expectations of the customer?
- Do the project deliverables meet the expectations of the Project Manager?

### **3.7 Conclusion**

Having covered the origins, definition and benefits of Project Management in the previous chapter, this chapter discussed the basic principles of the subject. These principles have laid the groundwork for a discussion on a Project Management Office, which is covered in the next chapter.

## **4. THE RATIONALE AND BENEFITS OF OPERATING A PROJECT MANAGEMENT OFFICE**

### **4.1 Introduction**

Understanding the principles of Project Management, as covered in the previous chapter, it is now possible to discuss the Project Management Office (PMO). This chapter will deal with the definition of a PMO, its characteristics and the role of the PMO in the organisation.

### **4.2 What is a Project Management office?**

The Project Management Office (PMO) provides the infrastructure for the deployment of tools and expertise in the area of Project Management (Rad and Levin, 2002). To ensure the ongoing success of an organisation's projects and to highlight the benefits of formal Project Management, the PMO creates a formal structure for the implementation of Project Management best practices (Filicetti, 2002; Rad and Levin, 2002). This structure makes it easier for Project Managers to deal with difficult situations and establishes a channel to give Project Managers assistance on problem projects.

A fully developed PMO is able to provide services and organisational focus for all areas of Project Management (Block and Frame, 2002; Englund *et al*; 2003; Bridges and Crawford, 2002). An important function of the PMO is to increase the organisation's awareness of the importance of integrating Project Management procedures and a Project Management culture into the organisation (Rad and Levin, 2002). Individual Project Managers should no longer determine their own specific Project Management approaches; instead, the



PMO should adopt a standard methodology for use on all projects within the organisation (Frame and Block, 1998, Englund and Graham, 2001).

Ideally the motivation for the establishment of a PMO should come from the organisation's desire to improve in the management of projects and to ensure project success. There should also be a desire to focus on the improvement of the competencies of the organisation's Project Managers (Scotto, 2000; Reiss, 2002). A PMO is the ideal entity when an organisation has the desire to excel in, and set standards for, managing successful projects. A PMO is an ideal structure for organisations with multiple projects, multiple contractors, multiple resources and multiple locations (Bridges, 2002; Fysh, 2002).

### **4.3 Project Management Office characteristics**

The functions of a PMO include the entire spectrum of Project Management competencies. According to Rad and Levin these competencies can be divided into 2 major categories: those dealing with 'people' and those dealing with 'things' (Rad and Levin, 2002). People related activities include leadership, conflict management, contract development, negotiations, and communications (Rad and Levin, 2002; Block, 2002). Things related activities include skills and tools required in planning and managing scope, estimating costs and schedule, and identifying, analysing and managing risks (Casey, 2001; Rad and Levin, 2002). Tools also include monitoring procedures, auditing checklists, performance metrics, documentation templates, change management and reporting standards (Dinsmore, 2000; Bridges and Crawford, 2002).

Some of the PMO's objectives that affect the entire organisation cover the same knowledge areas as a project's objectives. Their

benefits however, will be long term and impact the entire organisation (Englund and Graham, 2001). These long term and organisational objectives are implemented through:

- Training of the project team.
- The enforcement of best practices.
- The development of forms, documents and templates.
- The establishment of policies and standards.
- The overall promotion of Project Management professionalism (Rad and Levin, 2002).

Furthermore, a PMO should develop a knowledge management system for the organisation and maintain a project archive of historical projects (Reiss, 2002; Bridges, 2002).

Block (2002) believes that the project specific functions of a PMO should include the following:

- Facilitation of team building activities.
- Drafting Project Management standards.
- The creation of a Project Management knowledge repository.
- Dispensing information on project materials and equipment.
- Assisting with staff recruitment.
- Organising problem solving efforts.
- Documenting project activities and project success factors.
- Assisting with project budgeting and accounting.
- Organising project status meetings.
- Maintaining a central project work area.

The PMO can provide guidance, support, and assistance to the project team in managing the resolution of project issues (Englund and Graham, 2001). The project-focused functions of a PMO are short term and remedial and include providing expert advice to Project Managers and the training of future Project Managers. The functions of the PMO benefit both project objectives and enterprise Project Management objectives (Bridges and Crawford, 2002;

Filicetti, 2002). These objectives include immediate assistance to resolve the poor performance of current projects in the areas of managing scope, cost, quality, schedule, risk, contract, integration, environmental change, communications, and in managing relationships within the team, with the client, and with vendors (Rad and Levin, 2002; Englund *et al*; 2003; Casey, 2001).

#### **4.4 The role of the Project Management Office**

Usually, once an important project has developed major problems, an organisation examines the benefits of establishing a PMO so that future project failures can be avoided. Sometimes the organisation might choose to provide the PMO functionality only for the project that is already in trouble. This entity is a watered-down form of a fully functional PMO, and it is often referred to as the Project Office (Dinsmore, 2000; Englund and Graham, 2001). In other cases, organisations create a Project Office for every project that is initiated, but they don't go all the way and create a permanent organisational PMO. By definition, a Project Office is dissolved once a project is completed. Therefore, the Project Office provides some of the benefits of a PMO to the project at hand, but doesn't extend the full benefits beyond the boundaries of the project (Block, 2002).

A Project Office, as defined by its mission and objectives takes on a role that is usually reactive rather than forward looking and proactive (Block, 2002). The advantage of a PMO is that the organisation can capitalise on the lessons learnt of previous projects and thus avoid similar mistakes in the future. These benefits will be of little value if the Project Office is treated as a once-off quick fix and if the lessons learnt from previous projects are not carried forward (Bridges, 2002; Rad and Levin, 2002).

A PMO should develop formal processes and procedures for the management of all project related activities and functions. The Project Management Office's assistance should cover all the knowledge areas of Project Management. These include managing scope, quality, cost, schedule, risks and integration (Fysh, 2002; Casey, 2001). Furthermore, the PMO will assist with managing communications, team morale, vendor and customer relations (Fysh, 2002; Dinsmore, 2000).

If a project has developed problems it usually needs assistance in a hurry. There is usually no time to train the Project Manager or any of the project team, as the benefits of the training will only kick-in weeks after the training. Furthermore, the project team will be out of commission for the entire duration of the training. However, when there is time, the Project Management Office should conduct training sessions for the project team in order to enhance their overall competence (Scotto, 2000; Reiss, 2002). Training should be provided in all fundamentals of Project Management for the entire team. If formal training sessions are not possible, then personalised consultation and mentoring can be performed to assist the team in resolving serious risks and issues that require immediate action. The PMO formalises the process of training, consulting, mentoring and augmenting for recovery projects (Rad and Levin, 2002). The process starts with efforts to identify the competencies that are lacking for each Project Management function within the project. Once specific needs have been identified, the relevant individuals receive the assistance necessary to perform their project functions (Block and Frame, 2002). It is important to note that the objective is not to improve the general competency of the team members, but rather to give the team members whatever skills they need in order to complete the

current project as successfully as possible (Rad and Levin, 2002; Filicetti, 2002).

A PMO should also foster a commitment to continuous improvement (Bridges, 2002). This is a key factor for organisations that have achieved a high level of Project Management maturity. The PMO can identify lessons learnt and archive them in a repository for use by other projects or future projects (Englund et al, 2003).

From an organisational viewpoint, the recovery of a project is very similar to workers having to redo tasks on an assembly line. A harmful side effect of having to do rework is the detrimental effect on the morale of the project team, not to mention the detrimental effects on the overall costs of the project and the schedule. As has been demonstrated in many cases, the cost of doing things right the first time is always less than the cost of redoing things (Rad and Levin, 2002).

#### **4.5 The benefits of a PMO**

For many years, IT departments have struggled to deliver projects on time and within budget. But with today's emphasis on getting more value for money, IT departments have to manage projects more closely than ever. This has caused many organisations to turn to Project Management Offices as a way to improve the performance and efficiency of their IT projects by cutting costs and improving on project delivery in terms of time and budget (Dinsmore, 2000; Rad and Levin, 2002; Reiss, 2002).

While not a new solution, the trend toward implementing PMOs to instil much needed Project Management discipline in IT departments is spreading fast (Santusos, 2003). Santusos states that PMOs are able to help IT Managers by:

- Providing the necessary structure needed to standardise Project Management practises.

- Facilitate IT project portfolio management.
- To determine methodologies for repeatable processes.

The Sarbanes-Oxley Act of 2002, although only a requirement for companies listed in the U.S.A., is also a driver, since it forces companies with head offices overseas to keep a closer watch on project expenses and progress (Santusos, 2003).

In a survey conducted in the USA, 67 percent of respondents said that their companies had a PMO (Reiss, 2002). Of those with a PMO, more than half said that their company had experienced an improved project success rate (Reiss, 2002; Santusos, 2003).

According to the survey the top two reasons for establishing a PMO are to improve project success rates and to implement standards (Reiss, 2002). While companies may have a wide variety of reasons for starting a PMO, most organisations agree that cutting IT costs or reducing the number of projects should not be among them (Fysh, 2002; Block, 2002). PMOs can certainly lead to reduced expenses and fewer projects, but the primary motive for creating a PMO is to deliver strategic I.T. projects with more consistency and efficiency (Casey, 2001; Dinsmore, 2000).

## **4.6 Conclusion**

Having clearly defined the PMO and clarified its position within the organisation, it is now possible to begin to analyse how it fits into the South African context. The next chapter lists the results of a survey done amongst a group of Project Managers operating within PMO's in the major centres within South Africa.

## 5. PROJECT MANAGER'S SURVEY RESPONSE

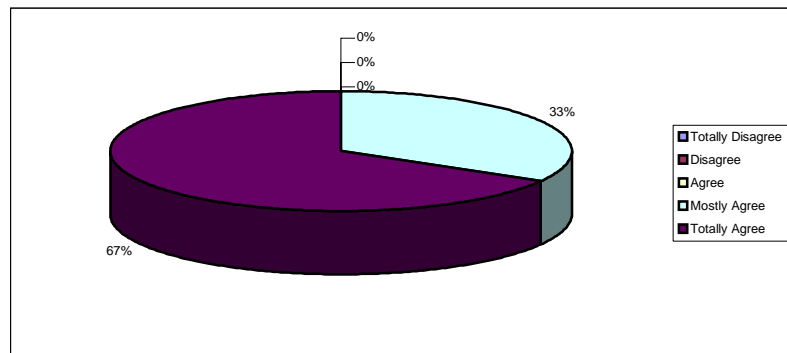
### 5.1 Introduction

The previous chapter covered in detail the rationale for operating a Project Management Office and the benefits that organisations can achieve once they have established a PMO. This chapter will detail the results of an in-depth survey conducted among a number of Project Managers situated in the various major centres within South Africa (Cape Town, Johannesburg, Pretoria and Durban). The Project Managers were selected from organisations that have successfully implemented PMO's elsewhere in the country and are currently operating at a high level of Project Management competency. All the respondents are qualified Project Managers with a number of years experience in the Information Technology field. The survey was sent to 75 Project Managers of which 51 responded. Three responses were spoilt resulting in a total of 48 valid responses (as per the questionnaire in Appendix 9.1).

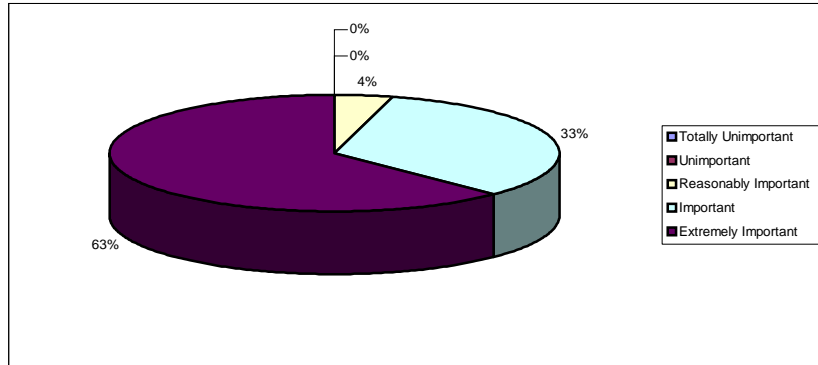
### 5.2 Level of IT Project Management deployed at your organisation

5.2.1 The organisation currently utilises the services of Project Managers.

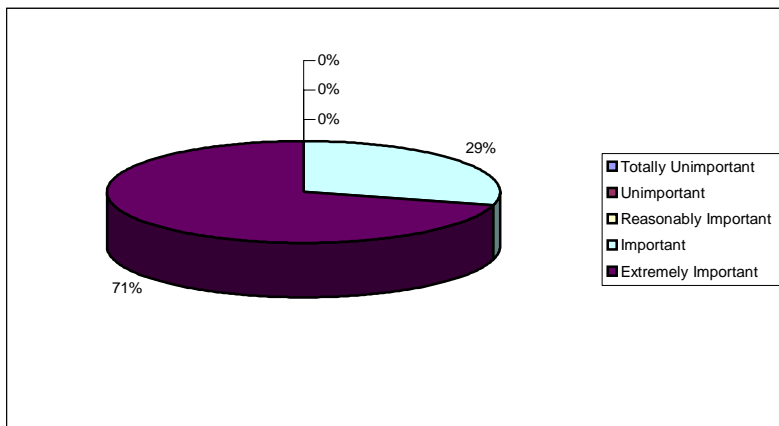
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How important is the statement for the success of your Organisation.



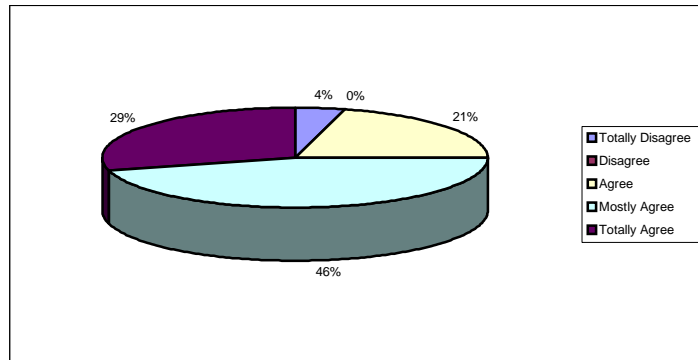
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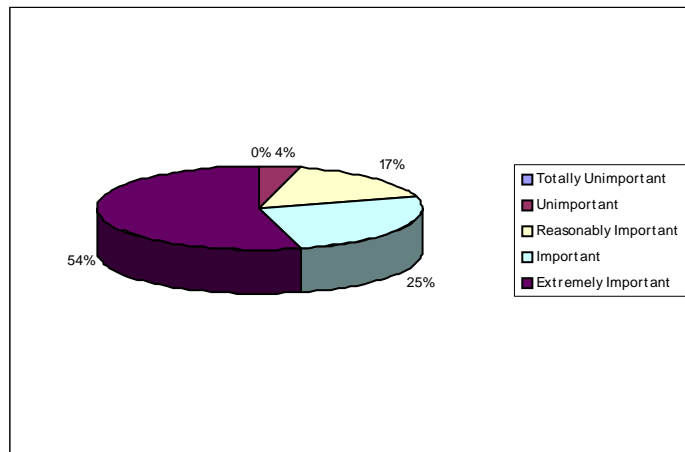


5.2.2 The IT department has an annual budget for projects.

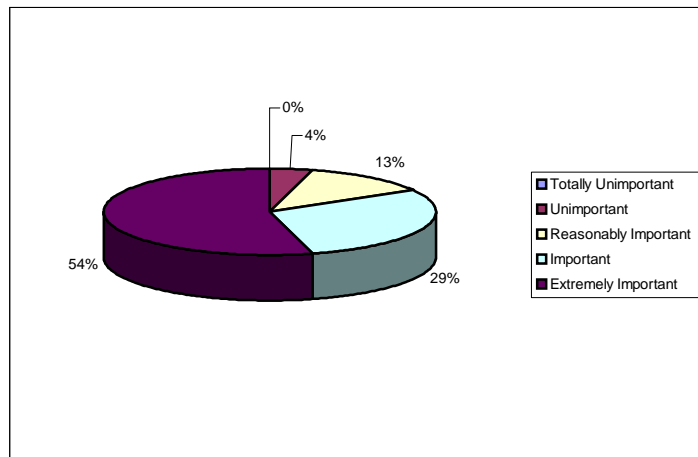
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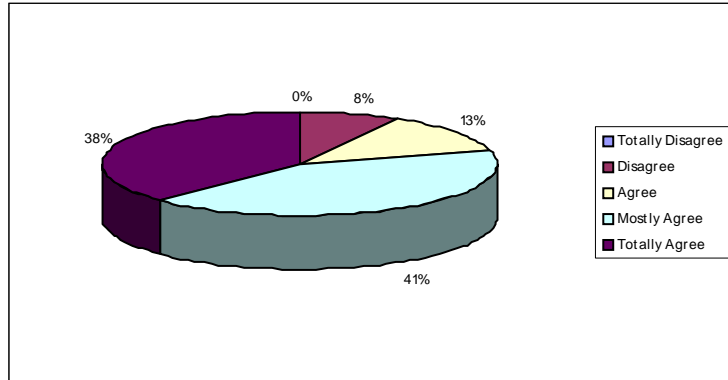


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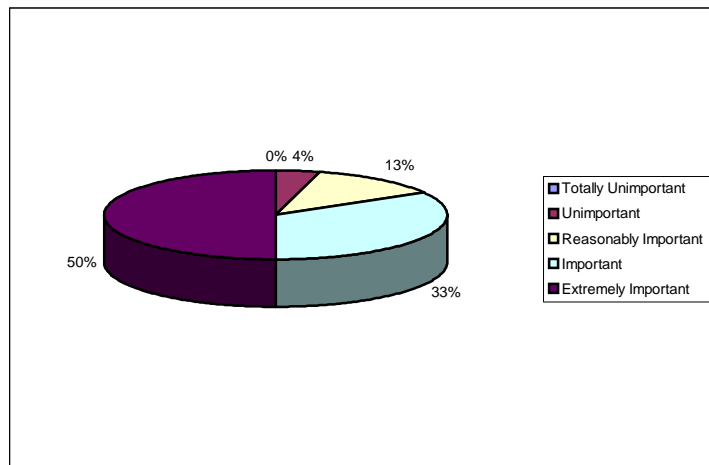


5.2.3 Project Manager's are dedicated to managing projects and do nothing else in the organisation.

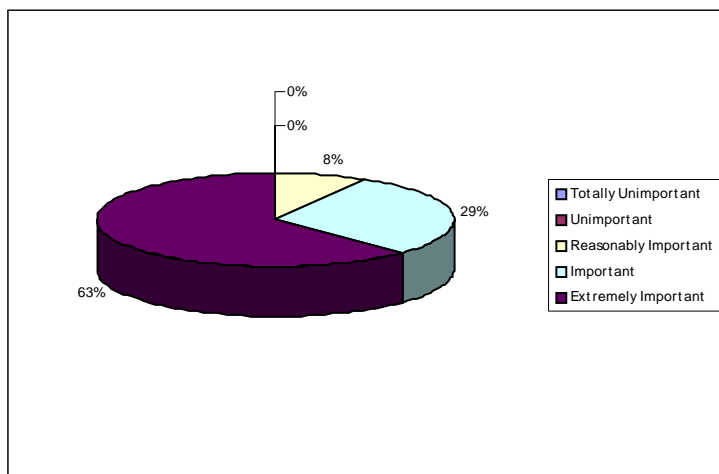
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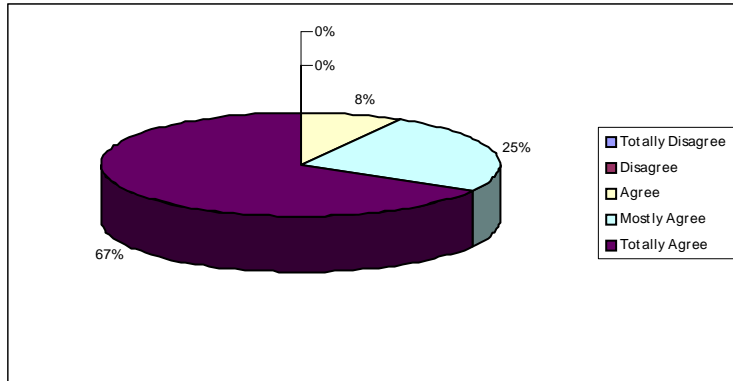


