

COST BENEFIT ANALYSIS OF OUTSOURCING INITIATIVE/STRATEGY AT WATER UTILITIES CORPORATION (BOTSWANA)

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Mini-dissertation submitted in partial fulfilment of the requirements for the degree of Master's Degree in Business Administration (MBA) at the Mafikeng campus of the University of the North West, RSA



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DECLARATION

I declare that this Master's thesis represents my own work and due acknowledgement is given when named from literature sources. All *cited* literature can be found in the reference list. I also declare that no part of this Master's mini-dissertation has been submitted before or is submitted currently for any other qualification at any University.

Signed.....G. Mogomotsi

Date.....06.05.2011

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Abstract

After the Water Utilities Corporation adopted outsourcing as a policy initiative and operational directive various non-core functions were outsourced. This raises obvious questions as to why the Corporation suddenly decided to do this. Does the Corporation indeed benefit in terms of value addition from outsourced functions? Some of the pertinent questions include: To what extent did policy guidelines and operational measures govern the said outsourcing initiatives? What are the costs and benefits of the following: fleet management, IT/functional/Technical/and Infrastructure support? This paper argues that Public Utility Companies such as the WUC are not implementing outsourcing initiatives the right way. As a result, outsourcing at WUC is ridden with more costs than benefits. Using multiple data collection methods thirty respondents, employed at various WUC work stations completed the questionnaires. The results from the questionnaire suggest that outsourcing is the right business decision to be made, but cost benefit assessment must be undertaken in order to derive more benefits from outsourcing initiatives. In tackling the problems of the predominance of costs versus benefits an overhaul of the policy and implementation framework needs to be done. In carrying out a cost benefit analysis of outsourcing initiatives at Water Utilities Corporation, a three-tier dimensional model in which quantitative data, qualitative data and cross quantity-quality data was analysed and tabulated. According to the cost benefit analysis variant model, a negatively discounted cost benefit ratio indicates more costs over benefits for any particular analysis of data. While measures of non-monetary outsourcing costs are improving, at least four other key areas warrant more attention: First, routine savings derive from routine precautions to determine an efficient working model of outsourcing. Second, models of vendor (provider) and the Corporation (service provider) and the Corporations' clients (consumer) are underdeveloped in this field. Third, outsourcing externalities occur when entities (such as the Corporation, Premises Managers, some persons and environments) produce targets and situations that provide outsourcing opportunities. These entities externalise or do not bear the outsourcing costs to the corporation and society that they produce. This can be explained by the convergence of qualitative responses from respondents, the efficiency and effectiveness of the vendors and the overall satisfaction of the Corporation of the services provided by the vendors. This report has been conducted on Water Utilities Corporation, Botswana. Data has been collected by observing total outsourcing process, taking personal interviews, analysis cost and revenue data and searching through data archives.

Key words: Cost benefit Analysis, Outsourcing,

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CHAPTER 1

ORIENTATION

1.1 Introduction

Drawing on the seminal work of the Water Utilities Corporation Outsourcing Task Force Report (2008) the context of the research is premised on the need for accountability and benefit-cost measurement of cost cutting and operational efficiency programs implemented by public utility entities in Botswana. In view of this, the Water Utilities Corporation (WUC) in 2006 outsourced most of its non-core functions and there has been no attempt to evaluate whether these initiatives resulted in the intended objectives that were essentially the basis for outsourcing.

The study is a Cost Benefit Analysis (CBA) of outsourcing initiatives of the Water Utilities Corporation in conjunction with investigating how the public sector utility company perceives CBA and the type of corporate activities that are outsourced to external vendors within the financiaeconomic framework of CBA and whether or not the WUC actually benefited from the outsourcing of non-core functions to external vendors. The dissertation also evaluates the conceptual, and policy frameworks within the WUC to determine their effects on the outcomes of outsourcing agreements and arrangements.

The study will rely on outsourcing best practices based on published literature on outsourcing. The study will use articles and journals from the following search engines, www.elsevier.com, www.sciencedirect.com, www.visionrelocation.com and web publishing. The literature review is written to highlight the norm as regards outsourcing and use this to establish whether there were similarities in the methodology employed by WUC. By highlighting these conceptual axioms, the writer attempted to show what has been studied in the field.

The layout of this chapter is structured and organised as follows; a brief problem statement will be stated followed by an exploration of the research objectives of the study. This will lead to the scope of the study, followed by the study environment the mini-dissertation is based on and finally the chapter will close with a clarification of concepts central to the research.

1.2 Background and Context

The Government has through its privatisation policy for Botswana (Government Paper No 1 of 2000) identified privatisation as an instrument to improve efficiency in the delivery of services, to raise the country's growth potential by securing stronger flows of foreign direct investment and technology transfer, and to create further opportunities for the development and growth of the citizen business sector.

Water Utilities Corporations (WUC) was established in 1970 through an Act of Parliament. Its mandate was to supply water to urban areas of Botswana namely, Lobatse, Jwaneng, Gaborone, Selebi Phikwe, Francistown and Sowa. The Corporation's mandate has been extended to supply water to all villages and towns throughout the country (National Water Master Plan, 2006). Today, the Corporation is the sole provider of pipe water to households and businesses in whole country. The objective of the Water Utilities Corporation, as a parastatal organisation, is to plan for a provision of adequate supplies of potable water in all areas of statutory responsibility on a commercially viable basis, including the approved non-designated areas, to meet reasonable domestic, institutional, commercial and industrial demands. This service contributes indirectly to improvement in the standard of living and also plays a catalytic role towards national economic development (Water Utilities Annual Report, 2008).

The Corporation is a parastatal organisation wholly owned by the Botswana Government. A Board of Directors appointed by the Ministry of Minerals, Energy and Water Resources is the overall authority responsible for policy formulation. The Management team is headed by the Chief Executive Officer who reports to the Board. The current strategic

plan of the Corporation is known as 'Letsema 2007-2010' (Water Utilities Annual Report, 2008).

In the interests of the study, costbenefit analysis is a technique for determining the feasibility and profitability of the outsourcing by quantifying all possible known and associated costs and benefits. A company must ensure that the benefits gained from employing outsourcing services are greater than the costs involved in obtaining the same. Such a decision should include both qualitative and quantitative measures, which must be fully documented. Again, outsourcing may prove to be more costly or require more time, but ultimately may still be the best solution to meet the growth requirements and economic progress of the company. Outsourcing operational areas of Water Utilities Corporation such as security, maintenance of transformers, servers, billing, vehicle maintenance, gardening, cleaning, electrical maintenance, civil and meter reading needs to be evaluated on a cost and benefit analysis so as to justify propositions such as why should WUC outsource, what should it outsource, when should it carry out such an exercise and where should WUC outsource. According to the Privatisation Master Plan (2005), the Government has chalked out a sequence for the privatisation of Public Enterprises (PEs) in Botswana and has classified WUC as a desirable company under current conditions to initiate outsourcing however it is not immediately feasible.

1.3 Problem Statement

A recent uncertainty environment of Water Utilities Corporation's management in relation to outsourcing is that outsourcing is an exercise that was a failure in its entirety resulting in financial loss to the Corporation. After the Corporation has adopted outsourcing as a policy initiative and operational directive; two problems emerged one, lack of outsourcing policy and operational definition of the expectations of stakeholders about the desired outcome of the outsourcing process and two, ineffective implementation of policies and strategies which resulted in exorbitant costs over the benefits for the outsourcing enterprise In a study funded by the Water Utilities Corporation Outsourcing Task Force Report (2008), the main problem with outsourcing was that there were no policy guidelines to drive the whole process and due to these problems inconsistencies resulted

across departments in the actual implementation of outsourcing. In particular when an evaluation was carried out it became apparent that outsourcing was a failure resulting in financial loss to the Corporation. This calls for a thorough cost benefit analysis to determine whether the decision to outsource was an exercise in futile.

Accordingly, the Privatisation Master Plan (2005), the Government chalked out a sequence for the privatisation of Public Enterprises (PEs) in Botswana and has classified WUC as a desirable company under current conditions to initiate outsourcing however it is not immediately feasible. Part of the problem that the research will address is the negative mindset of Management at WUC and Ministry officials at Government on the feasibility of outsourcing currently and the fact that it increases capital costs, decreases efficiency, slows up time to market, increases labour costs, enable core business focus while managing outsourced functions and does not add value to the value chain.

The proposed problem statement is formulated against a background of the fleet management case whereby in June 1998, the Corporation entered into a contract for outsourcing its fleet to Avis Fleet Services. The agreement was that the Corporation would sell and leaseback 85 vehicles from Avis and lease an additional twenty one new ones. The reasons for outsourcing were to improve the efficiency of the fleet services and to reduce the running costs of the fleet services. Upon evaluation the cost of the contract ended up escalating beyond the Corporations initial projections and anticipations. There was no ownership and buy-in from employees due to lack of proper change management and consultation. A review of the currently outsourced functions that has been carried out and it has emerged that there has been poor contract management and monitoring. It also emerged that in almost all the functions, no evaluations were carried out to establish whether outsourcing resulted in any benefits to the Corporation.

1.4 Research Objectives

The main purpose of this research was to carry out a cost and benefit analysis on Water Utilities Corporation initiatives on outsourcing. Furthermore, to establish whether the

corporation derives full value from these outsourced services and the improvement that can be effected to make these vital partnerships work and are mutually beneficial to all concerned parties.

1.4.1 Sub Objectives

- To determine if outsourcing initiatives were effective and whether a re-assessment of outsourcing could be beneficial to the Corporation.
- To measure to what extent possible candidates for outsourcing within the Corporation were scrutinised.
- To analyse currently outsourced functions in terms of costs expended in these functions against the benefits obtained by the Corporation
- To compare the practice of outsourcing at WUC and in other similar Corporations.
- To estimate the opportunity cost of outsourcing in terms of the benefits foregone.
- To assess the external costs borne by Water Utilities Corporation due to outsourcing.

1.5 Study Environment

The study environment is centered on Water Utilities Corporation, Botswana. The focal points for data relevance and congruence are Gaborone, Lobatse, Jwaneng, Sowa and Francistown.

1.6 Key Aspects of the Research

For simplicity, the key definitions relating to cost-benefit analysis that are stated by Dhiri and Brand (1999) are used throughout. The one modification for present purposes is the acknowledgement that monetary units of measurement for cost-benefit analysis are merely a commonly accepted reference point for marginal utility units for example, welfare gain or loss. While many commentators are generally content that most costs and benefits can be converted to a consistent unit of analysis for example, can be monetised, some find this notion abhorrent, perhaps misunderstanding the rationale. The key aspects of the rationale are that utility units are the real issue, but that money is used

as a more readily comprehensible proxy, and that while measurement is often imperfect, a far worse option is to exclude such cost items altogether. Social costs and benefits as referred to here can include both monetised and non-monetised components. Finally, since costs and the benefits are the same thing viewed from the opposite side of the riverbank, costs are negative benefits, benefits are negative costs, and together they result in changes in net social welfare and they are sometimes referred to simply as costs. These issues are not clarified further.

1.7 Research Design

The research design is based on a case study of the Water Utilities Corporation. The approach is appropriate when dealing with a contemporary phenomenon in a real life context (Yin, 1996), in this case outsourcing. The data collection methods employed in this study were the questionnaire and the analysis of documents.

The research was conducted within the interpretive paradigm. The intention was to develop insights into whether outsourcing results in net positive benefits to the Corporation. The use of qualitative and quantitative data compliments this objective. The aforementioned aims and objectives are undertaken through the use of both qualitative as well as quantitative data. Such a dualistic approach has become increasingly accepted in social sciences (Kumar, 1999). The data received from questionnaires will be statistically analysed and discussed. The study will be finalised with conclusions, limitations and suggestions for future research.

1.8 Plan of the Study

The research study is structured and organised as follows:

Chapter 1: Overview of the Study

This is an introductory chapter that highlights the background of the research study, the research problem, the research aim and objectives. It also includes the research questions, the significance of the study, limitations, and the scope of the study.

Chapter 2: Literature Review

This provides a review of all literature dealing with the research problem. The primary data is gathered from various sources that are books, journals, articles, the Internet which includes the outsourcing process and the key conceptual framework, a discussion of the best model for outsourcing will be discussed and this will be compared to the situation at Water Utilities Corporation.

Chapter 3: Defining the Methodology and Research Question

This chapter defines the methodology and it also provides the outline of the research design and sampling procedure, data collection instruments that is questionnaire, data collection and analysis. It also includes research reliability and validity and ethical considerations.

Chapter 4: Results and Interpretation

In this chapter data is summarised, analysed and interpreted. Graphical or tabular presentations are displayed. Data is discussed and findings discussed.

Chapter 5: Discussions, Conclusion, Implications and Recommendations

In this chapter the outcome of the research results are discussed, conclusions made and recommendations made to stakeholders of Water Utilities Corporation on how to address outsourcing issues and how cost benefit analysis can relate to a much more prudent and positive outlook on the Corporation.

1.9 Summary

This chapter presented the background and context of the research. The problem statement was given and the research objectives were posed followed by the goals of the study. The study environment was described followed by a clarification of concepts central to the research, the research design, the plan of the study and the summary was stated.

The increasing demands for public services, growing resource externalisation and decentralisation have driven governments to seek alternative means of service delivery. There is also a spirited desire by Corporations to improve service delivery by focusing on core functions and outsourcing non-core and support functions. Retrospectively, outsourcing at Water Utilities was hastily implemented and as a result there were losses and some functions were recalled. This study intends to determine a cost benefit analysis of outsourcing practices in the Water Utilities Corporation in Botswana.

Ethics are an important consideration in social research. The respondents were assured of their anonymity. They were also given liberty to decline participation at any time in the research process. Pseudonyms have been given to the research respondents to protect their identities.

In the next chapter the researcher will present a literature review from various articles and journals that are published on the outsourcing of various functions in a business environment. The following chapter will also provide theoretical foundation with a baseline of the conceptual and industrial outsourcing best practices.

CHAPTER 2

LITERATURE STUDY AND THEORETICAL FOUNDATION

2.1 Introduction

In this literature review the researcher's objective is to examine the central ideas, works and research studies on cost benefit analysis and outsourcing. The aim is to show the need for outsourcing for companies against a background in which the practice of outsourcing is constantly evaluated using varied cost, financial and economic evaluation techniques central to this research is cost benefit analysis. The main point is that for every company that has implemented outsourcing as a means of improving efficiency and cost effectiveness it is vital that an evaluation of outsourcing be carried out to evaluate whether or not it has been beneficial to the company concerned.

The keywords used to search for literature and search engines used were outsourcing, business process outsourcing, cost and benefit analysis and product or service based outsourcing. Information has been gathered from library archives by reviewing various research reports, and studies by consultants engaged by the Water Utilities Corporation, research by analysts, and various information sources across the Internet using key words such as outsourcing and cost benefit analysis. Search engines employed were www.elsevier.com, www.sciencedirect.com, www.visionrelocation.com, www.emeraldinsight.com and other popular search engines.

The literature review is organised into three parts: the first reviews the literature on outsourcing and cost benefit analysis. Here the aim is to show the extent to which these concepts are interrelated, how the field has developed and how the ideas feed into the present study. The next stage of the literature review discusses some of the theoretical frameworks and key studies on reading strategies. Here the objective is to examine the major ideas on reading that have shaped the state of the art of outsourcing, its significance, and how the present study fits into current research paradigms. The

literature review on reading is particularly important because it is relevant to summarising, the process of which presupposes that expert readers notice features and meaningful patterns of information that are usually not noticed by novices; and unlike the latter, the former can see the relationship of ideas in a text (Bransford *et al.*, 1999, p. xiii).

2.2 Outsourcing

Outsourcing involves the transfer of the management and/or day-to-day execution of an entire business function to an external service provider. The client organisation and the supplier enter into a contractual agreement that defines the transferred services (Antelo and Bru, 2000). Under the agreement the supplier acquires the means of production in the form of a transfer of people, assets and other resources from the client. The client agrees to procure the services from the supplier for the term of the contract. Business segments typically outsourced include information technology (IT), human resources, facilities, real estate management, and accounting. Many companies also outsource customer support and call centre functions like telemarketing, CAD drafting, customer service, market research, manufacturing, designing, web development, content writing, ghost writing and engineering.

