

**AN EMPIRICAL INVESTIGATION INTO OUTSOURCING INFORMATION
TECHNOLOGY (IT) SERVICES BY THE NORTH-WEST PROVINCIAL
GOVERNMENT**



By

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**Mini-dissertation submitted in partial fulfilment of the requirements for the
Masters degree in Business Administration at the Graduate School of
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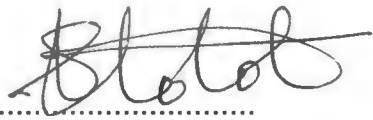
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STATEMENT OF DECLARATION

I, Dumisane Solomon Mtotoba, hereby declare that this dissertation entitled, **AN EMPIRICAL INVESTIGATION INTO OUTSOURCING INFORMATION TECHNOLOGY (IT) SERVICES BY THE NORTH-WEST PROVINCIAL GOVERNMENT**, is my own work and effort and I have not submitted it for a degree at another university. Where other sources of information have been used, they have been duly acknowledged.

A handwritten signature in black ink, appearing to read 'D. S. Mtotoba', written over a dotted line.

Signature

Mtotoba D.S

Date: May 2014

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Firstly to GOD, the Almighty, for the strength, protection and wisdom He granted me throughout this study.

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ABSTRACT

The research conducted is aimed at an empirical investigation into outsourcing Information Technology (IT) services by the North-West Provincial Government (NWPG). The research seeks to identify the best outsourcing process and identify some of the most important benefits, as well as the shortcomings of IT outsourcing. The study may assist the NWPG in their endeavour to outsource its IT services. The research method adopted a quantitative research approach, and data was presented as tables and graphical displays. A questionnaire was used as a data collection instrument. The sample in this study was undertaken at the Department of Finance, NWPG. The research used the random sampling method, and data was analysed using a statistical method SPSS, and Excel. The study revealed that the decision to outsource can be hard and risky. The benefits of IT outsourcing identified, include access to highly experienced IT specialists, as well as access to advanced technologies, thereby improving customer service. However, the study also revealed risks associated with outsourcing, which includes hidden costs and loss of control on outsourced activities. Another problem generated by outsourcing is that fewer people are employed and employee morale is affected.

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ABBREVIATION OF TERMS

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BA	Business Agreement
BAFO	Best and Final Offer
CAN	Campus Area Network
ICT	Information and Communications Technology
IT	Information Technology
IS	Information Technology
ITO	Information Technology Outsourcing
LAN	Local Area Network
MBA	Master of Business Administration
MEC	Member of Executive Council
NWPG	North-West Provincial Government
NWU	North-West University
PGITOC	Provincial Government Information Technology Officer Committee
RFI	Request For Information
RFP	Request For Proposal
SITA	State Information Technology Agency
SLA	Service Level Agreement
SPSS	Statistical Package for the Social Sciences
TCO	Total Cost of Ownership
WAN	Wide Area Network

CHAPTER 1

DEFINITION OF THE RESEARCH PROBLEM

1.1 Introduction

This research presents a perspective on the matters that an organisation ought to address when outsourcing its Information Technology Services. It is intended to provide factors for the consideration for managers when they make outsourcing decisions. Normally managers decide to outsource IT services for several reasons. The most important reasons for reaching such decisions involve the operational, technological and financial benefits to be derived.

According to Kremic and Tukul (2006), outsourcing is a common practice among both private and public organisations and is a major element in business strategy. The strategic aim of outsourcing for government is to improve service and reduce cost by making significant changes which are deemed not possible in the current public services environment, as well as to gain management expertise that may not be available from within.

1.2 Background of the study

Outsourcing of government services to private service is not a new phenomenon. It is found that outsourcing has become a significant and increasingly common practice.

According to Matthews (2007:1), 'the history of outsourcing can be traced back in time to the natural evolution of specialisation of skills and the use of captured resources to perform labour-intensive work. IT Outsourcing (ITO) clearly falls in the highly skilled category and has been growing rapidly since taking root in the 1970s. Because of the dynamic and fast-changing nature of IT, ITO has become a huge worldwide business.

This research investigates the North-West Provincial Government's (NWPG) outsourcing process in relation to the State Information Technology Agency (SITA), which was established to consolidate and coordinate the South African State's Information Technology resources in order to achieve cost savings through

economies of scale, increased delivery capabilities and enhanced inter-operability (SITA, 2008).

1.3. Problem statement

During the 2010/11 budget speech, the Member of Executive Council (MEC) for the Department of Treasury, Mabe (2010:21) mentioned that 'As Provincial Treasury, in doing ICT business we have to comply with legislation by signing Service Level Agreement (SLA) or Business Agreement (BA) with SITA as stipulated by the SITA act'. The department intended to finalise the outsourcing process during this year but also improve their working relations with SITA. This statement confirms the intention to outsource IT services by the NWPG, however this may create concern among IT staff and other provincial departments relying on IT to provide technology services.

According to Gonzalez, Gasco and Llopis (2009), outsourcing causes staff problems, as workers face an uncertain situation that provokes anxiety, low morale and a feeling of insecurity, which can lead to a decrease in their productivity levels.

The problem is that the decision is not communicated to staff, and it is not clear, nor known what services or tasks are to be outsourced, what the structure of the service level agreement with SITA is, and how this will impact on the staff, and whether there is any value to be gained or not. The decision to outsource is not something to be taken lightly - it is fundamental to an organisation's strategy and business model.

As mentioned by Mabe (2011:13) 'for the past nine years the province could not finalise the decision to migrate to the State Information Technology Agency (SITA). Therefore, we have taken the bull by the horns by taking the decision to migrate to SITA' It is this kind of statement that causes anxiety among the IT staff regarding IT outsourcing.

The study would therefore investigate the importance of IT outsourcing by the department and the challenges it may bring about, and also to find out if any processes and communication protocols are followed and the level of involvement of all stakeholders, including private sectors such as SITA.

1.4 Aim of the study

The aim of this study is to empirically investigate outsourcing Information Technology (IT) services by the North-West Provincial Government.

1.5 Research objectives

The objectives of the study are to

- investigate the outsourcing process of IT by the North-West Provincial Government;
- highlight the benefits and shortcomings of IT outsourcing;
- provide recommendations for IT outsourcing to the North-West Provincial Government; and
- develop a clear and sound outsourcing strategy that will significantly produce positive outsourcing outcomes, rather than just compliance with legislation.

1.6 Research questions

The research topic and empirical study will seek to address the following questions:

- How does IT outsourcing contribute to the effectiveness, productivity, and efficiency of IT services?
- What are the processes with regard to IT outsourcing?
- What outsourcing benefits/problems are encountered?

1.7 Research design

For the purpose of this study, a quantitative case study research approach is adopted. The sampling in this study was undertaken at the Department of Finance, NWPG. The researcher utilised a self-designed questionnaire, hand-delivered by the researcher to the identified respondents within the Department of Finance (IT). The data is analysed and presented using a statistical method. Statistical software packages used in this research are SPSS, and Excel.

1.8 Chapter division

The research study comprises five chapters, and within the chapters there will be sections dealing with specific topics.

Chapter One: Introduction

This chapter indicates the introduction to the study; the background of the study; the problem statement, the research objectives, and the research questions.

Chapter Two: Literature review

This chapter explores the literature on Information Technology outsourcing, beginning with a brief historical account of the origin of IT outsourcing and progressing through a number of developments to contemporary IT outsourcing issues and concerns.

Chapter Three: Research methodology

This chapter outlines the methodology of the empirical study. The design of the questionnaire, the sample design, the sample size, and the evaluation of are presented.

Chapter Four: Data analysis

This chapter gives an exposition of the empirical information on the employees' perceptions of IT outsourcing.

Chapter Five: Discussion, recommendations and conclusion

This chapter presents a summary of the most important findings of the study, discussion of the findings, recommendations and conclusion.

1.9 Conclusion

Chapter 1 gave the background to the research problem, highlighting the situation in NWPG. The following chapter presents a literature review of the topic of this study and the research questions raised in Chapter 1.

CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

The purpose of this chapter is to explore the literature on Information Technology Outsourcing (ITO). The aim is to provide the basis for the proposed research topic, being an empirical investigation into outsourcing Information Technology (IT) services by the North-West Provincial Government.

The chapter provides a critical analysis of the following: outsourcing definitions, concepts, advantages and disadvantages, risks cost implications, outsourcing lifecycle and SITA as the South African government's outsourcing agency.

2.2 Background

According to Cox, Roberts and Walton (2011:193), outsourcing is identified in two categories: outsourcing of core value-chain operations and outsourcing of support activities. Information Technology outsourcing is well-known for quality, flexibility, and enabling technologies.

Research suggests that IT outsourcing is becoming popular as new emerging trends, such as unified communications, managed services, cloud computing (i.e. hosted data centres) and enterprise mobile applications arise as new solutions to assist enterprises in reducing operations expenses (Sun, 2010).

Due to the advancement of communication and IT technologies in the market, outsourcing has been recognised as an effective way to control costs. However, continuous innovation in new outsourcing services is critical. IT managers view any discussion about IT outsourcing as an attack on their ability to manage (Bojonny, 2005).

2.3 Outsourcing concept

Smuts, Kotze, van der Merwe and Looock (2010) refer to outsourcing as both the act of transferring work, responsibilities and decision rights to someone else and the act of transferring the work to an external party. In recent years, as a result of

globalization, internet and IT progress, the outsourcing of IT services has seen a rise. As a result more and more companies decide to outsource their IT services partially or totally. Smuts *et al.* (2010) further list three sourcing decision options as:

- Total outsourcing - the decision to transfer IT assets, leases, staff and management responsibility for delivery of IT products and services from an internal IT function to a single third party vendor, which represents more than 80% of the IT budget.
- Total insourcing - the decision to retain the management and provision of more than 80% of the IT budget internally after evaluating the IS budget.
- Selective sourcing - the decision to source selected IT functions from one or more external providers while still providing between 20% and 80% of the IT budget internally. This strategy may include single or multiple vendors.

In line with the above, Brandas (2010) further indicates that there has been a significant move towards selective outsourcing, which allows organisations to select only those outsourcing services that they require. Nevertheless, the outsourcing process exposes both clients and service providers to a series of risks that can seriously affect their activities.

2.4 Outsourcing definitions

The idea of outsourcing has been around for decades, and there are different views of outsourcing held by different authors. Some define outsourcing as an idea behind cost savings, efficiency and performance improvement, others as a quick fix for IT problems.

According to Haag, Cummings and Phillips (2007:290), outsourcing is the delegation of specific work to a third party for a specified length of time, at a specified cost, and at a specified level of service. Cox *et al.* (2011:193) complement this definition when they describe the concept of IT outsourcing as a decision taken by an organisation to contract out or sell the organisation's IT assets, people and/or activities to a 3rd party supplier, who in exchange provides and manages assets and services for monetary returns over an agreed time period.

Others regard outsourcing as a practice of hiring functional experts to handle business units that are outside the company's core business, which in turn enhances the organisation's service delivery. It is also a method of staff augmentation without adding to head count (Dominguez, 2006:5). Outsourcing affords the organisation access to skilled, experienced and well-trained professionals.

There should be service-level agreements related to cost, quality, and the timelines of deliverables. According to Yasin and Purdue (2009), due to the nature of business processes and technology challenges, it is not easy for an organisation to manage all its business processes by depending solely on its own expertise.

According to Deloitte (2012) outsourcing is simply the farming out of services to a third party. Specifically regarding Information Technology, outsourcing can mean anything from outsourcing all its management of IT to outsourcing a very small and easily defined service, such as disaster recovery or data storage, and everything in-between.

From the above definitional statements, key elements to outsourcing are:

- Cost, quality and efficiency.
- Contract out or sell the organisation's IT assets, people and/or activities.
- 3rd party supplier and service level agreements.
- Access to skilled, experienced and well-trained professionals.

Outsourcing is a process that is not easy to implement. In order to succeed, adherence to best practice is critical to outsourcing success. Every organisation has reasons why it pursues outsourcing, but whatever the reasons, much effort should be put into planning, and every possible outcome must be prepared for. According to Hart (2007), the failure to take all these factors into account, leaves an organisation vulnerable to an outsourcing disaster, which will be costly and, in the worst cases, can severely damage business and reputation. Emanating from the above, the conclusion could be drawn that IT outsourcing is a tool to effectively strengthen the ability of an organisation to render services. However managers and all stakeholders should be wary of the results.

2.5 Why outsource?

According to Dominguez *et al.* (2006), rapidly changing and increasingly complex business issues are creating key shifts in organisations and the manner in which they do business. The reasons that compel a move to outsourcing include the advancement of technology, the sophistication of business operations, and the need for constant growth. All are circumstances that suggest a focus on core competencies. As companies find it difficult to adapt to and keep up with the demands of customers and shareholders alike, the focus on core competencies may suggest outsourcing as a potential strategy to remain competitive.

According to Conjugo (2012) nearly everyone outsource their IT services to reduce business costs and benefit from the expertise that an outsourcing company can provide. Information Technology is a very dynamic sector, which may be difficult to manage, particularly installation, maintenance and supporting it. Therefore, an outsourcing decision is fundamental to an organisation's strategy and business model.

Outsourcing requires investigation, diligence, governance and refinement. It is a decision that can have a significant, long-lasting influence on the reputation and the performance of an organisation.

2.6 Information technology outsourcing phases

Coetzee and Lessing (2006) list the five main phases in an Information Technology (IT) outsourcing as being:

Initiation phase – This is where the organisation has decided that they need to streamline the IT environment and start looking at the components they wish to outsource, co-source or run internally. The organisation will also, at this stage, typically prepare a request for information (RFI) to see what the vendors in the market can offer.

Due diligence and contracting phase – Once the organisation has identified the vendor or vendors that they wish to continue working with, they open up their environment to the vendor to investigate the environment thoroughly in order to come up with the best and final offer (BAFO). Thereafter the organisation

evaluates the BAFOs and decides on the final vendor. Contract negotiation is entered into to finalise the outsourcing agreement.

Transition phase – Most of the vendors then enter into a transition phase whereby the services, possibly the staff, assets, and management are handed over to the vendor.

Execution/operations phase – Once the transition is complete the vendor assumes the responsibility for the operations of the contracted services for the organisation. This carries on for the full term of the contract period.

Termination phase – When the contract period reaches its end, the contract is either renewed or terminated. In the event of termination, the services are either transferred back to the organisation or to another vendor, depending on the organisation's experience regarding outsourcing.

Jamee (2011) name some reasons that there are only four phases of outsourcing. Firstly, the strategic thinking phase, when the organisation considers delegating their processes to a solutions provider. In this phase a thorough analysis and an assessment is done on whether outsourcing is correct and needed by the organisation.

The second phase is the evaluation and selection. In this phase the organisation decides which of the organisation's processes are to be delegated to an outsourcing solutions provider. Jamee (2011) further states that it is important to determine which of the processes must be outsourced so as to further make the organisation's operations more efficient and to avoid a redundancy of work.

The third phase in the outsourcing process is contact development. This stage commences once the outsourcing partner is known, and when the negotiation and agreements take place. Legal documents are signed and agreements with reference to pricing are discussed. Other important elements are the service level agreements (SLA), non-disclosure agreements and pricing terms.

The fourth and last phase is the outsourcing management. In this phase the relationship between the outsourcing solutions provider and the client is built. The relationship should not be limited to just exchanging demands and outputs – it

must grow and be of such a nature that an outsourcing partner continually advises on how to enhance the organisation's processes.

