

An Analysis of the Internal Organizational Processes and Their Impact on Project Delays - A Case Study on a South African University and the Challenges Faced by Project Managers When Delivering Projects

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Abstract

Delay in project delivery has become a common phenomenon in the project management profession. This should not be accepted as a norm considering that projects form an integral part of achieving organization's strategic objectives. This paper examines how internal organizational processes affect the successful delivery of projects by exploring a case study on the project management processes at a South African university. Various project managers in the university, under the Operations Department were interviewed. The paper addresses project planning processes, organizational strategic objectives in relation to project management processes as well as addresses organizational bureaucracy and its effects on project processes. Furthermore, the analysis addresses current internal challenges through the Theory of Constraint.

Keywords

Organizational Processes; Project Delays; Operations; Project Management Office; Theory of Constraints.

1. Introduction

The delays in project delivery has become a common phenomenon in the project management profession. This should not be accepted a norm considering that projects form an integral part of achieving an organization's strategic objectives. Projects are born because of a practical need. Hence, there is always a strategic intent behind every project delivered at the university; whether it is a security system upgrade, refurbishment of classrooms, installation of new laboratory equipment, there is always a strategic intent which validates and secures the corporate demand and funding for such projects. A small delay in the project planning and approval processes can cause substantive delay in the delivery of the major project, with high impact on the organization. Project delay can have detrimental effects for the client, who will be losing out on potential payoff or revenue generated as a result of completing the particular project. Similarly, to the contractor it means higher costs in terms of overheads which leads to loss of opportunity in other bids (Assbeihat, 2016).

Organizations adopt various methods to implement projects within their Project Management Office. Such processes will highly depend on the policies and procedures of the organization. However, the said policies and procedures should support sensitive projects that otherwise may undermine the organization's reputation through failure to meet deadlines. Personnel, whether project management office based or functional departments, should provide the necessary support and urgency to the delivery of projects. Moreover, the project management office should be supported by the internal processes of any organization in order to meet project deadlines. Organizations that depend highly on project management and the success of projects should give the project management office the required support to ensure successful completion of projects. The importance of timeous project delivery in a university environment cannot be overstressed.

Project delays have been the subject of researchers throughout the years (Sunjka, 2013; Afzal, 2014; Mohamed, 2015; Assbeihat, 2016; Atout, 2016). Internal and external factors can contribute to the delay in project delivery. However, it is of paramount importance to start examining project delaying factors internally in order to address external factors. This study explores how internal organizational processes affect the successful delivery of projects by looking at a case study on the internal processes of a South African university. To this end, various project managers in the

university, under the Operations Department were interviewed. Additionally, literature review relating to the topic was also consulted; addressing theory relating to project planning processes, organizational strategic objectives in relation to project management processes as well as addressing organizational bureaucracy.

The study aims to investigate the internal processes of a South African university and how they support or disrupt project successes in the Operations Department, and further explore solutions to reduce internal project delays.

2. Literature

2.1 Project Planning Processes

Planning, amongst other elements, is a fundamental part of implementing and managing projects. It relieves the high levels of uncertainty and risks in projects or in any situation. To be able to plan effectively one needs to have a clear understanding of what the project requirements are and how they align with the organizational objective. However, it is a challenge to plan a project in one detailed phase, especially if that project is a large-scale project. As a result, it is advisable to break the project down into phases. With the aid of a clear scope of work and a well-defined project plan, the project manager is able to communicate to the client a more realistic end date (Steyn., 2017). However, such a communication can be pointless to the client if the internal processes of the organization do not support an effective project management office.