Cao and Wang (2007) opined that outsourcing is concerned with transferring of internal production functions of goods and services to an external provider. The outsourcing trend continues unabated in most countries including the United States of America, despite the negative politisation of outsourcing by media and politicians. Outsourcing is expanding in both scope and sophistication. It used to be the case that outsourcing involves non-core activities with the purpose of helping firms to reduce costs and concentrate on their core competency. Nowadays outsourcing has become a universal phenomenon in every area of business, such as engineering, research and development (R&D), new products development, and marketing. Outsourcing plays a strategic role by helping firms to acquire new capabilities, to bring about fundamental changes to managerial strategies and organisational structure, and facilitate transformation of business model (Cao and Wang, 2007)

Outsourcing is a useful method for adjusting the boundaries of the firm in response to external economic pressures. It enables the firm to consolidate its strategy by restructuring its activities in order to stimulate growth of its core business. This involves a fundamental change in strategy (Prahalad and Hamel, 1990 as cited in Bustinza *et al.*, 2010).

2.2.1 Benefits of Outsourcing

Outsourcing and off-shoring are used interchangeably in public discourse despite important technical differences. Outsourcing involves contracting with a supplier, which may or may not involve some degree of off shoring. Off shoring is the transfer of an organisational function to another country, regardless of whether the work is outsourced or stays within the same Corporation/Company (Homburg *et al.*, 2001). Outsourcing has recently become an important component of organisational strategy, due on the one hand to pressures from management aimed at establishing the boundaries of the firm (Antelo and Bru, 2010), and on the other hand to a growing recognition of the possible advantages that can be gained from closer collaboration between the firm and the supplier of the service (Miles and Snow, 2001).

Other possible advantages found in the literature on this subject include; enabling companies to reduce and monitor operating costs. Secondly, economies of scale enable companies to reduce costs and distribute the cost among customers, making the achievement of economies of scale an organisational reason for practicing outsourcing (Kimura, 2002). Enabling organisation to focus on their core activities and competencies (Rothaermel, Hitt and Jobe, 2006; Sislian and Satir, 2000): By limiting the number of firm functions for which they are responsible, managers can apply their knowledge and experience to core competencies, externalising those activities in which they are less competent, thereby benefitting from the experience of the service supplier. Within the range of decisions taken by managers, outsourcing shifts from being a mere cost saving exercise to a strategic decision that increases the firm's main capabilities (Mullin, 1996; Harris *et al.*, 1998; Lankford and Parsa, 1999; Elmuti and Kathawala, 2000). This ensures that the firm to respond to changes in demand when demand is variable and

fragmented. The limited resources of small companies can be a conditioning factor when sudden changes in demand occur. Reductions in demand can lead to the company having to dismiss personnel in whom it has made large investments in terms of education and training (Kakabadse and Kakabadse, 2005). This is where the cost cutting actually comes in but there are several other benefits that are considered too. On the basis of these studies, a series of items can be used in the scale for measuring the benefits of outsourcing decisions.

Holcomb and Hill (2006) stated that acknowledging efficiency motives, firms have increasingly turned to outsourcing in an attempt to capture cost savings. Transaction Cost Theory (TCT) has been dominant means of explaining outsourcing as an economising approach whereby cost efficiency are achieved by assigning transactions to different governance mechanisms. According to the theory of TCT organisations integrate production to minimise costs from opportunism and bounded rationality of firms and their suppliers, the uncertainty and frequency of market exchange and asset specificity that arises from supplier-firm or firm and customer is minimised.

2.3 Theoretical Perspectives on Outsourcing

In order to compensate for the loss of internal technological capabilities, firms gradually increase their trust in external partners who can be effective substitutes for their internal capacity to generate knowledge and innovation (Rothaermel *et al.*, 2006). Some of the main arguments in favour of outsourcing have attempted to design contingent models that seek to justify this practice from different perspectives. The literature yields a wide range of different theories that deal with this issue (Gottschalk and Solli-Saether, 2005). According to the transaction cost approach, companies will outsource those activities for which the benefits obtained, including both the increase in income and the reduction of costs, which is greater than the transaction costs incurred. This theory predicts that outsourcing will occur when specificity of assets is low and when we find ourselves in a state of low uncertainty and reduced frequency of transactions in these assets (Hafeez *et al.*, 2009).

The firm cannot continue growing indefinitely; there comes a time when the costs of coordinating the activities within the firm exceed the transaction costs of the market. Thus, the firm will opt for the market or for one of the firm's own structures based on market opportunities and the efficiency to be found in these relationships. From this perspective, the theory of transaction costs defines the boundaries of the firm, as has become the theory of reference in studies of the divisional structure of the firm, vertical integration, and the establishment of strategic alliances (Rothaermel *et al.*, 2006). Resources-based view (RBV) analyses the firm as a set of unique strategic resources capable of generating a sustainable competitive advantage (Barney, 2001).



In essence, this theory not only seeks to determine the competitive advantages obtained from the opportunities in the market, but also considers these advantages to be determined by the resources and capabilities that the firm is capable of identifying, developing and protecting (Tate, 2009). The complexity of the outsourcing phenomenon requires a theoretical lens based on the integration of diverse theories (Ellram *et al.*, 2008). Transaction Costs Economics (TCE) and RBV explain certain aspects of outsourcing. However it is necessary to incorporate more specific perspectives like core competences or dynamic capabilities, rather than a general perspective (McIvor, 2009). Hence, from the competences-based perspective, core competences are the basis for developing sustainable competitive advantages (Kimura, 2002). Core competences are essential for internal as well as external firm processes (Hafeez *et al.*, 2009).

In addition, the dynamic capabilities approach considers process leveraging as source of competitive advantage through strategic positioning. Under this scope, the firm competitiveness is based on dynamic capabilities which allow firms to obtain competitive advantages within specific environments (Teece *et al.*, 1997; Binder and Clegg, 2007). The TCE approach, argues that the properties of the transaction determine the most efficient governance structure, such as market, hierarchy or alliance (McCarthy and Anagnostou, 2004). There is no consensus about the role of uncertainty as whether it reduces or increases the level of hierarchical governance (McCarthy and Anagnostou, 2004). Complementarily, TCE focuses on the study of whether the firm should in-source

or outsource determined activities by balancing the potential for improvements in performance against specific conditions in the supply market (Stratman, 2008).

In today's context of growing competitive pressure, firms focus on their core competencies and dynamic capabilities as source of their competitive advantage, and resort to outsourcing for those activities in which they do not have such an advantage (Kimura, 2002).

Madhok (2002) studied the way companies organise the internal or external performance of their activities on the basis of certain internal resource and capability conditions. This means that when companies make the right outsourcing decisions, the benefits they obtain serve to strengthen their internal resources. When defining the boundaries of the company by deciding which activities will be carried out in-house and which will be outsourced, it is important to analyse the consequence these decisions have on the organisations above and beyond their possible impact on performance (Monsour *et al.*, 1997). For this reason, it is important to find out if this impact on performance has a direct effect or if there are mediator variables that act as links between the benefits obtained from outsourcing and performance.

Outsourcing therefore, reduces the overall workload and some countries do not have enough local talent to undertake a particular job, and even if they have, they may not be able to afford it. This applies to the Water Utilities Corporation which outsourced the fleet management function to improve the efficiency of its fleet services and to reduce running costs of fleet services. In essence, outsourcing is a framework to enable different parts of the client business to be sourced from different suppliers. This requires a governance model that communicates strategy, clearly defines responsibility and has end-to-end integration (Hawes *et al.*, 2001).

Strategic outsourcing is the organising arrangement that emerges when firms rely on intermediate markets to provide specialised capabilities that supplement existing capabilities deployed along a firm's value chain. Such an arrangement produces value

within firms' supply chains beyond those benefits achieved through cost economies. Intermediate markets that provide specialised capabilities emerge as different industry conditions intensify the partitioning of production. As a result of greater information standardisation and simplified coordination, clear administrative demarcations emerge along a value chain. Partitioning of intermediate markets occurs as the coordination of production across a value chain is simplified and as information becomes standardised, making it easier to transfer activities across boundaries (Homburg *et al.*, 2001).

Considerable research like Harland, Knight, Lamming, and Walker (2005) have been carried out on the phenomenon of outsourcing in manufacturing and many of the economic insights and conclusions are applicable to Business Process/Services Outsourcing (BPOIBSO) as well. There are no known studies in the area of public water utility companies.

Outsourcing is generally done with a contract. That makes the person taking up the job become responsible and answerable for that part of the business. It is important to note here that if the company were to get this job done through its in-house staff, there would have been no specific contract for it, and the company itself would have been answerable if any problem did come out in the future (Farnham, 1999). When it comes to internationalisation or focusing on core competences within a domesticised region, outsourcing becomes necessary. Consider a Botswana company that's trying to internationalise its business to China. Now, this will be accomplished in the best way if the work were to be outsourced to China itself. Or simply a company attempting to focus more on its core competences and business it has to outsource (Forgette and Glenn, 1999).

Every company, regardless of much big it is in size, works under constraints of resources. These resources could apply to capital, staff, premises, and several other aspects. Outsourcing helps these companies to free up their resources. By delegating some of their work to others, they can use their limited resources for the more necessary tasks. This is also applicable for individual entrepreneurs who outsource their work (Gray

and Dafna, 1998). Doing jobs in-house for a long period leads to monotonousness. Getting that job outsourced adds to the freshness. This is more relevant in the creative tasks (Forgette and Glenn, 1999).

When an external firm is handling a specific part of the job, they are in a better position to accomplish that job carefully. They will know each and every aspect of the job and that will make troubleshooting easier in future. Instead, if the job were to be handled in-house along with a lot of other tasks, there is a definite chance that the problem-solving will become difficult (Monsour *et al.*, 1997). In some cases, the overall business might be good, but some aspect might be falling short of the customers' satisfactions. As an example, the product may be excellent, but the customer service isn't. This eats into the credibility of the business. But if this portion of the task is outsourced, it might heighten customer satisfaction with the product (Harland *et al.*, 2005).

2.3.1 Disadvantages of Outsourcing.

Some of the major potential disadvantages to outsourcing include poor quality control, decreased company loyalty, a lengthy bid process, and a loss of strategic alignment (Gottschalk and Solli-Saether, 2005). All of these concerns can be addressed and minimised, however, by companies who go about the outsourcing process in an informed and deliberate fashion. Info World's Maggie Biggs counsels businesses to define exactly what business processes and/or functions it makes sense to maintain via a service relationship. Unless one has resources to expend, it may make sense to prioritise outsourcing projects based on the number of benefits one may expect to gain from the arrangement (Jiang and Qureshi, 2006). There may also be inherent advantages of maintaining certain functions internally. For example, company employees may have a better understanding of the industry, and their vested interests may mean they are more likely to make decisions in accordance with the company's goals. Indeed, most analysts discourage companies from outsourcing core functions that directly affect the products or services that the business offers (Harland *et al.*, 2005).

2.4 Dynamics of Outsourcing in a Temporal Organisation Model

With respect to non-core functions, management needs to know and be part of the outsourcing process to assure due diligence is being performed and to provide appropriate stewardship up over these key corporate information assets (Dean *et al.*, 2002). To guide the responsible officials and the organisation during outsourcing, identify and engage an expert team decision, selection, and contracting processes. Jiang and Qureshi (2006) reiterated that it is best to factor in changing needs, markets, and distribution channels from the start to help minimise surprises a few years out. Also, Hafeez *et al.* (2009).believes that it is just a matter of a few years before corporate officers and directors will be sued by shareholders for losing important information resources, losing effectiveness, or leaving the company vulnerable to competition because of messing up an outsourcing deal.

Newcomb (2007) found that in all cases, when outsourcing, an expert team should be formed to include a small group of independent experts with specialisation in outsourcing, including: an IT consulting expert professional who will understand the functional manager's needs, the needs of the outsourcer and who is aptly capable to help administer the contract over time, assure a smooth migration to the new systems, and resolve problems that will arise after the contract is signed. Alexander and Link (2008) added that the key role of outsourcing, consultants will be to oversee specific contracting development and negotiation of an outsourcing contract that is fair to all parties that provides proper incentives to both sides to perform and make the relationship work. And to help assure that the transition of organisation development/merger and acquisition of professional staff and relationships works well.

Alexander and Link (2008) found that the specialist team is also warranted and needed to make tough decisions because perceived or actual weaknesses in the current team may have caused the failure of systems within the company in the first place. In addition, it is wise to engage independent experts to assist IT managers in this process as it is these latter managers themselves that will probably be most directly affected by the move to outsource and the resulting contract(s) (Newcomb, 2007).

In examining the process of outsourcing, Newcomb (2007) highlighted that firstly it is vital to identify critical internal resources, such as a particularly competent data processing director or chief information officer, who will stay on your company's staff internally to help manage and administer the relationship between the outsourcer and the company. Secondly, determine which staff and software and hardware licenses and resources should/must go to the outsourcer for the relationship to be successful. Corrigan *et al.* (2009) argued that Newcomb's study was limited and it is practical and beneficial to identify what is good and bad about the company's current installation in terms of: service; capability; performance; uptime; costs; user satisfaction; backlog; on time, on-target systems delivery and controls. Assess each strength and weakness such as budget constraints; changing needs of internal users; top management commitment; resistance to change; lack of tools and human resources; staff development and ability to attract and retain quality staff; lack of methodology; hardware technology limitations and platform limitations. Before outsourcing so that benchmarks and performance management outcomes can be established with the new vendor by quantifying and identifying which items and service levels are must have vs. should have, now vs. later, etc. and which components must be improved and attained in the outsourcing arrangement.

Martin, Pescosolido and Tuch (2000) examined the effects poor outsourcing contracts and urged that the outsourcer should shoot for good enough systems and targets that are attainable, affordable, and of necessary quality. Chaudhuri *et al.* (2001) stressed the importance of updating the company's strategic business plan in this regard because primarily the outsourcing agreement will typically cover a period of 7 to 10 years. Therefore to the extent possible one must know where the company is going locally and globally in terms of products, markets, manufacturing, sources of supply, distribution arrangements, labour sources, etc., before developing a systems plan to support those directions and needs (Newcomb, 2007).

The researcher is convinced that there are gaps in the study by Newcomb (2007) because no effort was made to explore the need to develop a strategic systems plan (7 to 10 years, if possible) by identifying the long-term needs of the company that dovetail into the strategic business plan. Furthermore, by determining the new applications that will be required for instance, electronic data interchange, integrated manufacturing and production control using robots and automated smart buildings, international telecommunications networks and Intranets, this will allow for the identification of the alternative hardware and operating systems alternatives and the recommended new architecture(s) needed to develop and support the new systems plan for instance: satellite communications, wide area networks, wireless communications, mainframe and client-server usage and inter-connect, specific operating systems, open architecture decisions, database and programming language decisions, special development and maintenance and tools.

Nicolson *et al.* (2001) examined the effects of understanding the cost structure and estimating future costs in creating and supporting outsourcing projects in twenty companies in fortune 500 companies and found that 27% of them outlined their strategic systems and architecture plans including estimates of manpower and supporting hardware and software and equipment to build, upgrade, maintain, operate, and control such systems while 46% recognised that over the next 5 to 10 years all relevant capital as well as operating costs; costs of supervising the outsourcer, likely increases in costs for salaries, benefits, service contracts, etc. must be estimated in all outsourcing provisions; while 11% felt that the cost of money; interest costs; residual value of equipment and facilities; cost of transition, including personnel; cost of changes in direction and level of resources and cost of contract modification were the most pertinent in any outsourcing arrangement. All these reiterate the simple fact that in decisions to outsource all processes, costs, revenues and systems must be examined thoroughly. In a similar study by Miles and Snow (2001) they hinted that a necessary step in outsourcing non-core business functions involves reviewing the strengths and weaknesses of the outsourcing alternative by determining whether how the outsourcing alternative will help the company achieves its long term goals and why that alternative is

better than staying in house or partial outsourcing or working with multiple outsourcers. Pau *et al.* (2002) added that the determination of which applications and resources should be outsourced and which applications and resources should continue with a different approach are not viewed as critical by companies intending to outsource and in essence it is this failure that causes ex ante outsourcing unanticipated costs. Therefore, upon realising this error companies must update this information and re-evaluate the decision throughout this entire decision-making process as new or better information is gained. Using the expert team, it is possible to identify several outsourcing alternatives, obtain appropriate literature in a request for information from the team's preselected short list of outsourcers (Petty *et al.*, 2003).

Although not expressly covered in research literature the researcher finds that beyond all of the technical and administrative knowledge one will need to know about his/her outsourcer, one will also need to know in depth: corporate history and stability; current, new and lost customers; employee numbers, turnover, and experience levels; financial stability through a review of audited financials and footnotes; technological status including methodologies, tools, platforms, expected life of existing hardware; age of current applications; their own business and systems plan; downtime statistics; results of operational and security audits; customer surveys and systems demonstrations (both are critical and must be well planned); conversion commitment success/history (a real "killer" if done incorrectly); such intangibles as responsiveness, control, competition for resources and flexibility, so that integration decisions can be considered prospective or destructive. (Andreassen, 2000).