Morgan (2009) states that outsourcing is extremely useful however, it is a complex business tool and requires a range of skills and knowledge across many disciplines.

2.7 Outsourcing strategy

McMillan and Shukla (2010) state that the decision to outsource originates at a senior level of corporate management and is usually contemplated as part of a larger strategic initiative. Strategic outsourcing can assist organisations to adapt flexibly to an organisation's change, as well as to improve quality and productivity.

Well structured outsourcing arrangements should lead to a more efficient allocation of roles and responsibilities among the parties to the arrangement and, from a customer's perspective, can bring a range of benefits.

Preparation for outsourcing should begin with a fundamental principle, followed by planning and a detailed analysis. Kremic and Tukul (2006), warn that it is very important that sufficient planning, intrinsic communication and the human resource issues be taken seriously.

According to Benvenuto and Brand (2005), a planning process enables key objectives to be identified, documented and addressed proactively. It defines and documents a clear and precise understanding of the scope of the function or process to be performed, and information needed to ensure that the provider can fulfil all the requirements effectively. This will enable the organisation to study the agreement forensically to uncover why the initiative is not proceeding as planned.

To plan IT outsourcing, Conjunco (2012) states that the organisation must be extremely certain as to why it is considering an IT outsourcing agreement. The organisation must establish what it wants to achieve with IT outsourcing, e.g. is it cost saving, does it increase service levels or is it enhancing areas where perhaps the organisation does not have the right level of skills?

Further to that, the organisation must identify and assess any potential risks and how risks will be mitigated. A transition plan must be drawn up, indicating which services will be transferred and over what period of time.

Sutherland and Johnson (2012) also complement the above strategies when they list the key processes to IT outsourcing success:

- Organisation to start with a clear sourcing strategy developing a sourcing strategy for IT services is a complex, but essential exercise.
- Assemble the right team to deal with the planning and negotiations.
- Fully scope the requirements and build in flexibility. Know what you are seeking to buy.
- Choose the supplier carefully. Cheapest is not necessarily the best, but it is surprising how often the lowest price wins.
- Know the risk and achieve the right balance of risk allocation.
- Agree on a fair price.
- Apply good governance and contract management including managing transition and transformational activities.
- Strong performance measurement, monitoring and reporting mechanisms.
- Secure on-going value for money.
- Plan for exit. At the outset, both customers and suppliers should place as much focus and attention on how to achieve a successful exit from the relationship as they have on its creation.

According to Carmen (2011), the organisation must perform due diligence to get the best deal possible. At the foremost, the organisation should prioritise the functions which should be run internally, and which should be run by experts. Detailed understanding of which parts of the labour force will be affected, either by being re-tasked to the outsourced vendor running the operations, or being relieved of their positions entirely. And lastly, build a case that supports the initiative, including all assumptions, so as to be able to go back and audit.

To develop a strategic sourcing plan, senior management should agree on the methodology and approach, including measuring critical success factors. Remenyi, Bannister and Money (2007:131) argue that an outsourcing strategy

may not be easy to implement, but it is almost often difficult to manage, and it should be noted that outsourcing may not lead to cost reductions. Outsource companies often bid low to get business on the grounds that customers often underestimate additional (and expensive) services that will be needed.

Once situational analysis and goals and objectives are determined, reasons for undertaking outsourcing outlined, and what should be accomplished through outsourcing known and documented, there should be a commitment to manage the deal in a diligent and agreed manner. Willcocks, Cullen and Craig (2011:165) outline the main areas to ensure strong controls, as well as facilitating an efficient working relationship:

- Relationship structure and roles - who in each party is responsible for what:
- Meetings - who will get together about what, and how often.
- Reviews - who will assess what, and how often.
- Issue management - how problems and ideas for improvements will be raised, tracked, and resolved.
- Dispute management - how 'difference of opinion' will be raised, tracked, and resolved.
- Variation management - how amendments, modifications, and corrections will be raised, tracked, and accepted or rejected (Willcocks *et al.*, 2011:165).

2.8 Outsourcing life cycle

Outsourcing has a very distinctive evolutionary path. Understanding the outsourcing life cycle and each of its phases is critical for the success of the outsourcing project. Willcocks *et al.* (2011), describe the outsourcing life cycle as having four phases, namely:

The architect phase, where the fundamentals for outsourcing are laid, In this phase the investigation, target strategy and design are elaborated. According to Matthews (2007) it is a stage of identification of corporation direction, performing situational analysis and identification of outsourcing opportunities.

The engage phase is where one or more suppliers are selected and the deal is negotiated. The activities involve the competitive bidding process, facilitating and

evaluating the bids, and conducting discovery and due diligence. The results are the strategies, processes, documents, and relationship management.

The operate phase is where the deal is put in operation and managed through its terms. The activities in this phase involve transition and managing. If the previous phase was not done properly, this phase may experience problems.

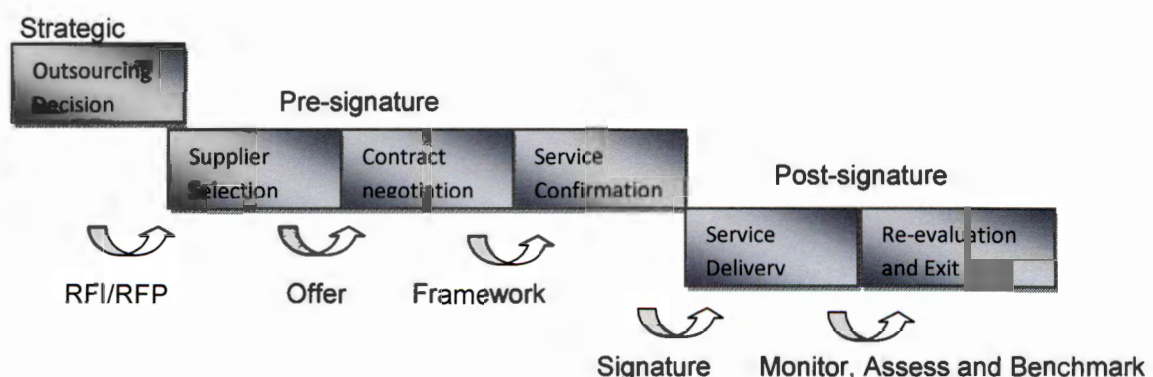
The transition officially begins at contract commencement and ends on a specified date or when both parties sign a transition acceptance form.

The manage stage is when the outsourcing is implemented. This is the critical stage where the benefits (and problems) of outsourcing appear.

In the fourth phase, namely the regenerate phase, the next-generation options are assessed. It involves the ending of all contracts, either through early termination, or by reaching the natural end of the term. The lifecycle begins anew, returning to the architect phase.

Morgan (2009) maintains that there are at least seven steps in the life-cycle model required to implement a successful outsourcing deal, and all these steps require a good knowledge of contract negotiations and business law, bid processes, due diligence procedures, procurement, relationship and vendor management, commercial skills, awareness of risk (security, data-protection, intellectual property, and political and economic) business re-engineering, change management, governance, crises management and technology expert.

Figure 2.1 Outsourcing Life Cycles



Source: IT Governance Institute (2005)

The above figure illustrates the outsourcing cycle graphically. Request for Information (RFI) is designed to collect information from a supplier or vendor with no commitment to engage in any particular project. The document would focus on the vendor capabilities, skills and experience. The Request for Proposal (RFP), focuses on specifying a scope of work that needs to be performed and seeks in response a proposal from the vendor. Mui (2003) states that the RFP must be comprehensive and cover the organisation's business needs. The RFP usually contains, among other things, the organisation's requirements. It outlines the objectives the organisation wishes to achieve from outsourcing, as well as the services and requirements expected. It is very important that the written terms in the RFP are clear, indisputable and unambiguous. It is the legal invitation to bid for outsourcing.

IT Governance Institute (2005) is in support of the above figure and further proposes that an organisation will be able to manage, govern and allocate resources effectively across asset management by insisting that all assets utilised by the client must be managed through a governance environment.

Willcocks *et al.* (2011) stress that by using the outsourcing life cycle the organisation will be in a better position to manage, control and allocate resources effectively and efficiently among the following areas:

- Asset management, which consists of contract schedules, SLAs, policies, as well as process (automated workflow supporting all decision making, benchmarking and communication activities).
- Contract Management includes all contracts regarding maintenance, service supply, demand, contract etc. It also includes the formal governance processes by which the performance and change against these contracts remain visible, managed and of known status.
- Relationship Management promotes sound communication among parties to the contract and all stakeholders.
- SLAs and OLAs provide the basis against which performance is managed in the governance processes.
- Due Diligence refers to the discovery by both parties of the asset base, resources, processes and, most important, the capabilities of each other.

- Base-lining and Benchmarking involve using the findings from due diligence and expressing them as a normalised set of data from which performance changes can be measured.

2.9 IT outsourcing risks

Even though the outsourcing follows a certain sourcing life cycle, there are risks that need to be managed effectively. The risks related to IT outsourcing are outlined in the institute of internal auditors as follows: when an outsourcing strategy is not aligned with corporate objectives and service-level agreements are not implemented; when operational, human resources (HR), and regulatory implications are not considered; and when contingency arrangements are not planned.

According to ADP (2005) outsourcing has certain drawbacks and risks, which include loss of control and in-house expertise, dependency on outsourcer, negative impact on employee morale, hidden costs in the contract, and security of data. According to Cox *et al.* (2011:195), there are “long standing problems” with outsourcing and that the results have often fallen short of expectations.

In selecting an outsourcing vendor, Martin *et al.* (2005:597) suggest that there are several key factors to take note of: firstly, vendor reputation, which includes understanding the business and technology standards; secondly, quality of service, a clear comparative advantage over in-house services; and lastly, flexible pricing, cost effectiveness because, as processing volume increases or new services are added, costs can escalate. Arshad, May-Lin and Mohamed (2007) state that one of the major risks of IT outsourcing is the assurance that the outsourcer’s personnel possess adequate knowledge regarding the related technologies used in the ICT outsourcing projects.

Deloitte (2012) argues that the most common and serious risks facing IT are firstly, the operational and transaction risk, which understands all business process flows; secondly, confidentiality risks, including security and data controls; thirdly, risks to business continuity, which can hinder the business to continue their operations when disaster strikes; and lastly compliance risk.

According to Carmen (2011) insuring a successful outsourcing involves answering the following key questions:

- Were your company's policies and procedures followed?
- Were Request for Information (RFI) and Request for Proposal (RFP) constructed properly and submitted to all viable vendors?
- Did your company negotiate purely on price, and were factors such as the Service Levels (mentioned above) taken into consideration?
- Did you do research on the providers, talk to their current clients, etc. to make sure they were the right fit for your needs?

Answering the above questions may well enhance the decision process and prevent future obstacles of non-performance. There is a strong public opinion regarding outsourcing, namely that outsourcing companies find government contracts a lucrative source of profit and a stable source of long-term revenue, (Mutiangpili, 2010).

2.10 Drivers of IT outsourcing

Many of the outsourcing problems have their roots in the original drivers of the deal. As an addition to the background, it is important to understand the factors behind the IT outsourcing. Dominguez (2006:8) outlines the outsourcing decision drivers in the following categories:

- Responding to power play, which is the pressure to outsource imposed by the board of directors, shareholders or other senior management. Coercion is the least effective primary decision driver.
- Alleviation of pain when pain in the form of operating challenges exists. (Reduce and control operating costs, reduce labour costs, and balance competitive pressure).
- Filling a need, to improve company focus, achieve cost savings, focus on core business, improve efficiency, and gain access to world-class capabilities.

The above outline is supported by Buligiu and Ciora (2008), who state that organisations that outsource their IT services are seeking to realise cost

restructuring by offering a move from fixed to variable cost, and by also making variable costs more predictable. Outsourcing may also improve quality, whereby a step change in quality is achieved through contracting out the service with a new Service Level Agreement.

Other benefits include the knowledge access to intellectual property and wider experience and knowledge. Staffing issues include, among others, access to a larger talent pool and a sustainable source of skills. Operational expertise includes access to operational best practice that would be too difficult or time consuming to develop in-house.

Willcocks and Lacity (1998) argue that there is a bandwagon effect where IT often responds to the hype and publicity surrounding the outsourcing subject, and IT is the “money sink”, a function of which it is difficult to find its business value.

According to Kremic *et al.* (2006) cost, strategy and politics are the drivers of outsourcing in the private industry. Political agendas often drive outsourcing by public organisations. Kremic *et al.* (2006) further state that in public sector outsourcing, the drivers for outsourcing are perhaps less clear than for private firms; some suggest legislative actions and political pressures are the primary drivers. Mabe (2011), states that in NWPG, it is compliance with legislation that drives the IT outsourcing. Nevertheless, the outsourcing process exposes both clients and service providers to a series of risks that can seriously affect their activities. In the end, there are costly lessons to be learnt from customers who push too hard and suppliers who oversell when negotiating the deal.

Analysts believe that outsourcing helps a government to improve politically. It helps government agencies to build an image of a modernised organisation which puts paramount importance on technological advances for effective governance (Mutiangpili, 2010).

2.11 The advantages of outsourcing

Outsourcing brings favourable opportunities for success and it balances the critical organisational requirements. Haag, Cummings and Phillips (2007:295) outline the benefits the organisation can derive from outsourcing as:

- Focus on unique core competencies: this will enable the organisation to focus on developing systems that support important, unique core competencies.
- Exploit the intellect of another organisation: outsourcing allows organisations to obtain intellectual capital by purchasing it from another organisation. It allows the organisation to find those individuals with the expertise you need to get your system developed and implemented.
- Better predict future costs: whatever function the organisation outsources, the organisation will know the costs.
- Acquire leading-edge technology: allows the organisation to acquire leading-edge technology without having to acquire technical expertise and bear the inherent risks of choosing the wrong technology.
- Reduce costs: outsourcing is often seen as a money saver for organisations.
- Improve performance accountability: outsourcing involves delegating work to another organisation at a specified level of service. An organisation can use this to ensure that IT gets exactly what is expected from the vendor.

In support of the above, Gonzalez *et al.* (2009:182) state that outsourcing will afford the organisation the access to the state of the art technology, thereby reducing the need to make an investment in mature technology, and it also reduces the risk of obsolescence since change in technology happen rapidly. This technology requires high volumes of both knowledge and skills to operate and manage effectively.

McMillan and Shukla (2010) argue that the biggest advantage of IT outsourcing is when it makes companies more flexible and agile, ready to meet the challenges of doing business in an increasingly technological and competitive world, while providing cost savings and service level improvements.

Badenhorst-Weiss and Nel (2008) conclude that outsourcing can free management's time and attention to concentrate on the institution's core functions and can provide relief where the institution lacks the capacity in terms of volume and/or skills.

2.12 The disadvantages of outsourcing

Outsourcing has proven to be effective. However, there are significant disadvantages, and they continue to pose challenges for organisations. Such challenges are the unfavourable circumstances, drawbacks, and weaknesses preventing the outsourcing to succeed.

According to Haag *et al.* (2007) outsourcing reduces technical know-how for future innovation. It is a way of exploiting the intellect of another organisation and it can also mean that an organisation will no longer possess that expertise internally. Yasin and Purdue (2009) note that the potential risks to the organisations include the loss of control on outsourced activities, sharing critical organisation data with third parties and resistance to change by an existing organisation.