Organizations that are in the public domain for their performance will at some point have some relation to the Government. The university in question is a state subsidised entity. As a result, the majority of major infrastructure projects come as a directive from the management above. Not much consultation and collaboration is followed with the necessary expertise to capture the viability of the particular projects. This is evident in the study that was conducted in the USA with a close focus on IT projects within government (Afzal, 2014) in which it appeared that government projects are not often planned properly and accordingly. The case study revealed that projects were implemented without prior feasibility studies, which results in project failure, if not termination. Carefully researching the viability of a project in line with the organizations strategic objectives includes 1) assessing whether the project is necessary, 2) how the project affects the personnel on the ground, being the end-users, and 3) whether it will be beneficial to the business. If it is to be beneficial to the business, a well-thought-out plan on who will benefit and how they will benefit subsequent to the implementation, needs to also be included in the feasibility study. A preliminary project plan for every project is a necessity which enables the project management office to generate estimates and allocate resources. Allowing the project management office to conduct these studies, allows the office to gain insight on how to better estimate and plan for future projects (Kaiser, Arbi, & Ahlemann, 2015).

In the efforts to investigate how organization's and stakeholder's involvement affect project planning at different stages of the project process Wyrozebski (2014) notes that planning processes will not always be the same for all industries. The Authors further indicate that certain project management applications should be recognized depending on the type of project being dealt with at the time of planning. This approach could be the epitome for an academic institution.

2.2 Organizational Strategic Objectives

Strategic objectives are there to align the organization to its end goal through the organization's mission and vision. They are there as a road map to help the organization to reach new frontiers, and advance with the global challenges that arise due to new developments. Part of the university in question's mission and vision is to be a world class recognized university of choice. The Operations Department plays a major role in achieving this objective. Effective communication is integral to the success of any professional organization (Jorfi, 2011). This type of communication for managements facilitates successful project delivery. When effective communication is achieved, bearing in mind the organization's strategic objectives, a quick turnaround time can be achieved on important project milestones. Effective communication is advantageous as it maximizes understanding and/or minimizes misunderstanding amongst a group the workers with strategic alignment. Effective communication is one other aspect that can be researched within the organization.

2.3 Organizational Bureaucracy

Project implementation is so popular that project failure has received considerable attention in the press, leading the

management of public high profile projects to be perceived by the public as unsuccessful (Davis, 2013). The Author further notes that the efforts to reduce project delay have grown considerably with an expanding body of professional associations, standards, methodologies and tools seeking to increase project success rates. Even though these methods are in place to reduce project delay and termination, evidence of failure is still reflected in ongoing results.

Prosci (2018), a web page about Change Management noted that change within the organization requires the provision of steps and actions that take at each level to support the project progress, and in turn those impacted by the project. Internal processes affect project delays a great deal. Furthermore, organizational change management is complementary to project management, and it should be introduced in a project based environment for the fast tracking of project delivery. Project management ensures project's solution is designed, developed and delivered, while change management ensures project's solution is effectively embraced, adopted and used (Prosci, 2018). People need to move away from the notion that it is solely people that deliver projects. Processes and systems assist hugely in delivering project as well. Thus, analysing internal processes can help in the reduction of project failure. This is clearly research by Hornstein (2014) where he mentions that in as much as there is an unseen battle between Project Managers and Organizational Change Managers with their different skill sets, their coordination in reaching strategic objectives is imperative. Therefore, project processes involving committee approvals that are scheduled on set dates can only lead to the planned project schedule being delayed.

Organizational structures that are governed comprise of hierarchal levels, different types of positions as well as rules that make bureaucratic organizations complex operating environments. These structures are firmly fixed in a way that they are designed; which leads to intense checks and balances that can cause a delay in the decision making process, in turn delaying the project time lines. Bureaucracies affect agility and quality which in turn affects the organizational performance. In addition to the difficulties faced by certain departments in organizations due to bureaucratic environments, there are red tape issues that greatly affect the employees and their morale. In order for any organization to thrive in their organizational objective, they require fully motivated personnel (Hyacinth, 2018).

2.4 Theory of Constraint

The Theory of Constraint addresses processes that have bottlenecks by improving those constraints in the quickest and most effective way possible to promote profitability. Looking at the university case study, this can be introduced or utilized to eliminate unnecessary stages in the internal organizational processes (Lean Production , 2018). One of the benefits with the Theory of Constraint is that it reduces lead time, which is something that the university can benefit a great deal from.