G" orzig and Stephen (2002) stated that it is critical to determine which areas to outsource to minimise the downside effects and risks of outsourcing immaterial corporate sectors. They further indicated that in doing so a phased-in approach for outsourcing services for virtually any part of the information system (IS) areas including: all activities in a specified area with only listed exceptions vs. defined tasks, provision of facilities, utilities, etc., equipment, applications software, systems software, tools, etc., personnel, consulting services, systems integration, development of new programs and systems,

data conversion, Live system operation, management, and control, communications equipment, software, and interfaces, daily and periodic processing and reports (accuracy; timeliness; formats), responsibility for troubleshooting, compliance with applicable laws, audit trails, pickup and delivery, physical security, data and program security, backup procedures for programs, data, disaster recovery capabilities, data entry, maintenance, PC service, PC installation of hardware, software, and modifications and Help Desk. They reiterated that it was of utmost importance to develop a rigorous request for proposal (RFP) which has a format that forces the responding outsourcer to answer questions in a way that will allow one to compare responses from multiple outsourcers.

While, based upon research, it is vital to note that pricing can take on many forms, and that different services may be priced differently or in alternative combinations to one's advantage: flat monthly fees; transaction volume-based fees; fees based upon a customer unit of volume, that is number of customers, accounts, credit cards; fees based upon CPU usage required to execute one's jobs; fees based upon the number of input or output transactions or both; fees based upon the amount of disk storage or other storage requirements; programming fees. These may be different from enhancements, new developments, special reports, or rush jobs; data communication line charges; disaster recovery rates; training and seminar fees; consulting fees; documentation charges; conversion fees (Cadinu *et al.*, 1999).

Chandy *et al.* (2001) added that in reaching an agreement with vendors identify some key clauses that one would like to see in the contract so that one may be able to win some concessions on these during the bidding phase and so that one can determine the sticking points early as well as identify the acceptance criteria for outsourcer bids and for systems and service acceptance throughout the life of the contract: the accuracy, frequency, and timing of reports and information; response time for online transactions; uptime of the systems or the various components; emergency procedures in the event of downtime or other disruption of services; responsiveness of outsourcer personnel in the event of problems or errors; data archiving; access security; ease of use; unit, string,

systems, and acceptance testing methodologies to be used; systems development methodologies and user participation and signoff points; usage of data query, parameter-driven, fourth and fifth generation languages in programs; user of upper and lowercase tools, client-server architecture, and object oriented approaches Petty *et al.* (2003) provided a different approach to the concept by pointing out that the company may need to invite bidders to a bidder's conference at the company's site and take each bidder on a tour of the site. Have top management and the Steering Committee meet with the outsourcing representatives for at least 45 to 60 minutes during the tour to set the tone and to demonstrate the importance and visibility of the study and resulting relationship. This can be very important if top management must meet with the outsourcer's top management in the future (Phan *et al.*, 2003).

When it comes to the evaluation of proposals against pre-established and fully documented criteria it is important to identify different approaches recommended by the outsourcer and determine how they differ from research and preliminary conclusions. It is also important to be open to suggestions but analyse differences carefully and follow up with outsourcers to discuss alternatives and to clarify proposals (Bangs *et al.*, 1999). While having a preferred vendor in the selection process is good however it may be beneficial to rank proposals so that a backup vendor exists. This is needed in case negotiations break down with your preferred vendor. It is also required to give one the confidence to negotiate in a tough but fair manner

Phan *et al.* (2003) stressed the importance of identifying absolutely necessary criteria early. No matter how well the outsourcer looks in other areas, if they don't meet the minimum must-haves - they should be contacted for clarification or dropped from the list. Any weighting or decision scheme that does not have this preliminary go or no-go decision point should be avoided, (Phan *et al.*, 2003). Checking references is a critical part of the evaluation and comparison of outsourcers. It must be done seriously by visit other customers, if possible reviewing their contracts and the status reports on key projects. Proudford *et al.* (2003) concluded that establishing a long-term communication flow and not underestimating the experiences of others with the outsourcer and/or

assume ones experience will be different. Therefore, it becomes necessary to negotiate the contract using ones expert team and using pre-determined target clauses, criteria, and escalating alternative dispute resolution (ADR) options to keep the outsourcing agreement and relationship on track (Proudford *et al.*, 2003).

2.5 Cost Benefit Analysis

A cost-benefit analysis (CBA) is an economic evaluation technique (Himburg and Keane, 2008). It can be used to appraise whether a project is worth undertaking and it can be used to determine its optimal size. Since the 1970s, CBA has become the World's dominant decision support system for project appraisal. It is used to evaluate all costs and benefits of any project, exercise, operation, activity and to determine whether the project if undertaken, will be able to improve the social, economic and financial welfare of all those concerned, individually and collectively.

Cost-benefit analysis (CBA) is a technique that allows program evaluators to determine whether benefits exceed costs for a given program (Haddix, *et al.*, 2008). With CBA, both program costs and benefits are assigned monetary values. The results are expressed as discounted net benefits program benefits minus program costs, as a ratio of benefits to costs, or as a rate of return. The difference between benefits and costs indicates whether a specific program results in a net gain or net loss. This information can assist decision makers in selecting among various programs or different strategies within a program (Haddix, Teutsch, Shaffer and Dunet, 2008). Like other analytical methods, the application of CBA is controversial. A major difficulty associated with cost-benefit analysis for public health prevention programs is converting all benefits to monetary values. Valuing human life and assigning monetary values to project or exercise outcomes such as outsourcing a division or non-core activities are difficult and controversial tasks. However, the ability to quantify these intangible benefits improves the analysis. CBA is becoming a more comprehensive and a more complete measure of the change in societal welfare (Haddix *et al.*, 2008).

Identifying the benefits of an outsourcing program can be as challenging as valuing those benefits. Thus, it is imperative to understand the concept of benefits in the context of economic evaluation.

Benefits can be defined as all positive outcomes or consequences of the program that accrue to program participants and others directly involved in the program or indirectly affected by the program or its participants (Lambur, Cox and Ellerbrock, 1998). While direct tangible benefits are similar in being the primary positive outcomes or consequences of the program that accrue to participants and others directly involved in the program (Lambur *et al.*, 1998). Further, the avoidance of any direct costs can be considered a direct benefit. Indirect tangible benefits are the secondary outcomes or consequences of the program. These benefits accrue to program participants, program non-participants, employers, or society in general. More specifically, in the evaluation of outsourcing programs, benefits are defined as all the costs that would be avoided by outsourcing or transferring the division (Disbrow and Bertram, 2004). Benefits are often classified as direct, indirect and intangible. The indirect benefits of an outsourcing program are defined as the increased productivity of the program recipients, as well as indirect costs averted (Disbrow and Bertram, 2004). The final class of benefits is the intangible benefits. These benefits include the pain, suffering, discomfort, and grief that are avoided through the achievement of the program's goal. This cost of the illness is borne by the participant, the participant's family and friends, and ultimately society when it's not avoided (Disbrow and Bertram, 2004). Other intangible benefits realised as a result of consuming healthy, cost-effective meals are increased energy, enjoyment of meals, feeling of control over finances, better use of resources, and improved self-image. This class is often ignored because it includes benefits for which monetary values are not easily assigned.

For one to comprehend the specific problem addressed in this study, it is important to understand the various costs associated with administering an outsourcing program. The costs are the value of the resources that must be withdrawn from the economy or entity to operate the program. Costs generally fall into two categories: direct and indirect. Direct

costs are the expenditures for resources involved in the nutrition program, such as salaries of personnel, purchase or rental expenses for space, operating cost of equipment, and the cost of materials and supplies (Disbrow and Bertram, 2004).

Indirect costs are resources not actually budgeted for or assigned to the program, but nonetheless represent a withdrawal of resources from the economy that allow the program to operate. Examples include time lost from work while participating in the program, vendor interchange incidental cost, and increased expenditures for division hand over in the implementation phase of the outsourcing process. These costs are often borne to the participants and as such they may represent opportunity costs to the individuals (Lambur, Cox and Ellerbrock, 1998). According to Boardman (1996), the main steps for performing a CBA of any project are as follows:

Table 1: Nine Steps in Performing a CBA (Source: G" orzig and Stephen, 2002)

Step 1: Define a referent group.
Step 2: Select a portfolio of alternative projects.
Step 3: Identify potential impacts of the project.
Step 4: Predict quantitative impacts over the life of the project.
Step 5: Monetize all impacts.
Step 6: Discount for time to find present values.
Step 7: Sum: Add up benefits and costs.
Step 8: Perform sensitivity analysis.
Step 9: Recommend the alternative with the largest net social welfare value.

Source: (G" orzig and Stephen, 2002)

Cost-benefit analysis as it has evolved in applied social research is a form of evaluation. In theory it is arguably the most sophisticated form of evaluation currently available. The main aim of CBA, like all forms of evaluation, is to provide information of utility to policy makers. The information might be used to assess and refine current policy, or to develop new policies. CBA can be focused on different levels, from the evaluation of philosophies and perspectives, to assessment of strategies, policies, tactics, specific activities, or the

manner in which combinations of these are applied in specific circumstances. Several factors must be taken into consideration if one hopes to conduct a comprehensive economic analysis of a program. Several of these factors are discussed in this section.

CBA is an attempt to assess social costs and benefits. The identification of costs and benefits depends on who is included in society, or the study perspective. Three such perspectives are possible (Lambur, Rajgopal, Lewis, Cox and Ellerbrock, 1998).

Economic analyses typically take a societal perspective of analysing all benefits of a program no matter who receives them and all costs of a program no matter who pays for them. For most public studies, the societal perspective is appropriate because the goal of research is to analyse the allocation of societal resources among competing activities (Haddix *et al.*, 1996).

The individual, group, or organisation that receives the program perspective often produces the highest benefit-to-cost assessment because individual program participants benefit most intensely from social programs but may be of limited use to decision makers due to differences in objectives (Lambur *et al.*, 1998).

The program sponsor perspective focuses on the objectives of the funding organisation and is most appropriate when choices involve alternative programs under constrained budgets. From the sponsor's focus, benefits are usually costs that, as a result of the program, will no longer be required that is saving money and reducing and suffering (Lambur *et al.*, 1998).

The time frame of an analysis is the specified period in which the nutrition education program actually occurs. The analytic horizon is the period over which the costs and benefits of health outcomes occur that result from nutrition intervention. Hence, the analytical horizon is often longer than the time frame because the benefits of an intervention may continue after the intervention is completed (Haddix *et al.*, 1996). Analysts suggest that the analytic horizon of an economic analysis for a nutrition

education program should extend over that portion of an individual's lifetime, during which time the costs of the program are incurred and the benefits are received. An analytic horizon that does not include this period may not capture all of the benefits associated with the program (Haddix *et al.*, 1996).

Individuals and society have already made many implicit cost benefit decisions and continue to do so, on an ongoing basis. In each case, the decision between competing priorities is one of resource allocation: money is allocated to each up to the point where the perceived marginal costs and benefits are equal, that is where an extra pula spent on more of it, the marginal cost would give less extra or marginal benefit than spending the dollar on an alternative option, within their given resource constraints. In their implicit cost-benefit calculations, governments and corporations incorporate the estimated costs of going against the will of the public and various pressure groups, which may reflect imperfect knowledge or beliefs about certain externalities. Governments, corporations, companies alike at all levels make similar decisions in resource allocation between competing social policy priorities, including outsourcing non-core business functions (Harris, Giunipero and Hult, 1998).

It is clear that many informal, implicit, and possibly ill-informed cost-benefit analysis take place on an ongoing basis, influencing decisions varying from those of the individual to those of social policy. Each decision relates in some way, often indirectly, to spending on outsourced business functions. As such, each decision can be viewed as embodying a cost-benefit analysis of outsourcing to determine its viability, efficiency and effectiveness as a cost reduction and instituting economy, efficiency and effectiveness within the corona of the organisation in all its varieties. An aim of formal cost-benefit analysis in the field of outsourcing, therefore, might be to reduce the inaccuracy of current implicit cost benefit decisions. Reducing inaccuracy may be a more modest and realistic goal, perhaps preferable to a holy grail of CBA informed by perfect information. Such a shift in emphasis is potentially important, however, for beneficial outsourcing research and how it relates to policy. It suggests that easilyobtained broadcast-benefit parameters, with reasonable confidence intervals, may be a more realistic and more useful aim than one

of conducting a perfect cost-benefit analysis that accounts for all of the minutiae. For outsourcing policy purposes, rough and ready may be preferable to perfect but never completed, since a benchmark with known limitations is better than none (Hafeez *et al.*, 2009).

2.5.1 Developing a Cost-Benefit Model

A cost-benefit analysis is a method of project appraisal. A project will be considered worth investing in if its benefits are greater than its costs. In practice, many projects with positive net benefits have to compete with each other for limited government funding. Hence, project priority depends on the magnitude of its net benefit value.

The NPV method reduces future streams of costs and benefits to a single number in which the costs and benefits are discounted to present terms. An NPV greater than zero indicates the program will generate returns beyond costs (Sassone and Schaffer, 2008). For one-year projects, the net benefit can easily be calculated by subtracting the total costs from the total benefits. The result can then be compared with other alternatives. Typical projects, however, have a longer life than one year. Costs and benefits of a project occur at different time periods throughout the project life. In principle, they cannot be compared with each other because their values are different for different time periods. A baht in five or ten years' time will have a different value from a baht today. In order to make all values compatible with respect to time, they need to be adjusted to present values (present worth). Future values will be adjusted by a certain rate called the 'discount rate'. The net benefit of projects can be compared after discounting. The net present value (NPV) can be calculated as follows:

NPV

=

$$V_0 + \frac{V_1}{(1+i)} + \frac{V_2}{(1+i)^2} + \dots + \frac{V_i}{(1+i)^i}$$

NPV=

$$\sum_{t=0}^n \frac{V_t}{(1+i)^t}$$

Where V_t = Value at time t

I = Discount rate

T = Year

n = Number of Years

Source: Harland, Knight, Lamming and Walker (2005).

Expected values of future costs and benefits have to be discounted before the net benefit of the whole project can be calculated. The selection of what is to be used as the discount rate for a project is very essential. Theoretically, a discount rate should reflect time preference or the opportunity cost of capital over time.

To compute the net present value, it is necessary to discount future benefits and costs. All benefits and costs, monetised and no monetised, should be discounted. Banks and Kotz (2002) state that given sum is normally worth more today than an equal sum at some future date, because the money can be profitably invested in the interval between today and the future. Interest is the premium paid to reflect the fact that any given sum could be put to profitable use over a period of time. It follows that the value of money which is not currently available, but which will become available (or spent) some years hence must be discounted for the interest which could be earned in the interim, which is why the present value of a dollar to be received in the future is always less than 100 cents (Rhoads, 2003).

Another acceptable reason for discounting is time preference. It is generally accepted that people have different utility needs at different times. They prefer to consume goods and services in the present rather than in the future. In other words, People prefer current consumption to future consumption, all other things being equal. Having money now gives one the option of spending it or saving it, or doing some of both. Waiting a year to receive money reduces one's options without offering any compensating advantages other than security (Warner and Luce, 2002). They will postpone their consumption to the future only if they receive compensation or a premium for the postponement. The rate for such a premium is called the 'social rate of time preference'.

The discount rate for studies that take the societal perspective is called a social discount rate. In the case of social decisions, one would want to use the social rate of time preference, although many economists suggest that the private opportunity cost of capital provides the most reliable guideline for the social rate of discount (Sloan, 2005). A social rate reflects an individual's judgment as to the correct growth path for real per capital consumption in the economy. For example, an individual who places more weight on the present will have a high social discount rate (Sassone and Schaffer, 2008). An individual with more concern for their distant future and future generations will have low social discount rates (Schmidt, 2009). Several economic analyses in recent years in areas of prevention-effectiveness focusing on preventing disease and injury, health-care intervention, and public health service have used a 3 or 5 percent discount rate. The authors of Preventive-Effectiveness, Haddix, Shaffer, Teutsch and Dunet (2005) recommend using either percentage. However, they suggest that most cost-effectiveness studies use 5 percent. Sensitivity analysis using discount rates ranging from 1 percent to 7 percent would be of assistance in identifying the degree to which the discount rate estimate must be refined within that range (Sloan, 2005).

Selecting the appropriate discount rate depends largely upon the decision maker. As a general rule, the appropriate discount rate for decisions is the inter-temporal rate of trade-off that reflects the value that the decision maker places on the effects being considered. For private decisions, the appropriate reference point is the private decision maker's rate of trade-off and their relative valuation of the future effects (Sloan, 2005). For example, a rate of 10% would mean that an individual would give up \$1.00 in consumption in this time period if they were compensated with a minimum of \$1.10 of consumption in the next time period (Sassone and Schaffer, 2008).