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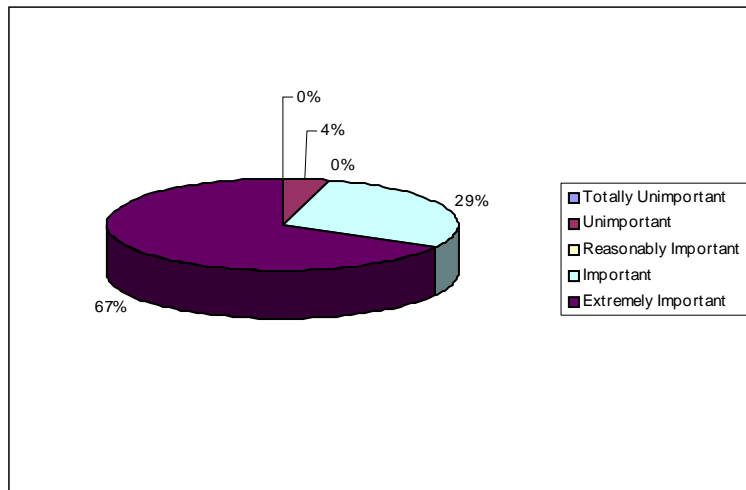


5.2.4 Project Managers follow a formal Project Management methodology.

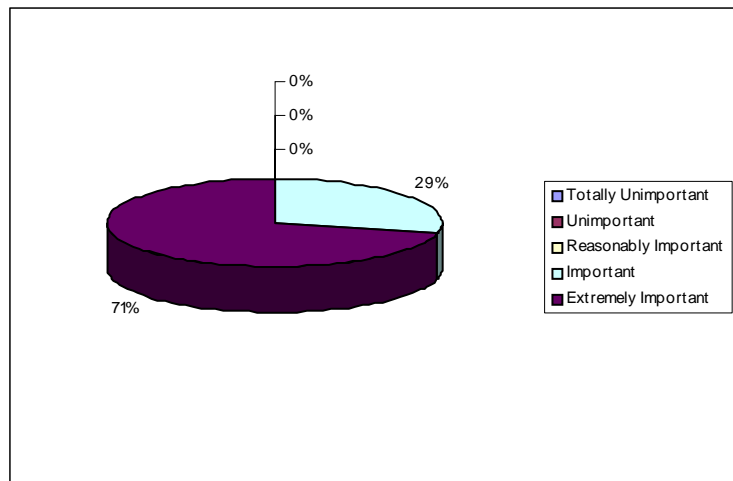
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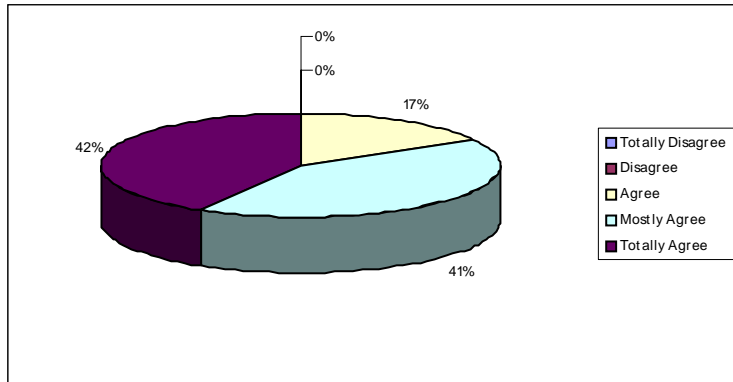


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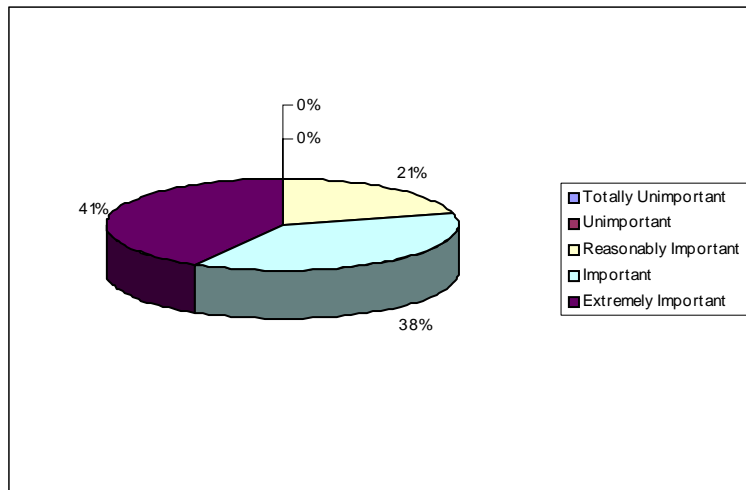


5.2.5 All I.T. projects are managed by a Project Manager.

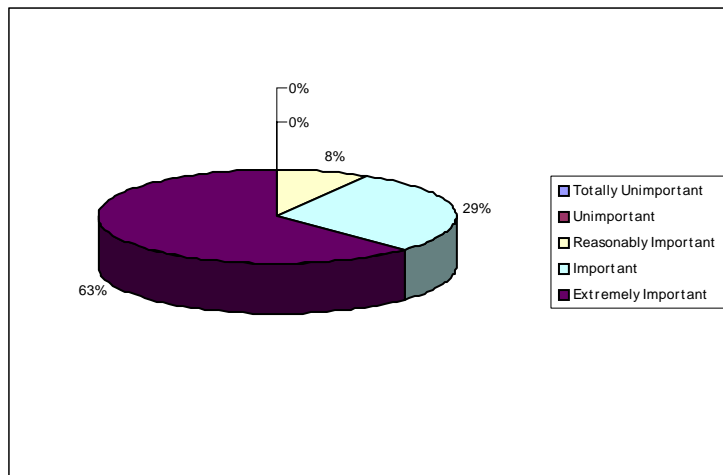
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How important is the statement for the success of your Organisation.



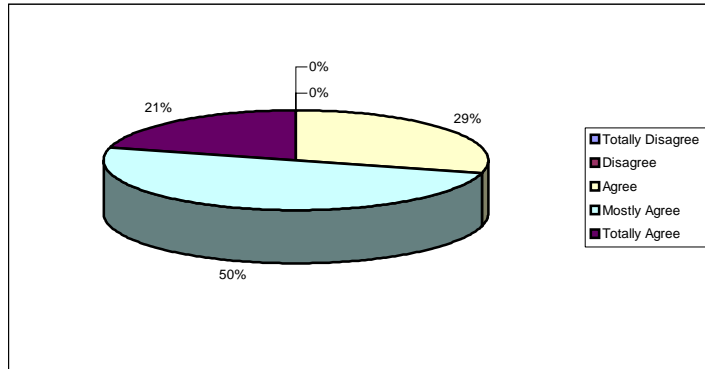
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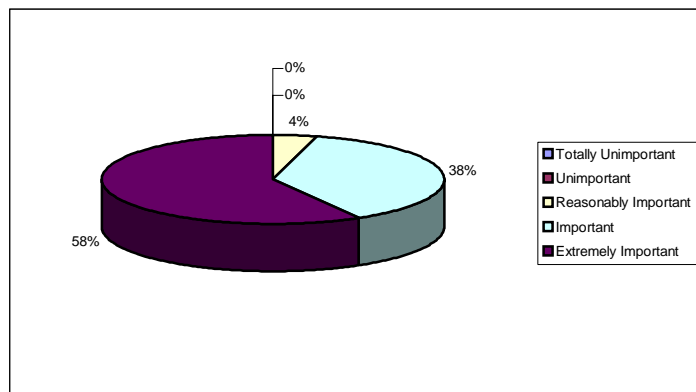
### 5.3 Quality and success of IT Project Management deployed in your organisation

5.3.1 Projects are always delivered on time (according to plan).

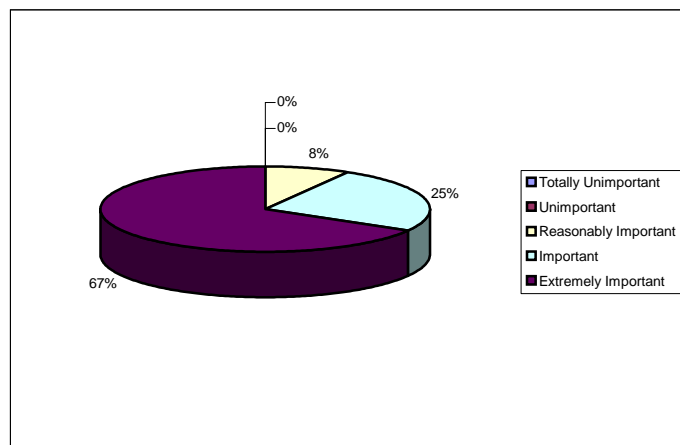
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How important is the statement for the success of your Organisation.

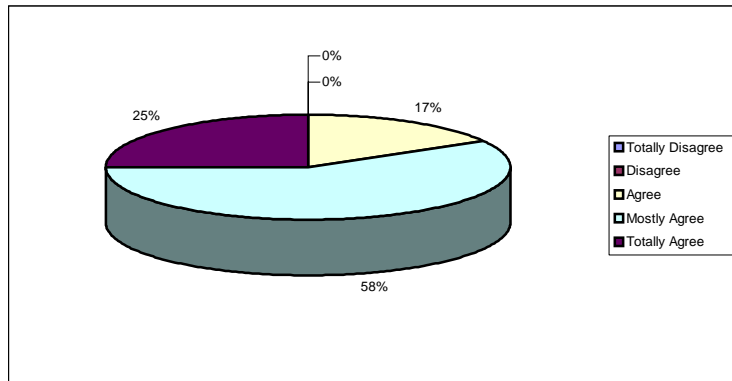


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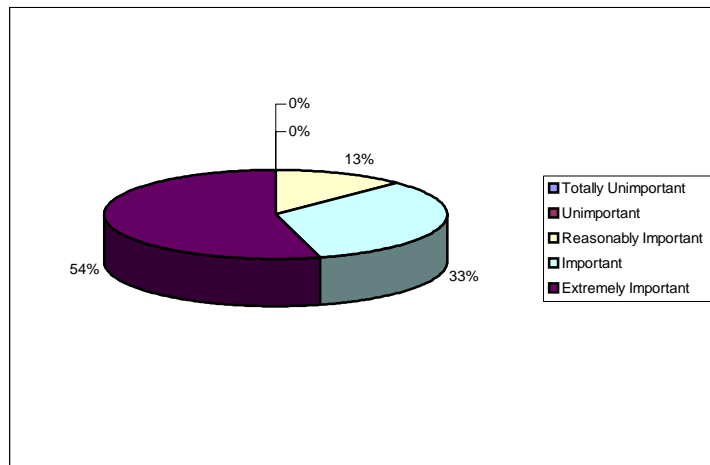


### 5.3.2 Projects are always completed within their assigned budget.

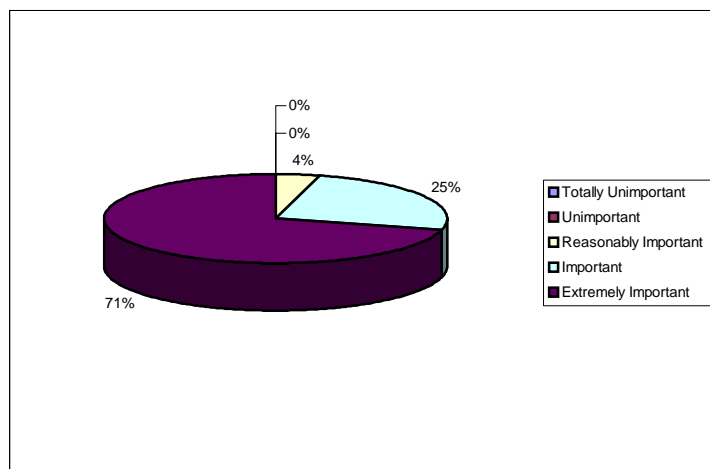
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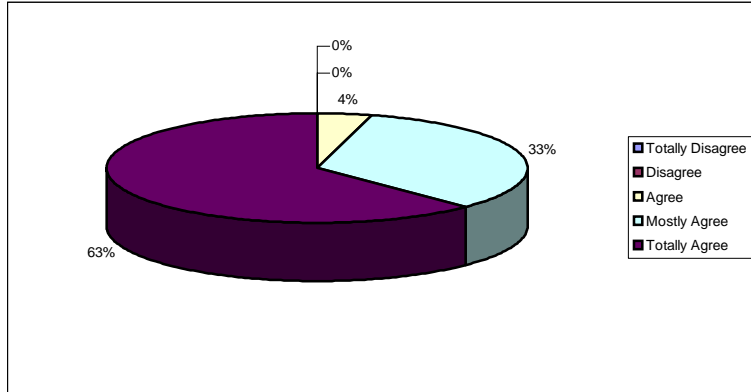


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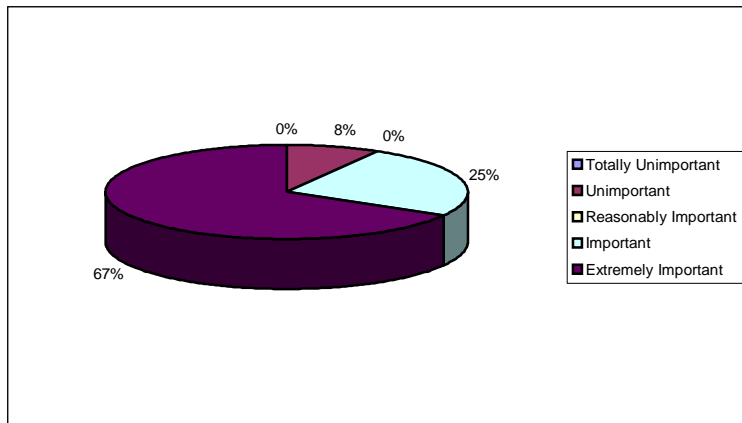


5.3.3 The organisation needs a formal Project Management Office/Department.

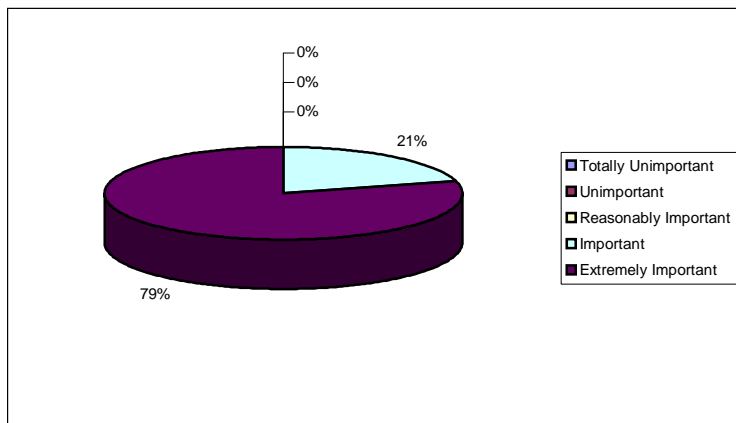
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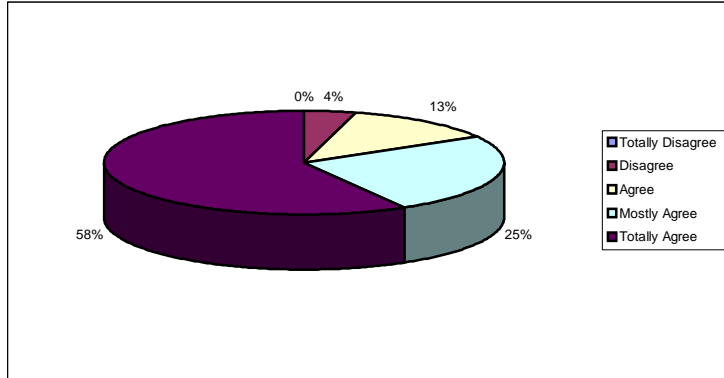


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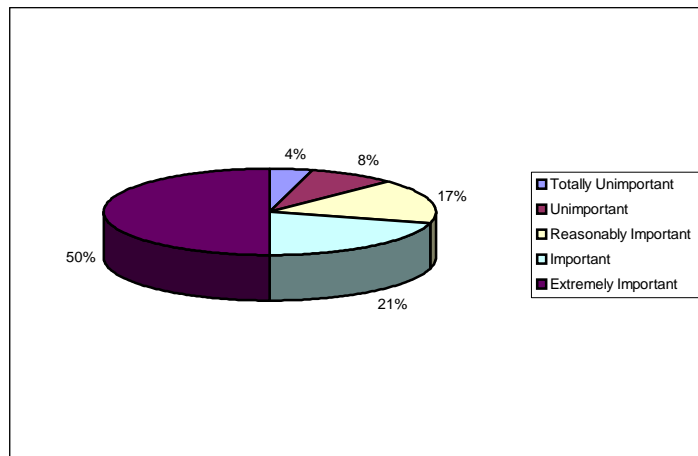


5.3.4 The Projects Department / Project Management Office should have it's own budget.

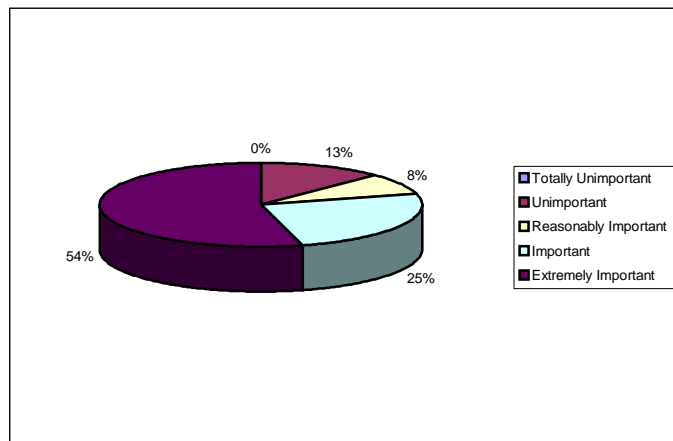
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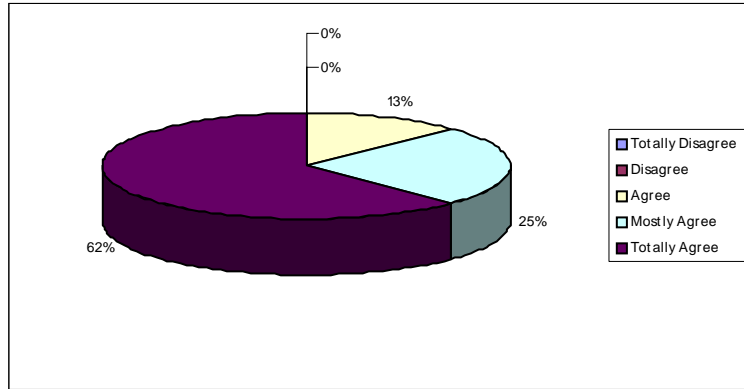
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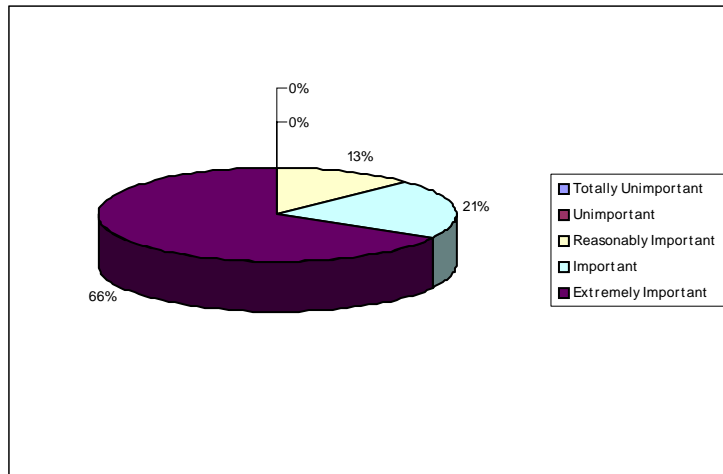