Uncertainty is risky. Particularly for the reason that, something that you are unable to define from the beginning can come with unknown challenges, thus the necessity of a project management office. An approach to risk management in the project has a direct influence on project duration and success (Izmailov, 2016). In the usual implementation and planning of projects, risk management is done by focusing on separate tasks, whereas with the Theory of Constraint, the focus is on the only important date; being the end date of the project. The Theory of Constraint is a method applicable to monitor changes and uncertainty. It is designed to do so by eliminating the existing behavioural standards that are harmful to achieving the objectives of the project. The method is of utmost necessity in high profiled, project-based environments, like a university.

Izmailov (2016) researches the Theory of Constraint as a tool subsumed within Critical Chain Project Management; a process that reduces project delays by focusing on the projects resource limitations – in this case the ability of personnel to meeting their obligations within the internal organizational processes. It allows for the alignment of the critical path task to its critical path resources. However, this sort of approach requires pro-activeness, especially for the tasks on the critical path.

The Theory of Constraint tools are a great elimination of the “student syndrome” (Izmailov & Korneva, 2016), which is a major concern for many projects. This phrase is related to the notion that any task undertaken will be given the required attention towards its deadline. Focusing on the usual way of managing projects, planners/schedulers, usually make allowance for some reserve time on each task. Although the idea of reserve time on a task sounds like it could give the project latitude to allow early completion especially for processes where approval in the form of a signature is needed. However, this method of planning has its negative consequences. It can give the impression that the particular task has extra time which results in late commencement of tasks. The ripple effect being a delayed task delivery, leading to a delayed project delivery. In the research study mentioned above, it further concludes that the

Theory of Constraint can eliminate the “student syndrome”, only if used effectively. It is not often the case that there is lack of resources for certain tasks; it could be that resources are available; they are just over-allocated (Bartoska & Subrt, 2011).

3. Case Study

The university is a place where students can come to further their studies, and perhaps build long life career acquaintances. In order to be the university to choice, the staff and students need to be provided with a space where they can comfortably teach and be taught, respectively.

Besides the usual operations of an academic institution one of its core departments is the Operations Department. The Operations Department assists a great deal in the university achieving its strategic objectives. Therefore, a university, based on its operations, can be seen as a project-based business. Projects are not only in the Operations Department, but in academic departments as well. For example, planning graduation ceremonies, and academic functions. The manner in which projects in the Operations Department are implemented will not be the same as how they are implemented in the academic departments, however the core principle is to meet the objective of the university. Focusing on the Operations Department in particular, there is a major relationship between project management issues and strategic issues (Kaiser, Arbi, & Ahlemann, 2015). Any project that is initiated in the university, should run in line with the university’s strategic objective. This is challenged when functional departments do not fully understand the importance of a particular projects contribution to the universities strategic objective.

Due to the importance of projects within the university, it is imperative that they are completed within a set period of time, such as the construction of a student residences. However, most of these projects are faced with internal organizational processes that become a challenge for reaching a set completion date.

3.1 The Function of Operations Department and Internal PMO within the University

The Operations Department can be identified as a department responsible mainly for smooth and profitable productions of an organization; and its core mandate is to produce high quality effective operations (Garstenstein, 2018). Furthermore, their core function is to ensure that the university is active and that personnel and students are able to perform their duties efficiently. Within the Operations Department are functional departments such as Finance, Procurement and Expenditure, Information, Communications and Systems, Security and Central Technical Services (Project Management Office). All these functional departments are core service providers to ensure that the daily business of the university is achieved.

For the purpose of this study, much focus is turned to the Central Technical Services (PMO) department. The function of this department is to serve the university by interpreting, facilitating and monitoring the initiated projects from various other departments. The projects are then managed from inception through to completion. The project management office ensures that the scope and end-user requirements are clearly defined and approved. The project management office has to be in constant communication with the functional departments to ensure that the final product is delivered to the end-user. Major strategic projects are implemented and managed through the Central Technical Services (PMO). Maintenance projects as well are implemented through this department.