McMillan and Shukla (2010) state that another disadvantage is failure to deliver by the vendor as expected, and the common error is not having a contingency plan to deal with the risk, and this normally forces the organisation to unexpectedly alter its strategy. Another disadvantage, which is the most challenging, is the human factor issues in outsourcing, since everyone is overwhelmed with conflicting emotions and differing concerns (Jones, 2009).

2.13 Outsourcing in NWPG

According to North-West Provincial Treasury (2011), The Information Technology Directorate's primary responsibility is to provide Information Communication Technologies (ICT) leadership, support and advisory services to the NWPG. Its mandate is to continually ensure that ICT in the province remains aligned to the business of the NWPG and that all ICT is integrated and, as far as practically possible, standardised across all spheres of the NWPG.

The Information Technology programme offers a transversal service to the NWPG through two sub programmes structured as follows:

1. Programme Support

This sub-programme facilitates the efficient co-ordination of the administration and management of the programme.

2. Information Technology Services (Incorporating Business Support Services and e-Government)

Services include: plans, maintain and support the provincial network, communications network (VOIP), mainframe and file-server architecture with related systems.

3. Business Support Services:

Service include: Planning, selection, deployment and maintenance of the business software (web development, Walker development, BAS development and other applications development.

4. e-Government:

Services include: Ensuring that the enterprise architectures (file servers, mainframe, networks) are continuously aligned with the strategic intent of the NWPG with regard to the maintenance of the Master Systems Plan (MSP), and the Provincial Strategic Information Systems Plan (SISP) of the Departments, with the oversight of the Provincial Government Information Technology Officer Committee (PGITOC).

The NWPG is very firm on its stance regarding IT outsourcing. According to Mabe (2011) the department has struggled for the past nine years to finalise the migration of its IT services to SITA. The concern is that the provincial government does not name the obstacles that hinder them to finalise their IT outsourcing process. ADP (2005) argues that IT outsourcing becomes a risky decision to most organisations when the project is on a large scale, and has long lead times to complete.

North-West Provincial IT (2009) outlined the following as the challenges facing the IT directorate:

- Having the right mixture of ICT skills and competencies – the appointment of personnel; government not fully leveraging its size and offerings to retain people; alternative sourcing models to consider.
- Lack of ICT Governance Structures – Central Coordination of ICT and ICT Value.
- Non-apparent Transparent ICT Investment Processes in NWPG – invest the same way.
- Longer lead times between ICT adoption and ICT policy formulation.
- Articulating customer demand (society, business and government) – Business must be the driver.
- The role of CFOs and Treasury in the Provincial and Departmental ICT investment process.
- IT's mandate not clear and no defined business performance levels to measure services.
- What is IT's span of operation (inclusive of municipalities?) and at what cost?
- Corporate culture – ill-discipline in the department.

When the IT department's effectiveness and efficiency are lacking, and the department is not working properly, they might outsource this function to an external provider (Brandas, 2010).

If outsourcing is the best option for an organisation, like NWPG, it must take the time to fully understand the process and the consequences. ADP (2005:406) warns that outsourcing should not be imagined to be a panacea for all perceived IT problems. It is not a relatively straightforward transaction involving the simple transfer of services to a supplier, but it focuses mostly on how the strategy is planned, implemented, and managed (Willcocks *et al.*, 2011).

It is important that when re-organising the IT function organisation's give serious consideration to deciding what part of the IT function is to be performed internally and what part would be appropriate to be outsourced to external parties (Arshad *et al.*, 2007).

Mui (2003) lists some examples of the IT functions and activities that can be outsourced, which include:

- Security and Disaster Recovery
- Network Services
- Desktop Systems
- Help Desk
- Application Development
- Application Maintenance
- Intranet/Internet/E-commerce Application
- Mainframe Applications

According to Lientz and Larssen (2006) organisations outsource support activities, such as maintenance, network operations, and the help desk, and this requires a great deal of planning, constant management and coordination.

Organisations that succeed at outsourcing generally need to have some critical capabilities. Chief among these is the ability to recognise what is and what is not a core competency. According to Basu and Jarnagin (2008) many CEOs find the financial and business returns on their IT investments obscure and difficult to quantify, and feel that, regardless of the amount of money they spend on IT, there is always pressure for more applications, the latest hardware and software, more people and faster networks. Therefore they focus more on keeping down the costs of IT rather than on tapping its potential.

2.14 Financial aspects

Usually outsourcing is regarded as a means of achieving substantial cost savings quickly. It is important to do a financial assessment to determine the actual cost of outsourcing. The financial situation of the NWPG is that IT is considered a fixed cost, while all the other provincial departments perceive the services as free of charge. The outsourcing might modify these perceptions and might generate some discipline in the IT system evaluation.

According to Farrell (2010) outsourcing can result in lowered costs and competitive advantage. Poorly made outsourcing decisions can lead to a variety of

problems, such as increased costs, brand damage, disrupted service, loss of operational knowledge and even business failure.

However, McIvor (2005) states that many organisations have failed to understand all the major costs associated with outsourcing evaluation and management, and in most cases organisations have underestimated the costs of finding and evaluating suppliers, drafting the contract and managing the relationship.

In reducing the outsourcing costs Remenyi, *et al.* (2007:131) suggests that there are three macro-strategies available namely:

1. Systems may be wholly or partly outsourced.
2. Systems may be wholly or partly downsized or right-sized.
3. IT may be harvested.

Although outsourcing has its challenges, other options are downsizing or rightsizing, which usually involves, for example, replacing mainframes with mid-range machines or even networks of personal computers and IT harvesting. Remenyi, *et al.* (2007:131) defines harvesting as squeezing the lemon, cutting back on development, postponing upgrades, reducing service and keeping old equipment beyond the usual period in order to reduce the organisation's costs.

Outsourcing is indeed a cheaper option for companies but when done incorrectly, it may be even more expensive (Jamee, 2011).

2.15 Total cost of ownership (TCO) of technology assets

In analysing, evaluating and determining the total costs of rendering IT services, the total cost ownership (TCO) model can be used to analyse these direct and indirect costs (Laudon and Laudon, 2011).

Table 2.1 describes the most important TCO components to consider in a TCO analysis.

Table 2.1: Total cost of ownership (TCO) of technology assets

Hardware acquisition	Purchase price of computer hardware equipment, including computers
Software acquisition	Purchase or license of software for each user
Installation	Cost to install computers and software
Training	Cost to provide training to information systems specialists
Support	Cost to provide ongoing technical support, help desk, and so forth
Maintenance	Cost to upgrade the hardware and software
Infrastructure	Cost to acquire, maintain, and support related infrastructure, such as networks and specialised equipment (including storage backup units)
Downtime	Lost productivity if hardware or software failures cause the system to be unavailable for processing and user tasks
Space and energy	Real estate and utility costs for housing and providing power for the technology

Source: Laudon and Laudon (2011)

2.16 Government outsourcing agency 'SITA'

The State Information Technology Agency (SITA), was established to provide for the establishment of a company that will provide Information Technology, Information Systems and related services to, or on behalf of, participating departments, and in regard to these services acts as an agent of the South African Government, and to provide for matters connected therewith (SITA, 2008).

SITA is governed by the SITA act No. 88 of 1998, to consolidate and coordinate the State's information technology resources in order to achieve cost savings through scale, increased delivery capabilities and enhanced interoperability.

Furthermore, the Act separates SITA's services into mandatory services (i.e. SITA must provide), and non-mandatory services (i.e. SITA may provide).

Table 2.2: SITA mandatory and optional services

Mandatory	Optional
Provide or maintain a PTN / VAN	Training
Provide or maintain transversal systems	Application software development
Provide data processing for TIS	Maintenance of software & infrastructure
Procure IT for government	Data processing for department-specific applications or systems
Set standards regarding interoperability	Technology or business advice for IT
Set standards regarding security	R&D
Set	Training
Certify all acquisitions for standard compliance	Application software development
Eliminate duplication	Maintenance of software & infrastructure
Leverage economies of scale	

Source: SITA (2006)

It is because of this act that the MEC in the Department of Finance NWPG, intends to outsource IT services to SITA. The concern is: How is SITA performing with regard to outsourcing?

2.16.1 SITA's performance as an agency

SITA, being the preferred candidate vendor for government IT services, and legislated, has suffered negative reporting from the print media. According to Rasool (2011) the minister in the Department of Public Service and Administration has acknowledged SITA's poor performance. SITA was established to ensure that

the South African Government would benefit through bulk purchasing of ICT goods and services, and to deliver e-government services and establish an ICT skills development plan.

However, it has been beleaguered by allegations of large-scale corruption, irregular procurement practices, and poor governance and leadership. It has also been plagued by a lack of top-level stability, as several permanent and acting CEOs have come and gone since the agency's inception, concluded (Rasool, 2011).

Baloyi (2011) states that after extensive consultation with stakeholders during 2009, the department resolved that serious interventions were required to address the challenges faced by SITA. The challenges that required serious immediate attention spanned the areas of:

- poor service delivery;
- the absence of an integrated Customer Relationship Management approach;
- procurement processes fraught with weaknesses, culminating in irregular expenditure and non-compliance with regulatory frameworks;
- the perceived high cost and pricing models;
- the high turnover of leadership at Executive level and lack of core skills; and
- poor governance leadership.

Outsourcing should be done for the right reasons, following due process, and pursued with realistic expectations and clear understanding of the benefits. When government service is outsourced, as McIvor (2005:25) states that many organisations fail to realise that managing an outsourcing vendor requires a different set of skills, such as contract negotiation and relationship management, than those associated with managing an internal process.

Ensor (2010) reports that there is no stability in the higher hierarchy of the SITA organisation. Troubled State Information Technology Agency (SITA) is being owed over R800m by the South African Government departments, and SITA threatens to cut off services to the owing department. SITA will have to deal with the

problems of its service delivery, which in many cases led to the departments' refusal to pay services rendered.

A key to the understanding of outsourcing concept is that while service delivery has been transferred, accountability stays with the organisation (Buligi and Ciora, 2008).

According to Arshad *et al.* (2007), outsourcing requires a significant investment that will, necessarily, affect the organisation's bottom line, culture, risk profile, customer relationships, flexibility and day-to-day operation. Therefore, quality of the services, relationships between parties, laws and legislation and cost should be taken into consideration in outsourcing activities.

For the North-West Provincial Government to comply with legislation by signing the Service Level Agreement (SLA) or Business Agreement (BA) with SITA as stipulated by the SITA act, without due diligence, will be doing injustice to the process.

2.17 The human factor

Jones (2009) states that ignoring the 'people side' of outsourcing is a deadly mistake, and directly shows a lack of concern for people. All the people in the organisation are affected by outsourcing: the managers, the clients, the leaders responsible, the people transferred, the people retained, as well as the people retrenched.

Communication and timing are vitally important, in both the announcement and the management of the transition. Jones (2009) further states that human factors are the most important and among the most difficult issues during an outsourcing process. The best and most experienced employees may take their knowledge and skills to another employer. Another group may feel inadequate or afraid of change and oppose outsourcing at every opportunity.

Buligi and Ciora (2008) note that outsourcing will present a new challenge and add responsibility to the organisation. The significant changes will be:

- A change from managing employees within a public sector to administering a contract.

- Requirement for monitoring and review techniques, data collection, and efforts to solve new kinds of problems.

According to Morgan (2009), if there is a likelihood of transferring staff to the vendor, and/or imposing redundancies, the transfer may be perceived as an indication of their underperformance and being unwanted.

The issue of outsourcing is a concern to trade unions, as there are usually job losses, or at least job instability involved, arising in both the supplier and client organisation. The impact on the people being outsourced is frequently one of frustration, as they are having the outsourcing done to them (Morgan, 2009).

2.18 Conclusion

From the discussion above, it is clear that reasons for outsourcing vary. Some benefits include reducing costs, exposure to new technology, and higher quality of service. Although outsourcing brings these benefits, there are some disadvantages, which include, among others, losing control, hidden costs, and low morale of staff. However, with sound management planning outsourcing can bring the desired results.

In order to reap as many benefits as possible from outsourcing while simultaneously avoiding many potential pitfalls, it is essential for governments to utilise a solid governance approach in managing the outsourcing process. Such a regulatory framework may pave the way for a secured and successful deployment of IT outsourcing, with proper risk management and strong enforcement of policies and procedures (Arshad *et al.*, 2007).

Outsourcing is not a simple endeavour. If it appeals to an organisation, an IT organisation must take some time to fully understand the outcome of its choice. There are tools and techniques, like the governance charter, as discussed, which are relatively easy to use and which force the parties to think about and agree on how they will work together in getting the best of outsourcing. The next chapter presents the research methodology.

CHAPTER 3

RESEARCH METHODOLOGY

3.1 Introduction

This chapter focuses on the research methodology deployed in this study. The theoretical concepts, the design and structure of the selected research technique used in this study are explained. The discussion on methodology will focus on the following: research design, research methodology, the organisation, population, sampling techniques, data analysis, validity and reliability, and ethical considerations.

3.2 The research approach

Anderson (2006) states that there are two research types, namely qualitative, which is collecting, analysing and interpreting data by observing what the people do and say. Quantitative research uses numerical analysis and large number of respondents is involved. Measurement must be objective, quantitative and statistically valid. This approach reduces the data to numbers

In Table 3.1 Cooper and Schindler (2006) illustrate the distinction between two research methodologies.

Table 3.1 Qualitative versus quantitative research

	Qualitative	Quantitative
Focus of research	Understand and interpret	Describe, explain and predict
Researcher involvement	High-researcher is participant or catalyst	Limited; controlled to prevent bias
Research purpose	In-depth understanding, theory building	Describe or predict; build and test theory
Sample design	Non-probability; purposive	Probability
Sample size	Small	Large
Research design	May evolve or adjust during the course of the project Often uses multiple methods simultaneously or sequentially Consistency is not expected	Determined before commencing the project Uses single method or mixed methods Consistency is critical Involves either a cross-

	Involves longitudinal approach	sectional or a longitudinal approach
Participant preparation	Pre-tasking is common	No preparation desired to avoid biasing the participant
Data type and preparation	Verbal or pictorial descriptions (Reduced to verbal codes sometimes with computer assistance)	Verbal descriptions Reduced to numerical codes for computerised analysis
Data analysis	Human analysis following computer or human coding; primarily non quantitative Forces researcher to see the contextual framework of the phenomenon being measured-distinction between facts and judgments less clear Always ongoing during the project	Computerised analysis-statistical and mathematical methods dominate Analysis may be ongoing during the project Maintains clear distinction between facts and judgments
Insights and meaning	Deeper level of understanding is the norm; determined by type and quality of free-response questions Researcher participation in data collection allows insights to form and be tested during the process	Limited by the opportunity to probe respondents and the quality of the original data collection instrument Insights follow data collection and data entry, with limited ability to re-interview participants
Research sponsor involvement	May participate by observing research in real time or via taped interviews	Rarely has either direct or indirect contact with participants
Feedback turnaround	Smaller sample sizes make data collection faster for shorter possible turnaround Insights are developed as the research progresses, shortening data analysis	Larger sample sizes lengthen data collection; internet methodologies are shortening turnaround but inappropriate for many studies Insights development follows data collection and entry, lengthening research process; interviewing software permits some tallying of responses as data collection progresses
Data security	More absolute, given use of restricted access facilities and smaller sample sizes	Act of research in progress is often known by competitors; insights may be gleaned by competitors

		for some visible, field-based studies
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Source: Cooper and Schindler (2006)

According to Cooper and Schindler (2006) quantitative research is a measurement of something; it usually measures behaviour, knowledge, opinions or attitudes. Qualitative research is based on researcher interest in the phenomenon to be studied, gathering information data which provide a detailed description of events, situations and interaction between people and things, thus providing depth and detail.