5.3.5 I.T. Project Manager's should be dedicated to managing projects.

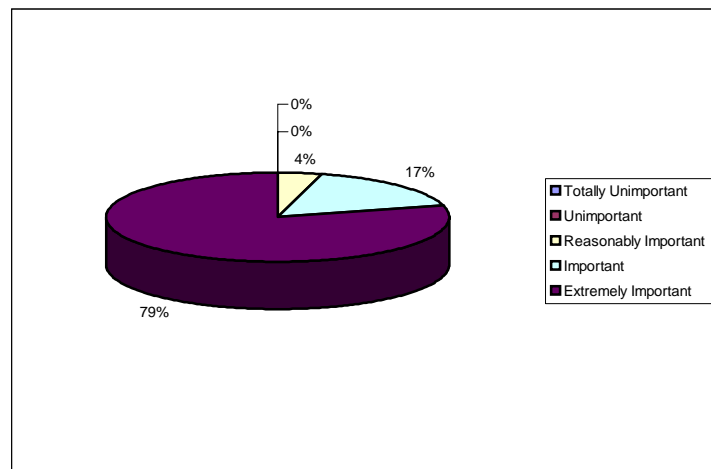
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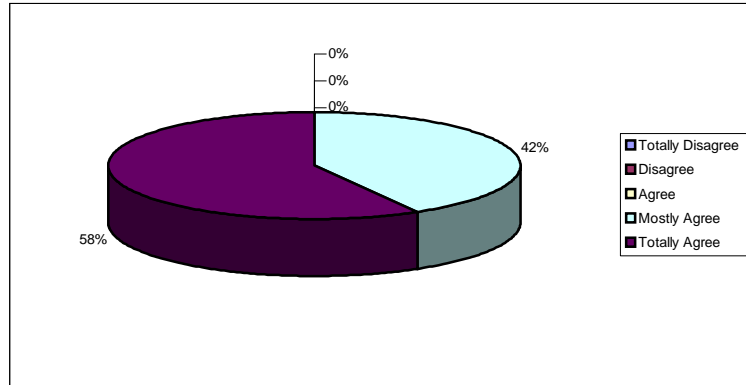


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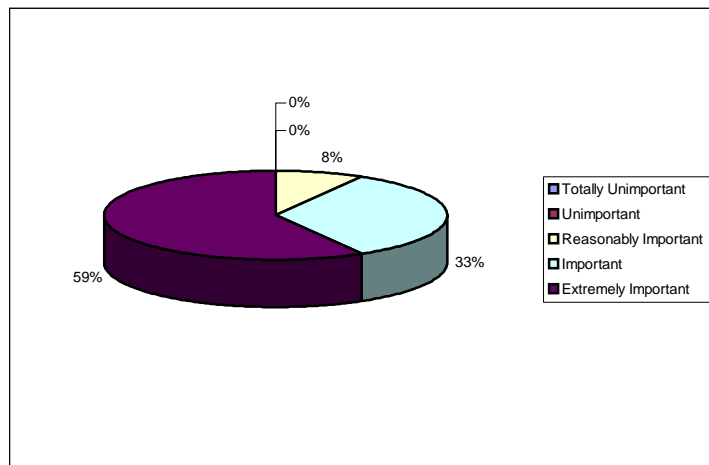


5.3.6 I.T. Project Managers should follow a formal PM methodology.

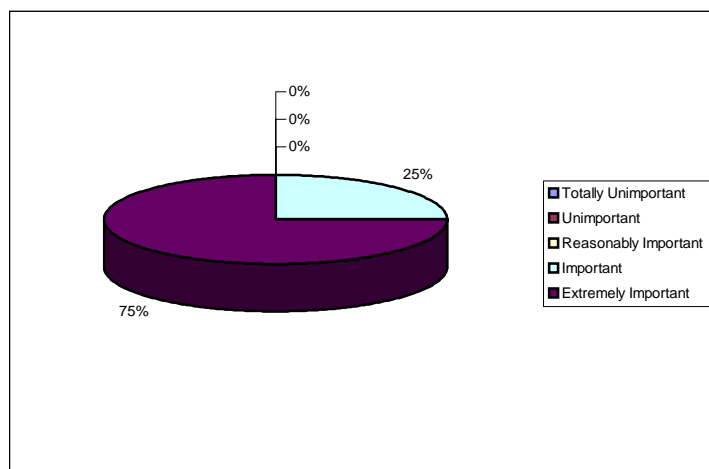
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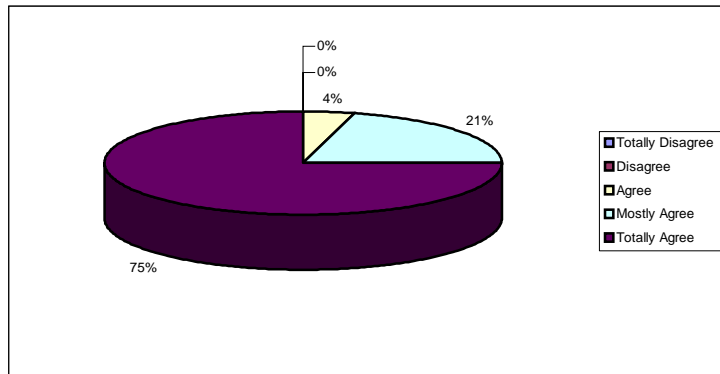


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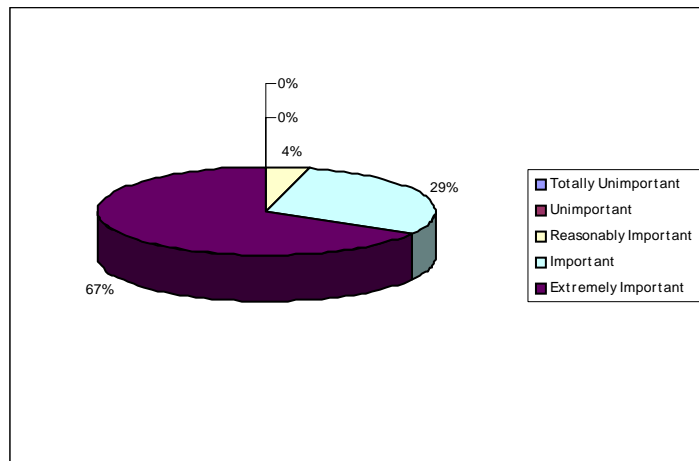


5.3.7 All Project Managers' should have formal PM training.

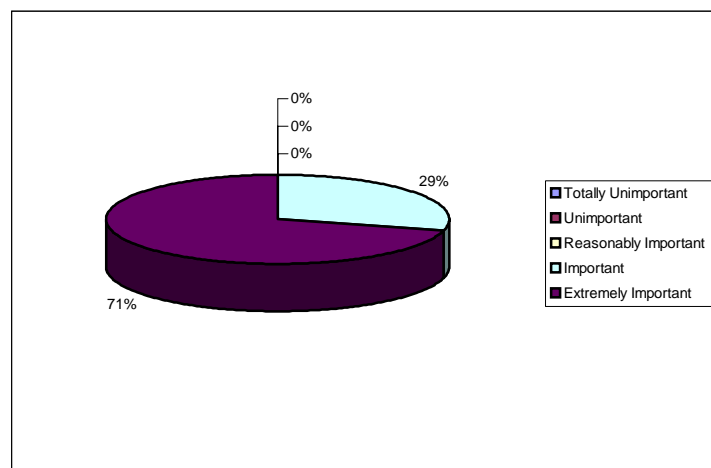
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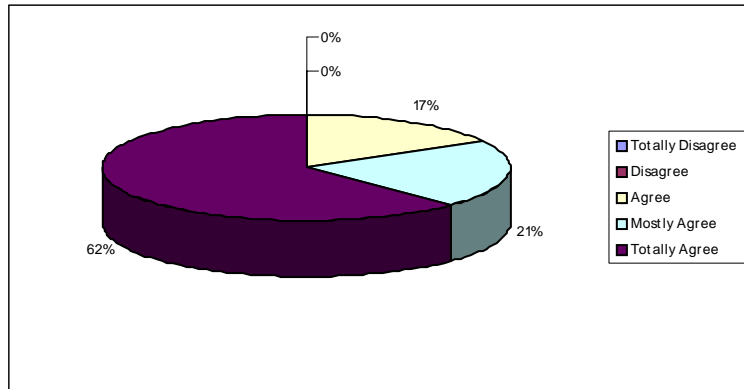


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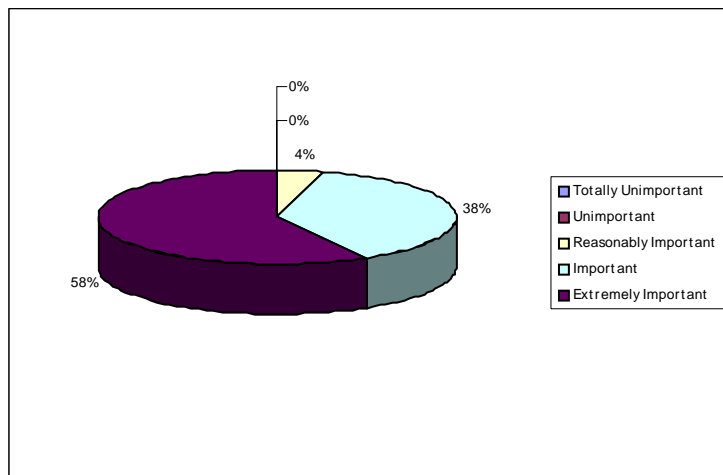


5.3.8 All projects should be delivered on time (according to plan).

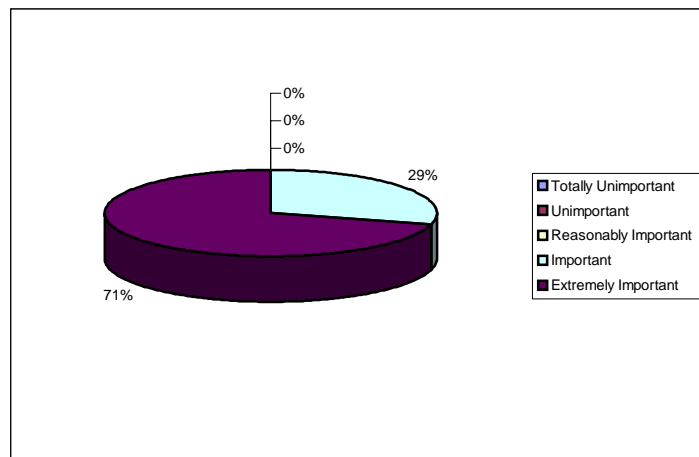
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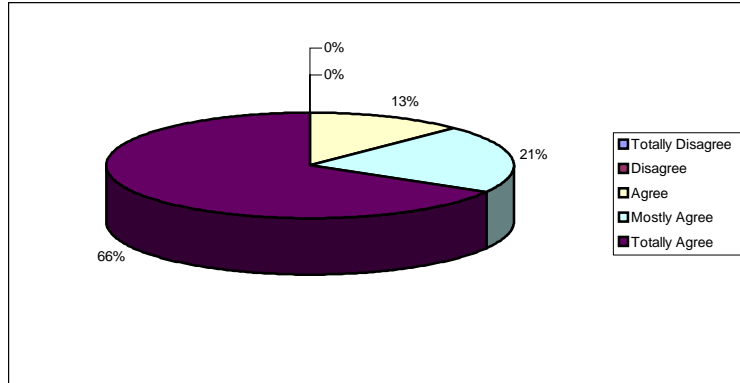


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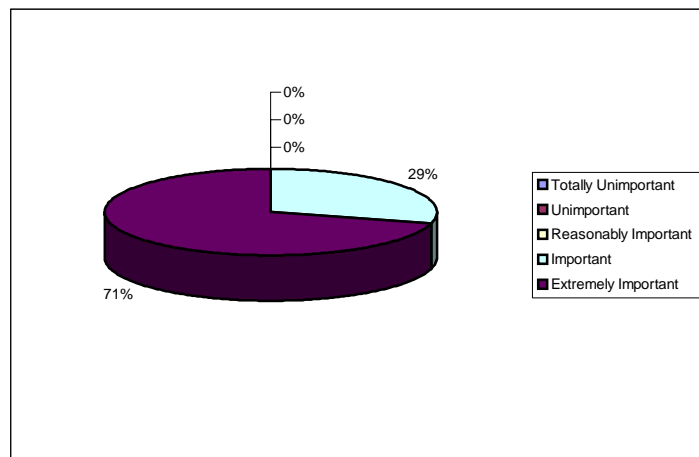


5.3.9 All projects should always be completed within their assigned budget.

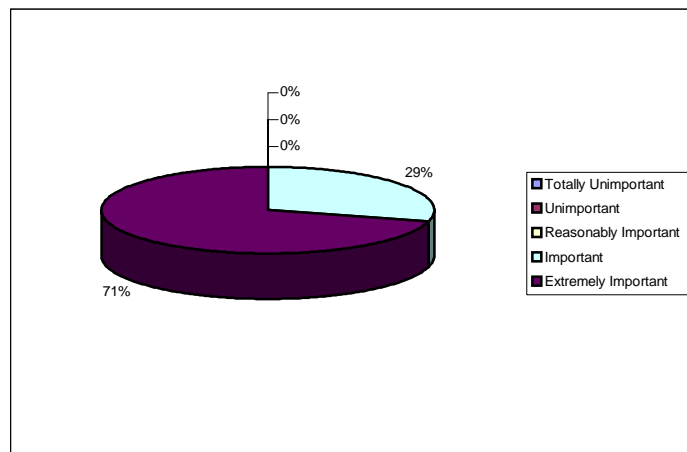
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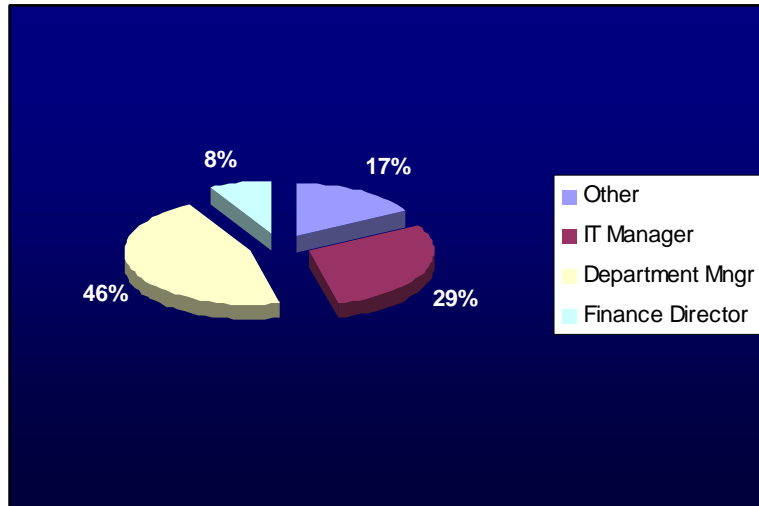
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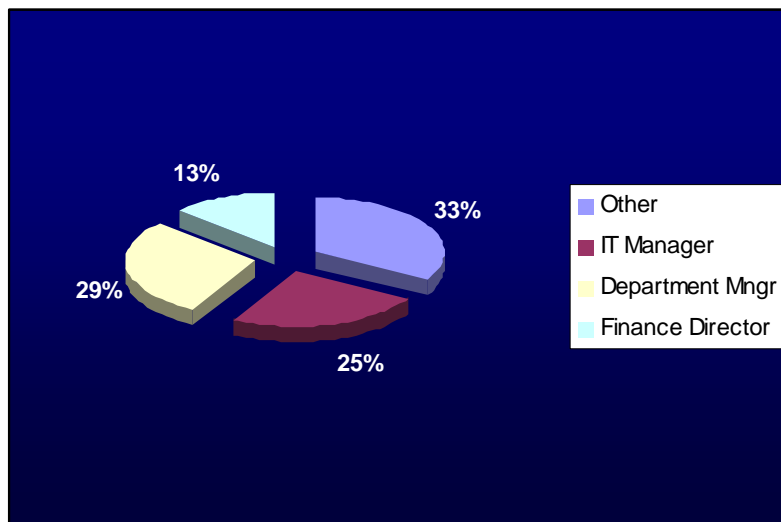
## 5.4 I.T. and Project Management metrics at your organisation

### 5.4.1 Project Manager's report to the :

What is the current situation within your organisation?

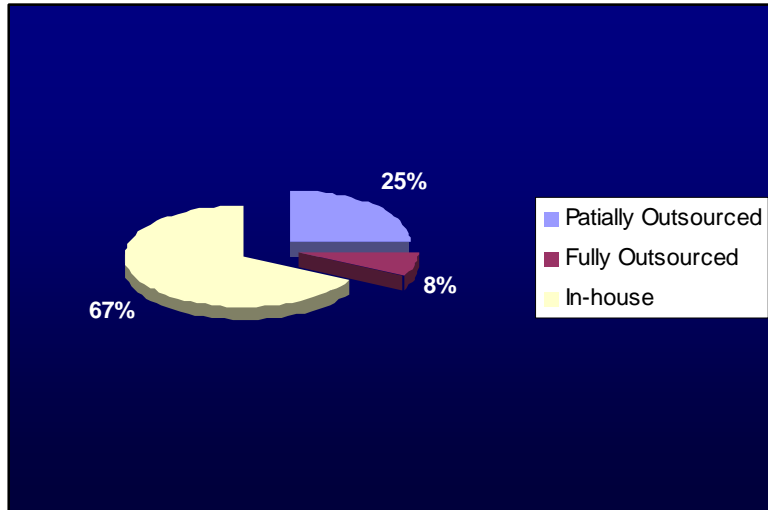


What do you expect to happen in the future?

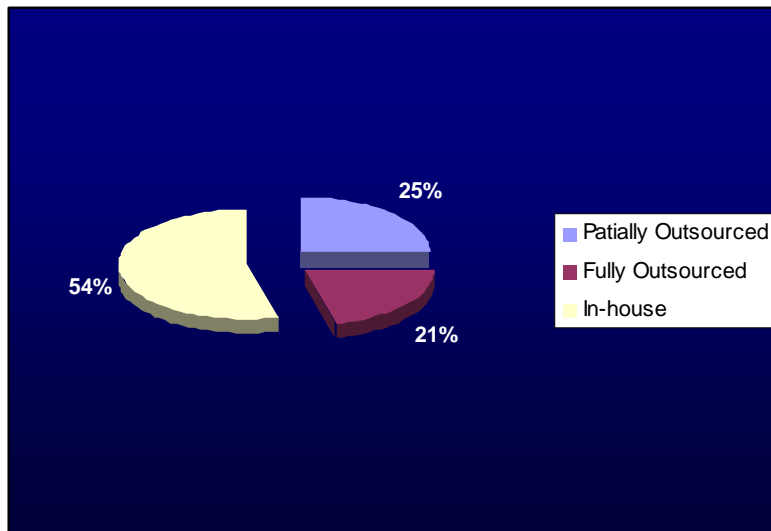


5.4.2 The organisation has a partially outsourced, fully outsourced or in-house IT department:

What is the current situation within your Organisation?