3.2 Internal Processes, Procedures and Policies within the University

Processes, procedures and policies are put in place to ensure sound governance within any department. These are vital to ensure that personnel in the department do not deviate from the actual requirements of the department. The university has its policies and procedures, so does each functional department. In as much as there are processes, procedures and policies to follow within the university, it is a thought that specific ones should be drawn up for the project management office. In essence the project a management office is a median between the senior management and the project managers. The roles that this office plays within an organization should be clearly defined and appreciated by all functional departments as well as top management. The project management office is complex and a variety of them need in-depth research to be done on what they really are and what they really do. Research has shown that this is a necessity as many organizations start a PMO without a clear objective of what it is meant to achieve (Wyrozewski & Spalek, 2014). That is why one finds that processes are generalized, which does not meet the objective of this particular department.

3.3 The University's Project Management Office Processes

The project management office has a responsibility to interpret, facilitate and monitor to ensure that scope of work is managed in terms of the original brief during the development of the concept tender and detail design and execution, as set out in the departmental internal project policy document. Projects are delivered in a systematic approach for the execution of projects under control of the project management office. However, as mentioned in the case study, the projects come all ready for implementation. There are no prior investigations in the form of feasibility studies done prior to the implementation.

The processes followed in the department for implementation of projects include a request for project works from a department and/or property owned by the university. Subsequent to the request and approval of the Client Requirements Specification (CRS), a project charter is done for approval by the project management offices' project manager and as well as the Senior Manager: Projects. Subsequent to the approval, the project management office facilitates the development of a detailed project scope of work, based on the approved client requirement specification. Often the project manager will have to source external resources to finalize the detailed specification and design. At this point, there are levels of approval in terms of signatories to acquire the go ahead of the design and specification. *Table 1* indicates the hierarchy involved with the signatory process. Following which, the procurement Tender Committee (TC) convene on a particular day to give the approval of the design and specification. A similar process will then be followed to approve the appointment of a recommended contractor.

The process followed can often lead to project delays within the organization. However, the project manager is to factor in the planning of the project implementation dates on which tender committee will convene. The effect on a missed date can cause a two week delay in the project completion date. Thus, for projects that should meet their set delivery date, major projects like a student residence, should be fully supported by internal processes being altered and/or developed to suit a project management office.