3.3 Research method used in the study

For the purpose of this study, a quantitative case study research approach is adopted. The case study in question is the North-West Provincial Government (NWPG) IT. NWPG is a tier two level in the South African government structure and is in-between the national and the local governments.

According to Zaidal (2007), case studies are considered useful in research as they enable researchers to examine data at the micro level. Case studies can be a practical solution when a big sample population is difficult to obtain. They also present data of real-life situations and they provide better insights. The case study method enables a researcher to closely examine the data within a specific context. In most cases, a case study method selects a small geographical area or a very limited number of individuals as the subjects of study.

Quantitative data analysis enables the researcher to make sense of data by organising them, summarising them and doing exploratory analysis. Data is presented as:

- Tables
- Graphical displays

This will enable the researcher to effectively test the various objectives regarding the outsourcing decisions in North-West Provincial Government, as well as to establish patterns of relationships between the various variables of interest.

3.4 Data collection method

Due to the quantitative nature of the present research, it was concluded that the most effective and efficient instrument for this project would be the questionnaire. A questionnaire has been defined by Walliman and Buckler (2008) as a document used to ask for information used for analysis and consequently they are widely and frequently used instruments. The questionnaire will consist of closed-ended questions in order to simplify the interpretation of the findings and to ensure simplicity and relevance for participants.

The questions are a combination of odd number Likert Scale type and checkbox type questions and all questions are designed to answer the research questions or enable suitable testing.

3.4.1 Questionnaire

According to De Vos, Strydom, Fouche and Delport (2011) the main objective is to obtain facts and opinions about a phenomenon from people who are informed on the particular issue. Usually questionnaires ask for information in a written format.

De Vos *et al.* (2011) state that there are different types of questionnaire:

- Mailed questionnaires which are sent by mail with the expectation that the respondents will read the instructions, answer the questions and then return it.
- Telephonic questionnaires – the respondents are phoned by interviewers who ask the questions and record the answers.
- Questionnaires delivered by hand – questionnaires are delivered by hand so that respondents can complete them in their own time, and then collect them again later.
- Self-Administered/individually administered questionnaires – questionnaires are handed to respondents who complete them on their own, but the researcher is available for support in case of problems.
- Group-Administered questionnaires – respondents who are present in a group each complete a questionnaire on their own. Usually this method is set aside for exceptional cases.

- Electronic questionnaires – this type of questionnaire do away with paper-based questionnaires. Questionnaire can be e-mailed with an attachment for the respondent to complete. Another method could be a web-based survey or a computerised interactive voice response (IVR) system.

3.4.2 Advantages of questionnaires

According to Walliman and Buckler, (2008) questionnaires are practical and questions are the same for each respondent. The responses can be completely anonymous. Questionnaires are economic in terms of cost and time of soliciting data from a large number of people. No geographical limitations are imposed.

Questionnaires are relatively quick and easy to create, code and interpret. They can be anonymous and completed in privacy, which ultimately increases the chances of people answering questions honestly because they are not intimidated by the presence of a researcher (Walliman and Buckler, 2008).

3.4.3 Disadvantage of questionnaires

Questionnaires do not allow the researcher to ask follow-up questions at the time. This can lead to incomplete answers, or more time. Getting people to actually respond can be difficult task

The questionnaire makes it difficult to examine issues and opinions, and may not necessarily yield usable data when it comes to analysis It is difficult to know whether or not a respondent has understood a question properly (Walliman and Buckler, 2008).

3.4.4 Format of the questionnaire

The format of the instrument as shown in Table 3.2

Table 3.2 Format of the Questionnaire

ITEM NUMBER	ITEM NAME	DESCRIPTION
	Covering letter	This section introduced the student and the topic under study
1	Demographical	This section gathered gender variable

	background	
2	Qualifications	This section gathered respondents qualification
3	Job function	This section gathered respondents job function
4	Years of experience in IT	This section gathered respondents years of experience
5	Outsourcing process	This section gathered respondent's views on NWPG outsourcing processes
6	NWPG outsourcing strategy	This section gathered respondent's views on NWPG outsourcing strategy
7	IT outsourcing drivers in IT, NWPG	This section gathered respondent's views on IT outsourcing in IT, NWPG
8	IT risk level	This section gathered respondents views IT level of risk
9	IT functions and activities	This section gathered respondent's views on which NWPG IT activities and function should be outsourced.
10	Opinion on NWPG IT Outsourcing	This section gathered respondents opinion on NWPG IT outsourcing

3.5 The population

The population used, is the North-West Provincial Government, Department of Finance, provincial IT. The population comprises sixty six (66) employees. Only fifty three (53) employees participated in the study, which amounts to eighty percent (80%) of the entire NWPG IT staff.

3.6 The sample distribution

The sampling in this study was undertaken at the Department of Finance. The distribution is based on the IT roles: Departmental managers; IT Management; system administrators; information security specialists; programmers; networking specialist; computer operators; system and applications users.

The study's sample distribution is as follows:

Table 3.3 Sample distribution

Department of Finance: IT Directorate	Number of employees per sub unit	Percentage
Management	6	11.3%
System Admin/Support	17	32.1%
Information Security	4	7.5%
Development/Programming	12	22.6%

Networking	14	26.4%
Total	53	100%

3.7 Sampling technique

According to Cooper and Schindler (2006:403) there are various reasons for sampling, which includes among others, lower cost, greater accuracy of results, greater speed of data collection and availability of population elements.

Sampling methods can be divided into two categories,

- Probability sampling

Probability sampling is based on the concept of random selection which is the controlled procedure that assures that each population element is given a known nonzero chance of selection (Cooper and Schindler, 2006:409).

Examples of probability sampling are simple random samples, stratified random samples, systematic samples and cluster samples.

- Non-probability sampling

Non-probability sampling is arbitrary and subjective. Each member of the population does not have a known chance of being included (Cooper and Schindler, 2006:407).

Examples of non-probability sampling include accidental or incidental samples, quota samples, snowball samples self-selection samples and convenience samples

De Vos *et al.* (2011), assert that, probability sampling is based on randomisation, whilst non probability sampling does not implement randomisation.

This research will use random sampling where one selects, entirely at random, a sample of the population. Such an approach is easy to use when the population is known. Welman, Kruger and Mitchell (2009) contend that random sampling is the most attractive type of probability sampling, and is used because the population is uniform or has similar characteristics in all cases. Each member of the population

has the same chance of being included in the sample and each sample of a particular size has the same probability of being chosen,

3.8 Data analysis method

Data will be analysed using a statistical method. Statistical software packages to be used in this research are SPSS, and Excel. These packages are able to conduct survey analysis through such techniques as frequencies and descriptive statistics.

3.9 Ethical requirements

The research guarantees the confidentiality of participants and anonymity. The researcher will get the informed consent of those who are going to answer the questionnaire. Confidentiality will be observed, e.g. participants will not be required to provide their names to the researcher or write them on the questionnaire.

Permission will be obtained from the management to distribute the questionnaires. The employees will be assured that the information obtained will be treated as confidential and that the results will be used for research purposes only.

3.10 Limitations of the study

The results of the study are based on the feedback derived from the sample, Department of Finance, NWPG, IT. Hence there are limits to generalisation of findings. The results represent the perception of IT professionals at a single point in time. The study was conducted in Mahikeng town, and it does not include NWPG IT professionals in provincial regions and all other provincial departments.

3.11 Conclusion

An overview of the research approach was presented. Quantitative research methodology was adopted; questionnaires were used as data-gathering tools, giving the study credibility.

Key distinctions between the qualitative and quantitative research were listed, advantages and disadvantages of questionnaires were discussed. The following chapter will deal with data presentation, interpretation and analysis.

CHAPTER 4

DATA ANALYSIS

4.1 Introduction

This chapter presents and analyses the data generated. The method used by the researcher utilised a self-designed questionnaire, hand-delivered by the researcher to the identified respondents within the Department of Finance (IT) (see Appendix B).

The respondents were given enough time to attempt the questionnaire and were under no obligation to complete the questionnaire. Respondents were given a copy of the authorisation permitting the researcher to collect data (see Appendix A). The population of the study was drawn from the Department of Finance IT Directorate and comprised a total of 53 officials. This sample was made up of managers, system administrative staff and support staff, information security staff, development/programming staff and networking staff (see Table 3.1). The questionnaires were collected after 2 days.

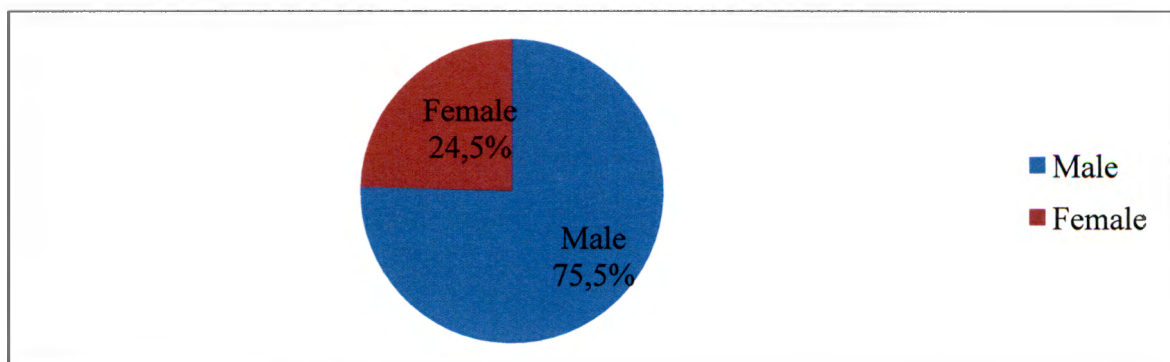
4.1.1 Rate of return

Fifty three (53) questionnaires were distributed in the department to personnel of all job functions and genders. A total of 53 questionnaires were returned, resulting in a rate of return of 100%.

4.2 Demographical background

4.2.1 Gender

Figure 4.1 Gender



According to Figure 4.1 the majority (75.5%) of respondents are male, while 24.5% of the respondents are female. Even though the aim of the study was not to analyse the role of gender on outsourcing of IT in NWPG, the large gap in equity is noted, and this can be attributed to the historical background of women in South Africa.

The demographic information also shows that, as there is gender imbalance, the results will be biased towards male opinions. This indicates that fewer women are still employed in specialised areas, such as IT.

Figure 4.2 Qualification

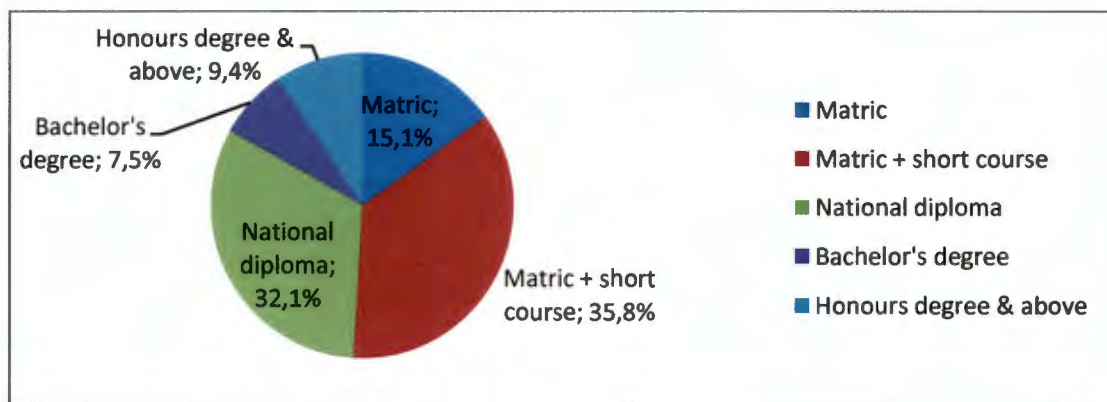
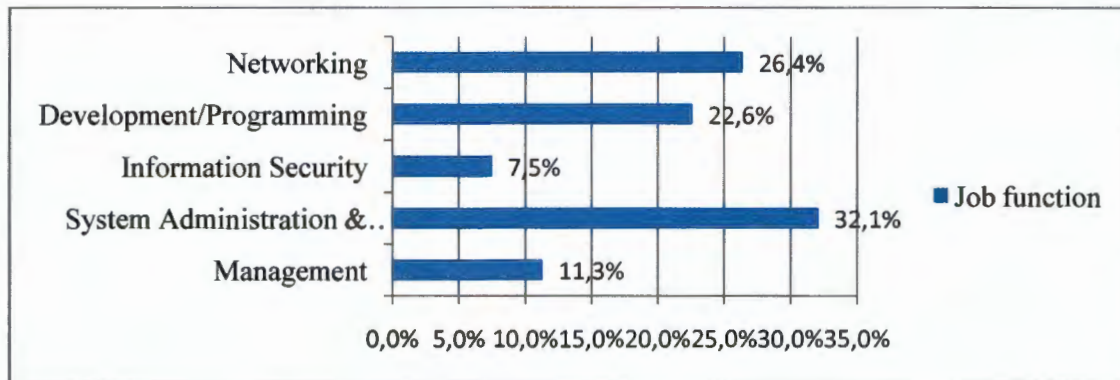


Figure 4.2 indicates that the majority (35.8%) of respondents have a matric plus short course qualifications, followed by 32.1% of respondents having a national diploma. Furthermore, 15.1% of respondents have matric, 7.5% have bachelor's degree and 9.4% have qualifications of post honours degrees and higher.

The above results indicate the educational level of the NWPG staff. Most research participants (15.1% and 35.8%) may be inadequately trained or skilled to work in a highly specialised field such as IT. According to Phillips (2010), within the IT world, requirement for certification has become practically mandatory. Individuals can earn these certifications, based on training, experience, or a combination of both. Qualifications are certainly a way to demonstrate that professionals have worked with the technology, and understand the major concepts, and processes. Matthews (2007:1) states that IT outsourcing falls in the highly skilled category and has been growing rapidly. It therefore is of paramount importance that the employees keep on upgrading their skills to match the demand.

4.2.3 Job function

Figure 4.3 Job function

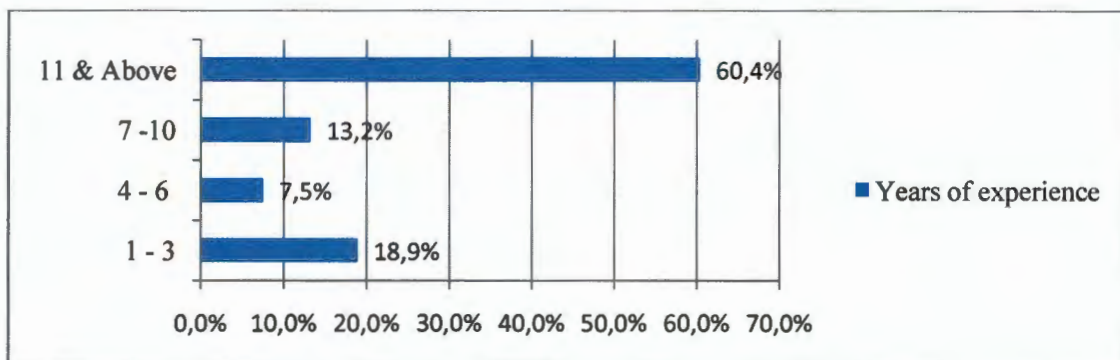


According to Figure 4.3 about 32.1% of respondents work in System Administration and support, followed by 26.4% who work in Networking and 22.6% work in development/programming. Furthermore, 11.3% of respondent are in management positions and 7.5% are in information security.