Future inflation is uncertain. Therefore, analysts should avoid having to make an assumption about the general rate of inflation whenever possible. Many analysts recommend the use of real discount rates for both costs and benefits, monetary and non-monetary. The term real indicates that no additional adjustment should be made to this

discount rate to account for the effect of inflation. When a real discount rate is used, all monetary costs and benefits are reported in real or constant dollars for a specific base year (Haddix *et al.*, 1996). Constant dollars are used to separate increases in the value of production which are due to inflation from those which are due to actual increases in the quantity of a good or service product.

When an economic analysis is done, data on costs are often collected from years besides the base years of the evaluation. To ensure that all costs are comparable and that costs can be weighed against benefits that occur in the same time period, it is necessary to standardise the costs to one time unit. Cost data reported for previous years can be adjusted for a specified base year by using either the Consumer Price Index (CPI) or other inflation adjusters. The CPI is an explicit price index that directly measures movements in the weighted average of prices of goods and services in a fixed market basket of goods and services purchased by households over time (Haddix *et al.*, 1996). To adjust the cost of an item reported for a year before the base year, divide the index value for the base year by the index value for the year in which the cost was reported. Then multiply the result by the unadjusted value of the item.

According to this concept, a discount rate should reflect the social opportunity cost. Basic economic theory states that a society, country or company in effect has limited resources, insufficient to satisfy all the peoples' needs in both the government sector and private sector (Gilley and Rasheed, 2000). When the government spends some resources on a project, the private sector will have less available resources equivalent to the amount absorbed by the government project and vice versa. Therefore, a discount rate should reflect the opportunity cost of returns on social or private capital forgone (Gorg and Hanley, 2004).

Discounting the costs and benefits of an outsourcing initiative that have impacts on the corporation as well as the environment is an important issue for analysts. Most corporate and environmental impacts are long-term in nature (Elmuti and Kathawala, 2000). Therefore, negative effects and consequences are often discounted to insignificant

values for exercise evaluation. On the other hand, an outsourcing initiative providing corporate and environmental benefits in the long-term would be less attractive than an initiative that provides short-term economic benefits. Many economists suggest that discounting would impede clean and community beneficial projects and a high discount rate would accelerate the depletion of essential resources. If the discount rate is greater than the renewal rate of resources, it would speed up the use of resources until they are exhausted (Elmuti and Kathawala, 2000).

This problem may be avoided by using a lower discount rate. However, too low a discount rate making most projects feasible in developing countries can accelerate domestic investment and capital demand (Ehie, 2001). This may lead to the reduction of domestic labour employment and accentuate the problem of poverty, lower sales and unsatisfied customers due to poor quality products thus presenting a threat to the company and the environment (Doh, 2005).

The choice of which discount rate to use remains a controversial issue. Some analysts choose to use a high discount rate for development impacts and a low discount rate for corporate and environmental impacts. Another solution would be to use a standard discount rate for cost-benefit analyses, such as the ten per cent standard discount rate of the World Bank that is estimated from the cost of capital. A sensitivity analysis should then be conducted by using a range of potential discount rates from 0 to 17%. If the net present values are positive using discount rates from within this range, there should be no further argument on the discount rate. On the other hand, if a negative net present value is derived from within the range, analysts should examine this further and determine which variables are sensitive to the discount rate (Doh, 2005).

2.5.2 Methods for Cost Benefit Analysis

There are several ways to cost an outsourcing intervention that include, but are not limited to, a cost benefit analysis model (Baer and Frese, 2003). Because the cost benefit analysis model measures all significant employment parameters that contribute to the product or service. It requires more data but, by assessing the total costs of

employment and the losses due to injury or poorly designed workplaces, the model is specific to that organisation and is a better reflection of employment costs (Baer and Frese, 2003).

The productivity assessment tool is a cost benefit analysis model. Its emphasis is on stakeholders, for example external vendors, employees, the costs and benefits that their employment brings to the organisation (Baer and Frese, 2003). The simplest and most frequent use of the productivity assessment tool is to measure the increase in cost effectiveness of employees after an intervention. More specifically, it is time based and can compare before and after the situation.

Overview of the productivity assessment tool cost benefit analysis is a time-based differential model based on the difference in specific aspects of the work station before and after an intervention. Thus the pertinent summated data collected after an intervention is subtracted from the pertinent summated data before the intervention takes place. The calculations determine the differences savings and pay-back period between the initial case (before) and the test or intervention case (after).

There are four parts to the analysis in the Productivity (Baer and Frese, 2003).

Assessment Tool consists of:

- Data concerning the employees includes the number of employees, their working time and wages, overtime, and productivity;
- Data concerning the workplace includes supervisory costs, recruitment, insurance, and other general overheads, maintenance, waste, and energy use, as applicable;
- The intervention in cases of costs, or estimated costs, for the intervention; and
- The reports of cost benefit analysis calculations and reports of the workplace and the employees.

Source: (Baer and Frese, 2003).

The human capital approach is often used to measure indirect benefits. This approach is simply a valuation of life that views humans as productive assets, who when healthy will

generate earnings over time. These benefits are measured by the added earnings from longer life expectancies and/or reduced disability days (Disbrow and Bertram, 2004).

The usefulness of CBA depends largely on addressing the presence of uncertainty in the analysis. Analyses that directly address uncertainty and report a range of estimates in sensitivity analyses are most useful, because they provide comprehensive information for further analysis and interpretation by decision makers (Haddix *et al.*, 1996). A sensitivity analysis can establish the minimum and maximum value a variable has to have for a program to appear worthwhile (Disbrow and Bertram, 2004). For an outsourcing study, the sensitivity analysis will be conducted on two of the principal assumptions and the discount rate used in the exercises evaluation.

Sample bias is a common cause of the uncertainty that necessitates sensitivity analysis. Sample bias may occur if the population covered in the study is not representative of the population at large. In other words, this problem may occur if there is an over or under-representation of a group in the sample population for example poor or females. Sample bias is relevant to any study because the incidence rates used in this study for outsourcing is representative of the total corporate noncore divisions of the corporation. Again, certain divisions which were previously outsourced were in-sourced. Consequently, their incidence rates are not higher than those of the general population of outsourced divisions. This bias is addressed in the sensitivity analysis (Ellram, Tate and Billington, 2008)

2.5.3 Criteria for Project Justification

Once the economic values of benefits and costs have been derived, the project's result can be presented in three traditional forms: Net Present Value (NPV), Benefit-Cost Ratio (B/C ratio) and Economic Internal Rate of Return (EIRR).

Using the NPV the criterion for project acceptance is this: it is economically feasible if its $NPV > 0$. When the NPV is positive, it means that the benefits of the project are greater than its costs. The NPV criterion is limited in that it cannot be used to rank a number of

alternative investment projects or initiatives because the NPV of a project or initiative is likely to be positively related to the project's or initiative's investment cost or scale. For example, a national outsourcing exercise would have higher NPV than a smaller outsourcing program covering one branch or division because of the former's larger capacity. The NPVs of two different scaled projects should not be compared because their outlays are not equal. Nevertheless, if an exercise is divisible into sub-exercises, NPVs expressed in terms of value per dollar invested may validly be used to rank the priority of these sub-projects.

The benefit-cost ratio method is closely related to the NPV rule. A benefit-cost ratio is used to determine the feasibility of a project during any given year or over a time span. It can be calculated by taking either the present value (PV) of future benefits over the PV of costs including investment and annual operating costs, or the PV of future net benefits over the one-time investment costs (Drury, 2009).

The B/C ratio is designed to avoid the limitation of the NPV method because a project or exercise is evaluated in terms of benefits per one monetary unit of cost. An exercise or project would be worth investing in only if it meets the criterion where the B/C ratio is greater than 1. A number of projects can be ranked using this ratio. The B/C ratio is, however, sensitive to the classification of costs and benefits of the project. Some impacts can be accounted as either a cost or a benefit, that is one of the limitations this method is comparing the sizes of two or more programs (Samuelson, 2008).



The specific discount rate that results in a zero NPV is known as the internal rate of return (IRR). This is the discount rate that equates the NPV of future net benefits with investment costs. In a sense, the IRR is an average rate of profit (Drury, 2009). A project that produces a given IRR is equivalent to the time flow of the given initial investment compounded forward for the given number of years at an interest rate equal to the IRR.

According to this rule, the project is accepted if the IRR exceeds the market rate of return or any other predetermined rate viewed to be acceptable in the public sector. IRR

computation is often used when budgets are constrained or when there is uncertainty about the appropriate discount rate (Drury, 2009). There are some problems related to the IRR rule. For example, this method may produce more than one rate of return if a program's net stream of benefits alternate from positive to negative. Additionally, the IRR method may lead to incorrect decisions. A program with a high IRR may not be superior to one with a lower IRR if the former program yields benefits in the hundreds of Pula's and the latter in the thousands of Pula's (Drury, 2009).

Of the three rules, net present value (NPV) is the generally preferred decision criterion. The Office of Management and Budget (OMB) recommends NPV as the standard criteria for project selection (Drury, 2009) When analysing the benefits derived from two or more programs, the NPV allows one to compare the magnitude of the programs. However, the NPV can be misleading when the budget is limited. The NPV method does not indicate the investment cost associated with a program. This limitation is inconvenient when comparing projects that require different initial investments.

2.5.4 Traditional Types of CBA

CBA was developed as a straightforward application of standard macroeconomic techniques in cases where a third-party intervened in the free market, leading to changes in consumer and/or producer behavior. Two types of intervention that dominate the cost-benefit literature:

The first traditional application of CBA is to determine whether a product is viable in the market, whether a service, activity, operation or initiative is necessary in a company. An example would be a judgment, an evaluation, relating to the continuance of a specific initiative such as relating to outsourcing. The CBA would compare the expected efficacy to the potential lethality, subject to information constraints, since both effectiveness and efficiency of outsourcing in water based public utilities are unknown. This is the category into which most outsourcing research to date would fit, and determining whether the outsourcing benefits of an intervention outweigh the costs. However, it is also the case that this category of cost-benefit analysis has far broader applications in the outsourcing

sphere. Typically, cost-benefit analysis is applied to a situation where it is found, for example, that use of a product creates negative externalities (Kaldor, 1939 *cited in* Samuelson, 2009).

The traditional view sees cost-benefit analysis as a mirror for Kaldor-Hicks efficiency. We have defended a different view (Adler and Posner, 2006). First, Kaldor-Hicks efficiency has zero moral relevance. A policy is Kaldor-Hicks efficient if the winners could, potentially, compensate the losers. But either this potential compensation would actually occur, for example, via a very well-functioning outsourcing system in which event the policy is a genuine Pareto improvement over the status quo, and the Kaldor-Hicks criterion is ineffective or the potential compensation would not occur, in which case the mere unattained potential for a Pareto improvement furnishes no moral basis for choosing a policy that, in fact, would harm some.

Second, cost-benefit analysis is a rough and administrable proxy for overall well-being. Overall well-being is a fundamental moral criterion; cost-benefit analysis is not. In particular, because of the variable marginal utility of money, a policy can have positive net benefits but reduce overall well-being, or vice versa. In general, however, cost-benefit analysis overlaps with overall well-being sufficiently well, and is sufficiently easily monitored by the Government through the appropriate Minister, Parliament, the Chairman, Board of Directors, Management and the general citizenry, to be the appropriate decision procedure for administrative agencies in a wide range of choice situation. The administrative decision procedure best justified by the underlying criterion of overall well-being.

This, in the smallest of nutshells, is the researcher's revisionary framework for CBA, one that embeds it within weak welfares and links it to overall well-being. To be clear, by CBA reference is made to monetised CBA: the sum of compensating variations (CVs) test. Take a set of possible policy choices, including the status quo choice of inaction. In the simplest case, each choice maps for sure onto one outcome. So the choice situation becomes $\{O_1, O_2 \dots O_m\}$, where O_1 is the status quo outcome. Consider some other

outcome, O_i , and some individual P_j . P_j 's CV for O_i -- taking O_1 as baseline -- is the amount of money, added to or subtracted from P_j 's holdings in O_i , which would make her just as well off as in O_1 (Adler *et al.*, 2006).

Of the various methods used by economists to evaluate outsourcing in public utility corporations, the most powerful is cost benefit analysis (French *et al.*, 2002; Kenkel, 1997). This technique compares the costs of an intervention to its economic benefits, with all costs and benefits measured on the same metric. In cost benefit analysis costs are defined as the monetary value of resources consumed or otherwise lost as a consequence of providing an intervention for example time, transpiration, space, materials, equipment, overhead (Drury, 2009), whereas benefits are the monetary gains that can be attributed to the intervention (Barrar *et al.*, 2002). In cost benefit analysis of outsourcing initiatives and interventions, a comparison of the simple sums of costs versus benefits is inadequate because most of the costs are early ones, while many of the benefits may accrue over a time span extending for decades. Thus, initial costs and benefits should be adjusted for the passage of time using standard inflation indices (for example, Consumer Price Index; Bureau of Labour Statistics, 2010), and future costs and benefits should be adjusted to their present value using the economic principle of discounting. Discounting assumes that the present value of a resource is always greater than the future value of the same resource because the opportunity to use the resource is forgone, as is the chance to earn additional income by investing the resource (Cohen, 1998; Hargreaves *et al.*, 1998). Results of cost benefit analyses are expressed in terms of a cost benefit ratio or net benefit estimate. An intervention is considered cost beneficial if the benefit cost ratio exceeds one or if the net benefit estimate is positive. Therefore, cost benefit analyses can be used to compare several different interventions, with the assumption that the most efficient intervention is considered the most desirable (Singh *et al.*, 2001).

Few studies have conducted cost benefit analysis of corporate intervention programs that are designed to improve cost management and strategic focus on core activities such as outsourcing. Of these studies that do exist, program costs are typically calculated from

an operations perspective (for example, the amount of funds consumed to operate the program). These costs include all monetary expenditures, for example, costs of facilities, payments to vendors, incidental expenses, administration related costs, monitoring and supervision costs, and services purchased from other programs and depreciation of facilities over time (Yates *et al.*, 1999). Benefits of programs include focus on core activities and reduction in noncore overheads. Robert (2009) studied the effect of incidental problems resulting from the vendors failure to manage the business system effectively in the sense that if a worker of an outsourcing partner is adversely affected by his or her work, there will be an adverse cost to the employer (vendor) as well as to the individual worker as well as to the outsourcer. The most visible form of adverse cost is time away from work recorded as a lost time injury. However, productive time will also be lost where workers are not able to work with total efficiency for example, due to poorly designed equipment or work procedures causing sore or tired muscles. Poor working conditions such as lighting, dust, fumes, bullying and stress, may contribute to people staying away from work or avoiding time in certain work areas.

Poor quality job design and working conditions may also increase staff turnover. Most managers know the direct wage costs of injury and absence but are oftentimes not in a position to know the additional or hidden costs. Several attempts have been made to calculate these hidden costs. Andreoni (1986) showed that the estimated hidden costs varied between 0.5 and 20 times the wage or salary costs (Andreoni, 1986); this variation was both between and within outsourcing contexts. Thus it is difficult to defend a choice of any one ratio for estimating hidden costs. Ellram *et al.* (2008) state that it is better to derive hidden costs for each situation's, the items that constitute the greatest proportion of hidden costs includes:

- Overtime,
- Over-employment (extra staffing),
- Training,
- Supervision,
- Employee (labor) turnover,
- Waste and rework

- Lost production time, and
- Reduced productivity.

There are other cost items that may be significant in specific situations and that should be taken into account (Ellram *et al.*, 2008):

- Warranty costs,
- Maintenance,
- Product and plant damage, and
- Equipment downtime (due to injury incidents).