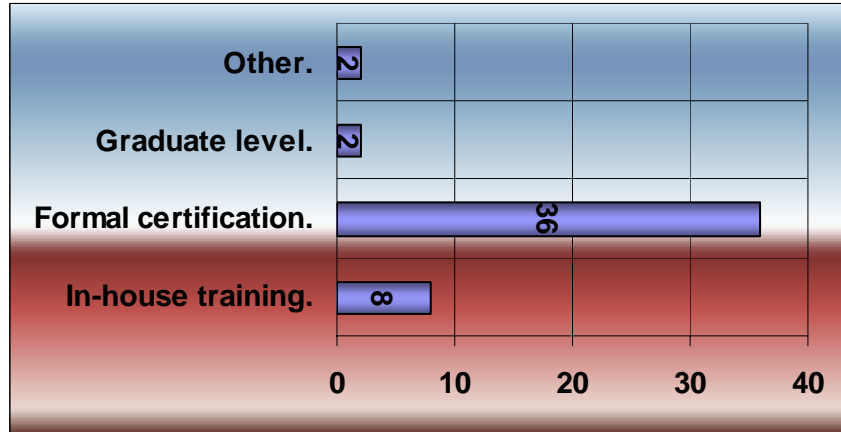


What do you expect to happen in the future?

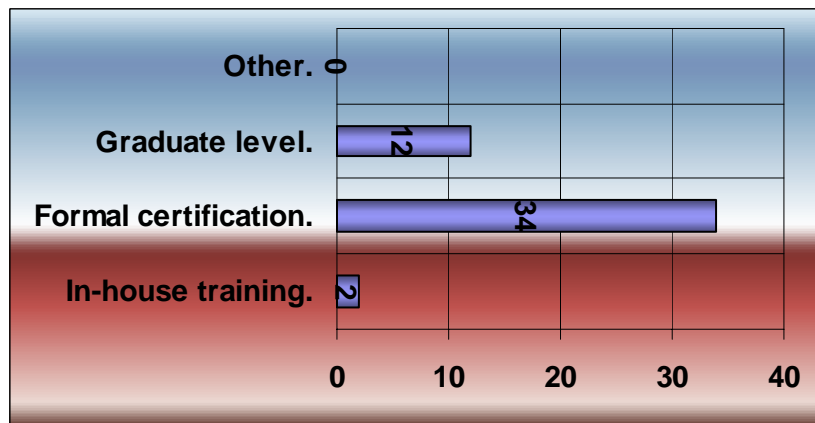


5.4.3 The level of formal training completed by Project Manager's :

What is the current situation within your organisation?



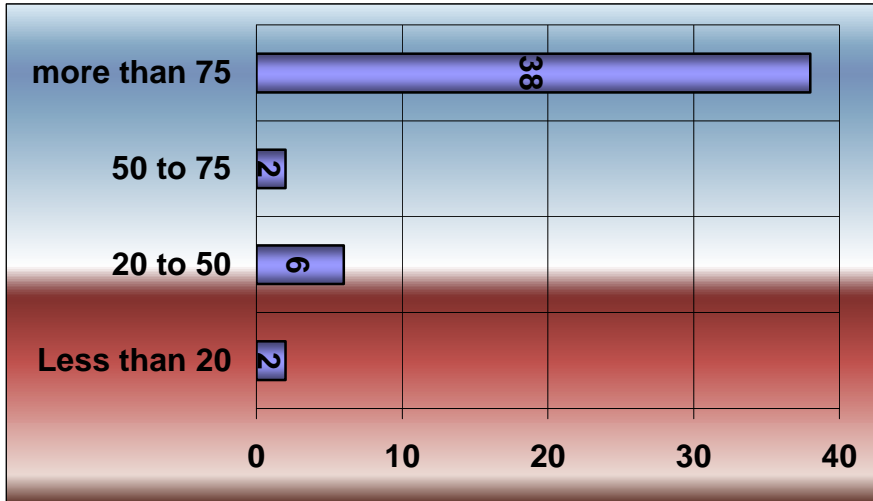
What do you expect to happen in the future?



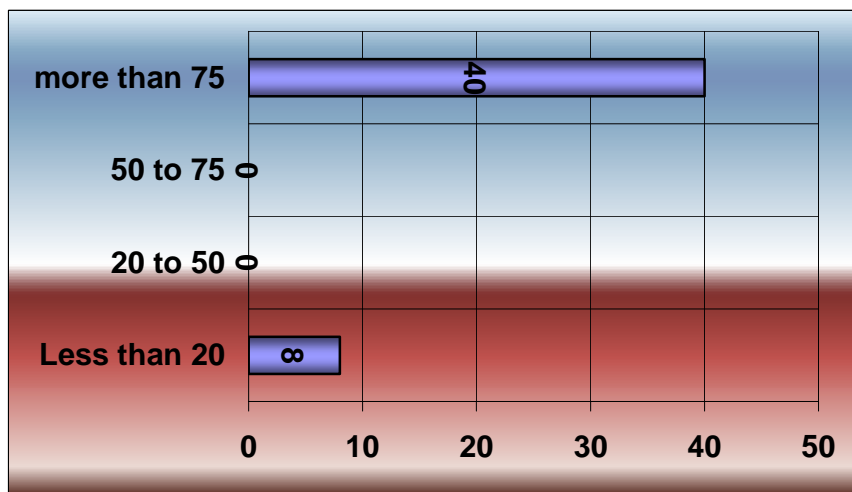


5.4.4 Number of I.T. staff employed by the organisation :

What is the current situation within your organisation?

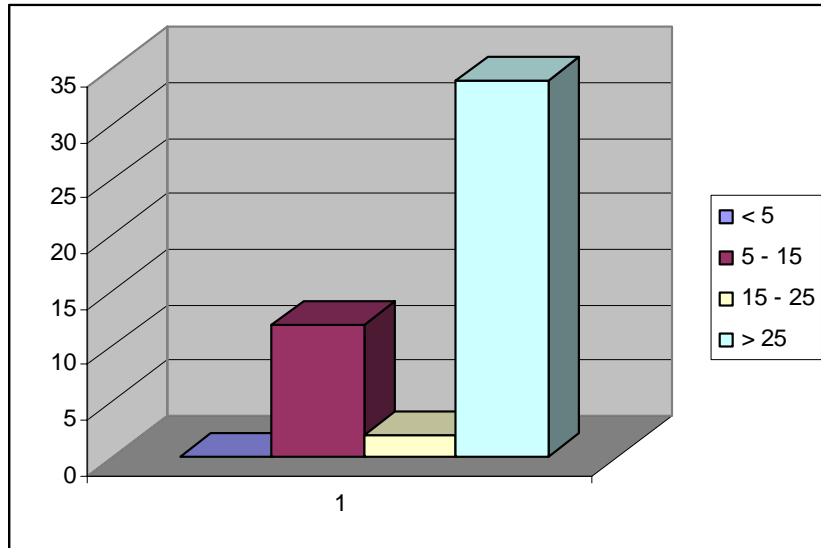


What do you expect to happen in the future?

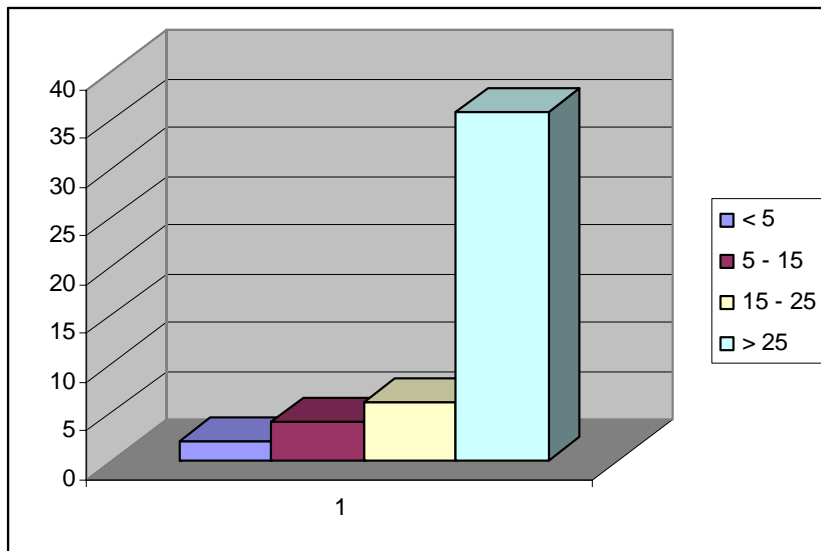


5.4.5 Number of projects initiated by the organisation per year :

What is the current situation within your organisation?

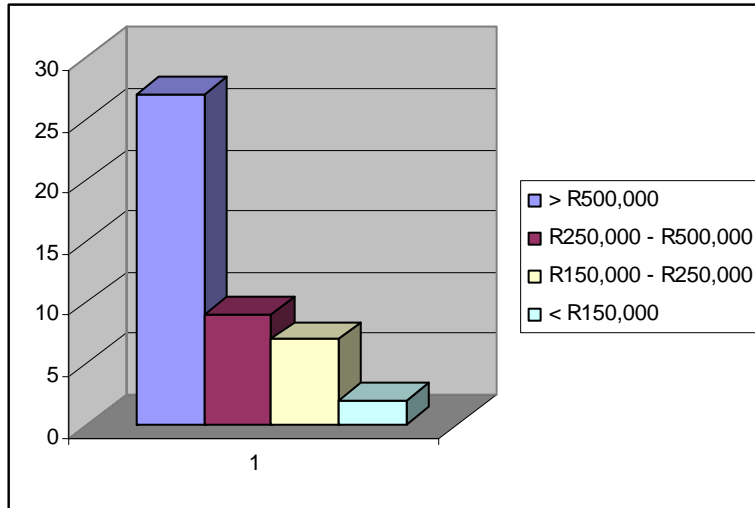


What do you expect to happen in the future?

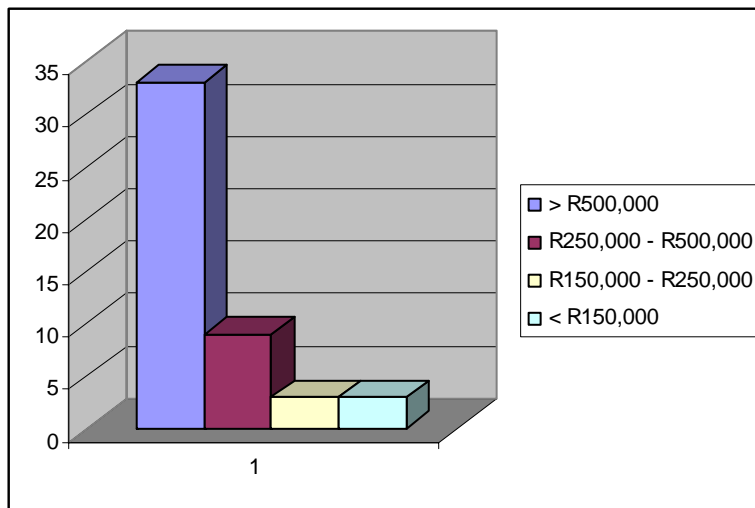


5.4.6 Average value of each project initiated :

What is the current situation within your organisation?

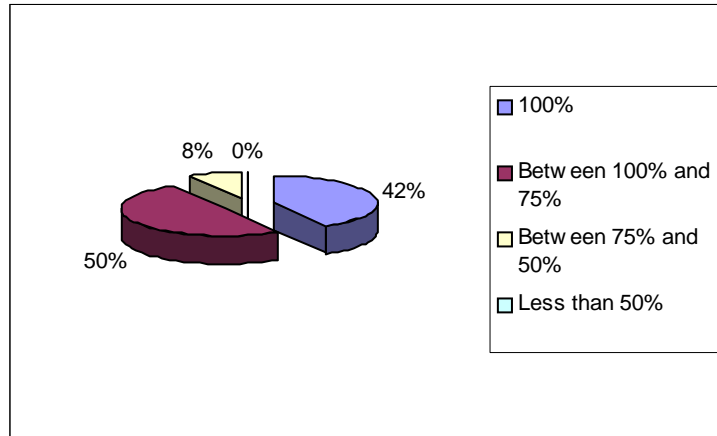


What do you expect to happen in the future?

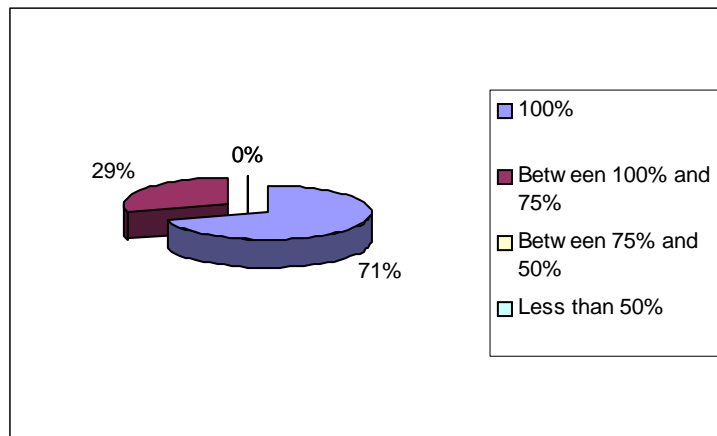


5.4.7 Percentage of projects deemed to be successful :

What is the current situation within your organisation?



What do you expect to happen in the future?



## 5.5 Conclusion

Having clearly defined the elements of Project Management and the rationale for establishing a PMO in previous chapters, this chapter has covered the responses of experienced Project Managers with regard to the operation and structure of their PMO. Some negative responses have been identified, however, the overwhelming response to the establishment and operation of a PMO has been extremely positive. The response to question 3 in section A shows that the vast majority of respondents operate as full-time Project Managers and they deem this to be essential to their organisations success. The response to questions 1 and 2 in section B shows a high degree of success when it comes to delivering projects on-time and within budget. Question 7 indicates the need for formal training and question 5 the importance of utilising a formal Project Management methodology. With this in mind, the following chapter will review the responses of IT managers, from the Nelson Mandela Metro, to a similar survey which questions their attitude to Project Management as a whole and specifically to their need for a PMO.

## 6. LOCAL I.T. MANAGEMENT SURVEY RESPONSE

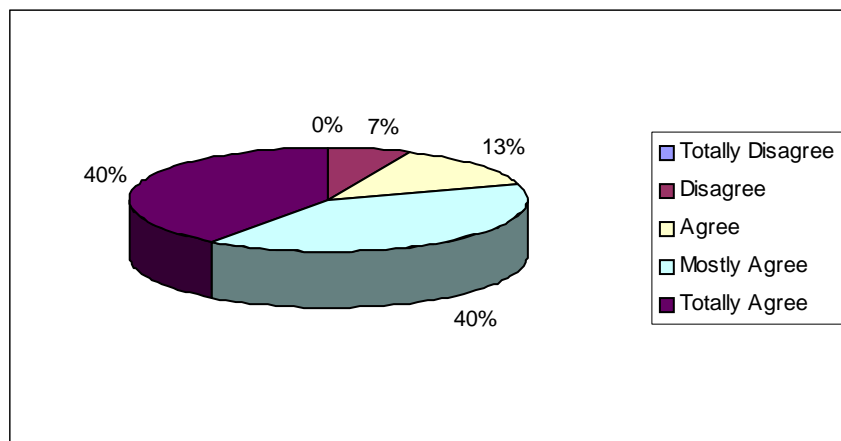
### 6.1 Introduction

The previous chapter dealt with the responses, of experienced and qualified Project Managers, to questions regarding the operation of PMO's and general Project Management within their organisations. This chapter deals with the responses to a survey conducted among a number of IT managers of organisations within the Nelson Mandela Metropolitan (NMM) area. The survey covered various aspects of the current state of Project Management within their organisations as well as their expectations for the future. The questions were similar to the questions posed to the Project Managers, which allowed for a realistic comparison. A total of 42 IT managers were surveyed, of which 32 responded. Two responses were spoilt resulting in a total of 30 valid responses (as per the questionnaire in Appendix 9.2).

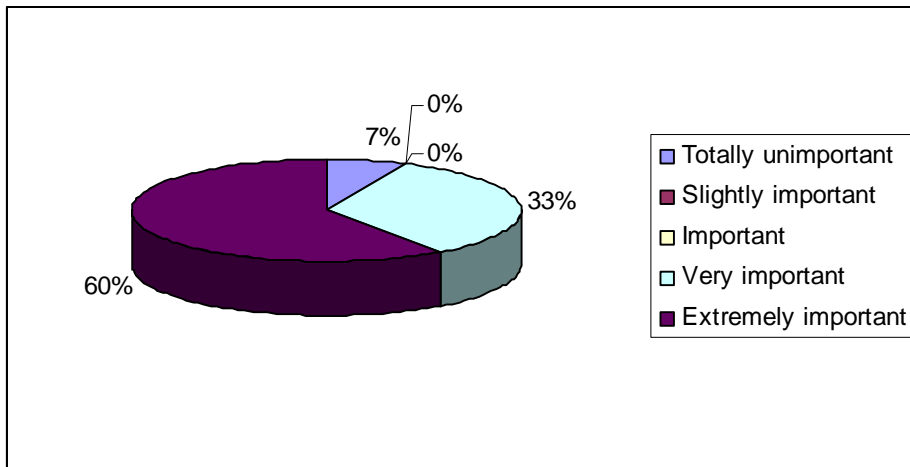
### 6.2 Level of IT Project Management Deployed in your Organisation

6.1.1 My organisation currently utilises the services of Project Managers.

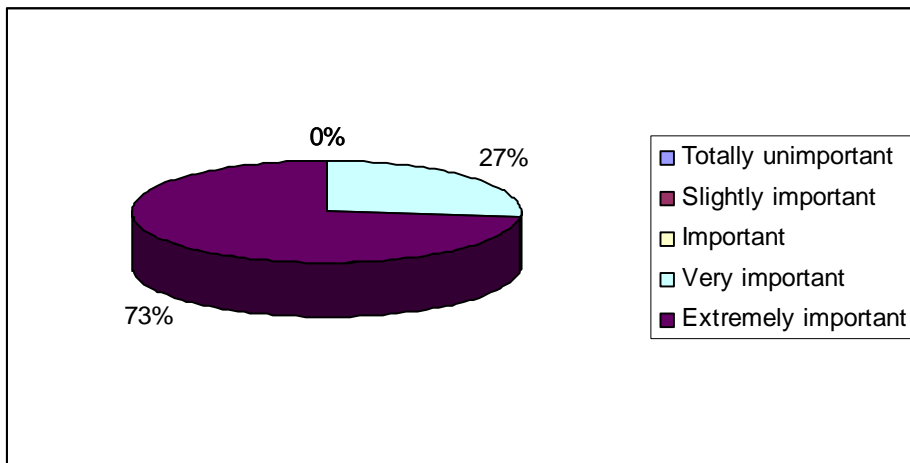
To what extent do you agree or disagree with the statement?



How important is the statement for the success of your organisation?

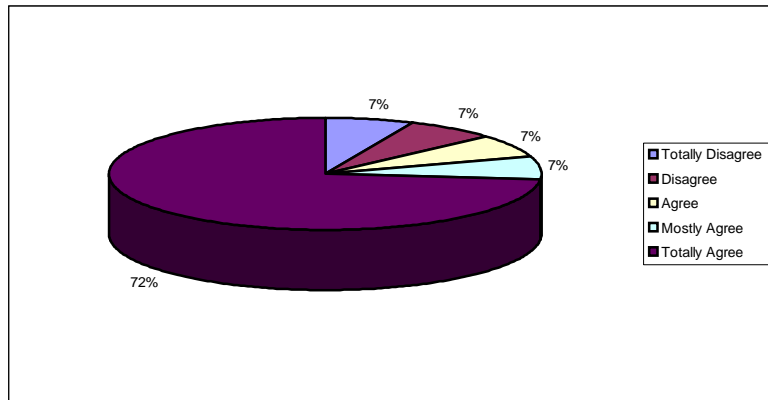


How important do you expect this statement to be in the future?