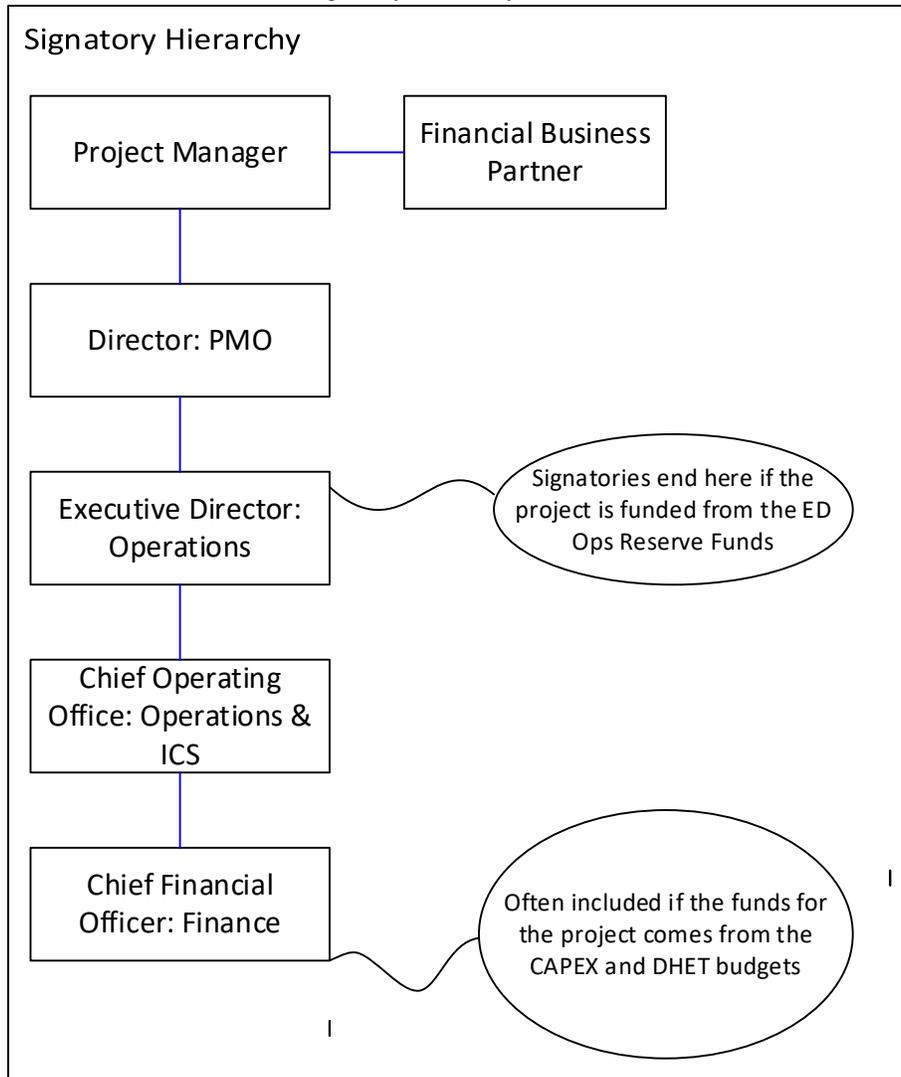
3.4 Resources within the Project Management Office

The main purpose of the project management office is to provide a service to the university in the form of support to implement projects from inception to close out. The staff within this office are to be equipped with the necessary resources, knowledge and skills to perform this function. Qualities such as leadership, team building, motivation, communication, and coaching are skills that the project manager should have (PMBOK, 2013). Performance of leadership has been cited as a major critical success factor on project; it can either lead to the success or failure of a project (Nixon, 2012). Generally, leadership is vital for the smooth operation of any organization, and it guarantees positivity. However, good leadership does not only derive from working experience, one's personal attributes also play a major role in good leadership.

In previous studies, typical sources that lead to project difficulties were identified as poor project definition, lack of scope clarity, poor quality assurance, and lack of top management. However, not much research has been done on the impact of organizational change, organizational culture and leadership (Hornstein, 2014).

The project management office should play a major role in the planning processes of any project, especially in the early stages of the project (Wyrozebski & Spalek, 2014). Basically, the university should allow project managers to run with the project from its very beginning to the very end. Thus giving the project management office full accountability to perform feasibility studies and advice on the viability of the project. Therefore, the approval to proceed with the project should come from top management.

Table 1: Signatory Hierarchy (Source: Authors)



4. Research Methodology

4.1 Data Collection Procedure

The research design adopted was qualitative. Interviews were conducted with various Project Managers of the university in the Operations Central Technical Services department (PMO); the sample group included three Project Managers and the departments Director.

4.2 Discussion

4.2.1 Importance of PMO to the Organization and Identified Shortfalls within the PMO

Although project management is a function on its own, it is still perceived as a vital department to an organization that is project-based. Many of the projects in the organization are mainly maintenance related; where renovations have to be done to existing infrastructure to suit recent norms and standards, or certain academic departments require changes to be made within their offices. There are only a handful of Greenfield projects that are implemented i.e. new student residences. This shows that the organization does benefit from the project management office, especially in terms of infrastructure projects. The implementation and delivery of projects is necessary for the business needs of the organization, in order to meet the needs of the students and the staff. One respondent who has been running projects

for the university for over eight years mentioned that the organization does not recognize the Project Management methodologies, timelines and lifecycles.