Lowered profit and reduced investment opportunities for the organisation are the end results of unnecessary costs due to poor marginal efficiency of capital and a lax focus on broad corporate activities. Relevant costs need to be included in an analysis to enable a comparison between outsourcing, maintaining the division internally and competing funding demands. In doing this the costs due to inefficiencies and ineffective management of non-core areas, and consequent reduced productivity, must be calculated and the relative importance of the costs determined for each workplace. This is the rationale behind cost benefit analysis (Ellram *et al.*, 2008)

2.5.5 Limitations of CBA

Formal CBA has four implicit restrictions. First is that the goal of a cost-benefit analysis is to compare the current state of affairs to one where the market is expected to behave more efficiently. Programs that sacrifice efficiency for effectiveness are much more difficult to evaluate. Second is the fact that the effects being studied have to include a change in the behavior of either the consumer of the good or the producer of the good or both. In the absence of a behavioural change, cost-benefit analysis is unnecessary: it is simply an exercise in accounting. Third, cost-benefit analysis is often performed in situations where information is imperfect: therefore the analyst must perform the analysis with caution and prudence, but preferably without pride and prejudice. Fourth, it is assumed that producers and consumers will act rationally, at least according to the

economic definition of rationality (maximisation of utility). This last point can sometimes raise the hackles of readers unfamiliar with the territory (Ellram *et al.*, 2008)

The most likely explanation for this is misunderstanding over the use of a range of assumptions. Such assumptions are made to add clarity and manageability to a complex subject, and can be modified and adapted as necessary to fit different scenarios and conditions. CBA is a tool that is fundamentally concerned with measuring changes in surplus. In traditional analysis of social policy, there are two types of surplus: producer surplus and consumer surplus. With respect to the market for crime people adopt the terms 'victim surplus'. Cost benefit analysis (CBA) is a common framework for evaluating the benefits and drawbacks associated with any particular project. The technique has the advantage that all costs and benefits are taken into account before finalising the project (Ellram *et al.*, 2008)

Generally, in any CBA analysis of a scheme researchers initially consider two to three alternatives to find the best net gain for the society. However, a particular scheme giving the highest net gain may not be the one chosen, as the sectors of society who gain and those who lose may not be distributed fairly (Ellram *et al.*, 2008).

During carrying out of evaluations, it should be considered that everyone is made better off by a particular scheme and known as Pareto improvement. It is a difficult task; therefore in the majority of schemes, a potential Pareto improvement is looked for, where certain sectors of the society benefit and others lose. There is an overall social benefit if the collective benefits are greater than losses; however, not everyone gains individually. Potential Pareto improvement can be converted into a Pareto improvement if costless transfers of goods and/or money can take place among the various sectors of society (Ehie, 2001).

Transfer payments are those made other than in exchange for productive services. The most common form of transfer payments consists of those operated by a government. The current debate over cost-benefit concerns in agencies' evaluations of government regulations is not so much whether to consider costs and benefits at all but rather what

belongs in the estimated costs and benefits per se. Overlaid is the long-standing concern that the distribution of costs and benefits needs some consideration in policy evaluations (Jiang and Qureshi, 2000).

Cost-outcome balancing means weighing the policy's benefits and costs. Although studies done on costs programs and outcomes have been deservedly criticised for lack of completeness. Still, where government regulations are concerned, no longer is the debate over whether to consider costs and benefits but rather more over what belongs in the cost and benefit columns (Kniesner, 1997).

Frank and Sunstein (2000) offer a simple solution to the thorny issue of how to incorporate non-uniform net benefits across initially advantaged versus disadvantaged groups when calculating net benefits of a regulation. It can be argued that there are conceptual and practical flaws to the modest proposal of Frank and Sunstein (2000) so that producers and users of studies of regulatory cost and outcomes should not adopt their idea. Rather, it is appropriate to retain the current approach of using absolute benefit values rather than benefit values adjusted for relative economic position.

Practitioners of cost-benefit analysis have assembled several panels of experts to make recommendations for what a well-formulated cost-benefit comparison should contain in the areas of public utility companies with the goal of increasing realism and transparency of calculations and decisions to be drawn (Gold *et al.*, 1996). A common concern for cost-benefit analysis is that distribution of costs and benefits by, say, income or race should not be ignored when reporting and applying cost-benefit analysis. If two policies have the same total costs and total benefits one might argue on equity grounds that the policy that does more for the poor should be given first priority in most companies.

The researcher's main reason for rejecting the cost-benefit frameworks suggested by others is that their specification of benefits seems arbitrary in the present context. On the cost side, the relevant term to consider in this respect is costs of compliance. Wilson and Henson (2002, p. 20) defines costs of compliance as: the additional costs necessarily

incurred by businesses in meeting the requirements laid upon them in complying with a given regulation.

This definition has to be slightly amended to fit the current context, which is one of national compliance rather than of individual businesses, but the general gist is clear. The idea that costs should be minimal is important here. There are a variety of ways to build a certain type of capacity. For any given project, alternative ways of building the necessary capacity should be explored, costs calculated and the least costly one chosen. That projects be cost effective in this way is important for the final cost-benefit analysis of projects to be sound. The other important term in the definition is that costs be additional, i.e. costs that would not have been incurred in the absence of the project. Since the purpose of the cost-benefit analysis is to allocate corporate or donor funds effectively, the compliance costs to consider are those carried by the company or donor in question. Wilson and Henson (2002) provides a framework for estimating the costs to public institutions of capacity building, as outlined in the below table.

Table 2. Estimation of compliance costs for public institutions:

			Costs compliance	
			Non-recurring	Recurring
Current requirements				
“New” requirements				
Implied change in current controls		Institutional/administrative structures		
		Regulatory controls		
		Technical infrastructure		
		Human capital		
		Risk analysis		
		Information dissemination		
		Surveillance and monitoring		
Costs Compliance of		Capital Investment		
		Supplies		
		Staff time		
		General operating expenses		
		External services		
		Opportunity cost		
Total cost of compliance				

Source: (Ellram *et al.*, 2008).

The framework basically distinguishes between non-recurring costs and recurring costs. Non-recurring costs are initial one-off expenditures needed to comply with regulations when embarking on an outsourcing initiative, such as investment in soft or hard infrastructure. Recurring costs are the costs of using the capacity built, for instance costs of vendor testing, upgrading equipment and training of staff and so on. Calculating costs is then done in a two-step process, where the first step is to identify the types of capacity needed to comply with the base requirements for outsourcing, and the second is to compute the costs of building this capacity in terms of resources used. Included in the categories for capacity building are (Wilson and Henson, 2002):

- Institutional/administrative structures: Regulations and rules reflecting current scientific understanding and international commitments, a system of enforcement with sanctions for non-compliance, clearly delineated administrative responsibilities between separate departments and agencies of government, effective communication and coordination of efforts between departments and agencies, transparency in the processes by which regulations and rules are developed, implemented and enforced.
- Regulatory controls: System for registration and control of the production, distribution and use of inputs that pose a risk to the safety of employees and the organisation (outsourcer). Systems for verifying and certifying the status of would be vendors. Capacity for tracing products and or services through the supply chain.
- Technical infrastructure: Includes facilities for testing, evaluation, surveillance and research activities, production and processing establishments for which organisation wide controls can be implemented effectively, coordinated and well-functioning supply chains, computer facilities and access to the Internet.
- Human capital: Includes scientific and technical expertise and experience in methods of surveillance, testing and control, risk assessment and other elements of risk analysis, and methods of control, research capabilities, and the legal and administrative knowledge to implement and enforce regulations and other rules. In turn, this requires appropriate teaching, training and research capacity in the areas of outsourcing.

- Risk analysis: Capacity to perform studies, based on rigorous risk assessment methods, to assess the level of risk associated with new, emerging or established hazards.
- Information dissemination: Procedures for utilising epidemiological information in decision making with respect to SPS controls in domestic production.
- Surveillance and monitoring: surveillance and monitoring of new and emerging hazards.

In calculating the costs of a project, other projects of a similar nature provide important input into the calculation. Though most donors do not use cost-benefit analysis, costs are at least computed for reasons of budgeting and accounting. The World Bank specifies the net present value of costs in its project appraisal documents, but unfortunately does not give a detailed overview of the components of its cost analysis (Wilson and Henson, 2002).

The World Bank has conducted studies of capacity building and associated compliance costs in several African countries. Nyangito *et al.* (2002) refer to three such studies: Nyangito *et al.* (2002) calculate the costs required for the flower industry in Kenya to meet the MRL standards in the EU. There is also a similar study of honey and coffee exports from Uganda. Finally, Jooste (2002) addresses the question of South African exports. These studies are as yet unpublished, and would have to be requested from the World Bank for further examination of their details.

Nyangito (2003) provided a general approach to calculating costs of compliance. It is essential to cost calculation that the least costly way of capacity building is used, to correctly apply cost-benefit criteria to the selection of SPS-related technical assistance projects. Costs computed in previous studies can be used as benchmarks for specific types of capacity building. Once benefits and costs have been computed as described in this and the preceding section, the ratio of benefits to costs can be calculated for each technical assistance project, and the project or projects with the highest ratio selected.

2.6 Questions for the Study:

The following questions were asked and the researcher endeavours to come with answers at the end of the study;

- a) What is outsourcing at Water Utilities Corporation?
- b) To what extent do policy guidelines and operational procedures govern outsourcing initiatives at water Utilities Corporation?
- c) What factors that influence the decisions to outsource
- d) What are the cost benefit of outsourcing certain identified non-core functions, and to what extent was the cost benefit analysis done?

2.7 Summary

In summary, economic analysis is a useful way to extend the evaluation of a program's effectiveness by addressing the relation between the economic costs and ex ante outcomes of an intervention such as outsourcing. Findings from economic analyses can be used to influence decision making processes for corporation heads, management, analysts, decision makers and government/society in order to appropriately allocate scarce public resources and effectively manage costs and accrue real tangible and intangible benefits.

Several conclusions can be drawn from this literature review. First, a cost benefit analysis of public utility outsourcing based research presently lags far behind other areas of cost benefit analysis of other sectors of the economy and in outsourcing research. This therefore, predicates the need for systemised approach to executing cost benefit analysis of public utility companies. Second, the perceived dichotomy between economic and outsourcing outcomes of an intervention which is well in its later years is a false one: economic evaluation is specifically concerned with addressing the relation between the economic costs and the outsourcing outcomes of an intervention to outsource. Moreover, by definition, successful interventions for public utility companies in the area of outsourcing reduce costs and speed up efficiency. Among the various approaches to economic analysis, cost benefit analysis is optimal because all costs and outcomes are

valued in monetary units and can be meaningfully integrated using standard mathematical operations. However, little research has directly examined the economics of cost intervention programs such as outsourcing seems likely that public corporations providing water, energy and other such utilities are motivated by the need to focus on core operations and increase the marginal efficiency of capital and expense reduction for noncore operations so that net benefits can accrue to the corporation and therefore aid in the furtherance of their mandate.

In conclusion, although there is already some evidence that outsourcing of non-core public utility operations is cost beneficial in the short term, less is known about the long term costs and benefits of outsourcing. Conducting economic analyses of rigorously evaluated divisions is one way to provide objective information that decision makers can use to evaluate various interventions. Outsourcing traditionally offers the firm the following advantages: To convert fixed costs into variable costs, to balance the number of employees, to reduce the needs for capital investment, to reduce costs via economies of scale, to accelerate the development of new products, to obtain access to the innovation and latest technologies offered by the supplier of the outsourced service, to focus our resources on those activities with high added value.

In the next chapter the methodology is presented. It is in this chapter that all the procedures will be inputted that have been undertaken in the search for knowledge. The next chapter provides the overall degree of reliability for the paper and how the research process was conducted.

Chapter 3

Research Methodology

3.1 Introduction

In the previous chapter, the research problem was stated in terms of four questions that remain unanswered from the literature reviewed. This chapter defines the research methodology used in this study to give answers to the raised questions in the previous chapters. Research methodology refers to the steps or approach taken to link the research questions and objectives to data collection, analysis, and interpretation in a logical manner (Hartley, 2004). The methodology to be used for a particular research problem must always take into account the nature of the data that will be collected in the resolution of a problem (Leedy and Ormrod, 2005). The research questions arrived at were: 1) To what extent do policy guidelines and operational procedures govern outsourcing? 2) How does outsourcing influence the Corporation's service delivery ability? 3) What are the cost and benefit analysis of outsourcing certain non-core functions? 4) What are critical successes factors that govern outsourcing at Water Utilities Corporation?

The main purpose of this research was to carry out a cost and benefit analysis on Water Utilities Corporation initiatives on outsourcing. Furthermore, to establish whether the Corporation derives full value from these outsourced services and the improvement that can be effected to make these vital partnerships work and are mutually beneficial to all concerned parties. To validate this, it is imperative to collect information from a sampled population using correct methodology and analyse the responses. Overall, this chapter defines the research methodology used in this study; the data collection method chosen, types of questions that can be asked and development of the questionnaire, the survey population and sample size determination; data handling concludes with the discussion of a researcher's compliance with research ethics.

3.2 Research Types

3.2.1 Qualitative and Quantitative Research

According to Leedy and Ormrod (2005) all research can be categorised as qualitative, quantitative, or what he refers to as triangulation. The nature of the data and the problem for research will dictate the research methodology. If the data is verbal the methodology is qualitative and if the data is numerical the methodology is quantitative.

Quantitative analysis is a formal, objective, systematic process in which numerical data are utilized to obtain information about the world. It involves either identifying the characteristics of a phenomenon or exploring the possible correlation among two or more phenomenon (Leedy and Ormrod, 2005). It is neither intended to involve experimental investigation by changing or modifying the situation under investigation, nor does it aim to determine the cause-and-effect relationships. It is intended to examine the situation as it is, without any alteration (Leedy and Ormrod, 2005).

Drott (1989) asserts that quantitative methods involve systematic evaluation of alternative actions as a basis for choice between them. Furthermore, Drott (1989) emphasises that the application of quantitative method involves setting up models of the problems to be analysed, selecting inputs to the models which quantify the judgements of those responsible for organisational decision and deriving the model's outputs from inputs.

Grayson (1980) argues that some people avoid quantitative methods because of their inability to understand and interpret statistical or computational data and models. Grayson explains that these data and models they omit help to make difficult decisions easy in different environments.

The simplest definition states that quantitative analysis involves methods of data collection and analysis that are non-qualitative (Lofland, 1984). Berg goes on to define quantitative analysis by saying that it focuses on quality, a term referring to the essence

or ambience of something. Adler (1978) opined that it involves a subjective methodology and the researcher as the research instrument. Quantitative method examines the extent to which differences in one characteristic or variable are related to differences in one or more other characteristics or variables (Leedy and Ormrod, 2005).

On the other hand, qualitative approaches have two things in common that is. Firstly, they focus on phenomena that occur in the natural settings; and secondly they involve studying those phenomena in all their complexity (Leedy and Ormrod, 2005). Qualitative researchers aim to produce understandings of social reality with a focus on interpretation rather than quantification. This is based on a generally held belief that there are different versions of understanding and the aim is to give an accurate voice to these (Creswell, 2003). Qualitative researchers believe that the researcher’s ability to interpret and make sense of what he or she sees is critical for understanding any social phenomenon (Leedy and Ormrod, 2005)

Peshkin (1993) states that qualitative research:

- Can reveal the nature of certain situations, settings, processes, relationships, systems, or people
- Enable a researcher to gain new sights about a particular phenomenon; develop new concepts or theoretical perspectives about the phenomenon; and/ or discover problems that exist within the phenomenon
- Allow a researcher to test the validity of certain assumptions, claims, theories, or generalizations within real-world contexts
- Provide means through which a researcher can judge the effectiveness of particular policies, practices, or innovations

Qualitative	Quantitative
Counting only if clearly necessary	Bias toward counting
Favour greater personal investment in the data	Favour a more detached, impersonal orientation toward the data
Encourage substantial flexibility in research procedures no strong prototyping models to follow	There are relatively clear mental model for the research designs more rule driven

Focus more on understanding organisational processes and less predicting outcomes	Focus more on predicting outcomes and less on process variables
Heavily grounded within the local context in which the phenomena of interest occur. As a result generalising empirical results to a larger population or other settings can be problematic	It is typically presented as more context-free and therefore more generalisable
More explicit about participants' reactions	Less focus on participant reactions

Table 3: Distinctions between quantitative and qualitative methodology (*Source:* Cassel and Symon's, 1994)

3.2.2 Research Method (s) Used In this Mini-dissertation

The qualitative approach can serve the following purposes, namely description, interpretation, verification and evaluation. Quantitative research is mainly aiming at observation studies, correlation research, development designs and survey research (Leedy and Ormrod, 2005). This study is approached with a quantitative research methodology as the study aims at examining the association between information quality and management decisions and the extent to which information quality impact on quality of managerial decisions.

3.2.3 Data Required

Primary and Secondary Data

Primary data refers to original information that is collected by the researcher specifically for the research study at hand, for example data obtained through interviews and surveys. Secondary data refers to information that has been previously gathered by someone else for some other purpose which can be reused by the researcher. Secondary sources include books, journal articles, and reports among others. Leedy and Ormrod (2005) refer to primary data as layer closest to the truth and secondary data as a layer farther away, which are not derived from the truth itself but from the primary data instead. For this study we will use both primary and secondary data. To extract meaning from the data, we employ what is commonly called research methodology (Leedy and

Ormrod, 2005). A survey will be used to acquire primary data; and secondary data will be drawn mostly from organisational annual reports, company magazines and available literature in the academic field.