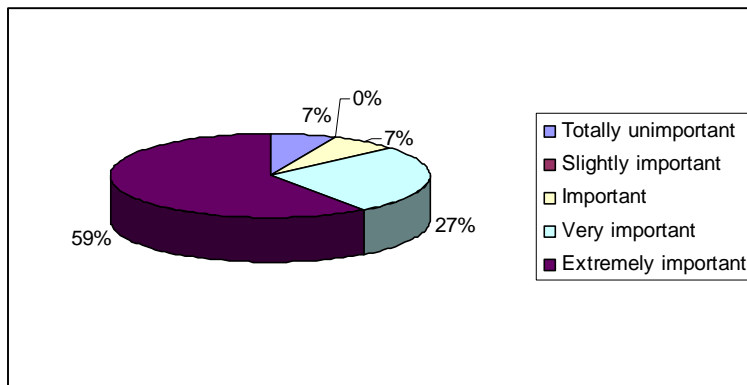


6.2.2. Our I.T. department has an annual budget for projects.

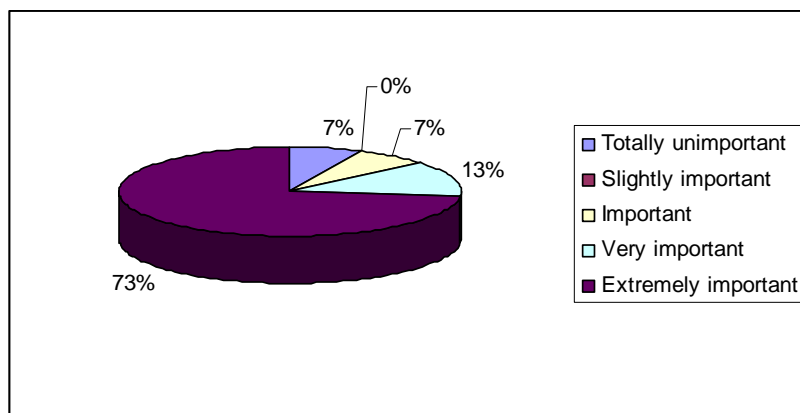
To what extent do you agree or disagree with the statement?



How important is the statement for the success of your organisation?



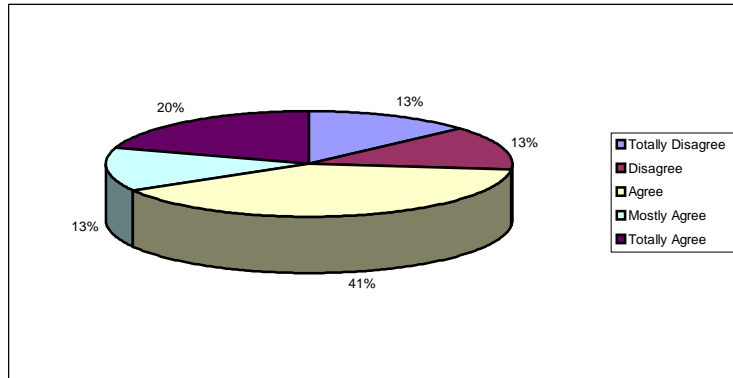
How important do you expect this statement to be in the future?



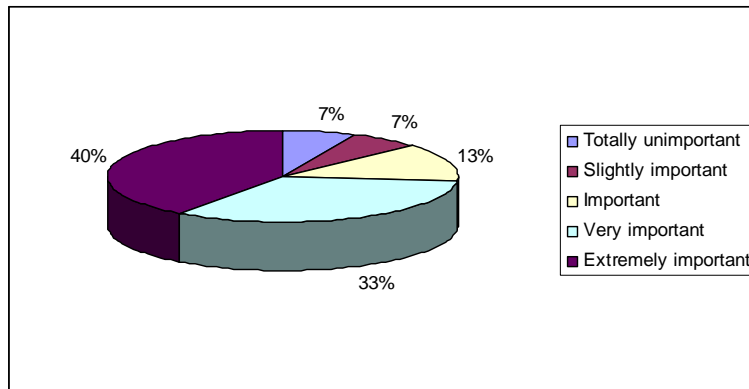


6.2.3 Our Project Managers are dedicated to managing projects and do nothing else in the organisation.

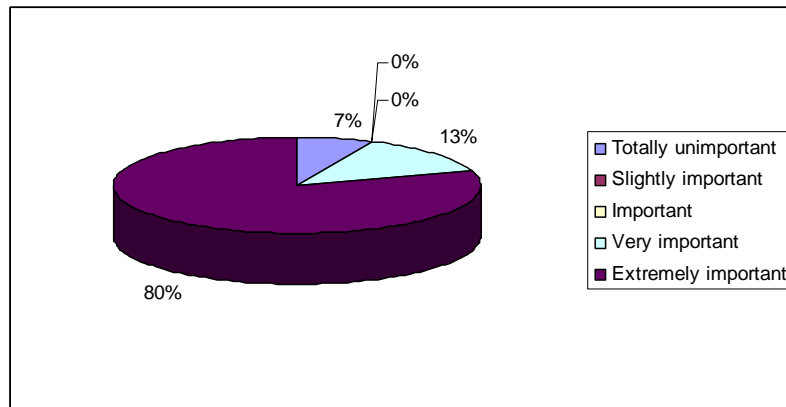
To what extent do you agree or disagree with the statement?



How important is the statement for the success of your organisation?

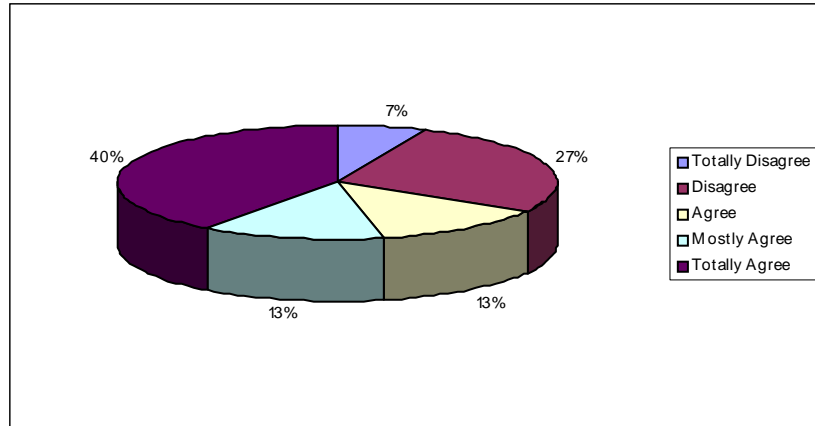


How important do you expect this statement to be in the future?

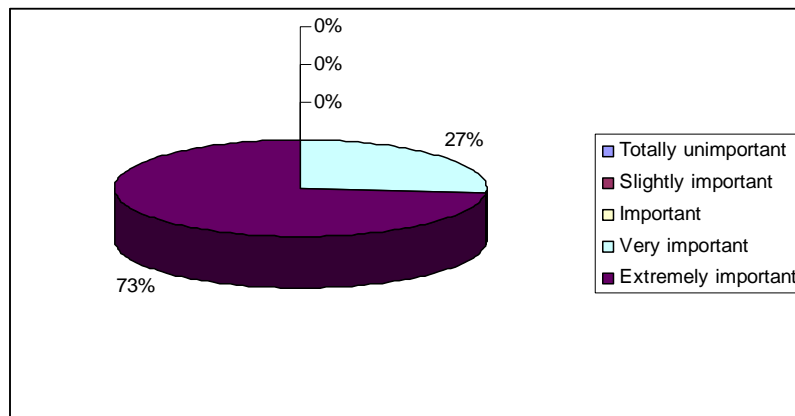


6.2.4. Our Project Managers follow a formal Project Management methodology.

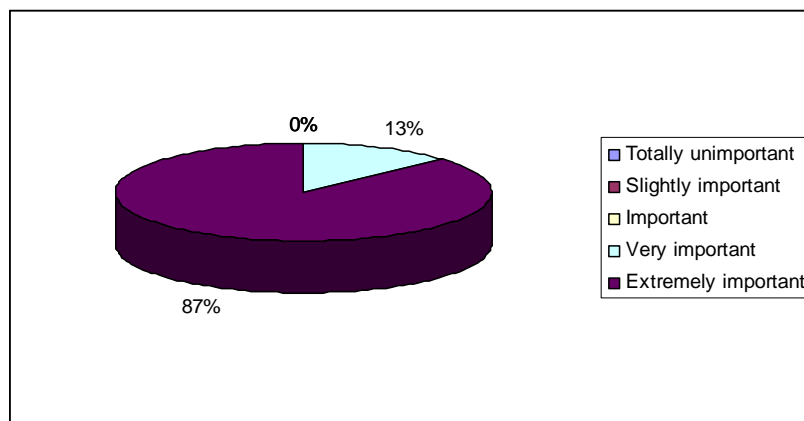
To what extent do you agree or disagree with the statement?



How important is the statement for the success of your organisation?

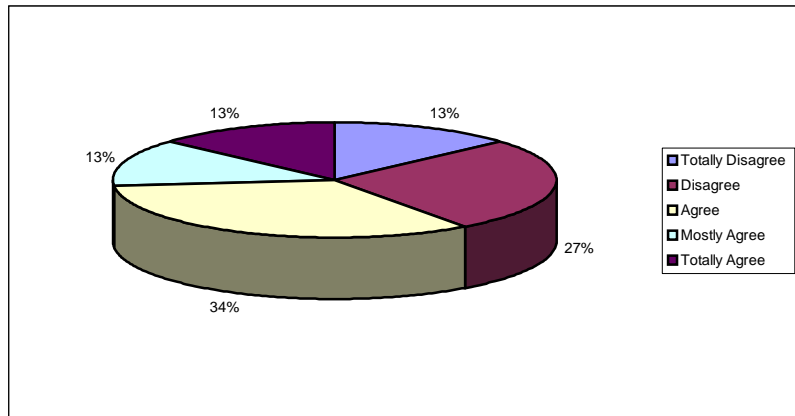


How important do you expect this statement to be in the future?

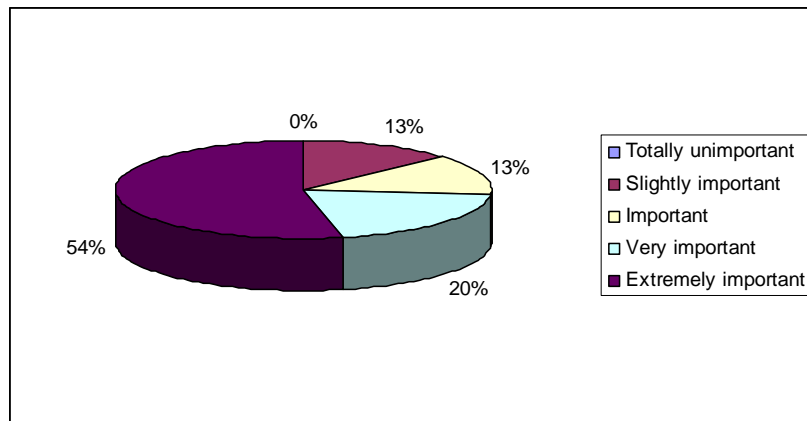


6.2.5. All our I.T. projects are managed by a Project Manager.

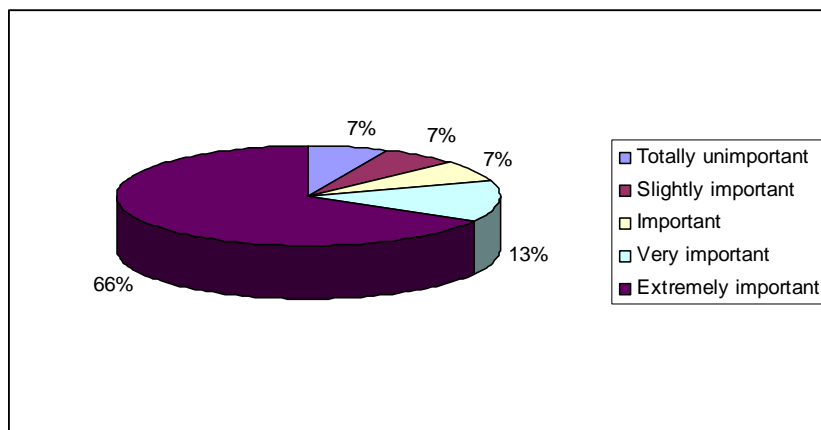
To what extent do you agree or disagree with the statement?



How important is the statement for the success of your organisation?



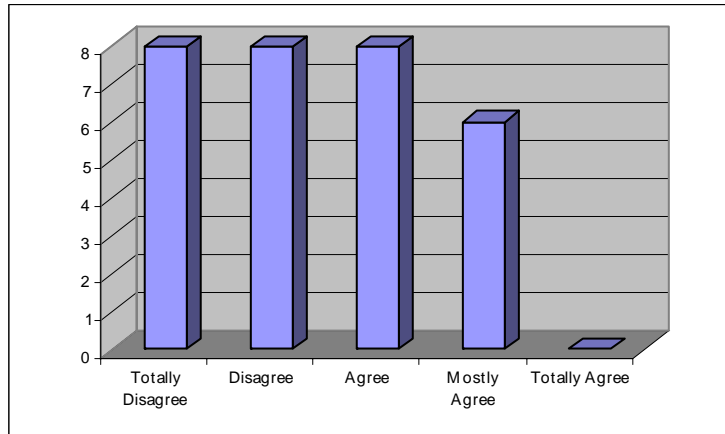
How important do you expect this statement to be in the future?



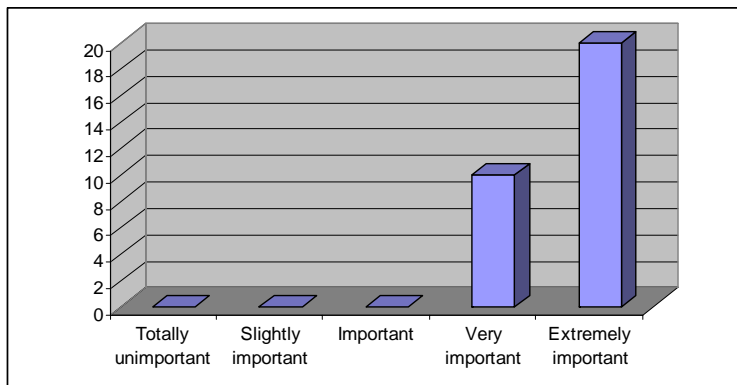
## 6.3 Quality and success of I.T. Project Management deployed in your organisation

### 6.3.1 Projects are always delivered on time (according to plan).

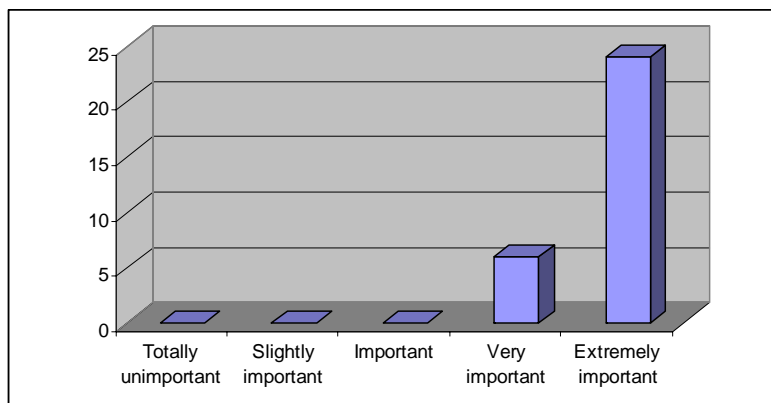
To what extent do you agree or disagree with the statement?



How important is the statement for the success of your organisation?

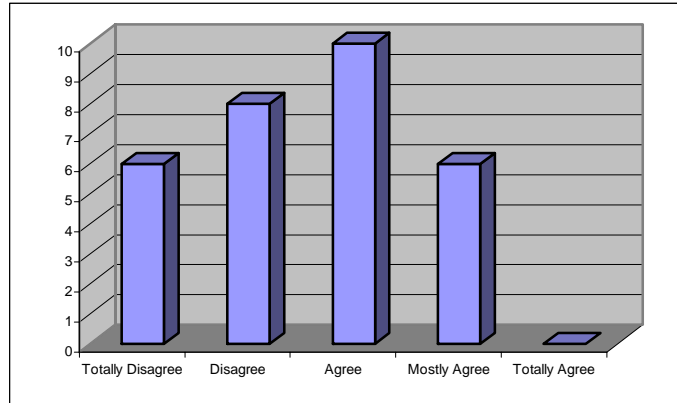


How important do you expect this statement to be in the future?

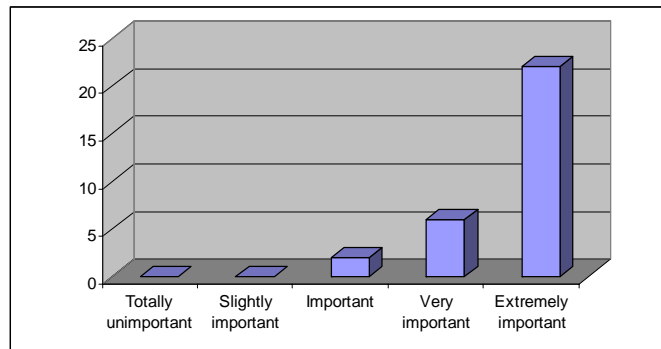


6.3.2 Projects are always completed within their assigned budget.

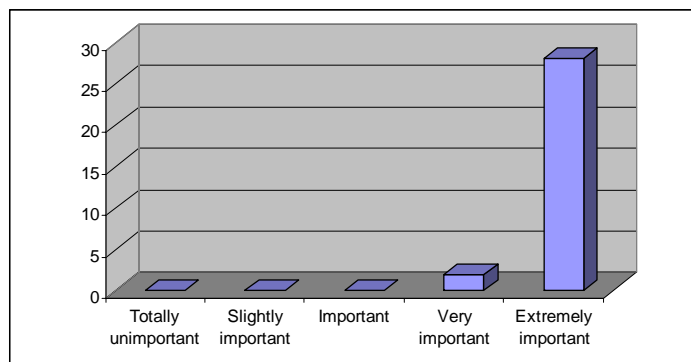
To what extent do you agree or disagree with the statement?



How important is the statement for the success of your organisation?

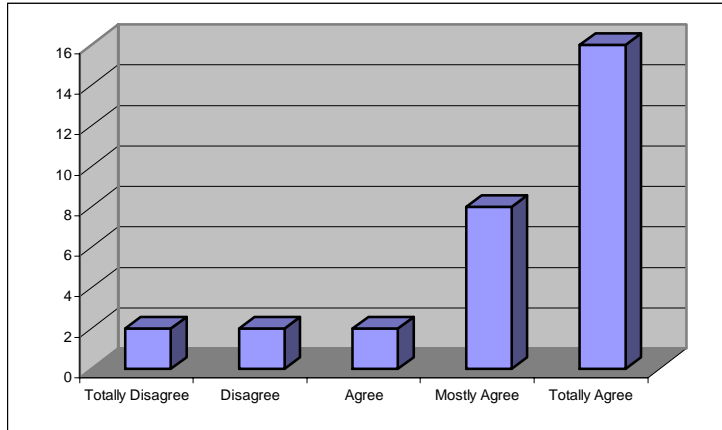


How important do you expect this statement to be in the future?