Respondent #1 – A Project Coordinator within the PMO: *“We are doing a profession within an organization that does not necessarily always recognize the project methodology and the project timelines/life cycle, which poses a challenge to get approvals.”*

Many aspects relating to the function of the university as a whole are affected when a project – big or small – is delayed. For example; part of the university’s mandate is to provide accommodation and study venues for the students. Both these aspects work on fixed times. The university stands the risk of loss in the event that a residence is not completed is not completed on an expected date. From the interviews, it is evident that the opinions of the project managers is that the university does not seem to acknowledge the importance of their office and function.

Another downfall in the midst of interviews is that the project management office is not given more authority to control projects. This is done on a higher level, then passed down to the project manager for implementation. This could be due to the fact that the project management office in itself does not have enough resources available to identify how much the initiated need will cost and how it benefit the organization. In some cases the budgets awarded for the projects will not be sufficient to carry out the project through to completion. This was further confirmed as follows:

Respondent #2 – Director PMO: *“I think one of the things that I look at or sort of would help with projects is to have seed funding to do feasibility studies or some sort of process that whereby feasibility studies are funded, where one can do the initial cost estimating, initial design etc.”*

One of the project manager’s opinion was that projects that are implemented are not in line with the university’s strategic objectives, and also that the manner in which other functional departments address the urgency of a project is not satisfactory. Personnel within various functions of the Operations department are to be informed more on the objectives behind a initiated project to ensure a smooth transaction of project delivery.

Respondent #3 – A Project Manager within the PMO: *“People are not always in sync with the schedule of the project. Sometimes there are more important things to them than your project. Even if you plan for certain expected delays from the beginning, it still is a problem. Remember, we don’t do things in isolation, we need input from other functional departments, which have their day to day duties.”*

At the moment the project management office operates in a functional environment. Meaning that there is more focus on the functions of a university as an entity than there is on Operations as a support to getting the university to achieve its objectives.

4.2.2 Effects of Project Delays

Project delays can cause negative effects, depending on the nature of the project. The university, being an institution in the public domain, has many people that are aware of it and look up to it. As a result, the university ought to try to ensure that it keeps the public content. Ultimately, the core business of the university is to serve the academic public.

Departments that depend on certain projects to be implemented by the project management office will suffer the loss on benefiting from the initiated project. A good example of this fact is renovations to a lecture venue. The university operates according to an academic programme. In the programme, all lecture venues are included to ensure maximum accommodation of all students in the university. A delay to these renovations can interrupt with the academic calendar, thereby causing an over placement of students in other venues. The project management office is mandated to provide a support to ensure that such inconveniences are avoided, in turn allowing the university to meet the expectations and the satisfactions of the students. The achievement of this expectation, not only impresses the students, it also lifts the credibility of the university. In addition, the university is also largely known to conduct research studies. Research organizations, like the National Research Foundation, will be hesitant to fund university projects if the perceived idea is that the university fails to deliver projects on time. Thus, credibility is a vital aspect to consider in this case.

4.2.3 Introspect of internal processes

The purpose of internal administrative processes is to govern an organization, and ensure that administrative operations are constant throughout. The challenge comes when certain stakeholders are not available to approve certain things at the required time. The university has various functional departments, therefore each department will have its own internal processes. However, often one finds that these processes do not complement the project management office.

When asked about how they perceived bureaucracy to affect their projects, Respondent #3 noted “*Projects in a big organization have lots of interests. Projects tend to get stuck in one place because of certain stakeholder’s interests in the projects. If the interest is high, the project will move fast, if the interest is low the project will move slowly. The involvement of the stakeholders are not controlled*”. Stakeholder management is an aspect that needs to be researched within the project management office.