The result indicates that respondents are well distributed across the organisation.

4.2.4 Years of experience

Figure 4.4 Years of experience



Based on Figure 4.4 the majority (60.4%) of respondents have 11 and more years of experience in IT, followed by 18.9% of respondents having 1 to 3 years of experience, whereas 13.2% and 7.5% of the respondents have 7 to 10 and 4 to 6 years of experience, respectively.

The majority of the NWPG IT staff had been at least 11 years in IT. This indicates that employees are conversant with the IT field, its challenges and opportunities.

According to Phillips (2010), when it comes to Information Technology, experience means practically everything.

4.3. Understanding the IT outsourcing concept

Figure 4.5 Outsourcing concept

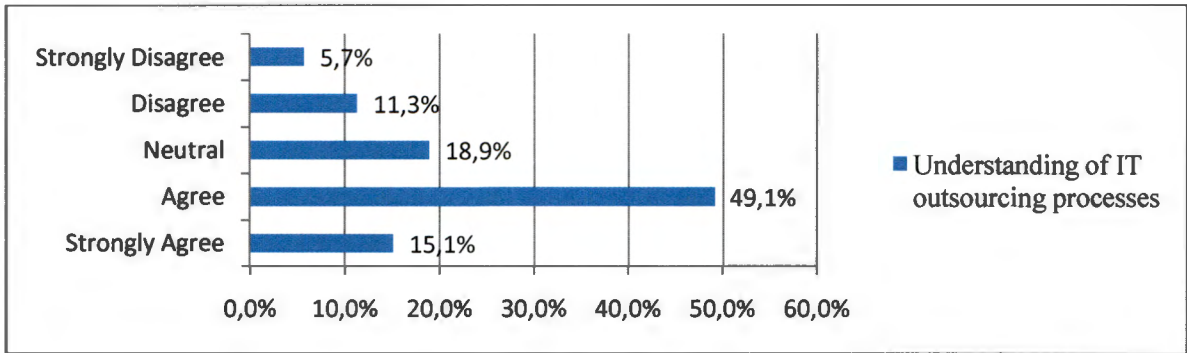


Figure 4.5 reveals that majority (49.1% and 15.1%) of respondents agree and strongly agree that they understand the IT outsourcing processes, followed by 18.9% of those who are neutral to the question asked. Only 11.3% and 5.7% disagree and strongly disagree that they understand IT outsourcing processes.

The results and analysis signify that most of IT staff are conversant with the concept of IT outsourcing and are thus able to understand how this may affect them. The survey results may also suggest that the respondents are aware that organisations should establish outsourcing governance processes and frameworks that will enable all parties to become familiar with the contractual obligation, expectations, roles and responsibilities.

4.3.2 There is a clear strategy by NWPG

Figure 4.6 Clear strategy by the NWPG

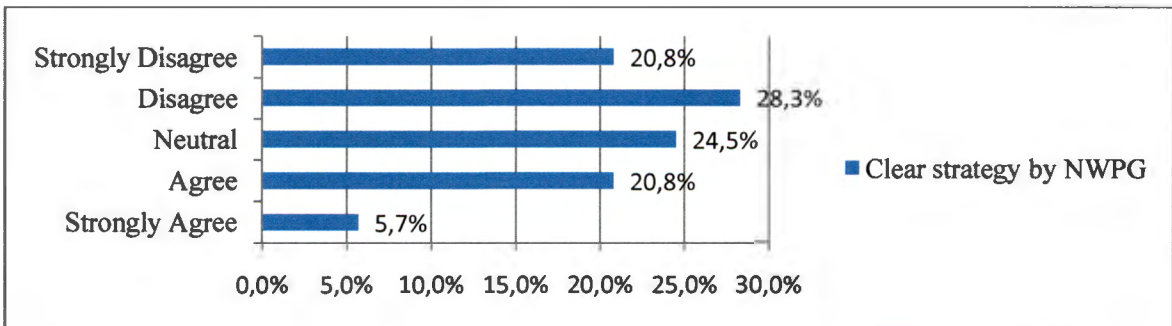


Figure 4.6 highlight that the majority (28.3% and 20.8%) of respondents disagree and strongly disagree that there is a clear strategy by NWPG to outsource its IT services to SITA. About 20.8% and 5.7% of respondents agree and strongly agree that there is a clear strategy by NWPG to outsource its IT services to SITA. Also, about 24.5% of respondents neither agree nor disagree with the statement posed.

The results raised a concern that there is no clear strategy by NWPG to outsource IT functions, which is in contradiction with Benvenuto and Brand (2005), namely that a successful outsourcing plan depends on the clear strategy that enables an organisation to identify, document and address key objectives proactively.

4.3.3 There are efficient communication channels in the NWPG

Figure 4.7 Efficient communication channels

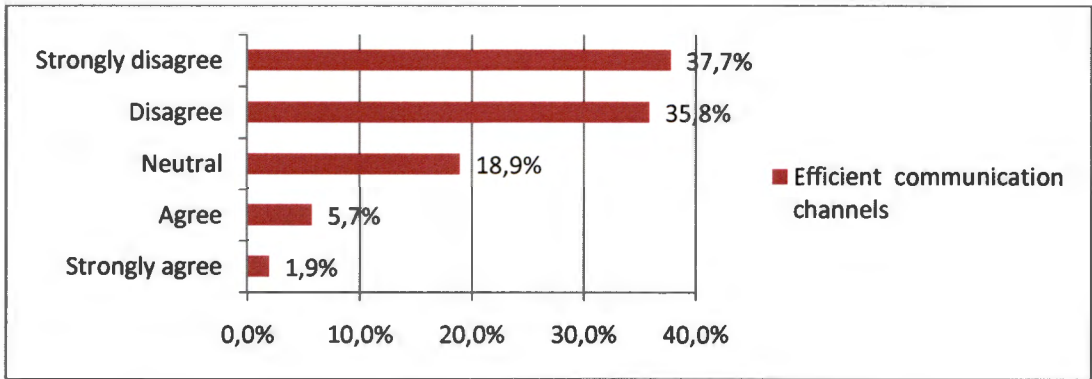


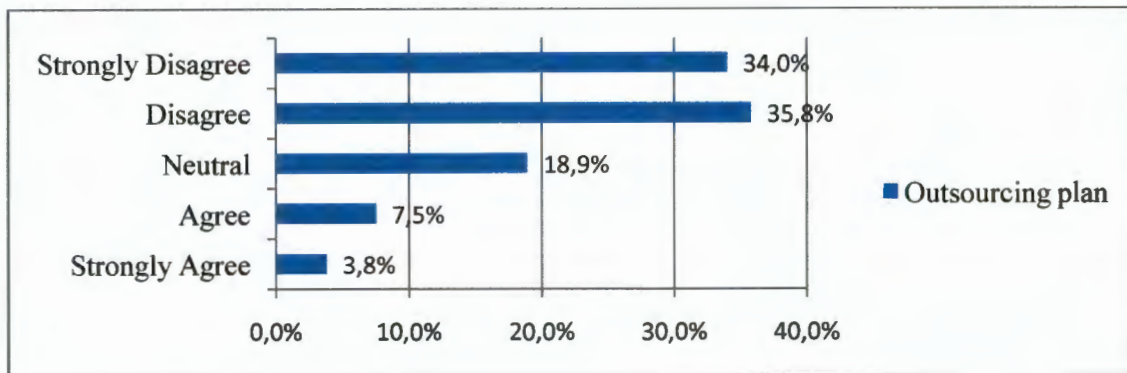
Figure 4.7 shows that the majority of the respondents (37.7% and 35.8%) strongly disagree and disagree that there is efficient communication channels between NWPG IT staff and management regarding IT outsourcing to SITA. This is followed by 18.9 % respondents who neither disagree nor agree with the statement. Lastly about 5.7% and 1.9% of the respondents agree and strongly agree that there is an efficient communication channel between NWPG IT staff and management regarding IT outsourcing to SITA.

The majority of the respondents are of the opinion that current communication channels regarding the NWPG IT outsourcing are not efficient. The above results raises a concern and affects the outsourcing success since staff meetings and in-house written communications help set the right tone during the outsourcing planning stages. According to Kremic and Tukul (2006) it is very important that sufficient planning, intrinsic communication and the human resource issues be

taken seriously, however, the results appear to be in contradiction with this statement. Jones (2009) states that human factors are the most important and among the most difficult issues during an outsourcing process.

4.3.4 There is a documented outsourcing plan in NWPG IT

Figure 4.8 Documented outsourcing plan



The above Figure reveals that 35.8% and 34.0% of the respondents disagree and strongly disagree, respectively that there is a documented outsourcing plan. About 18.9% of the respondents neither agree nor disagree with the question. Lastly, only 7.5% and 3.8% of the respondents agree and strongly agree with the statement.

The survey results indicate that a strategic plan, which includes goals and objectives, as well as the reasons for undertaking outsourcing are not documented. This can be attributed to the fact that it took almost ten years for NWPG to implement the outsourcing of IT services to SITA (Mabe, 2011). In order for outsourcing to succeed, an organisation must have efficient communication channels, which are open to all employees, an explicit documentation which may include among others, details of transfer of assets, people, information, knowledge, hardware, software, etc. This will afford the staff a clear understanding of what is happening.

In developing a strategic sourcing plan, senior management should agree on the methodology and approach, including measuring critical success factors (Remenyi *et al.*, 2007:131).

4.3.5 Change control process in place regarding NWPG IT outsourcing

Figure 4.9 Change control process

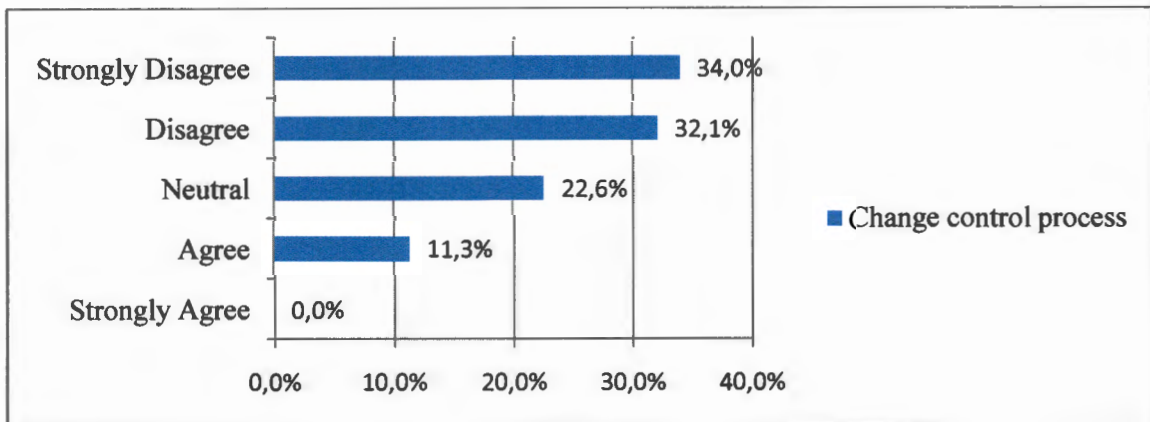
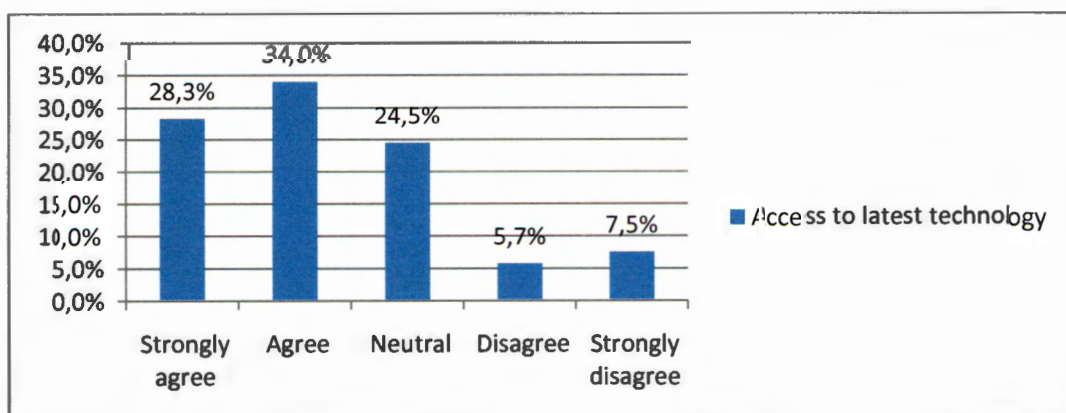


Figure 4.9 shows that the majority (34.0% and 32.1%), of the respondents strongly disagree and disagree that change control process is in place in NWPG IT. Furthermore, there are 22.6% of those who neither disagree nor agree with the statement, and only 11.3% of the respondents agree with the statement posed.

Change control was emphasised by Bojonny (2005) who stated that IT managers and officials often view any discussion about IT outsourcing as an attack on their ability to manage and perform their functions. This seems to be the case with NWPG IT officials. This result can further be linked to the results shown in Figure 4.8 where respondents indicated that there is no documented outsourcing plan, and Figure 4.7 where respondents indicated that the NWPG lacks the efficient communication channels which are open to all.

4.4 Outsourcing drivers in NWPG IT department

Figure 4.10 Access to latest technology



In Figure 4.10, 34% and 28.3% of the respondents agree and strongly agree that access to the latest technology is the main driver of outsourcing, followed by 24.5% of respondents who neither agree nor disagree with the question. About 7.5% and 5.7% strongly disagree and disagree, respectively.

The result indicates that respondents acknowledge the importance of access to the latest technology as one of the drivers of outsourcing.

The technological environment changes quickly, and the company has to keep up with the latest technology. According to Gonzalez *et al.* (2009:189) more value continues to be assigned to the improvement made by outsourcing, which allows the company to have access to the latest information system services and more up-to-date technology.

4.4.2 Improve performance

Figure 4.11 Improve performance

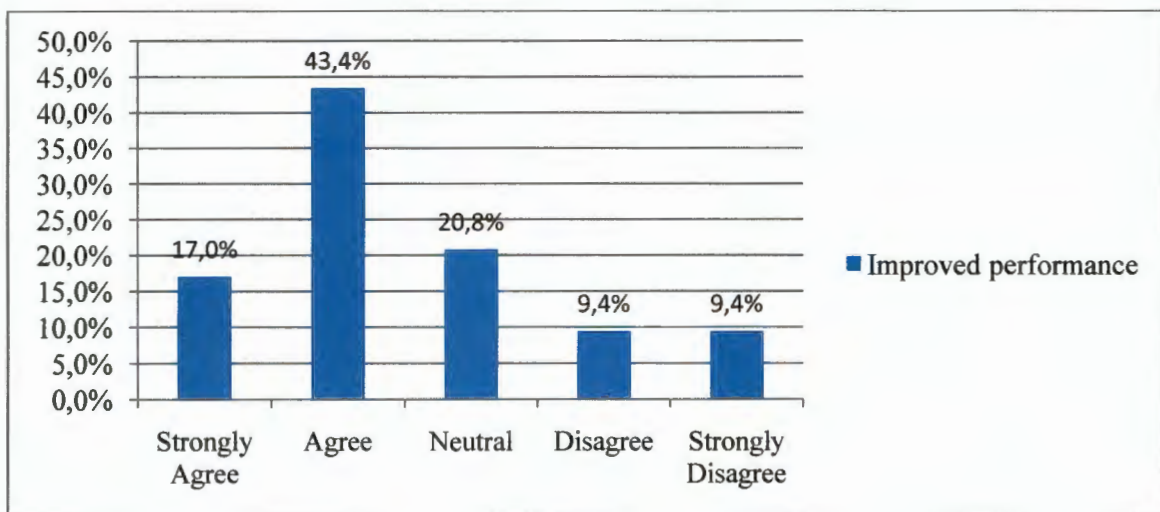


Figure 4.11 shows that the majority (43.4% and 17%) of the respondents agree and strongly agree that outsourcing will improve performance, followed by 20.8% of those who neither agree nor disagree with the statement. About 9.4% of respondents disagree and strongly agree that outsourcing will improve performance. The results reveal that the outsourcing vendor will be able to provide better performance than in-house. The above results seem are in line with Haag *et al.* (2007:295), namely that outsourcing improves performance and accountability.