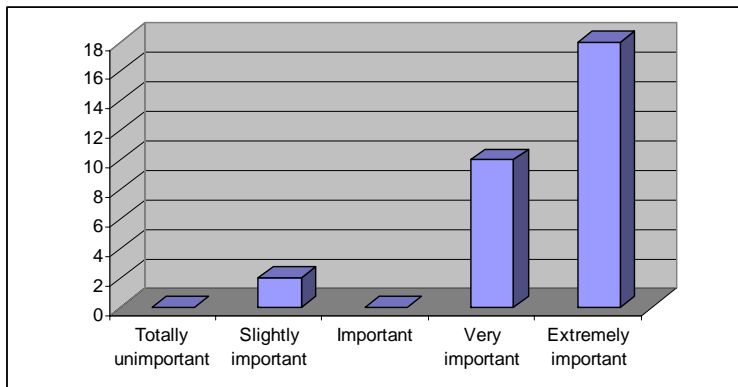


6.3.3 Our organisation needs a formal Project Management Office/Department.

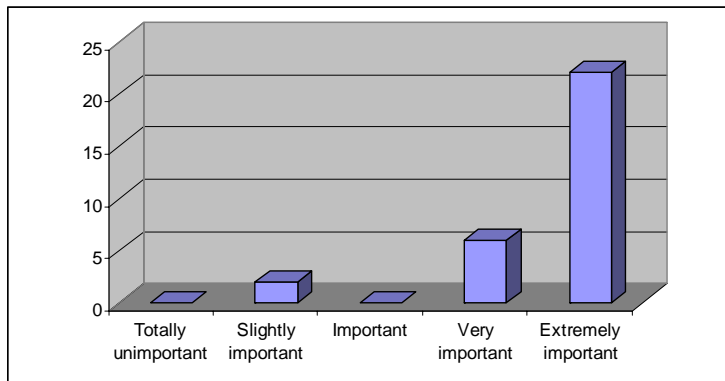
To what extent do you agree or disagree with the statement?



How important is the statement for the success of your organisation?

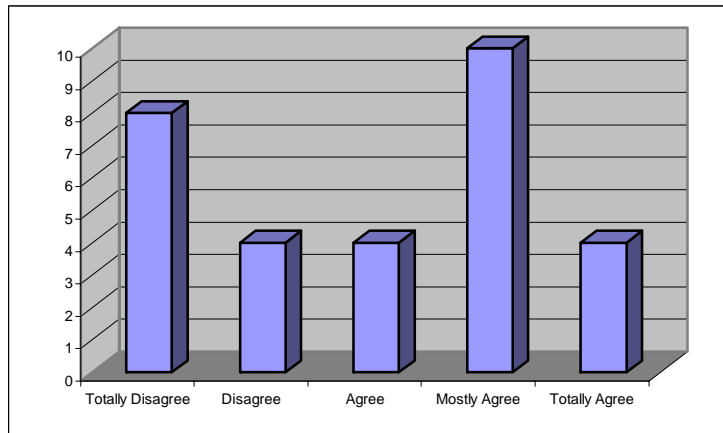


How important do you expect this statement to be in the future?

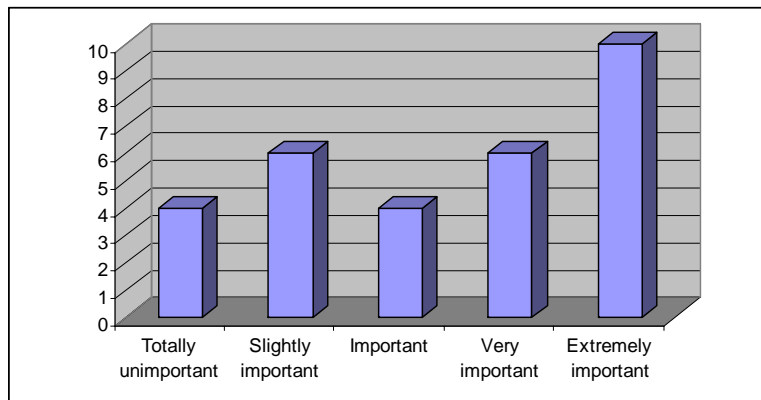


6.3.4 Our Projects Department / PMO should have it's own budget.

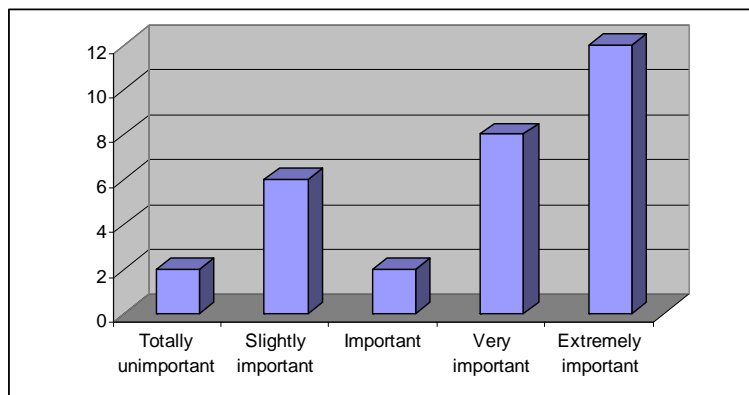
To what extent do you agree or disagree with the statement?



How important is the statement for the success of your organisation?

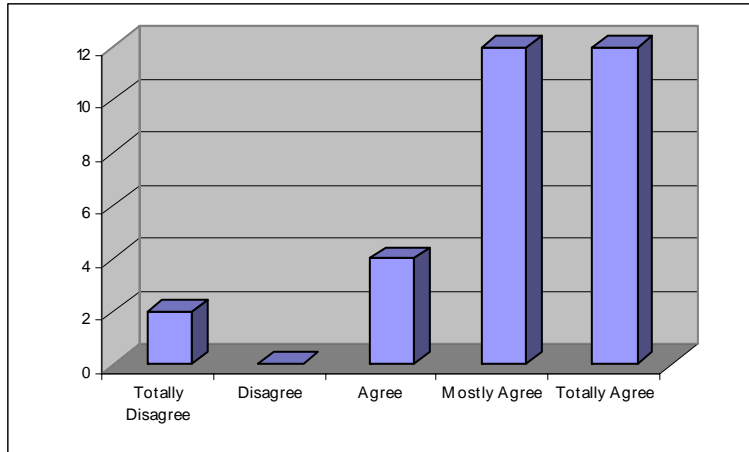


How important do you expect this statement to be in the future?

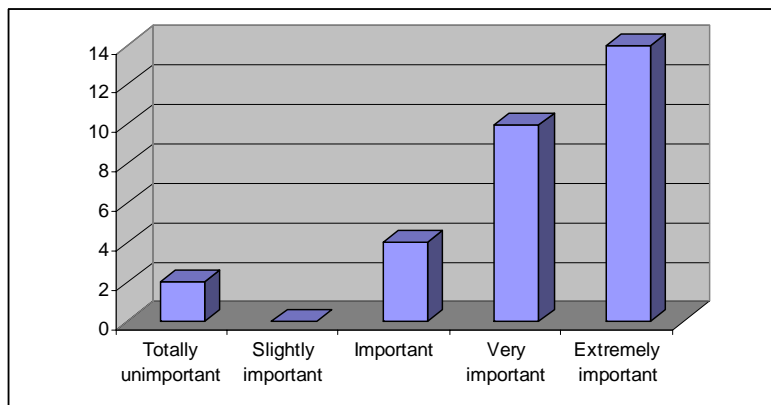


6.3.5 Our I.T. Project Managers should be dedicated to managing projects.

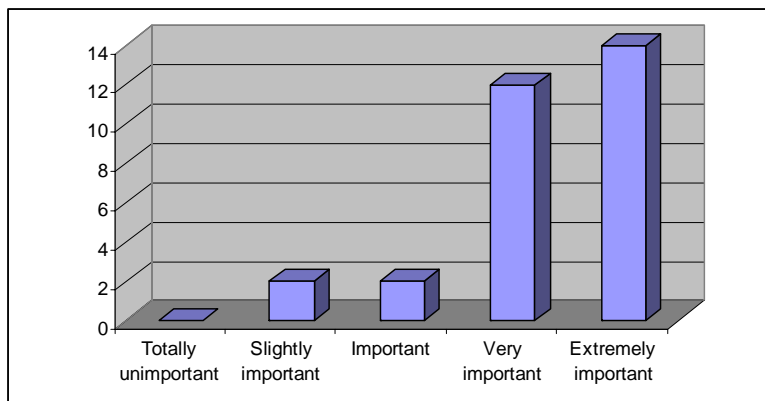
To what extent do you agree or disagree with the statement?



How important is the statement for the success of your organisation?



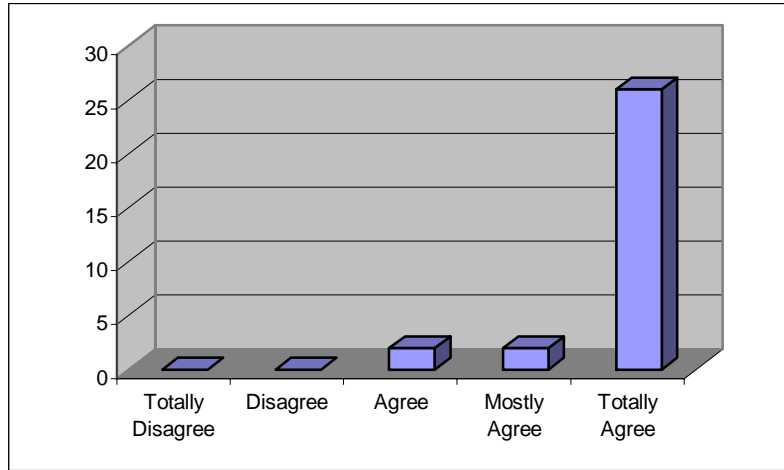
How important do you expect this statement to be in the future?



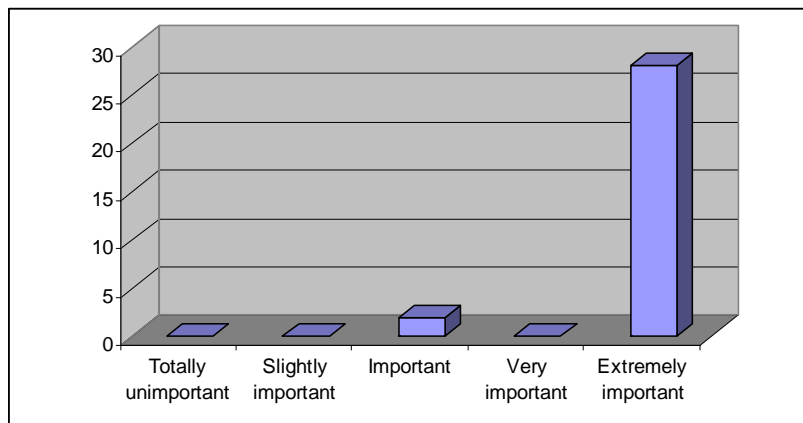


6.3.6 Our I.T. Project Managers should follow a formal Project Management methodology.

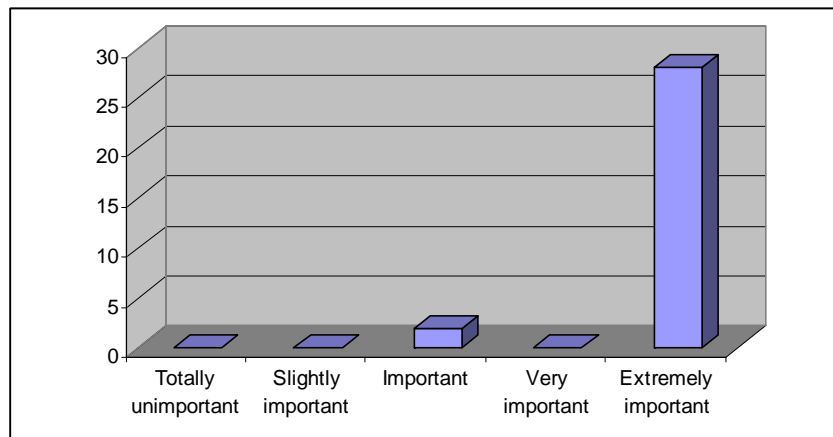
To what extent do you agree or disagree with the statement?



How important is the statement for the success of your organisation?

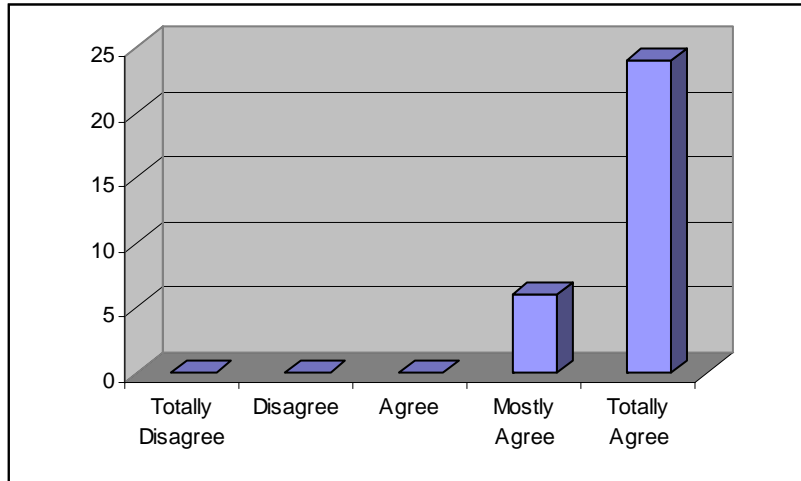


How important do you expect this statement to be in the future?

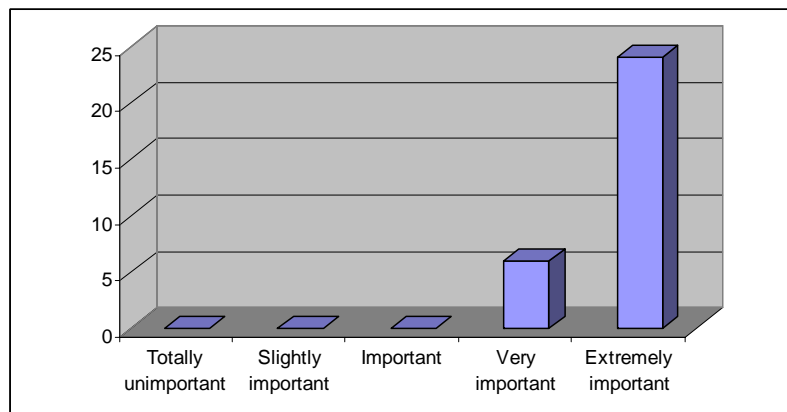


6.3.7 All our Project Managers should have formal Project Management training.

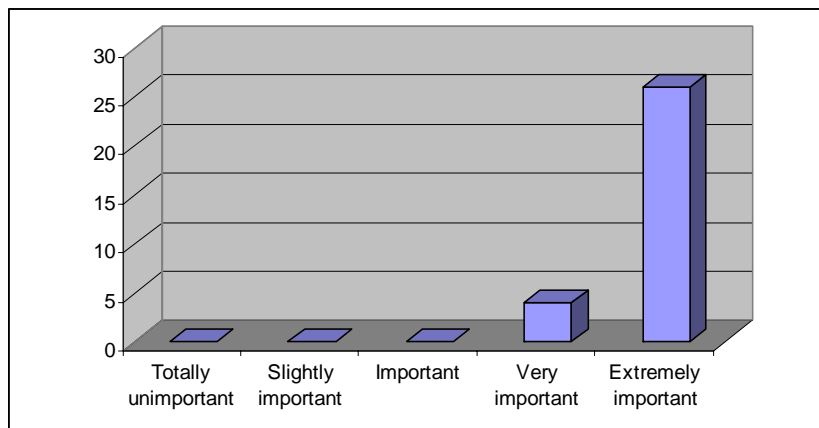
To what extent do you agree or disagree with the statement?



How important is the statement for the success of your organisation?

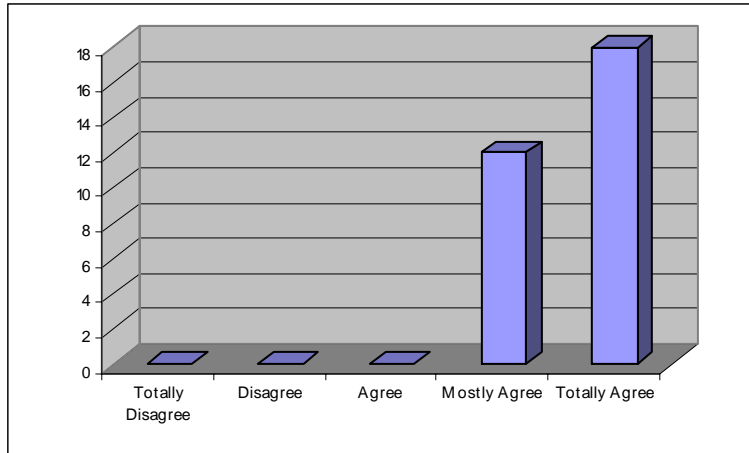


How important do you expect this statement to be in the future?

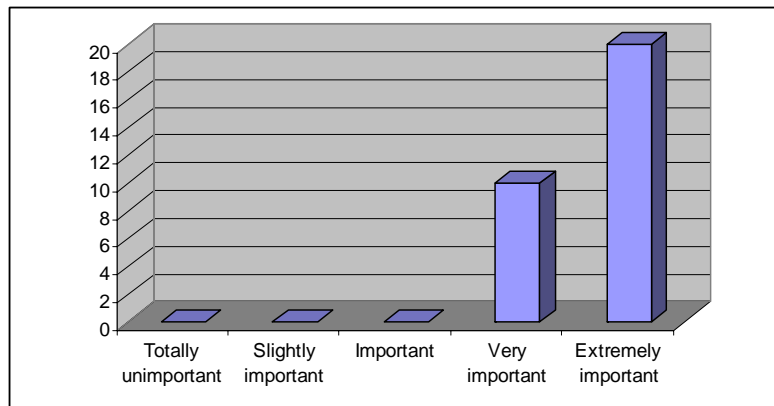


6.3.8 All projects should be delivered on time (according to plan).

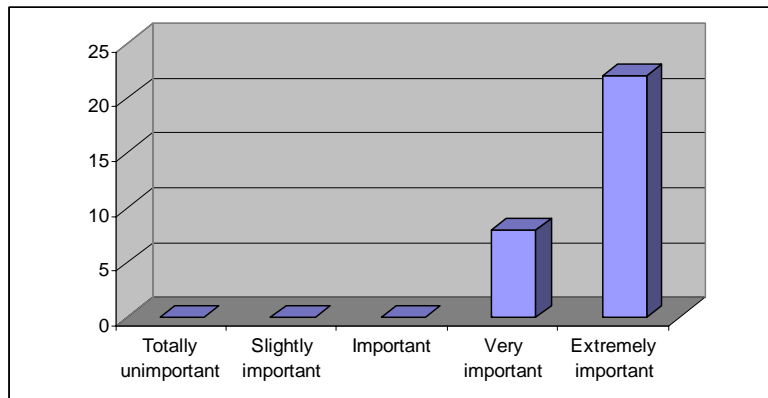
To what extent do you agree or disagree with the statement?



How important is the statement for the success of your organisation?

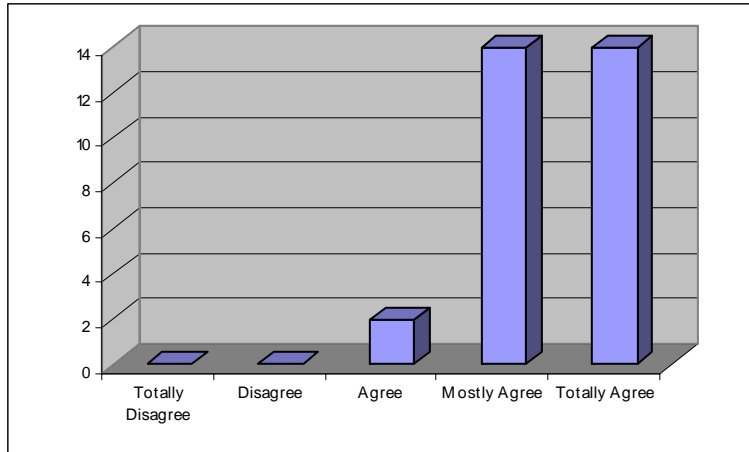


How important do you expect this statement to be in the future?