4.2.3.1 Procurement Processes

The Procurement Department is vital as a support to the Project Management Office. Their role in the project management office process is to assist with the procurement of suppliers required to implement the projects. Once a project is initiated and the requirements are finalized, a concept tender is drafted and circulated for signatures by all the required stakeholders in the organization – *Table 1*. Once the signatures are all acquired, the document is then included in the agenda for tender committee approval. The agenda often closes a week before the date that the tender committee is supposed to sit. This process does not always run as anticipated; and this could be due to the procurement administrator not being in alignment with the urgency of the project. The same process is followed when appointing a contractor. A tender committee date missed by a procurement administrator by virtue of internal functional duties, could result in a two week delay to the project. Worst case scenario is missing tender committee during the middle of the year. During this time, tender committee only convenes once in a month due to the university recess. Thus it means the project manager would have to wait a full month for the next tender committee meeting. From the conducted interviews, it is evident that the procurement department on its own is short staffed. The effect therefore is late turn-around time on certain matters such as tender evaluation reports. The lack of sufficient staff members in a procurement department is another matter to be looked into urgently.

4.2.3.2 Occupational Health and Safety

The Occupational Safety and Health Department (OSHD) within the university also works hand in hand with the Project Management Office. The importance of this department within the university is to ensure the safety and health of students and staff. As a result, any contractor that occupies a site on any campus is required to meet certain safety requirements. A safety file needs to be approved by the OSHD prior to occupation of site by the contractor. This process on its own takes at most two weeks, depending on the availability of the Head of Department, as well as the compliance of the contractor to meet the index laid out by OSHD. The department as well has recently lost two staff members. The effects thereof can be that a project can be delayed waiting for a safety practitioner to come and inspect the works before proceeding.

4.2.3.3 Finance

When a project is initiated, part of the planning that the project manager must allow for is project registration and approval through internal systems processes. The process includes loading a project on the internal system and awaiting approval from the Financial Business Partner (FBP) on the availability of funds to continue with the project, by means of a generated cost centre. A similar process is followed once the concept tender is approved, with a new budget amount. The financial business partner is not only servicing the project management office therefore, they are occupied by other functional duties, which leads to slow turn-around times for the project management office.

5. Recommendations and Conclusion

5.1 Recommendation

Firstly, the employer needs to investigate stabilizing the project management office. There are currently over 100 projects that need to be implemented within the organization. However, due to lack of staff and inconsistency in the office, these projects are not being implemented; causing a negative effect on the organizations operations. In addition, the Human Resource department needs to develop current staff in their positions to provide the necessary training and development courses to satisfy the project management methodologies. This will allow the project management office to have a strong solid foundation in terms of project management methodologies.

Secondly, with the implementation of projects from inception to close out, the level of stakeholder involvement in executive decisions needs to be investigated. The reality of the matter is that, not often will a certain stakeholder be available to approve a certain document or conclude on a certain concept design. Some of the stakeholders (especially those in approval positions) involved do not provide much justice to project delivery. One respondent indicated that they are required to get signatures for payment certificates to the level of the Vice Chancellor (VC). Therefore, changing some stages in the process is also something that the employer can consider. One other respondent suggested that the procurement department should look at the option of pre-approving a list of suppliers for a period of about three years. This will in turn prevent lengthy signatory approvals and tender committee dates. However, it does not seem like a viable option as organizations are required to assist and build small emerging enterprises. Having a panel appointed for a three year period, leaves the other small enterprises out – as often the requirements for this option are intense. It also does not give them an opportunity to grow and gain the experience they need.

Lastly, in support of the first point, the employer should look at the option of housing all the supporting functions to the project management office in one space. Having a procurement administrator, financial business partner, health and safety practitioner, and legal representative will allow projects to be implemented in isolation, not having to depend on functional departments. In that way they can all report to the Director, and all the necessary approvals can take place in one space, according to one standard process.

5.2 Conclusion

The study revealed that although the project management office is recognised, it is not given due support to optimise its operations. The evidence is in the internal processes, and how they do not compliment project management methodologies. Furthermore, there are many areas that need to be given attention if the project management office is to work and be of efficient service to the university. The employer needs to determine the need of the project management office within the university and what the office needs to deliver. By so doing, the company will be able to place a visible structure within the project management office, and all stakeholders affected, positively or negative, need to buy in to it.

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