4.4.3 Access to qualified professionals

Figure 4.12 Access to qualified professionals

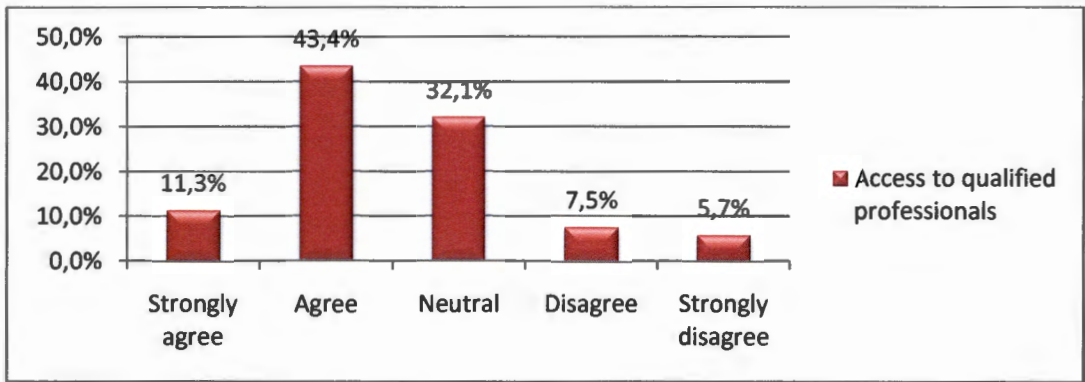
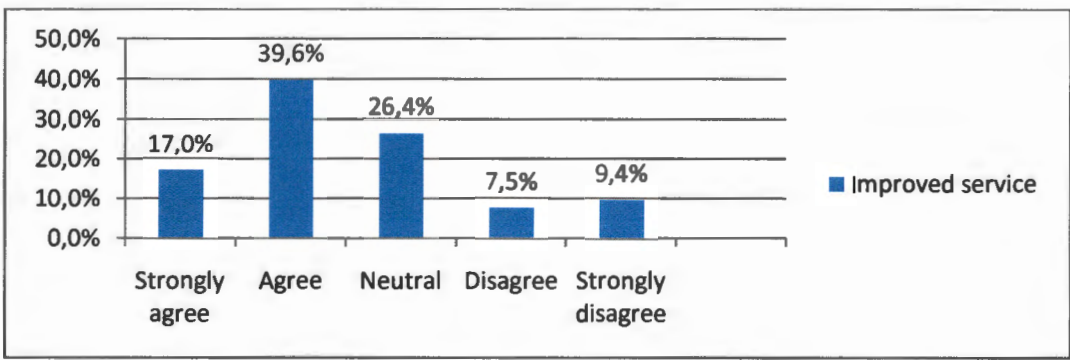


Figure 4.12 shows that majority (43.4% and 11.3%) of the respondents agree and strongly agree that access to qualified professionals is the driver to outsourcing, followed by 32.1% of those respondents who neither agree nor disagree with the statement. About 7.5% and 5.7% of the respondents disagree and strongly disagree.

The results indicate the need by NWPG to access qualified professionals. These may include skilled, experienced and well trained professionals. While using outsourcing of IT services, the company is in danger of losing at least some of its technical expertise. This again will depend on whether the organisation has an outsourcing plan. As indicated in Figures 4.6 and 4.8 the department may run the risk of losing current qualified officials.

4.4.4 Improved service

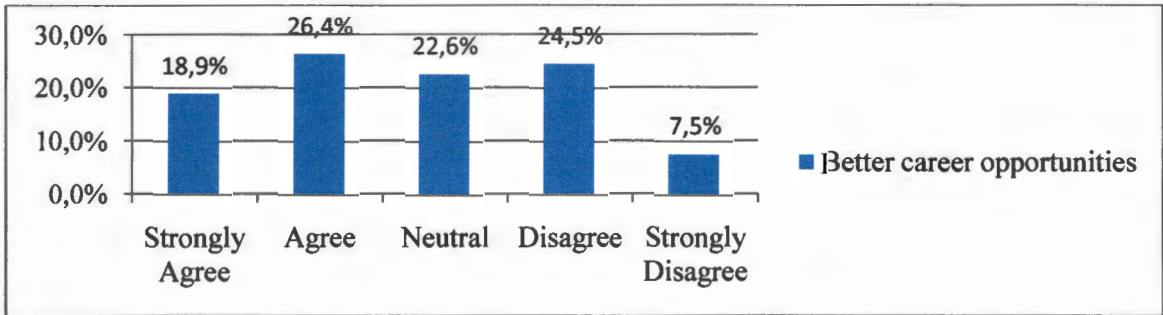
Figure 4.13 Improved service



In Figure 4.13 above, 39.6% and 17% of the respondents are of the opinion that IT outsourcing improves the service levels of an organisation. The above result is supported by Gonzalez *et al.* (2009), namely that organisations outsource their IT in order to have at their disposal high-quality IT services and knowledge. As a result outsourcing improves efficiency and leads to accessing world-class capabilities (Dominguez, 2006:8).

4.4.5 Better career opportunities

Figure 4.14 Better career opportunities



Based on Figure 4.14, 26.4% and 18.9% of the respondents agree and strongly agree that better career opportunities are the driver to IT outsourcing, followed by 24.5% and 7.5% of those who disagree and strongly disagree. About 22.6% of the respondents neither agree nor disagree with the question.

The result substantiates the argument raised by Buligiu and Ciora (2008), namely that benefits attributed to outsourcing include supply and demand of skills and knowledge, which might motivate officials to be absorbed by the vendor or join other companies.

4.4.6 Follow trend

Figure 4.15 Follow trend

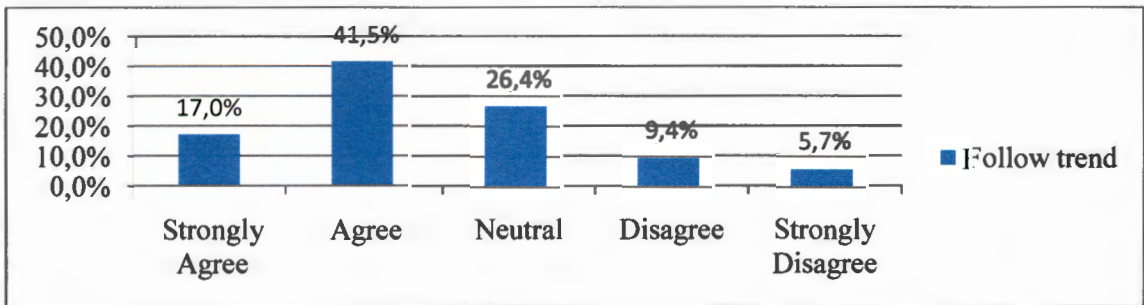
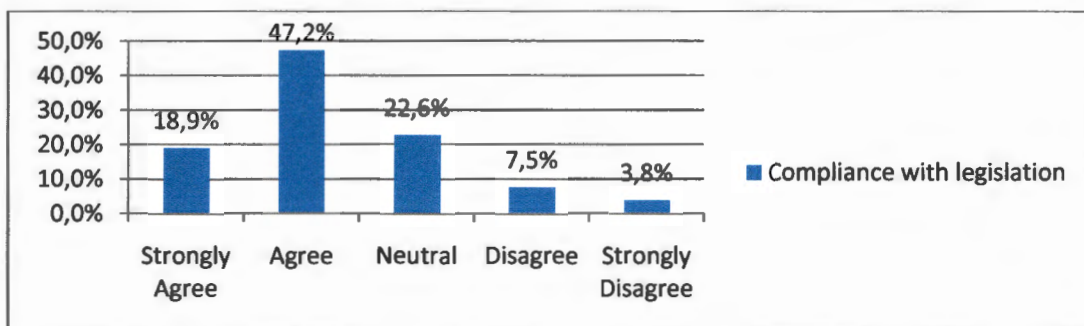


Figure 4.15 shows that 41.5% and 17% of the respondents agree and strongly agree that following the trend is the driver of IT outsourcing, followed by 26.4% of those who neither agree nor disagree with the question. About 9.4% and 5.7% disagree and strongly disagree with the question.

The result are to be in line with Gonzalez *et al.* (2009:181) who state that firms normally choose to outsource their IT in order to benchmark or copy success of other organisations that have already outsourced.

4.4.7 Compliance with legislation

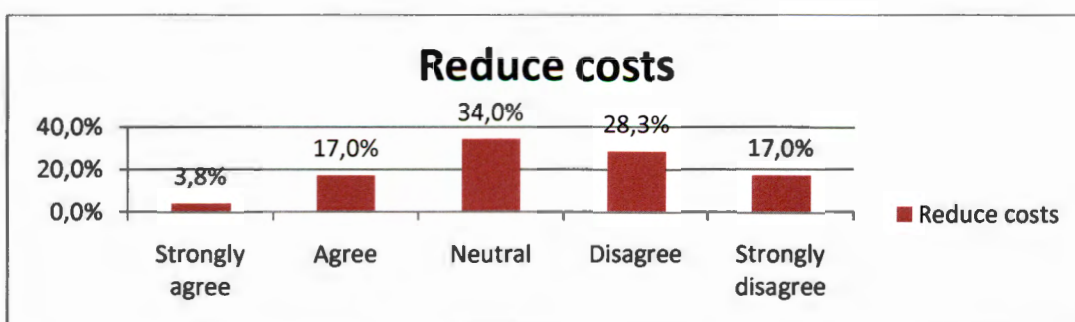
Figure 4.16 Compliance with Legislation



Based on Figure 4.16 above, the majority (47.2% and 18.9%) of the respondents agree that compliance with legislation is the driver of IT outsourcing. About 22.6% of the respondents are neutral to the statement and only 7.5% and 3.8% of respondents disagree and strongly disagree with the statement. The results indicate that the move to outsource IT services was in line with the outcome of the NWPG strategic session (2009) and that the department had failed to comply with the decision taken by the provincial government to outsource IT.

4.4.8 Reduce costs

Figure 4.17 Reduce costs



Based on Figure 4.17, 34% of the respondents are neutral to the statement, 28.3% and 17% of the respondents disagree and strongly disagree with the statement. Only 17% and 3.8% of the respondents agree and strongly agree, respectively.

The result contradicts the argument raised by Haag *et al.* (2007:295), namely that outsourcing is often seen as a money saver for organisations. Farrell (2010:1) states that poor outsourcing decisions can lead to a variety of problems, such as increased costs, brand damage, disrupted service, loss of operational knowledge and even business failure.

Basu and Jarnagin (2008), note that it is difficult for IT to reduce the costs because it is always under pressure for faster networks, latest hardware and software. Rather than focusing purely on price, more and more organisations are looking for solutions and relationships that add flexibility and strategic value. In view of the above, the results indicate that respondents do not view outsourcing as a way of reducing costs and not even to control them.

4.5 Indicate the risk level of outsourcing IT function in NWPG

Figure 4.18 Loss of control?

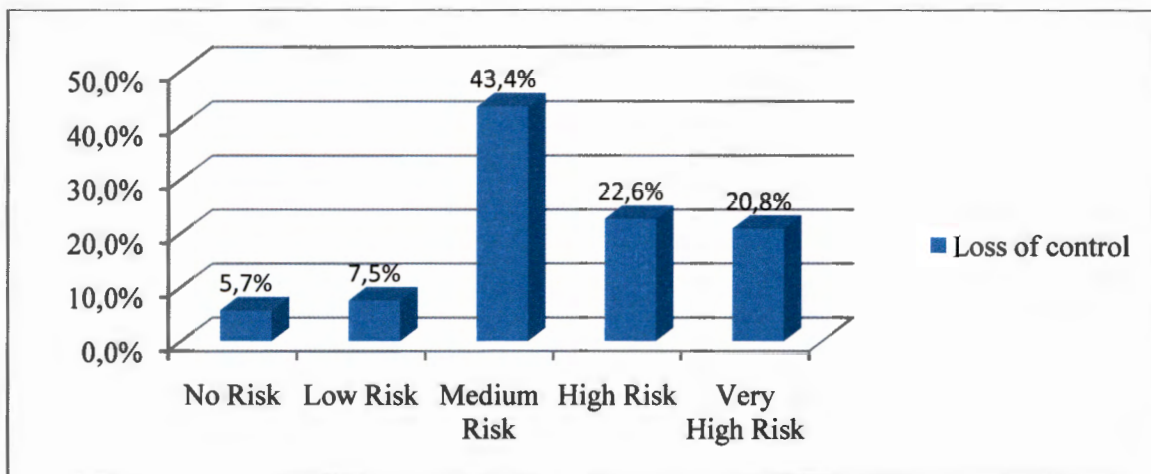
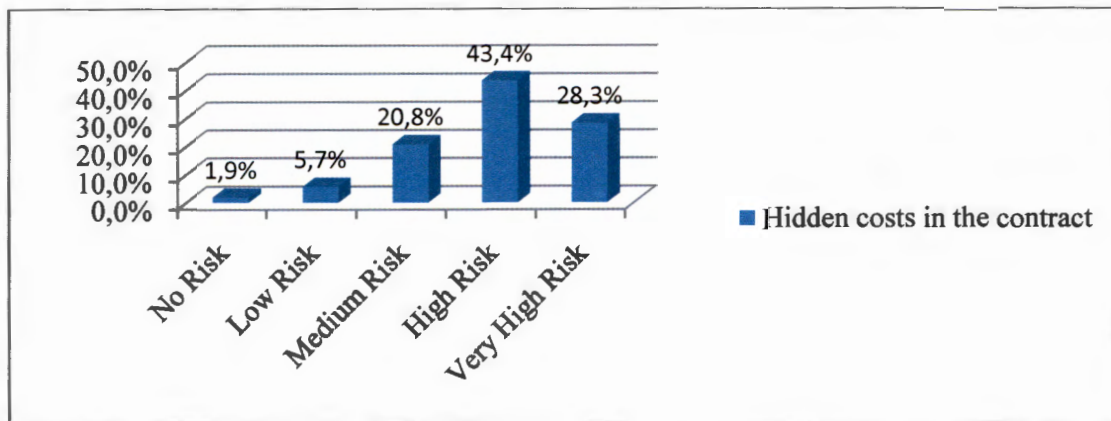


Figure 4.18 shows that the majority (43.4%) of the respondents ranked loss of control as a medium risk, 22.6% and 20.8% of the respondents indicated loss of control as high and very high risk respectively. Only 7.5% and 5.7% of the respondents believe that the risk of loss of control caused by outsourcing is low or absent, respectively.