3.3 Data collection method

3.3.1 Methods for collecting primary data

There are several types of research methods that can be used to collect primary data. Interviewing is probably the most common data gathering method in qualitative research (Leedy and Ormrod, 2005). It can be described as the meeting of two persons to exchange information and ideas through questions and responses, resulting in communication and joint construction of meaning about a particular topic (Esterberg, 2002). In qualitative studies, interviews are often quite open-ended; however in survey research interviews are fairly structured (Leedy and Ormrod, 2005).

a) Interviews

According to Leedy and Ormrod (2005), in quantitative research interviews are more structured than in qualitative research. In a structured interview, the researcher asks a standard set of questions and nothing more.

b) Survey

A survey is characterised by the systematic collection of numeric and quantitative data from a group of entities using direct observation. The aim of a survey may be to:

- Describe (exploratory research)
- Examine correlations and associations
- Explore differences
- Identify a trend
- Test a theoretical model

In this study, the primary data will be collected by means of survey using structured questionnaires which were given to respondents who were asked to complete the

questionnaire. The reason for taking this route is time and cost efficiency given the geographic location of business units and the size of the company. A survey was a good way, often the only way, of getting a picture of the current state of a group, a community, an organisation, an electorate, a set of corporations, a profession. In many cases, these surveys are snapshots, pictures of a particular point or period in time, although there are longitudinal surveys which take place over longer periods (Janes, 2001). Leedy and Ormrod (2005) concur with that by stating that the survey research captures a fleeting moment in time, much as a camera takes a single-frame photograph of an on-going activity.

A survey was conducted to test the association between outsourcing and managerial decisions, with an aim to establish the extent to which the outsourcing impact on managerial decisions. The preferred design for the survey was cross sectional because there were no sufficient times for observations of participants over a long time.

3.3.2 Questionnaires

The questionnaires were used as the data-gathering tool. This allowed the collection of quantifiable and qualitative data and allow for the analysis of this data to determine patterns and relationships. The proposed survey questionnaires were a word document. The personnel selected were asked to complete the survey. Both Tse (1998) and Dillman (1998) have found significantly faster response times with e-mail surveys. The questionnaires had a short disclaimer describing the purpose of the study. In order to improve the response rates, the original request was followed by a reminder, which was sent two weeks after sending out the questionnaire. A copy of the questionnaire was attached as a convenience to the participant and to prevent the loss of the questionnaire from being named as a reason for the lack of a response. The targeted response rate is 10%. These questionnaires should be as brief as possible and solicit only that information essential to the research project (Leedy and Ormrod, 2005). In order to help maximise the number of responses to the questionnaire, a number of questions will be limited to no more than 15 questions. The questionnaire will consist of 3 sections (Refer to Appendix A). The first section of the questionnaire will be aimed at getting permission

to use data. The second section will focus on gathering biographical data on the respondents including age, gender, qualifications; and frequency as well as the level of decisions that are normally made by a respondent, while the third section will focus on specific questions with regards to the extent the outsourcing impacts on managerial decisions. Sections are summarised below,

Part 1	Permission to use data
Part 2	Gathers biographical data on the respondents including age, gender, and qualifications
Part 3	Looks at outsourcing.

3.3.3 Sampling Method

Sampling strategy that is design and size depends on the research paradigm. The quantitative method requires random and representative sampling characterised by larger samples (Leedy and Omrod, 2005). Sampling, according to Fink (1995), means taking any portion of the population as representative of the target population. A population is a set of all cases of interest (Shaughnessy *et al.*, 2003). The population of interests for this study are all members of the staff in the organisation. The participant will have to meet the following criteria to be included in the sample: The participant must be a staff member of WUC, Botswana

Krejcie and Morgan (1970) have provided a table for the establishment of the appropriate sample size (S) based on the size of the population (N). In terms of this study, for $N = 700$, $S = 248$, for this study, S will be taken as 30. However, because of time constraints and the possibility to lose all credits, thus, a minimum of 30 completed questionnaires were required for meaningful conclusions to be drawn from the data gathered from the survey.

3.3.4 Types of variables

Each question in a questionnaire or collected in quantitative research, gives rise to a variable. A variable is thus an empirically observable characteristic of some phenomenon that can take on more than one value or response category (for example. gender, job level, level of agreement with a statement, profit, percentage of budget spent on advertising (Diamantopoulos and Schlegelmilch, 2004).

Nominal variables- the response categories can be placed in any order and the numbers assigned to the response categories have no other property except to serve as labels.

Ordinal variable - the response categories have a certain order and the numbers assigned to the response categories also have an order.

Ratio variable - a numerical variable where there is some standard unit of the property being measured. The distance between consecutive numbers is the same. Hence one can make accurate statements on the differences between cases.

A combination of variables will be used in the survey. In order to identify participants, nominal and ordinal variables would be used. Survey questions would vary from ordinal to ratio variables, depending on how the questions are posed.

3.4 Ethical Considerations Pertaining to the Study

According to Reinard (2001), the researcher may delete all names and identifiers from the data and report only on the broad categories of responses to help ensure confidentiality. In this study, participants remained anonymous and participation was entirely voluntary. It was considered unethical to use any personal details of respondents in the report, which can identify who the respondent was. Each participant was informed of the exact nature of the research and participation in the survey was entirely voluntary. Participants were assured that the information provided would not be used for any purpose other than stated.

3.5 Limitations

The biggest limitation of a questionnaire is the inability of the researcher to ensure a sufficiently high return rate. The returned questionnaires may not be representative of the sample originally selected for the specific disciplines, which may impact on the relevance of the research findings.

There are also several limitations due to the use of cross-sectional research methodology:

- Cross-sectional analysis will be limited by the fact that it is carried out at one time point and gives no indication of the sequence of events and as a result of this it is impossible to infer causality;
- Being a snapshot, cross-sectional analysis may provide differing results if conducted at another point in time;
- There is also a limitation inherent in correlation research, that is, although correlation studies suggest that there is a relationship between two variables, they cannot prove that one variable causes a change in another variable. In other words, correlation does not equal causation.
- Data Integrity may also be a limitation. This is about whether the sample is giving a true reflection of the situation, with no intention to provide pleasing responses to the interviewer or trying to make things look worse.

3.6 Conclusion

This chapter defined the research design and methodology used in this study. Further, it looked at instrumentation, research type, population, sampling method, and data gathering methods from a theoretical perspective. A discussion of how these were applied in this study was also presented. Justifications for the choices made were also given. Both Tse (1998) and Schaefer and Dillman (1998) have found significantly faster response times with e-mail surveys. The next chapter presents the study findings that would be used in rejecting or accepting the raised questions.

Chapter 4

Data Discussion

4.1 Introduction

In this chapter the findings of the study are discussed in the light of the research problems and the research objectives. As stated in Chapter 1, the research problem that the research will address is the negative mindset of Management at WUC and Ministry officials at Government on the unfeasibility of outsourcing currently and the fact that it increases capital costs, decreases efficiency, slows up time to market, increases labour costs, enable core business focus while managing outsourced functions and does not add value to the value chain. This calls for an analysis to determine whether the decision to outsource is an exercise in futility.

The study aimed to explore what outsourcing is and the factors that influence the decisions to outsource. In determining this examination will be made to determine the experiences and views of Water Utilities personnel on the need for Outsourcing and whether there is sufficient justification for it. In the final analysis, an assessment of the critical success factors that govern outsourcing at Water Utilities Corporation will be explored including the organisational factors that ensure there is accountability in the entire outsourcing process and whether the ends justify the means.

This chapter presents the findings of both the qualitative and quantitative research respectively. The focus will be on how the researcher managed to answer the research objectives. It was therefore deemed necessary to analyses the response rate, the demographics, and the results of the investigation. This was followed by a discussion of the variables and if the level of association of the depended and independent variables exists on the basis of a definable correlation that subsists between the variables and finally to analyse the setting of objectives and measurement of targets to monitor the cost benefit analysis of outsourcing.

4.2 Response rate

Of the 30 Water Utilities Corporation employees surveyed in the sample, all successfully completed and returned the questionnaires, resulting in a response rate of 100%. A sample of 30 subordinates was targeted from a population of approximately 371. This sample size was limited because a time limit set by the University. The sample results obtained from the surveyed population may not be representative of the population. The representativeness of the sample allows the researcher to draw conclusions for the entire population. The student has tried many times to show that he had met the requirements for the sample. All names were allocated a number and numbers were drawn. If somebody did not complete a questionnaire, the next number was drawn and the person used. In this way the sample could be regarded as being representative. It is also acknowledged that, should somebody else want to use the results, they first test the results before it is used to confirm the results.

4.3 Demographics

In this section, demographic data will be presented on the basis of the average period of employment, gender, qualification and ownership. Demographic data was collected in various aspects and Figure 4.1 presents thefirst summary of the results. These statistics revealed that the average period of employment was 7.5 years.

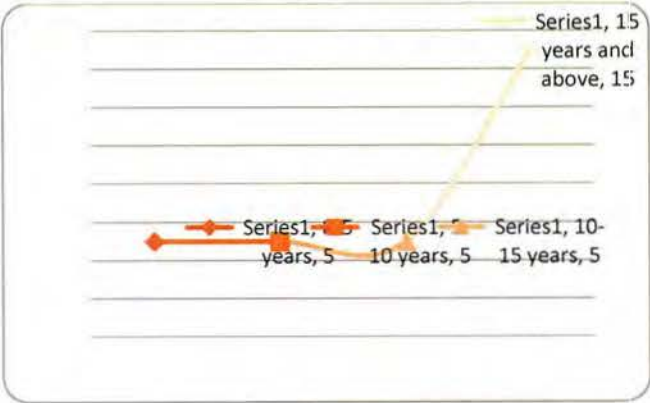


Figure 4.1 Number of people versus length of service in the company

Figure 4.1 shows that WUC employees are long standing employees who have been employed for a long period of time and the proportion of more than 50% are long serving

employees which demonstrate job security in parastatal organisation. The identified length of service is consistent with employees in the public sector.

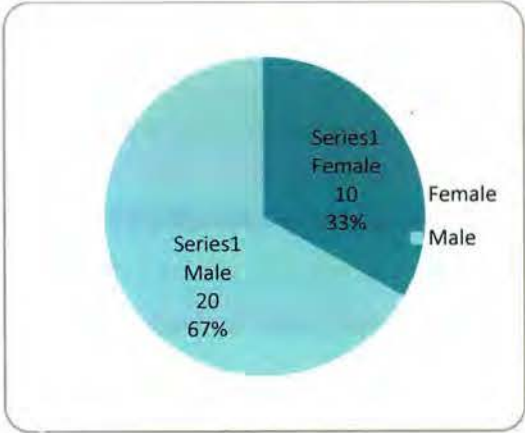


Figure 4.2 Gender distribution

Out of thirty respondents who answered the questionnaire, twenty were male while ten were women, an indication that the water corporation is male dominated corporation of which women still have an under hand probably because there are many more jobs in which men predominate than there are jobs in which women predominate. It can be inferred that despite a sense of continued progress toward gender equality in the workplace, the situation is different in public corporations. This could be a result of the fact that public sector jobs have traditionally been the preserve of the male gender and Women in the workforce are also less likely to work a full-time schedule and are more likely to leave the labour force for longer periods of time than men. A study by G' org and Hanley (2004) find that only 3 percent of the most highly compensated executives are female, that these positions are held disproportionately by men, and that female executives are more likely to be clustered in particular industry groups. Mullin, (1996) found that gender gaps undermine the ability of women to be effective agents of economic process. Gender-based differences in each of these areas have a profound effect on economic opportunities for men and women, the productivity of men's and women's labour, the performance and potential of their businesses, and the incentives facing men and women as economic agents.

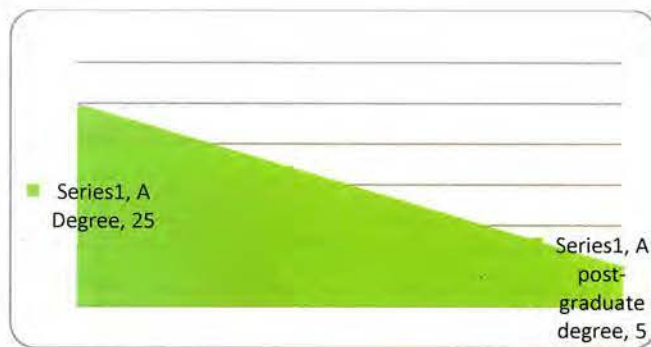


Figure 4.3 Qualification of the employees

The distribution of the data reveals a positively skewed distribution. There are more individuals with a first graduate degree than are there with a post graduate degree. At the senior level of the company there are exceptionally educated staff, however at middle and lower level this is the opposite. Figure 4.4 confirms this because the greater proportion of respondents were middle managers who need to have at least a degree to be employed, while senior staff who constituted 17% of the respondents tend to have higher degrees.

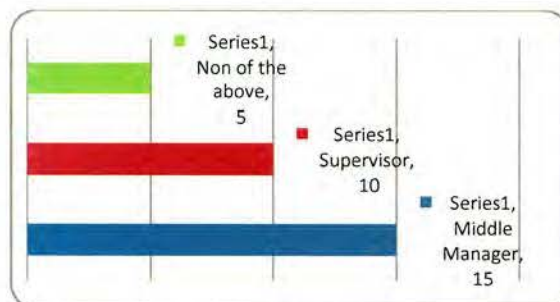


Figure 4.4 Position in the organisation

4.4 Results of Investigation

In this section, the results of the investigation are as a result of the questionnaire that was issued to respondents and of which 30 respondents effectively responded. All respondents (30) understood what was meant by outsourcing; therefore this provides an indication of the validity of the contextual and response validity. Further, all 30 respondents (100%) understood the difference between outsourcing and privatisation? And all found outsourcing a very necessary function. The Conceptual Reliability of Data is extremely positive as all 30 respondents filled the questionnaire and fully understood

the meaning of outsourcing. This was an essential criterion in determining whether the respondents would give meaningful responses that would enable the researcher to draw significant conclusions in light of the research problem.



Figure 4.5 Reasons for outsourcing

Outsourcing is about creating a successful partnership. Choosing a company to outsource to is very different from choosing an ordinary supplier. Since this is a long-term relationship, the best partner must be selected on the basis of the fundamental benefits to the Corporation. According to Figure 4.5 it appears that deriving quality from external service providers is the main reason behind outsourcing, followed by an increased work load, followed by the cost effectiveness of an external service provider than internally based operations and finally the complexity of the task. This is supported by Kakabadse and Kakabadse (2002) who affirm that outsourcing has an effective influence on cost savings but could not prove any effect on productivity or profitability, both important issues for any of the current systems for measuring performance. This is perhaps because outsourcing decisions have a long-term impact.

All the respondents selected the question; does your Section/Department outsource some of its functions? It would appear that the reasons for outsourcing include access to expertise that is not internally available, the need for back up support in times of need because it is difficult for employees to acquire skills in different specialised areas. In some cases, it is possible that a deliberate decision can be taken by management to or not to engage any new employees in to be outsourced functions because the response

rate and effectiveness of internal services may not be satisfactory or the Corporation may not have the resource capacity to do the work effectively. The reasons for outsourcing vary from department to department. Some outsource due to lack of qualified personnel and or to address staff shortages.

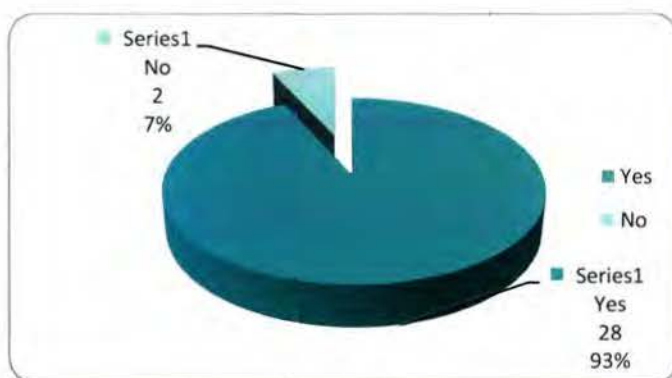


Figure 4.6 Is expenditure from the Water Utilities Corporation for outsourced functions justified for the function?