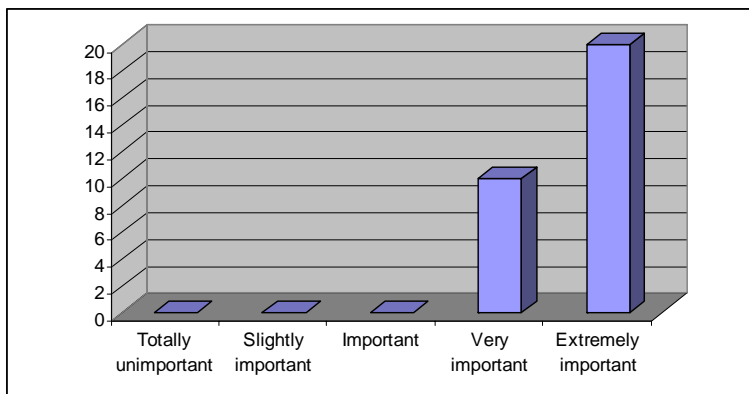


6.3.9 All projects should always be completed within their assigned budget.

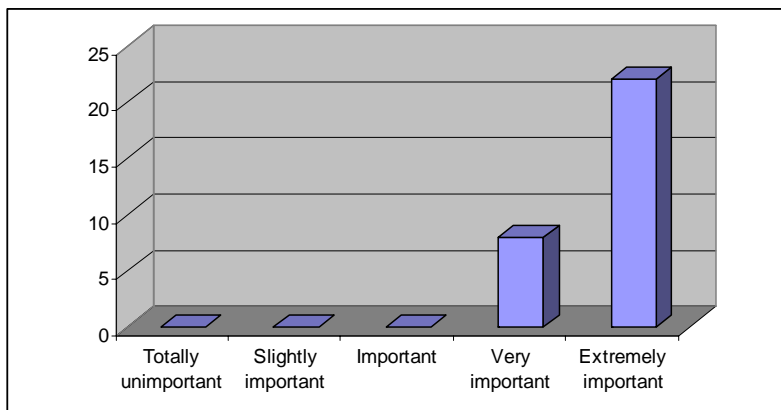
To what extent do you agree or disagree with the statement?



How important is the statement for the success of your organisation?



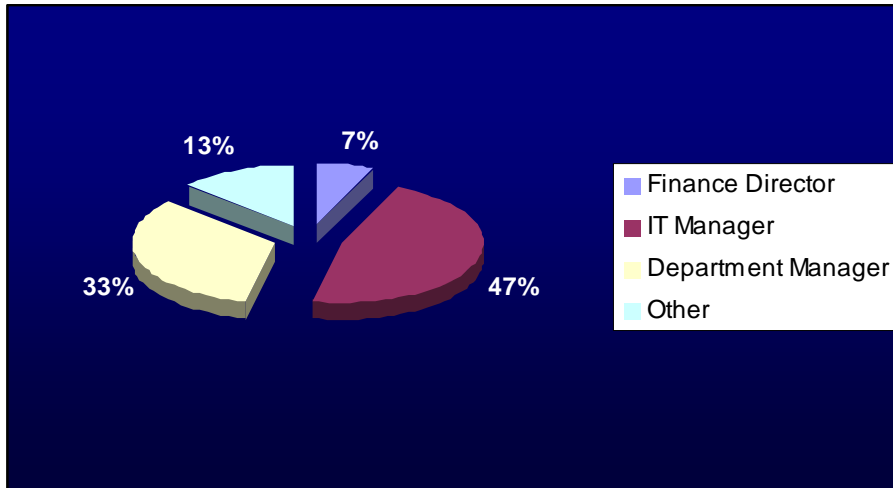
How important do you expect this statement to be in the future?



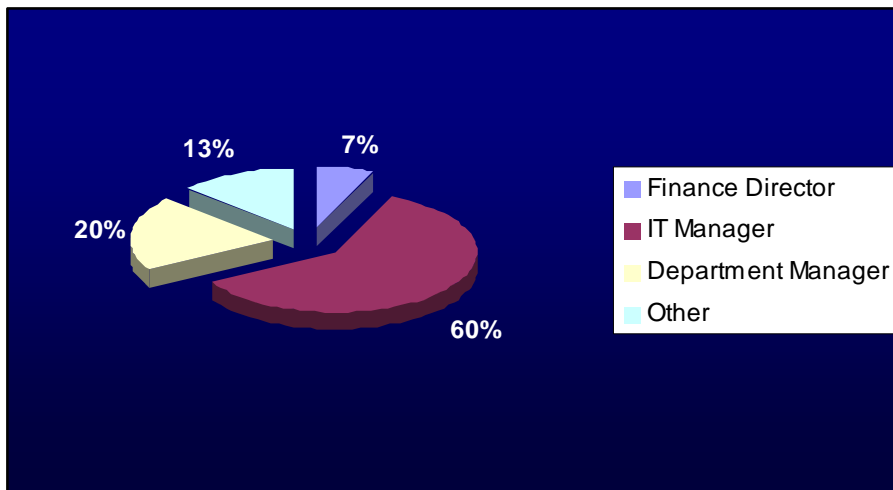
## 6.4 I.T. and Project Management metrics within your organisation

6.3.10 Our Project Managers report to the :

What is the current situation within our organisation?

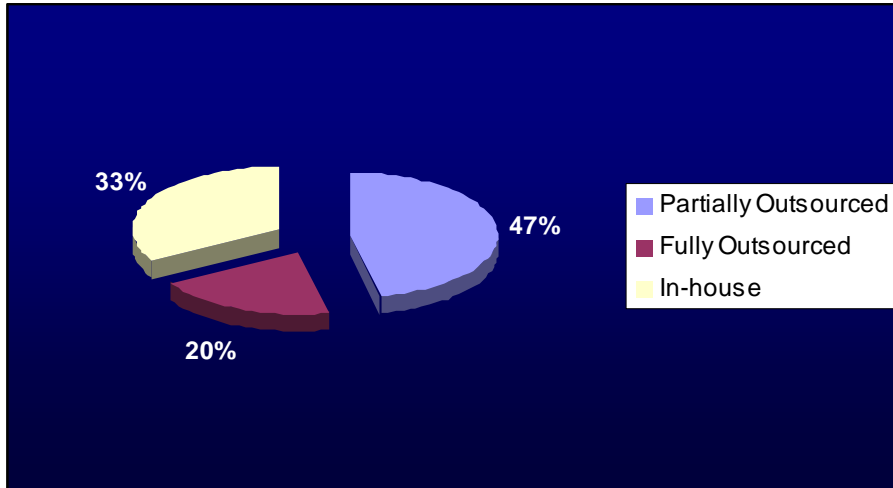


What do you expect to happen in the future?

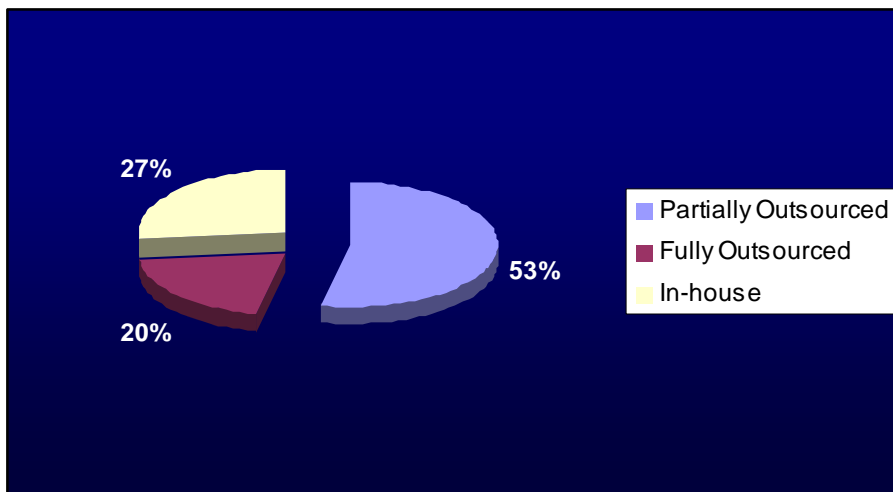


6.3.11 Our organisation has a :

What is the current situation within our organisation?

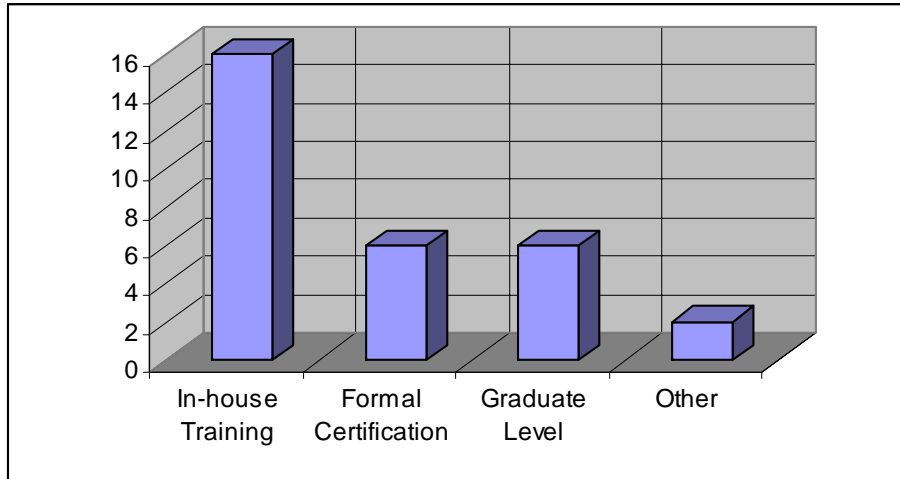


What do you expect to happen in the future?

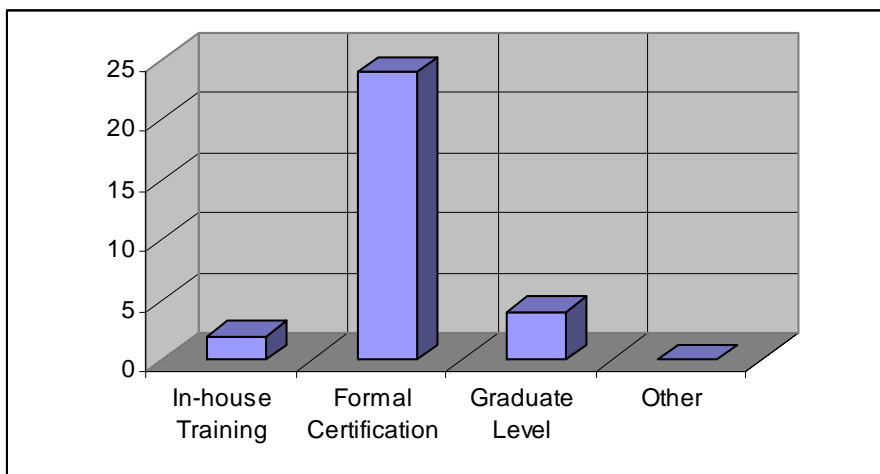


6.3.12 The level of formal training our Project Manager's have :

What is the current situation within our organisation?

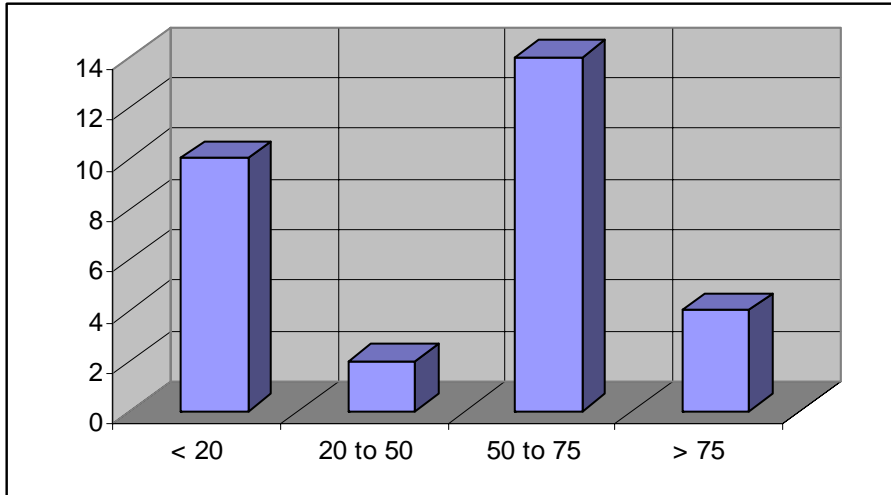


What do you expect to happen in the future?

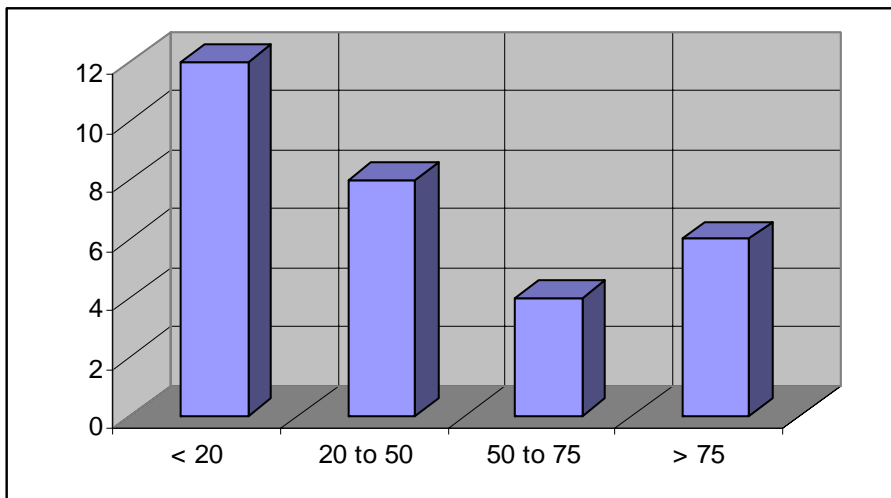


6.3.13 Number of I.T. staff employed by our organisation :

What is the current situation within our organisation?



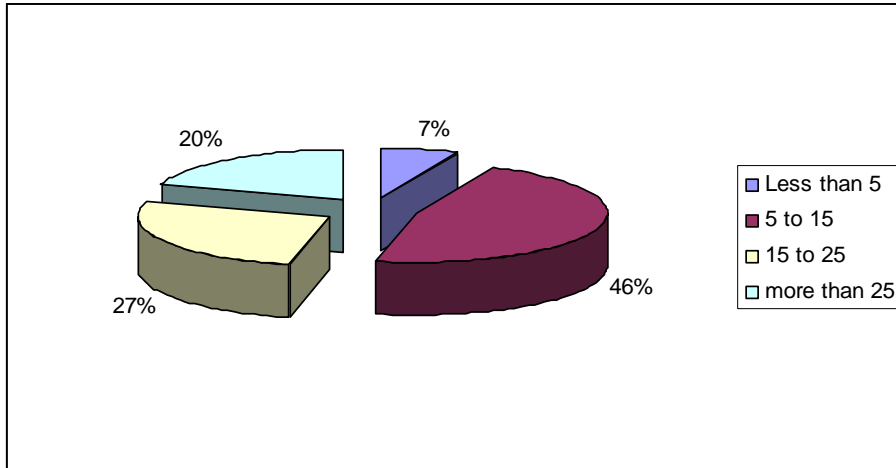
What do you expect to happen in the future?



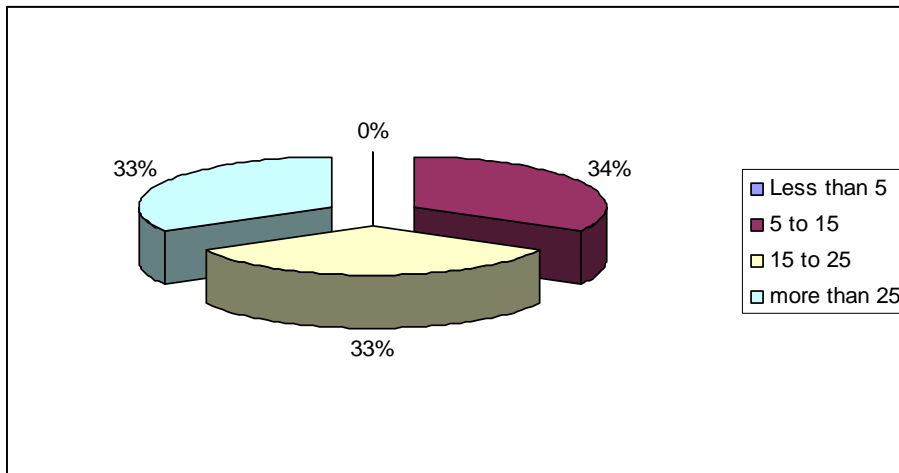


6.3.14 Number of I.T. projects initiated by our organisation per year :

What is the current situation within our organisation?

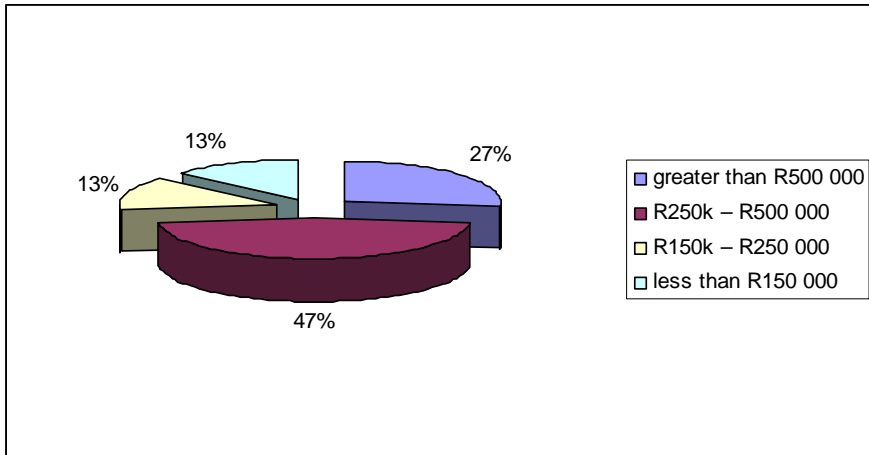


What do you expect to happen in the future?

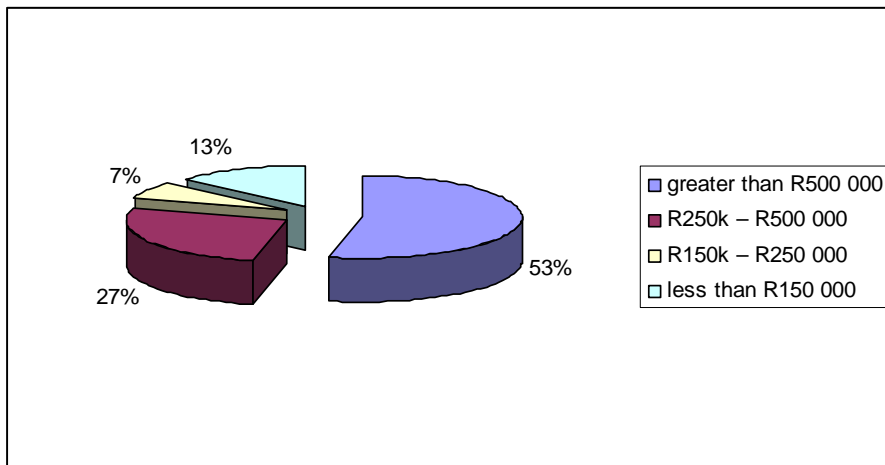


6.3.15 Average value of each project initiated:

What is the current situation within our organisation?