Respondents expect greater risk levels of outsourcing IT through the loss of control. The results are also in line with the Yasin and Purdue (2009) that indicates the potential risks of outsourcing to organisations, which include the loss of control on outsourced activities, among others.

4.5.2 What are Hidden costs in the contract?

Figure 4.19 Hidden costs in the contract



Based on Figure 4.19, 43.4% and 28.3% of the respondents ranked hidden costs in the contract as high risk and very high risk, respectively, followed by 20.8% of those who ranked hidden costs in the contract to be at medium risk. Only 5.7% and 1.9% associate hidden costs in the contract due to outsourcing to carry low or no risk.

Raisinghani *et al.* (2008:77) state that hidden costs are often caused by ambiguous contracts that fail to define present and future IT requirements. The results in Figure 4.19, suggest organisations have failed to understand all the major costs associated with outsourcing and in most cases organisations underestimate the costs of finding and evaluating suppliers, drafting the contract and managing the relationship (McIvor, 2005).

Furthermore, Raisinghani *et al.* (2008:77) state that hidden costs can result from relocating or dismissing staff, transfer of licenses by software vendors, travel costs, investigation costs, and the cost of developing infrastructure to support off-site operations. The majority of respondents support the above statement by Raisinghani *et al.* (2008), namely that hidden costs in the contract pose a high risk.

4.5.3 Fewer people are employed

Figure 4.20 Fewer people are employed

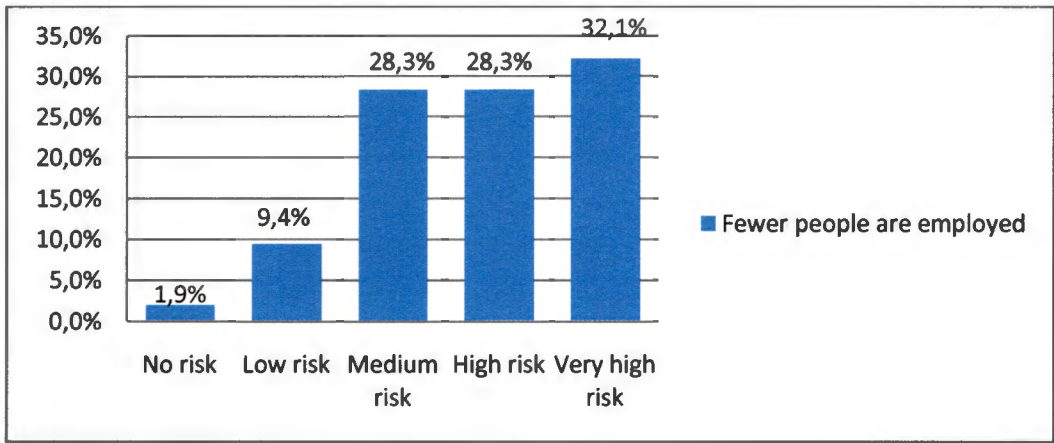


Figure 4.20 shows that the majority (32.1%) of the respondents ranked fewer people are employed as very high risk when outsourcing IT services, 28.3% of the respondents ranked fewer people are employed as medium risk and high risk when outsourcing IT services. Only 9.4% and 1.9% indicated low risk to no risk.

Respondents are of the opinion that fewer people are employed. According to Tan (2009:3) the outsourcing process poses a job security risk to the staff whose jobs no longer exist. This explains the majority of respondents indicating that the statement that fewer people will be employed carries a very high risk.

4.5.4 Employee morale

Figure 4.21 Employee Morale

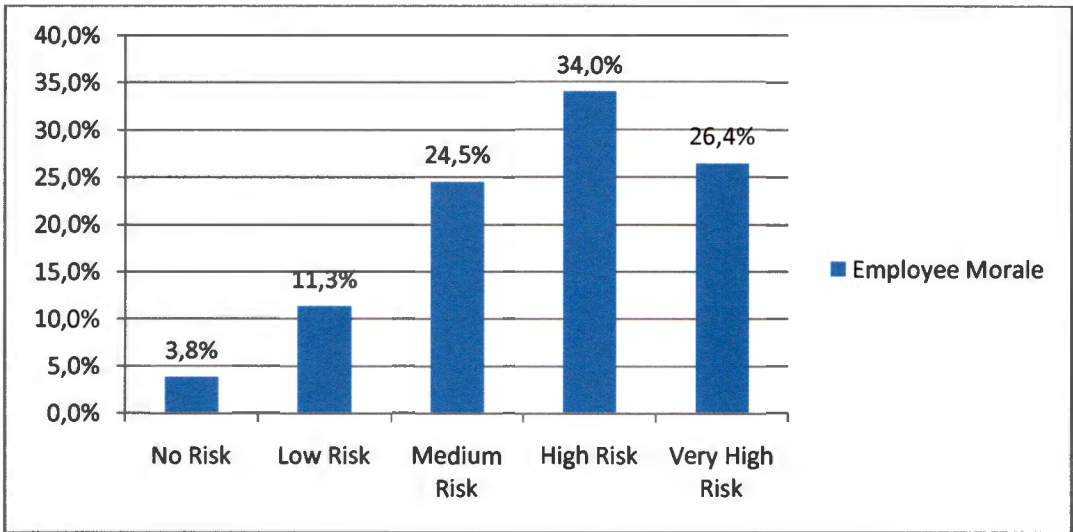


Figure 4.21 shows that 34% and 26.4% of the respondents indicated employee morale as high risk and very high risk, followed by 24.5% of those who indicated medium risk, 11.3% as low risk and only 3.8% of the respondents indicated employee morale as posing no risk.

The results are supported by Gonzalez *et al.* (2009:183) who assert that outsourcing generates various staff problems, such as low morale and insecurity of employees, which may contribute to a decrease in productivity. Furthermore, Morgan (2009) states that the impact on the people being outsourced is frequently one of frustration, as they are having outsourcing done to them.

4.5.5 Vendor reputation

Figure 4.22 Vendor reputation

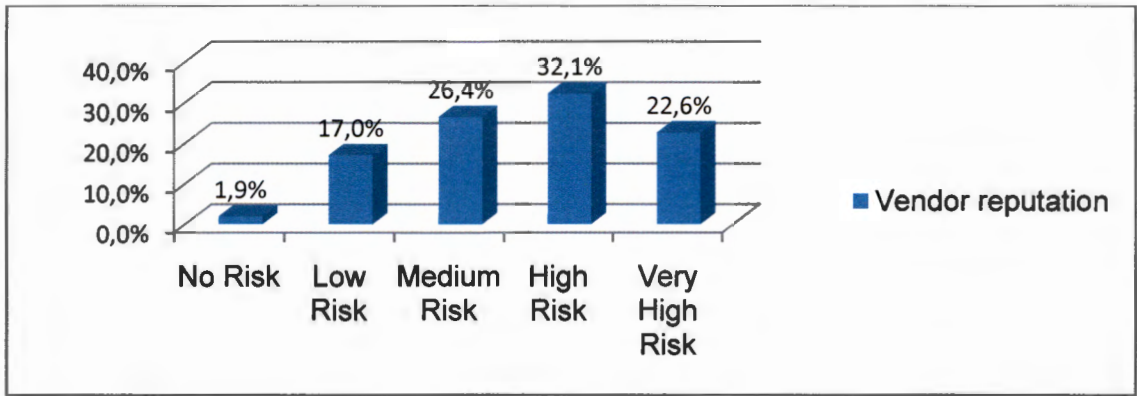


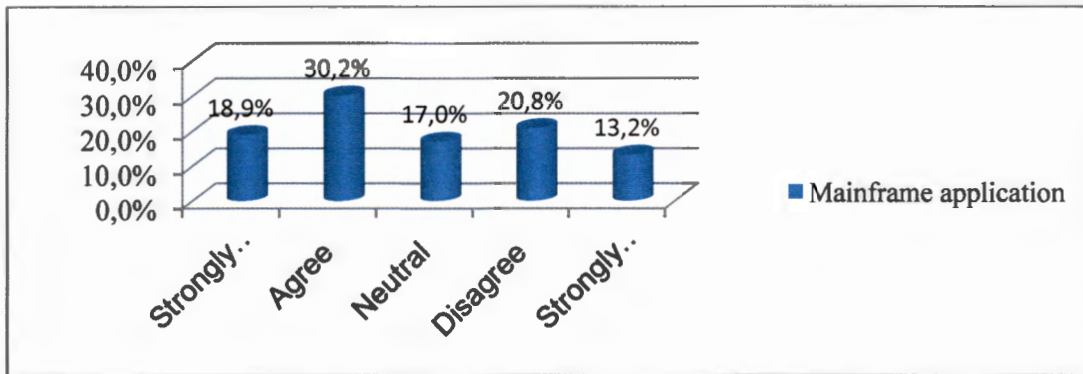
Figure 4.22 shows that the majority (32.1% and 22.6%) of the respondents indicated vendor reputation as high risk and very high risk respectively, 26.4% of the respondents indicated medium risk, 17% and 1.9% of the respondents indicated low risk and no risk, respectively.

The results suggest that vendor reputation should be seriously taken into consideration when outsourcing IT services. This is supported by Martin *et al.* (2005:597) who state that there are several factors to be considered which, among others, include vendor reputation. Vendor characteristics that need to be considered include, among others, expertise and experience, availability of resources and financial standing (Sutherland and Johnson, 2012).

Laudon and Laudon (2011) state that the outsourcing vendor possesses skills, resources, and assets that their clients do not have.

4.6 IT functions and activities

Figure 4.23 Mainframe applications



As shown in Figure 4.23, 30.2% of the respondents agree that mainframe applications should be outsourced. This is followed by 20.8% of respondents who disagree that mainframe applications should be outsourced. 18.9% of respondents strongly agree that mainframe applications should be outsourced, 17% are neutral to the question, and 13.2% strongly disagree that mainframe applications should be outsourced.

The result suggests that respondents support outsourcing of mainframe applications. Mainframe outsourcing can enable the customer to avoid technology obsolescence and to use the vendor's access to diverse and advanced technologies. According to Phillips (2010) one of the most popular trends in IT has been to outsource practically any function, and one of them is mainframe applications. On some levels this is not only about being cost effective, but also about being extremely productive.

4.6.2 Application development

Figure 4.24 Application development

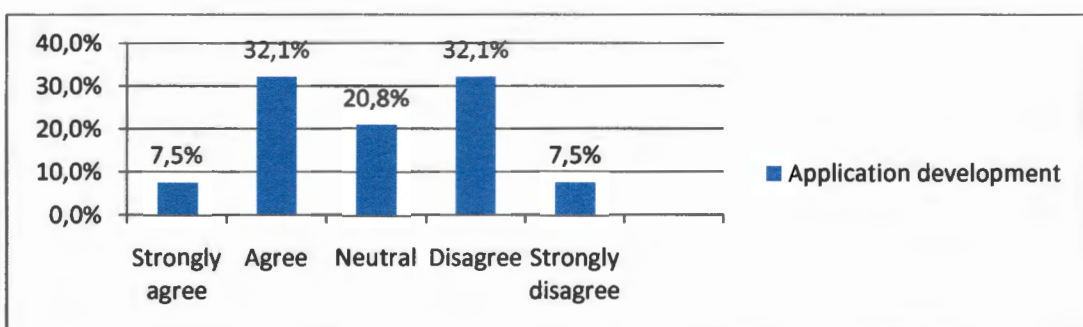
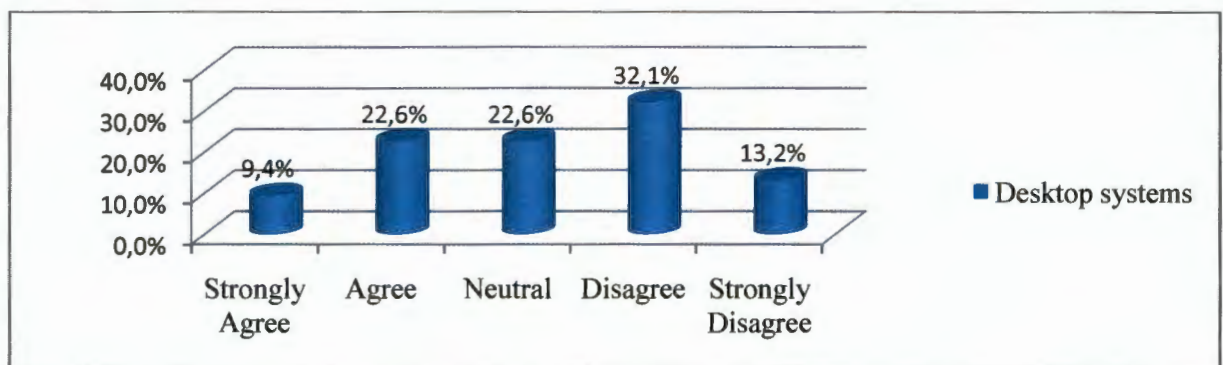


Figure 4.24 above shows that 32.1% of respondents agree and 32.1% disagree, respectively, that application development should be outsourced. 20.8% are neutral to the question. 7.5% of the respondents indicate that they strongly agree and 7.5% strongly disagree, respectively.

The observation from the results above suggests that respondents are hesitant in terms of whether application development should be outsourced. This is indicated by the equal percentages of respondents that agree and not agree. As suggested by Moons (2012), outsourcing will depend on whether the company wants to retain ownership of their application source code, if that is the case, outsourcing will be impossible. The organisation may need to set up their own application development and maintenance of those applications. Laudon and Laudon (2011), state that if outsourcing is properly managed, outsourcing can save application development costs or enable firms to develop applications without internal information systems staff.

4.6.3 Desktop systems

Figure 4.25 Desktop systems

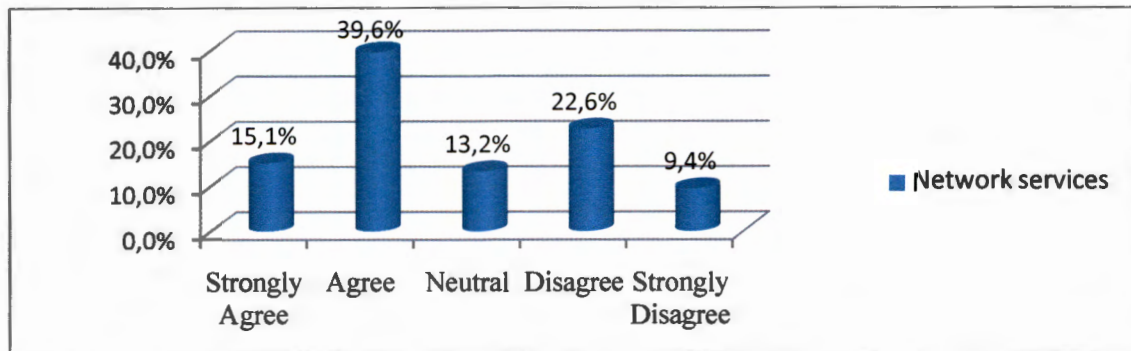


Based on Figure 4.25, the majority of the respondents (32.1% and 13.2%) disagree and strongly disagree that desktop systems should be outsourced, whereas 22.6% of the respondents agree and another 22.6% are neutral to the question. Lastly only 9.4% of the respondents strongly agree with the question posed.

The majority of respondents are of the opinion that desktop system services can be provided internally by the organisation's in-house IT department and a minority suggest the service should be part of an outsourcing contract.