According to Figure 4.6, 93% of the respondents felt that outsourcing was justified because peripheral functions such as cleaning, transport and facilities management which are non-core functions of the corporations business should be contracted out to service companies. Respondents indicated that it was easier for water utilities to focus on its customer service duties rather than non-core activities. Outsourcing enabled water utilities to become more focused and this would result in an increase in the level of quality. While 7% were of the opinion that outsourcing was unjustified as a short and long term solution to the corporation's service consistency problems. The main argument is that there are many day-to-day things that can go wrong when outsourcing any portion of an organisation's processes, let alone a major segment of any function because it provides no competitive advantage to the corporation in that it limits the growth, the image and the capabilities of the corporation and intended departments. Some respondents stated that past experiences have shown that in most cases the promised cost-savings never materialise and there is little data to prove that it works and most cited the case of Avis Fleet Services which failed as an outsourcing partner therefore, vendor longevity cannot be guaranteed. This is supported by Elmuti and Kathawala

(2000) and Jiang and Qureshi (2006) who list five advantages to outsourcing: lower production costs, cost avoidance, strategic focus, flexibility and relational rents.

Table 4 Evaluation of the outsourced functions in terms of performance and contribution to corporate objectives (1 = excellent, 2 =good, 3 = average, 4 = bad and 5 = worse.)

Fleet Management	5
IT Support and services to EDS	5
Security	5
Property maintenance	5
Gardening and maintenance	5

From the results all outsourced functions are performing poorly as indicated by the rating. It can be inferred that fleet services function is inefficient and the respective running costs of the fleet services is out of reach as the cost of the contract may have escalated beyond the Corporation's expectations. In some cases when outsourced functions are evaluated negatively, it may simply reflect how the functions have become inconsistent with the original outsourcing objectives. Some of the factors include internal factors where some relevant employees may be lacking conversant with the fleet management leased agreement and could not therefore enforce it. Managing the performance of suppliers is an on-going process that starts before the business relationship even begins. Most businesses rely directly on their suppliers for their inventory and supplies. Building a strong framework of checks and balances keeps the business and supplier partnership on a professional level that benefits both parties. Insight can be gained through an increased understanding of supplier operations and procedures. Manage suppliers through regular contact and evaluation to get the best possible performance and service. This again is supported by Kimura (2002).

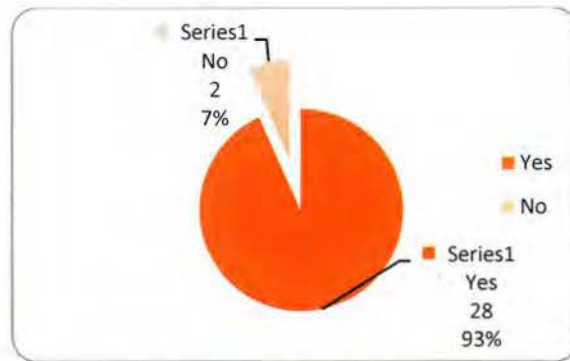


Figure 4.7 Has outsourcing resulted in any cost saving to the Corporation?

Ninety-three per cent of the respondents confirmed that outsourcing of non-core functions has resulted in cost savings to the corporation and 7% stated the opposite. The main view held by respondents on outsourcing related to the fact outsourcing helps the Corporation with cost cutting and immediate savings. While these potential benefits of an outsourcing strategy are appealing, the actual success of any outsourcing strategy is predicated on a number of issues. First, in order to get the anticipated cost savings, researchers have argued that the service provider must have firm-specific knowledge, avoid opportunistic behaviours, and provide required services at sufficient levels (Sislian and Saho, 2000). Second, the organisation benefits from refocused resources only if it is able to retain its most competent employees and effectively reallocate these employees efforts toward value-added tasks. If these requirements are not met, the all-too-predictable outcome of an outsourcing strategy will be an organisation with a deteriorating financial situation that is missing the human resources necessary to turn it around.

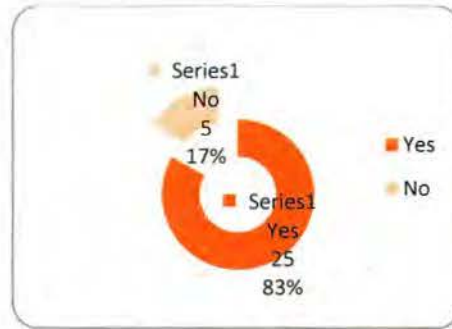


Figure 4.8 Are you happy with the current level of service being provided by the outsourced service provider?

It is evident from figure 4.8 that most user departments are happy with the level of service provided by the service providers. Claims are as provided in (chapter 2) that service providers offer better value for money and are becoming proactive in providing higher quality services at very competitive prices. Good service is partly attributed to the fact that end users are involved in managing the service provider's performance outcomes. This is even more apparent where the section responsible for the service provider has personnel on site where the service is rendered. This often results in effective monitoring of the service provider leading to predicated service delivery. The other contributory aspect concerns the effect of crude business management skills of the service providers where they pay their employees on time, maintain a consistent complement of employees, and closely supervise their employees. A combination of all these factors results in the companies providing a good service. However, in certain cases structures could be in place to monitor the external service providers. In the Information Services Section there are various committees that are responsible for monitoring the service provided by the external service provider. In the case of collection and delivery of mail, there are comprehensive contracts that also serve as SLAs and make monitoring easy. All these factors have resulted in better efficiency. The survey results demonstrate that service providers have improved their quality of service over the past year. Most claim that service providers offer better value for money and are becoming proactive in providing higher quality services at very competitive prices especially the security and cleaning services. In contrast 17% of the respondents were

not happy with the level of service provided by vendor companies. This view is supported by Doh (2005) who states that this can be traced to several areas:

- Failure of the outsourcing partner to deliver high-quality transactional value, resulting in increased oversight of the outsourced activities at the gatekeeper level.
- Failure of the organisation to provide a strategic framework that changes the roles and responsibilities, and thereby the behavior of internal stakeholders.
- Failure of the organisation’s key business leaders to stay involved with the outsourced initiative, helping to reshape specialists into generalists, and generalists into strategic contributors (Lankford and Parsa, 1999).

There is anecdotal evidence to suggest that contacts created at the implementation of the outsourced initiative are seldom used to manage the day-to-day business relationship with the vendor. It may be that team members of the outsourcing initiative received very little training or support in vendor management, and that metrics programs were unstructured and without consequence and sometimes this became a challenge in terms of the outcome.

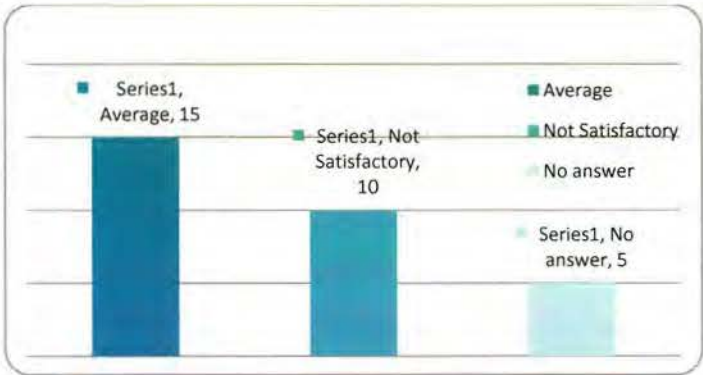


Figure 4.9 How was your experience with the outsourcing company?

Based on the general findings, 50% of the respondents have had average experiences with the outsourcing company, 33% had unsatisfactory experiences and 17% provided no response. In most cases unsatisfactory experiences are as a result of the outsourcing company underperforming, failing to meet the agreed performance outcomes and lack of

communication between the outsourcing process parties in completing the feedback loop which ensures the attainment and development of productive relationships.

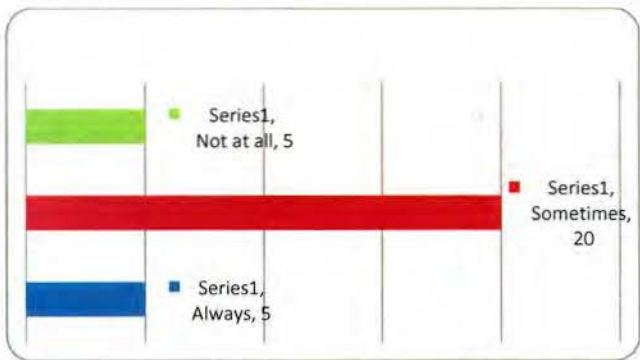


Figure 4.10 Does the Corporation's employees get a chance to know the contractor or service provider?

The results in Figure 4.10 indicate the need for the corporation's employees to get a chance to know the contractor or service provider. The decision to outsource is a strategic one that requires full understanding and commitment from all stakeholders, especially senior management.

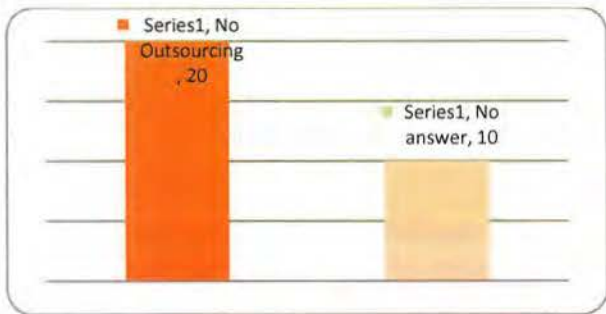


Figure 4.11 Responses on whether to outsource or not

Sixty-three percent of the respondents do not want outsourcing for the company this could be because they do not fully understand. Making the right decision should come from a basic understanding of an organisation's aims, objectives and requirements as well as their vision. Therefore achieving lower cost is of little significance if the principal goals are not attained. In stressing the importance of decision-making Newcomb (2007)

stated that the effectiveness of decisions is determined predominantly by the quality of the decision-making process used to generate it and it is usually best for top management to define the decision-making model to be adopted. Outsourcing or in-sourcing decision should be based on a solid business case analysis of alternatives. When deciding whether to outsource, Antelo and Bru (2010)) recommended that organisations should first assess the value outsourcing can generate, while Kimura (2002) indicated that getting value through the application of incentives, quality management through partnership outsourcing should be the main goal. Tate (2009) cautioned against overzealous adoption of private-sector practices in public management. Elmuti and Kathawala (2000) further suggested that solutions that work for the private sector may not necessarily work for non-profit making organisations. McIvor (2009) was of the view that an outsourcing decision is driven by the benefits and risks of outsourcing, therefore proper care must be taken to ensure that the right decision is reached. Kimura (2002) added that certain risks must be taken into consideration and mitigated. While Tate (2009) mentioned that the application of formalised risk management will reduce the risk exposure. Hence, risk identification is essential in outsourcing decision-making.

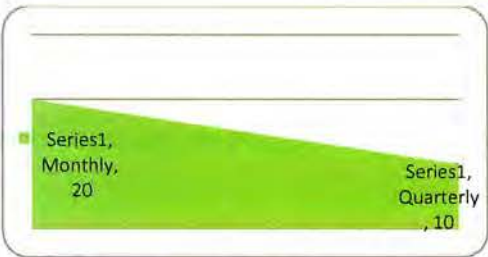


Figure 4.12 The response on how often the supplier provide feedback on contract performance

Sixty-seven percent of the respondents indicated that suppliers provide feedback monthly and this provides a suitable time frame from which an evaluation of performance outcomes and the need for constructive discussion between the parties to form. Thirty - three percent of the respondents indicated that suppliers provide feedback quarterly. There are several disadvantages to this form of feedback because evaluation can only

be done four times a year and so the potential to transform service outcomes positively when lacking takes time and much to the detriment of the outsourcer.

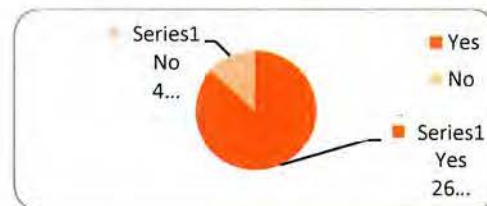


Figure 4.13 Responses on the service level agreement on service providers on outsourcing

Organisations turn to outsourcing in order to reduce costs, to offload application maintenance, offload help desk operations, or obtain expertise. The typical outsourcing engagement is governed by a contract setting the terms and conditions between the client and outsourcer for the duration of their relationship. To measure whether that relationship is working, and how well, Service Level Agreements (SLAs) are established. Eighty-seven percent of the respondents administer service level agreements because they are a critical component of any outsourcing project. It defines the boundaries of the project in terms of the functions and services that the service provider will give to its client, the volume of work that will be accepted and delivered, and acceptance criteria for responsiveness and the quality of deliverables. Apparently, the Service Level Agreements (SLAs) are used to manage the outsourcing relationship. It is imperative, however, that buyers tailor SLAs to the goals and requirements of specific outsourcing efforts. This could be a reason why there are unsatisfactory experiences with respect to the outsourcing company's service outcomes. SLAs are far from a one-size-fits-all governance tool. Outsourcing companies should tailor SLA programs to support the intent of the HRO deal (cost reduction and process improvement) and ensure they drive as a component in the overall outsourcing management and governance program service provider performance in the desired direction.

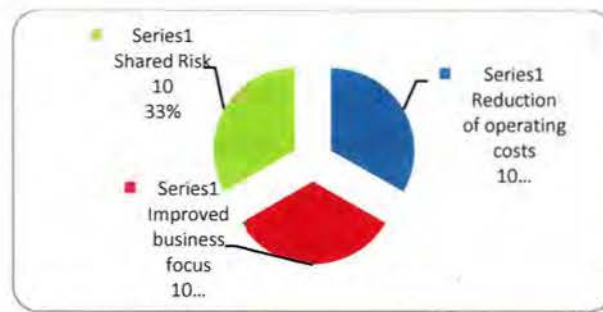


Figure 4.14 Benefits achieved by the Corporation on outsourced functions

Due to the equality of the responses in relation to what has been achieved by the corporation on outsourced functions this demonstrates that outsourcing at the corporation has managed to achieve a reduction of costs, an improved business focus because of the focus on core operations. Outsourcing has resulted in shared risk to the corporation. Resolving to outsourcing will allow any business to achieve its maximum productivity, by relying on an external service provider, like real estate management, human resources, information technology and marketing. Commonly, business holders will rely on such services because they are cost saving, as the possibilities of re-negotiating prices are high with such contracts, improving the quality of a business is also a benefit, which is usually accomplished by contracting high level service providers. In addition, reducing tax costs are possible when resolving to service providers, as it is known; countries usually offer some tax incentives to those companies that deal with other manufacturers from different countries. The benefits of outsourcing and off shoring business processes for the originating company include transferring some of the risk associated with the processes to the contracted company, while simultaneously realizing a substantial cost savings. Additionally, the originating, outsourcing company can enjoy increased flexibility by investing less in certain areas of its business, which may not be its strongest outsourcing these processes can eliminate distractions and enable the originating company to focus on its core business. BPO also allows the originating, outsourcing company to be more agile when market conditions demand organisational changes, such as reductions in force (RIFs).

4.5 Measures of association

In this section, the relationship between outsourcing variables and responses of the sample group are investigated using two-tailed Pearson analysis. This provided correlation coefficients which indicated the strength and direction of linear relationship. The p-value indicated the probability of this relationship's significance. Correlation is a measure of the relation between two or more variables. The measurement scales used should be at least interval scales, but other correlation coefficients are available to handle other types of data. Kakabadse and Kakabadse (2005) provided a guideline for assessing resultant correlation. Correlation coefficients can range from -1.00 to +1.00. The value of -1.00 represents a perfect negative correlation while a value of +1.00 represents a perfect positive correlation. A value of 0.00 represents a lack of correlation. Coefficients less than 0.5 represent a weak relationship, coefficients greater than 0.5, but less than 0.8, represent a moderate relationship and coefficients greater than 0.8 represent a strong relationship. The results of the correlation analysis are presented below.

Appendix B shows the correlation matrix for all research variables. Correlation often measured as a correlation coefficient indicates the strength and the direction of a linear relationship between two random variables. Below are correlation ranges

Small	0.1 to 0.3
Medium	0.3 to 0.5
Large	0.5 to 1

For the purpose of this study, correlations that are above the absolute value of 0.8 shall be considered as they show a strong relationship.

The correlation between status and gender is 0.919, a strong correlation between the two variables. The correlation is statistically significant. What can be deduced from this is that the greater the jobs level the higher the possibility that the numbers of people employed

are men. This correlation indicates that most outsourcing decisions are made by older and top managers

The correlation between status and gender is 0.934. The correlation is therefore statistically significant, since it is above 0.5. What can be deduced from this is that the greater the job level the higher the possibility of the people employed to be a man. This correlation indicates that outsourcing decisions were made by men on middle to senior management positions.

The correlation between position in the organisation and length of time people have worked for the company is 0.800. The correlation is statistically significant since it's greater than 0.5 and this suggest that older people are in higher positions. What can be deduced from this correlation is that most of the senior managers are old members of the staff and they participate in decisions which determine the future of the company.