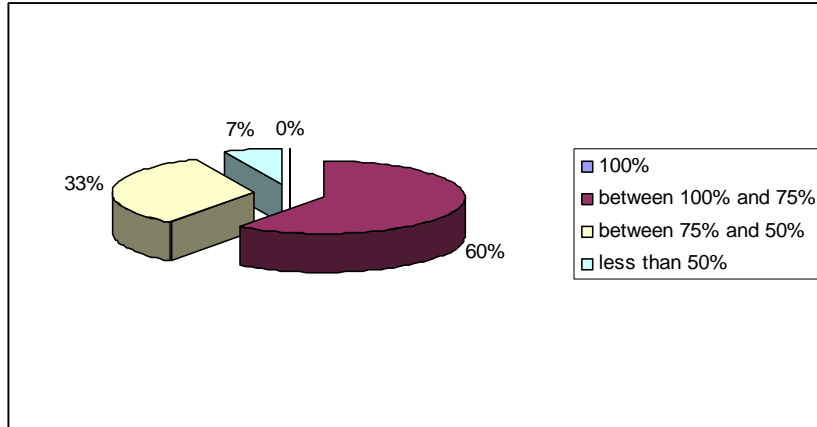


What do you expect to happen in the future?

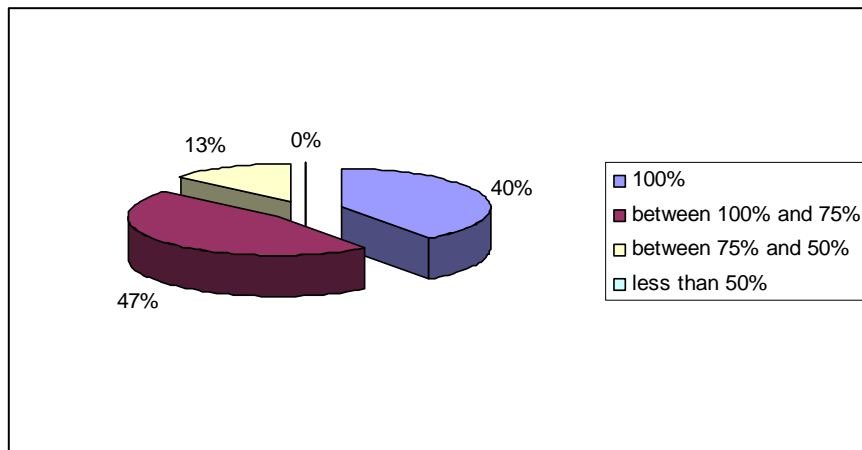


6.3.16 Percentage of projects deemed to be successful:

What is the current situation within our organisation?



What do you expect to happen in the future?



## 6.5 Conclusion

This chapter has displayed the extent and success of Project Management within local organisations. It has also indicated local IT management's expectations for the future and listed how important the various facets of a PMO are to their organisation. According to question 3 in section A, only twenty percent of organisations are currently utilising fulltime Project Managers. This is expected to grow to eighty percent in the future. Furthermore, question 5 indicates that only thirteen percent of projects are managed by Project Managers. This is in spite of fifty four percent of respondents stating that it is essential for the success of their organisations. Questions 1 and 2 in section B show that no organisations within the local metro are delivering projects on time and within budget. However, the respondents to the survey expect this to improve to more than sixty percent in the future. The next chapter analyses the responses from the Project Managers versus the responses from the local IT Managers.

## **7. ANALYSING THE VIABILITY OF A LOCAL PMO**

### **7.1 Introduction**

The first chapter considered the latest trends in Project Management and posed the question whether it would be viable to establish a Project Management Office in the Nelson Mandela Metropolitan area. Chapter two confirmed that Project Management has been an established profession for centuries and furthermore reviewed the benefits and knowledge areas of modern Project Management. The principles of Project Management were discussed in chapter three. Chapter four covered the rationale for establishing a PMO. The chapter covered what the PMO is, its benefits and its role within the organisation.

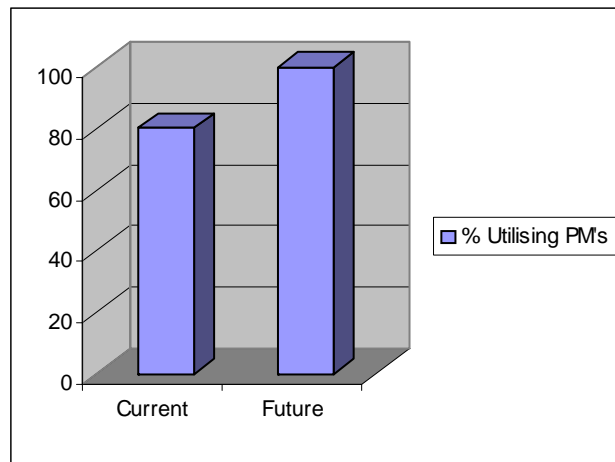
The growth in PMO's worldwide has been substantial in the past few years and the benefits are fairly well documented. However, it was necessary to view the PMO in the South African context. Chapter five listed the responses, of Project Managers currently operating within PMO's in South Africa's major centres, to a survey covering various aspects of Project Management, a PMO and their organisation. Chapter six listed the responses from local I.T. Managers to a mirror set of questions, which allowed for a realistic comparison. The intent of the survey was to be able to determine how local I.T. Managers saw Project Management within their businesses, how critical it was to their success and what role it would play in the future.

In this chapter, the responses to the two surveys will be analysed with a view to determining what local I.T. Managers deem to be critical success factors for the establishment of a PMO. This will be measured against what the Project Manager's survey indicated as essential for a successful PMO. The conclusion of this chapter will

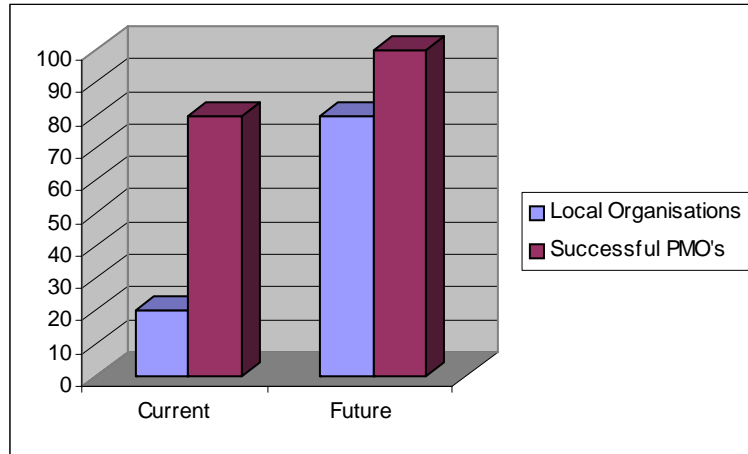
cover the results of this analysis and will answer the question as to the viability of a local PMO.

## 7.2 Analysis of surveys in relation to a local PMO

Of the local I.T. managers that responded to the survey, 80% currently utilise the services of Project Managers (section A question 1). The responses show that this is expected to grow to 100% in the future. In light of this, it is clear that Project Management is well entrenched within local organisations and that it will become even more so in the future. This general acceptance of Project Management creates the basis for further analysis, as it is clear that Project Managers cannot operate in isolation. Furthermore, their role within the organisation is becoming more and more crucial for the successful execution of all IT related projects.

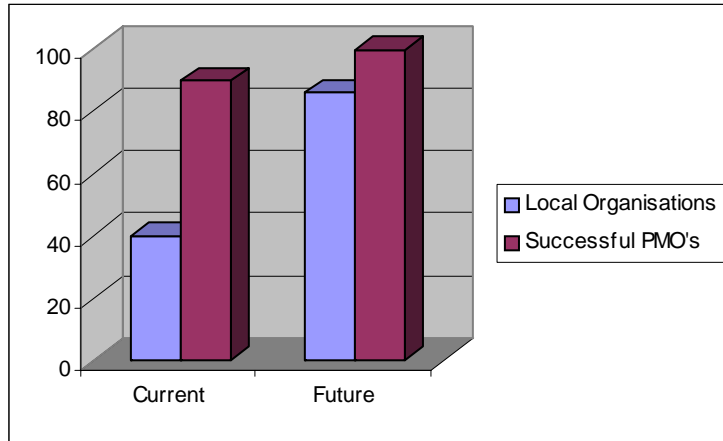


Interestingly, although 80% of local organisations utilise Project Managers, only 20% have fulltime Project Managers in their employ (section A, question 3). In comparison, 80% of PMOs currently utilise fulltime Project Managers. This figure is expected to grow to 100% in the near future. More than 70% of local I.T. management see the use of fulltime Project Managers as critical to the future success of their organisations.

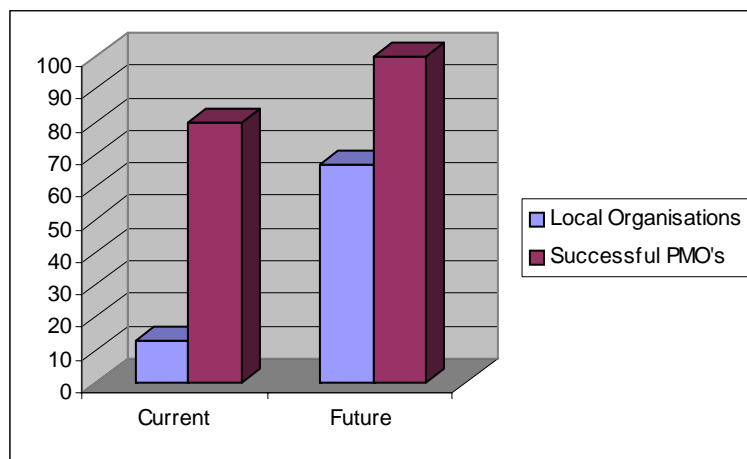


Currently, 80% of local organisations have an annual budget for I.T. related projects (section A question 2) with the remainder utilising funds on an ad hoc basis. In conjunction with the substantial use of Project Managers, this clearly shows that there is a strong trend towards the formalisation of I.T. projects and the expectation of senior management to see these projects successfully concluded.

Only 40% of the local organisations surveyed currently utilise a formal Project Management methodology (Section A question 4). By comparison, more than 90% of the PMOs utilise a formal Project Management methodology. Local organisations expect this figure to grow to 86% in the near future, indicating how serious their organisations are taking the formal management of I.T. projects, which are often critical and very expensive.



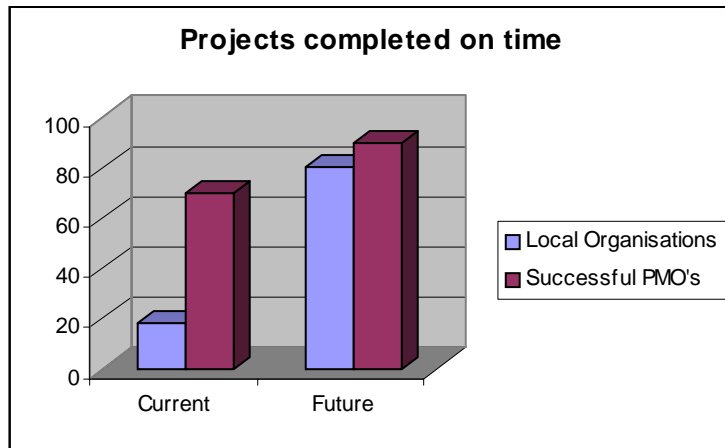
Of the PMO's surveyed, more than 80% stated that all their projects were managed by fulltime Project Managers (section A, question 5). However, only 13% of local organisations always use Project Managers to manage their projects. Therefore, 87% of these organisations utilise the services of staff that are not trained as Project Managers or currently fulfil another role, to manage their projects. This clearly indicates a huge opportunity for growth within the Project Management profession within the local NMM area.



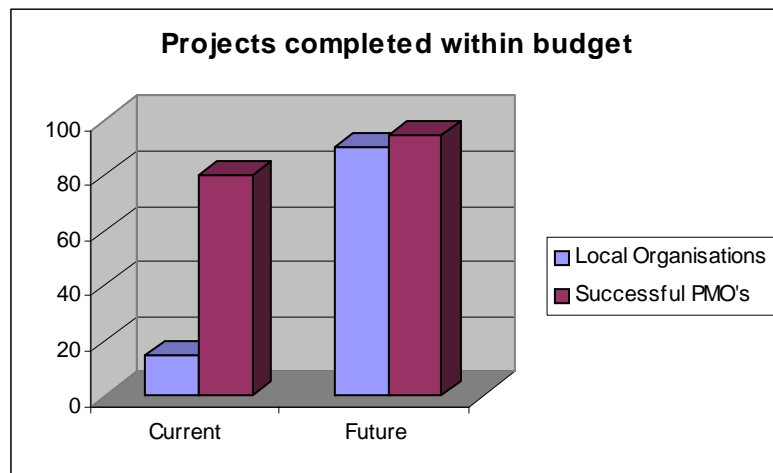
This limited use of fulltime Project Managers for all projects, could well be the reason why more than 80% of local projects undertaken are not completed on schedule (section B, question 1). In



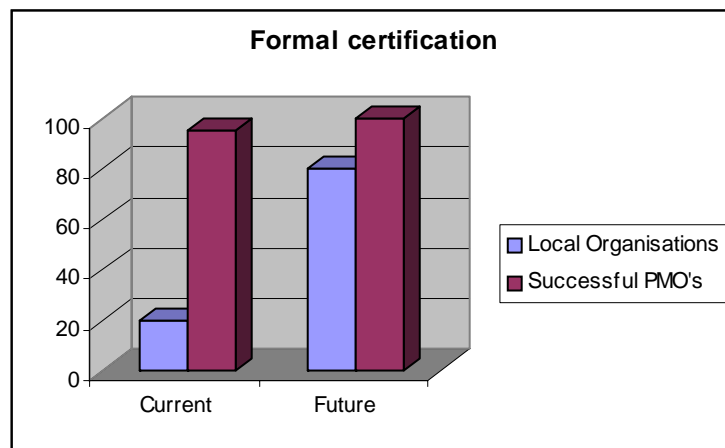
comparison, PMO's successfully complete more than 70% of their projects on schedule and the Project Managers surveyed expect this figure to increase to more than 90%.



A similar situation exists when it comes to completing projects within the specified budget (section B, question 2). Less than 20% of local projects are successfully concluded. For PMO's, this figure is greater than 80% and is expected to grow to more than 95% in the future. This is clearly an area of concern for local organisations as more than 90% deem it to be critical to the success of their organisations. Furthermore, they want this success rate to improve to more than 80% in the future.



Given the poor performance with regard to the successful completion of projects within the NMM area, it is interesting to note that 80% of local I.T. managers deem it necessary for Project Managers to have some form of formal training (section B, question 7). Currently, more than 50% of local Project Managers are given in-house training and only 20% have some form of certification or graduate level qualification. By comparison, of the Project Managers that are operating within a formal PMO, more than 95% have some sort of formal certification. 100% of local I.T. management surveyed, deem formal training to be necessary for the success of their organisations and 80% see their Project Managers being certified in the future.

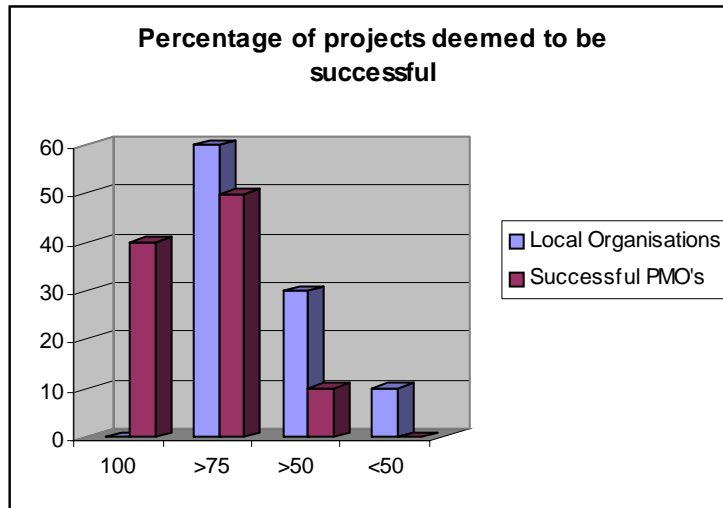


Of all the local organisations surveyed, less than 50% undertake more than 15 projects per year (section C, question 5). 70% of respondents see this figure being surpassed in the future.

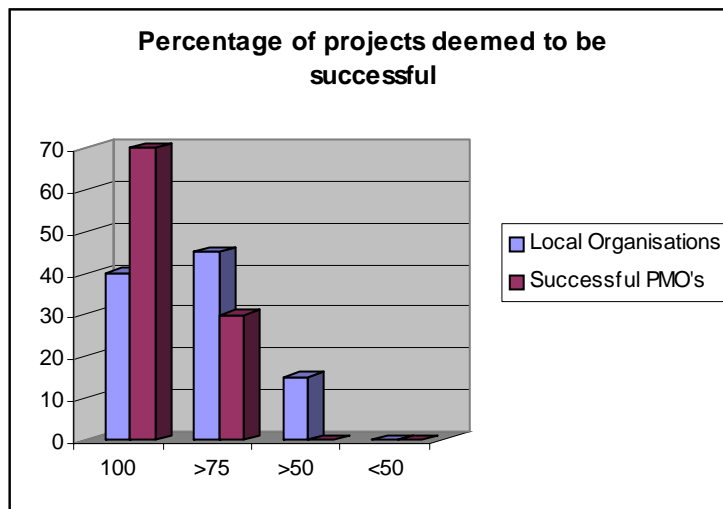
Furthermore, less than 25% of local organisations currently have an average project spend of more than R500,000 (section C, question 6). 50% of respondents predict that this figure will be surpassed in the future.

Of all the local organisations that were surveyed, not one stated that they had a 100% success rate (section C, question 7). 60%

felt that they had a greater than 75% success rate. By comparison, 40% of the Project Managers operating in PMO's stated that they had a 100% success rate with a further 50% achieving a greater than 75% success rate.



Interestingly, 40% of local I.T. managers expect to achieve a 100% success rate in the future with a further 45% expecting to achieve a greater than 75% success rate. The Project Managers surveyed, felt that with time their 100% success rate would climb to 70%.



## 7.3 Conclusion

Determining the location of successful PMO's in South Africa was met by the response to the survey conducted among Project Managers operating within PMO's in each of the major centres within the country. The various aspects of the PMO's were analysed and their measure of success shown in detail.

The critical success factors for operating a successful PMO have been highlighted during the thorough analysis in chapter five.

These success factors are:

- Always utilise full-time Project Managers on all projects.
- All Project Managers to follow a formal methodology.
- All Project Managers to have formal training.

Furthermore, the benefits of Project Management and a PMO were listed in detail in chapters two and four.

Establishing a business model for a successful PMO in South Africa has been met by analysing the results of the survey as shown in chapter five.

It seems that the utilisation of Project Management within the NMM area is already well entrenched with most organisations utilising Project Managers in some form or other. However, the Project Management maturity levels are still quite low. This is evidenced by the number of part-time and unqualified Project Managers currently being used and the total lack of formal Project Management methodologies. From the analysis concluded above, there does however seem to be a definite trend towards the formalisation of Project Management within the NMM area. This is clearly shown by the future expectation of local I.T. management that Project Managers have a formal Project Management certification and that they utilise a formal methodology.

It seems that local I.T. management are fully aware of the problems that currently exist when it comes to the successful conclusion of IT related projects. Their feeling that most projects currently run over budget and are not completed on schedule is in stark contrast to their future expectations. There is clearly a strong desire to improve on the current project success rate and a realisation that only formal measures will enable them to meet these expectations.

Most of the local organisations that responded to the survey, are already executing a number of projects per year and this number is expected to increase quite sharply in future. This, with an expected increase in the value of these projects, is further justification for the establishment of local PMOs. Local I.T. management's response to the question of whether they need a PMO was an overwhelming 80% with this expected to increase to 90% in the future.

When reviewing the expectations of local I.T. management against the performance of Project Managers that are currently operating within PMOs, it is clear that organisations within the NMM area are in need of PMO's and would certainly benefit from their establishment.

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## **9. APPENDIX**

### **9.1 PMO Survey questionnaire and results**







## **9.2 Local IT Manager Survey questionnaire and results**