The correlation between position in the organisation and the level of education possessed by middle managers is 0.866. The correlation is statistically significant since it's greater than 0.5 and this suggest that the more educated the employee is the higher the position. What can be deduced from this correlation is that higher positions are held by educated members of the staff. Therefore it could be that flawed decisions made by managers is minimal and quite often than not decisions made can be challenged by the Board.

The correlation between status and the age is 0.934. The correlation is statistically significant since it's more than the set 0.5. Therefore managers are older people of the organisation.

The correlation between gender and qualification in the organisation is 0.849. According to the criterion set above, those correlations above the absolute figure of 0.5 are considered to show strong relationship. What can be deduced from this strong positive

correlation is that most people qualified in the organisation are men. These qualified men participate in outsourcing decisions

The correlation between gender and effectiveness of outsourced decisions in the organisation is 0.843. According to the criterion set above, those correlations above the absolute figure of 0.5 are considered to show strong relationship. What can be deduced from this correlation is that effective decisions made regarding outsourced functions are made mostly by men who are in the majority.

The correlation between qualification and outsourced decisions in the organisation is 0.866. The correlation is statistically significant since it is greater than 0.5 and what can be deduced from this strong positive correlation is that effective decisions that are made regarding outsourced functions are made by qualified members of the staff, mostly having graduate qualifications.

4.6 Conclusion

The Statistical Package for Social Science (SPSS) version 16.0 and descriptive statistics were used to calculate these measures; but the researcher did not use analysis of variance (ANOVA) or multi-variety analysis of variance (MANOVA) tests, as the data are non-experimental in nature. The main views that respondents held in relation to outsourcing at Water Utilities Corporation were that Outsourcing can improve the quality of service provided both internally and externally.

In this chapter, the results of the research using statistical methods have been provided. Tables, graphs, bar charts and pie charts have been used to present the results of the questionnaire administered on the employees of the corporation. The results indicated that age, qualification, gender and status plays a major role in making strategic decisions regarding outsourcing. The decision to outsource is a strategic one that requires full understanding and commitment from all stakeholders, especially senior management.

The following chapter shall present the recommendations and the summary of the study. The aim of this chapter is to ensure easy understanding of the recommendation in order to add value to the existing literature and also identify gaps areas where new or future research can be conducted.

CHAPTER 5:

CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

As indicated in previous chapters, the reasons for outsourcing grounded in the capacity that it gives organisations to focus exclusively on those activities that enable them to develop sustainable competitive advantages over time are justified by the opportunity outsourcing gives firms to use their resources at maximum capacity. This study presented the relationship between the benefits of outsourcing and the costs of outsourcing including the impact that outsourcing decisions have on the competitive capabilities that the firm develops. The qualitative aspects have only been shown to affect external capabilities. This is because the impact on external capabilities is indirect, which is not the case for internal capabilities.

This observation may lead readers to conclude that outsourcing encourages the development of resources that enable the achievement of sustainable competitive advantages. For this reason, the study analysed the impact that the theoretical benefits of outsourcing have on companies' external competitive capabilities from a dual perspective of business capabilities increases flexibility, improves customer satisfaction, enables firms to focus on their core activities, and strengthens them strategically and organisational capabilities technological improvement of operations, access to new technologies, perfecting management processes, and increase in innovations.

This chapter comprises a summary of the study, addresses the findings per research question, provides managerial guidelines for critical issues to take into account when outsourcing and highlights future research opportunity in this field of study. Conclusion of the study will be drawn and recommendations will also be outlined.

5.2 Summary of the Study

From an academic perspective, this study's main contribution lies in the connection it established between the benefits of outsourcing and the costs towards company performance, through the impact of outsourcing decisions on the firm's competitive capabilities, and in particular its external capabilities. This allowed the study to conclude that outsourcing improves flexibility in the face of changing market demand. It may enable companies to offer services quickly, to distribute them widely, and to promote them efficiently. These improvements influence business benefits, especially those external benefits most closely related to changing market conditions

5.3 Responses to Research Questions

The main findings of this research in relation to each research question will now be discussed. Each question is followed by a discussion of the findings in relation to that question.

What is outsourcing?

Based on the results of the study, it was established that all the respondents understood what outsourcing is in the context of Water Utilities Corporation. Outsourcing is a process of creating a successful partnership. Choosing a company to outsource to is different from choosing an ordinary supplier. Since this is a long-term relationship, the best partner must be selected on the basis of the fundamental benefits to the Corporation. Outsourcing can be simply defined as devising a contract with an external organisation to take primary responsibility of providing business processes. Business outsourcing has become an ever-increasing trend in today's highly competitive markets. Outsourcing can be used as a strategic device, or sometimes as strategy itself, in order to create value. But the concept of outsourcing at Water Utilities is not new. External service providers in areas such as facilities operations have existed for a long time. However, elements such as new technologies, delivery models, globalisation, and a more demanding end-user continue to provide impetus for outsourcing activities. The result is the firms' increased efficiencies and abilities to focus on core competencies and this has produced maximum profits and increased customer satisfaction.

To what extent do policy guidelines and operational procedures govern outsourcing initiatives at water Utilities Corporation?

In being able to determine the extent to which policy guidelines and operational procedures govern outsourcing initiatives at the Water Utilities Corporation the results were mixed in this regard. A case in point is the poor rating of the outsourced functions in terms of performance and contribution to corporate objectives. This in itself was an indicator of the lack of policy guidelines and operational procedures to govern outsourcing initiatives at the corporation. A parallel line of thought is predicated on the solid premise that if the performance and contribution from outsourced functions is lacking then it points to the fact that there are no mechanisms for dealing with such occurrence, hence a lack of policy guidelines to curtail and direct the entire outsourcing process. On an operational level operational procedures exist to monitor the performance of external service providers.

Eighty-seven percent of the respondents administer service level agreements because they are a critical component of any outsourcing project. They define the boundaries of the project in terms of the functions and services that the service provider will give to its client, the volume of work that will be accepted and delivered, and acceptance criteria for responsiveness and the quality of deliverables.

The purpose of company policies for employees and contractors is to give notice and to set uniform treatment and instruction for employees and contractors on performance and behaviour at the work place. Generally, it is a good idea to have employees and contractors sign the end of the policy statement or another document stating that they have received this information and that they agree to it. In the event that the performance is waning consistently, policies do not exist in this regard. Making the decision to outsource should come from a basic understanding of an organisation's aims, objectives and requirements as well as their vision. Therefore achieving lower cost is of little significance if the principal goals are not attained. In attaining this policy addresses the need for outsourcing and the justification of the outcomes of outsourcing.

An assessment of the results reveal that 67% of the respondents stated that suppliers provide feedback monthly and quarterly which provides a suitable time frame from which an evaluation of performance outcomes and the need for constructive discussion between the parties to form. This is a stark contradiction of performance evaluation because all service providers should be evaluated against a uniform time frame either monthly, or quarterly and having a situation where other external service providers are subject to more stringent conditions while others are not indicates to the latter that there are no policy guidelines at the corporation. The outsourced functions in question are fleet management, IT support, security, property maintenance, gardening and maintenance. While outsourcing of non-core functions has resulted in cost savings this is not a reason not to have policy guidelines to determine and direct the process of outsourcing at the corporation.

What are factors that influence the decisions to outsource?

Based on the results, it was found that the factors that influence the decision to outsource are made against a backdrop of structural factors and non-structural factors, Structural factors are job based while non-structural are organisational based factors. Of the structural factors it was found that the need for better quality from an external service provider, the need for a reduction in the work load or a back log of work, the fact that costs can be reduced by the service being managed by an external service provider than from internally and the fact that because of the complexity of the task then it would be better to outsource are all the factors that influence the decision to outsource.

It seems apparent that mostly the decision to outsource is an internally generated effect rather than a result of representations of external service providers themselves in being able to service certain non-core functions on behalf of the corporation. Enlisting private companies to deliver a wide array of parastatal products and services is now a common and accepted practice. When a service required by the corporation it is put out for bid in the open market, many firms, and in many cases the incumbent government agency, compete for the business and therefore all have strong incentives to provide the best

product at the lowest price. Therefore outsourcing works best when many qualified private firms are able to take on the parastatal sub function. The view held by respondents on outsourcing related to the fact outsourcing helps the Corporation with cost cutting and immediate savings. While these potential benefits of an outsourcing strategy are appealing, the actual success of any outsourcing strategy is predicated on a number of issues.

However, not all outsourced services have been successful. In addition, these services often lack specific goals, and a single point of accountability, and information systems to track the service and outcome measures. In addition, improving these services often involves goals other than cost savings, such as increasing the expertise of personnel or improving service quality, and these goals are often difficult to measure. The corporation has chosen to use outsourcing for a variety of reasons. Competition between private entities encourages cost effective operations for the outsourced services and motivates remaining government agencies to improve their own operations to avoid having their operations moved to the private sector. Private organisations are more likely to use innovative technology and often have specialised personnel to perform complex tasks.

What are the cost benefit of outsourcing certain identified non-core functions, and to what extent was the cost benefit analysis done?

By eliminating non-essential activities, the organisation has used outsourcing to either release key people to concentrate on core functions and/or assist senior management in focusing on these core activities rather than being diverted into trivial functions. Paradoxically, cost and associated contractual issues of the outsourcing effort often results in senior management giving more focus to the areas being outsourced. In effect, the more sophisticated political and relationship-management skills of the senior management of the outsourcing company results in the senior management of the client company becoming more involved in the management of the outsourced function than they were when the function was undertaken in-house.

In terms of a cost benefit analysis of outsourcing, it can be concluded based on an assessment of the major findings that outsourcing of non-core functions is rampant at the corporation, policy guidelines do not guide the outsourcing process while operational procedures exist for the purpose of departmental congruency and the justification of outsourcing is real and immediate as it achieves more outcomes than if it be eradicated.

In this light, the benefits outweigh the costs however; more needs to be done in addressing the development of policy, tightening up service level agreements and monitoring of external service providers. Outsourcing at the corporation has managed to achieve a reduction of costs, an improved business focus because of the focus on core operations. Outsourcing has resulted in shared risk to the corporation. The cost benefit analysis was done qualitatively and no quantitative assessment of the outsourcing dynamics was done.

5.4 Managerial Guidelines

From the results of this study the following guidelines are given. It is vital that policy guidelines and operational procedures be developed and implemented that are uniform and prescriptive in determining and directing the entire outsourcing process. Policy guidelines will exist for the purpose of rationalising or outsourcing. Wide ranging consultations across the civil service should be undertaken for development of an Outsourcing Policy for Government. Such a Policy would complement Governments on-going efforts to have in place a leaner and more efficient civil service. It will also contribute to reduction in Government's operating expenditure and encourage private investment. Policy should focus on three vital issues, overseeing regulatory impacts, reporting on service performance and also undertaking policy reviews and public inquiries commissioned by the Government.

In order that service level agreements pan out consistent performance outcomes and are consistent with policy, it is imperative that the corporation introduce an integrated and comprehensive system whereby performance measurement and monitoring techniques are used which streamline expected performance and curtail underperformance by

service providers. The corporation must draw comprehensive contracts that include service level and business relations agreements. The proposed contract must form part of the tender document. The corporation must always implement outsourcing in line with relevant Government policies. The corporation may proceed to implement the proposed outsourcing policy without having to wait for the Privatisation Master Plan. The Corporation should mitigate the effects of outsourcing by supporting employee participation.

It may also be necessary for the vendors to structure their service outcomes in line with status reports and expectations of the corporation so that they are in a position to improve their service and keep their clients satisfied and happy with the service. A feedback loop should be provided for by both parties concerned. The administration of service level agreements over outsourced sectors can assist in this regard. In conclusion, future researches should further emphasise the empirical research.

5.5 Limitations and Future Lines of Research

Although the study has found important relations between the variables included in the study, the results must be interpreted with some caution, due mainly to the fact that the study is exploratory and that its goal is thus to show essentially whether or not there are interrelations between these variables. In addition, the information is based on the perceptions of single members of the firm, and firms are taken only from the service sector, another limitation. Finally, since this is a cross-sectional or static analysis, it does not capture the dynamic nature of the factors that determine the relationship between the variables that affect the costs and the benefits of outsourcing. This means that, even if the relationships are significant, other factors not included in the current study may also play an important role.

5.6 Conclusion

As a whole, the study performed represents an advance in the process of articulating the relationship between outsourcing and the benefits it provides, especially in terms of business and organisational performance. As for future lines of research, it would first be interesting to study the effects that training the supplier of the service and the degree of complementarity with the supplier have on outsourcing. It may also be interesting to determine whether a greater or lesser degree of prior outsourcing influences the model proposed. A possible limitation of the model is that it only considered the benefits of outsourcing. Another study could analyse the drawbacks, as for example in the case of externalities produced by off shoring, specifically those related to the impact on the environment. Finally, we have analysed outsourcing from a general perspective of service operations, although the same study could also be performed on more specific kinds of outsourcing in areas such as ICT and logistics.



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Appendix A

Questionnaire

FOR OFFICE USE ONLY: Respondent Code: _____

VOLUNTARY QUESTIONNAIRE FOR EMPLOYEES

COST BENEFIT ANALYSIS OF OUTSOURCING AT WUC

Graduate School NWU

North West University

Researcher G Mogomotsi

Supervisor: Prof S Lubbe

Note to the respondent

- We need your help to understand how employees view outsourcing process within the Corporation
- Although we would like you to help us, you do not have to take part in this survey.
- If you do not want to take part, just hand in the blank questionnaire at the end of the survey session.
- What you say in this questionnaire will remain private and confidential. No one will be able to trace your opinions back to you as a person.

The questionnaire as three parts:

Part 1 asks permission to use your responses for academic research.

Part 2 asks general personal particulars like your age, gender and qualification.

Part 3 asks about self-plagiarism.



Part 1: Permission to use my responses for academic research

I hereby give permission that my responses may be used for research purposes provided that my identity is not revealed in the published records of the research.

Initials and surname _____ Postal address:

_____ Postal code:

Contact numbers: Home: _____ Cell: _____

How to complete the questionnaire

1. Please answer the questions as truthfully as you can. Also, please be sure to read and follow the directions for each part. If you do not follow the directions, it will make it harder for us to do our project.

2. We are only asking you about things that you and your fellow researchers should feel comfortable telling us about. If you don't feel comfortable answering a question, you can indicate that you do not want to answer it. For those questions that you do answer, your responses will be kept confidential.

3. You can mark each response by making a tick or a cross, or encircling each appropriate response with a PEN (not a pencil), or by filling in the required words or numbers.

Thank you very much for filling in this questionnaire.

No.	PART 2: GENERAL PERSONAL PARTICULARS <i>Please tell us a little about yourself</i> Please mark only ONE option per question below.	11.	Evaluate the following outsourced functions in terms of performance and contribution to corporate objectives. 1=excellent, 2 =good, 3= average, 4=bad, 5= worse ☐ Fleet Management ☐ It support services to EDS ☐ Security ☐ Property maintenance ☐ Gardening and maintenance
1.	I am _____ years old.	121	Has outsourcing resulted in any cost savings to the Corporation? ☐ Yes ☐ No
2.	I am a: ☐ Female ☐ Male.	13.	Are you happy with the current level of service being provided by your service provider ☐ Yes ☐ No
3.	I have: ☐ a diploma/school Grade 12 ☐ a degree ☐ a post-graduate degree	14.	How was your experience with the outsourcing company ☐ Very Good ☐ Satisfactory ☐ Average ☐ Not Satisfactory
4.	I am: ☐ Manager ☐ Middle Manager ☐ Supervisor ☐ Employee	15.	Does the Corporation's employees get a chance to know the contractor or service provider ☐ Always ☐ Sometimes ☐ Not at all
5.	Do you understand the difference between outsourcing and privatisation? ☒ Yes	16.	State whether in your section or department you will like to perform the following

	☒ No		☐ Off shoring ☐ Partial Outsourcing ☐ No outsourcing ☐ No outsourcing
6.	Do you understand what is meant by outsourcing? ☒ Yes ☒ No	17.	How often does the supplier provide feedback on contract performance ☐ monthly ☐ quarterly ☐ Semester ☐ yearly
7.	Do you think outsourcing is necessary ☐ Yes ☐ No		
8.	If you have outsourced any service, what was the case ☐ Work overload/backlog ☐ Quality from external service providers ☐ Speed of ESP ☐ Cheaper cost of ESP compared to internal ☐ Complexity of task ☐ None of the above		
9.	Does your Section/Department outsource some of its functions ☐ Yes ☐ No		
10.	Is expenditure from the Water Utilities Corporation for outsourced functions justified for the function Yes/No		