4.6.4 Network services

Figure 4.26 Network services



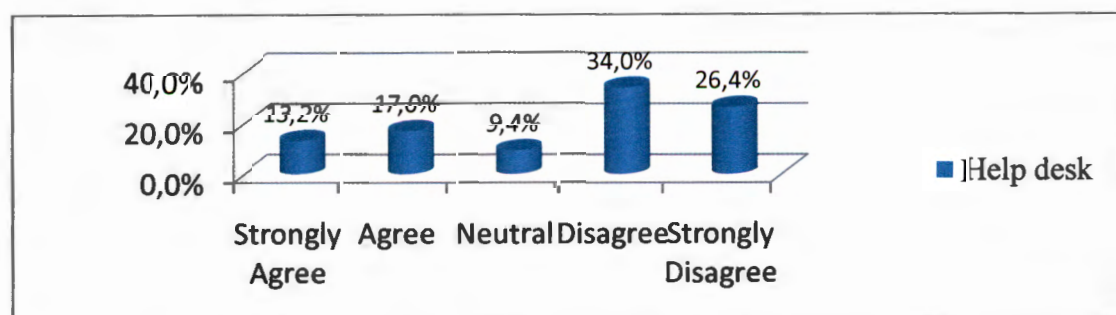
Based on Figure 4.26, 39.6% of the respondents agree that network services should be outsourced. 22.6% of the respondents disagree, 15.1% of the respondents strongly agree, and 13.2% of the respondents are neutral to the statement. 9.4% of the respondents strongly disagree.

These results could indicate agreement to outsourcing of networks services. The reason to outsource network services may be attributed to capacity within the department. Outsourcing will enable the organisation to access the rare skills that the organisation is lacking. Mui (2008) suggests that networking services is commonly an outsourced service.

Organisations struggle to cope with the the rapid advancement of network communication and IT technologies in the market. According to Dominguez *et al.* (2006), the reasons forcing a move to outsourcing include the advancement of technology, the sophistication of business operations, and the need for constant growth.

4.6.5 Help desk

Figure 4.27 Help desk



According to Figure 4.27, 34% of the respondents disagree that the help desk function should be outsourced, whilst 26.4% of the respondents strongly disagree, 17% of the respondents agree to outsourcing of the help desk. 13.2% of the respondents strongly agree. 9.4% of the respondents are neutral to the statement.

The majority of the results support outsourcing of the help desk. However, the results are in contrast to Lientz and Larssen (2006), who state that organisations outsource support activities such as the help desk. To outsource this function requires a great deal of planning, constant management and coordination. It is a serious decision that will affect the image and dignity of the company. According to Lientz and Larssen (2006), Customer service is the primary connection between the customers and the organisation when they have problems, concerns or issues with the organisation's products and services.

4.6.6 IT security

IT security

Figure 4.28 Security

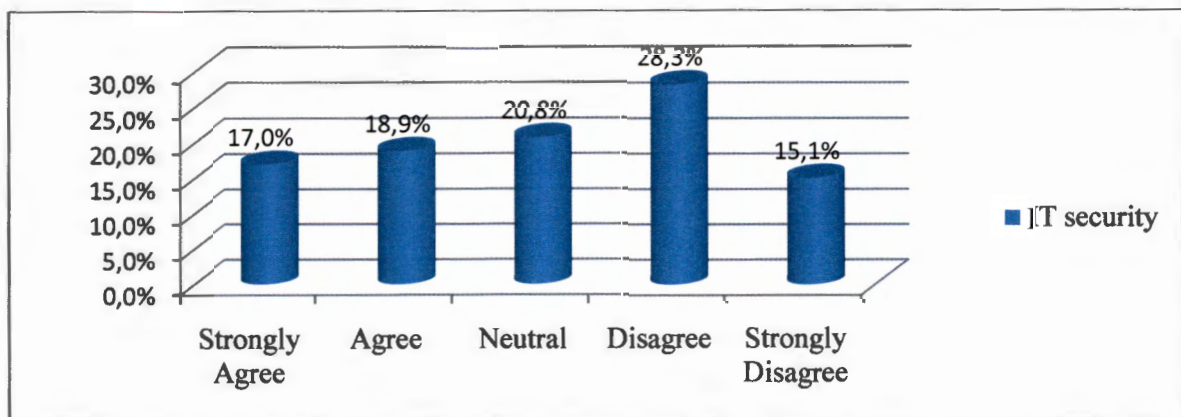


Figure 4.28 shows that the majority of the respondents disagree that IT security should be outsourced. 20.8% of the respondents are neutral to the statement, 18.9% of the respondents agree that IT security should be outsourced.

Although the results indicate that security function should not be outsourced, Laudon and Laudon (2011) point out that many organisations lack the resources or expertise to provide a secure high availability computing environment on their own.

4.6.7 Internet application

Figure 4.29 Internet application

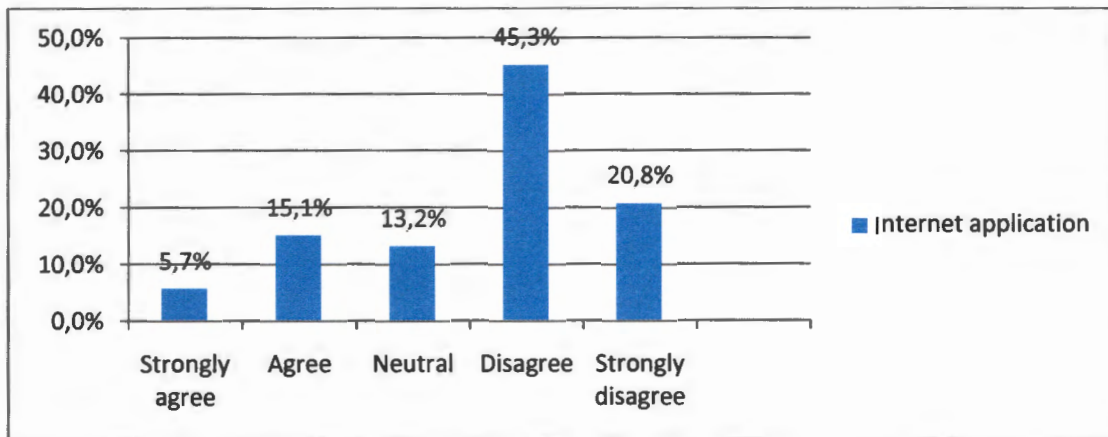


Figure 4.29 shows that 45.3% of the respondents disagree that internet application should be outsourced. 20.8% of respondents strongly disagree, 15.1% of the respondents agree, and lastly, 5.7% of the respondents strongly agree.

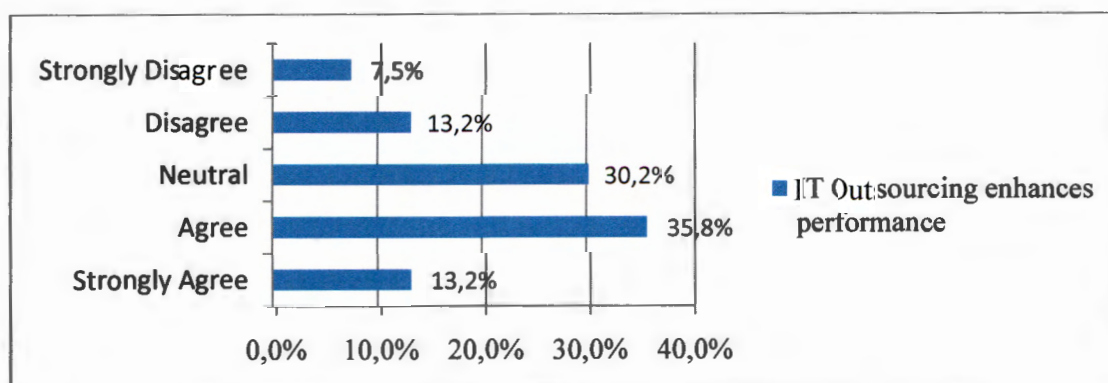
This indicates that most of the respondents rely on the in-house skills to manage the internet application. Internet application is an important function, since the age of the internet has become the primary method many companies use to communicate and do business with customers, business partners, and employees.

The internet application is crucial to every organisation, and may, among others, include Intranet and e-mail services.

4.7 IT outsourcing performance and effectiveness

4.7.1 Outsourcing enhances the performance of the organisation

Figure 4.30 outsourcing enhances the performance



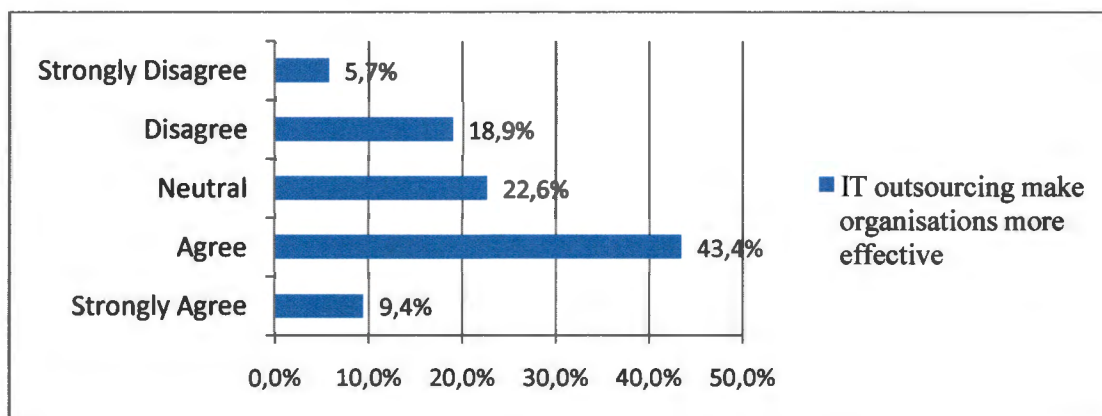
According to Figure 4.30 the majority (35.8%) of the respondents agree that IT outsourcing enhances the performance of the organisations. 30.2% of the respondents are neutral to the statement, 13.2% strongly agree and another 13.2% disagree. The remaining 7.5% of the respondents strongly disagree.

As per Figure 4.11 and Figure 4.13, the results indicate that outsourcing improves performance and improves quality. As mentioned, outsourcing gives access to the latest IT solutions, and it exposes the organisation to deal with an experienced and highly qualified vendor from whom the organisation will be able to gain valuable expertise in support of its IT capacity. This indicates that respondents agree that outsourcing enhances performance.

Laudon and Laudon (2011) are of the opinion that the organisation is most likely to benefit from outsourcing if it takes the time to evaluate all the risks and to make sure outsourcing is appropriate for its particular present and future needs.

4.7.2 IT outsourcing makes organisations more effective

Figure 4.31 IT outsourcing makes organisations more effective



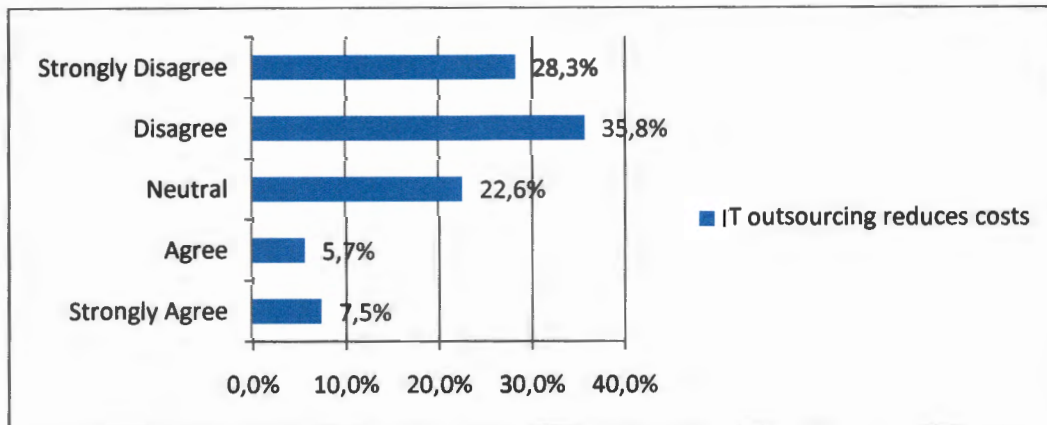
Based on Figure 4.31, 43.4% of the respondents agree that IT outsourcing makes organisations more effective, 22.6% of the respondents are neutral to the statement, 18.9% of the respondents disagree, 9.4% of the respondents strongly agree and only 5.7% of the respondents strongly disagree.

The figure above indicates that the majority of officials believe that IT outsourcing can make the NWPG IT department more effective. The above results are supported by Yasin and Purdue (2009), namely that, in view of the nature of

business processes and technology challenges, it is nearly impossible, or very hard for an organisation to manage all its processes by solely depending on its own expertise.

4.7.3 Outsourcing reduces costs

Figure 4.32 IT outsourcing reduces costs



As shown in Figure 4.32, the majority (35.8%) of the respondents disagree that IT outsourcing reduces costs. Although 28.3% of the respondents strongly disagree, 22.6% of the respondents are neutral to the statement and 7.5% strongly agree. Only 5.7% of the respondents agree.

It is, however, noted from Figure 4.32 that respondents indicated that IT outsourcing does not offer significant cost savings. This in contrast to Bojonny (2005), namely that outsourcing is an effective cost-saving strategy, and due to the advancement of communication and IT technologies in the market, outsourcing has been recognised as an effective way to control costs.

According to Sutherland and Johnson (2012), organisations need strong performance measurement tools, monitoring and reporting mechanisms to make sure that outsourcing reduces costs.

4.8 Conclusion

In this chapter detailed presentation and analysis of findings of the study were presented. The data was summarised statistically in graphs and tables. These data summaries addressed each question or statement in the questionnaire that was distributed to the respondents of NWPG IT department. The findings of this

chapter revealed various opinions regarding outsourcing of IT services by the NWPG. These opinions, among others, are: IT outsourcing does not reduce the costs as suggested by different authors, and there is no efficient communication and documented outsourcing plan regarding IT outsourcing in the NWPG.

The analysis of the results revealed that outsourcing offers numerous advantages among others, access to qualified professionals, access to latest technology and IT outsourcing improves the performance of the organisation. Respondents also highlighted that mainframe and network services should be outsourced.

The next chapter presents the recommendations as per the results displayed in this chapter. The recommendations and conclusion may add value in the existing literature in the field of IT outsourcing.

Chapter 5

Discussion, recommendations and conclusions

5.1 Introduction

This chapter provides the findings based on a literature review, a discussion of the results, interpretations, recommendations and conclusions of the empirical results and also presents a summary of the findings of the study that would be made available to the management of the North-West Provincial Government on how IT outsourcing should be implemented.

5.2 Findings and discussion of results: Objectives

Objective 1: to investigate the outsourcing process of IT by the North-West Provincial Government

The results and analysis signify that most IT staff are conversant with the IT outsourcing process. However, the research shows that there is neither an adopted framework nor an outsourcing structure being followed. Figure 4.6 indicates that there is no clear strategy by the NWPG to outsource IT services. As stated by Remenyi *et al.* (2007) there should be a methodology and approach, including tools, to measure critical success factors. According to Benvenuto and Brand (2005) a clear sound planning process enables key objectives to be identified, documented and addressed proactively.

The presentation and analysis of findings in Figure 4.7 and Figure 4.8 reveals significant concerns regarding the IT outsourcing by the NWPG. These concerns include lack of efficient communication channels between NWPG IT staff and management. The lack of outsourcing plan which may include among others the transfer of assets, people, information, knowledge, hardware and software. Willcocks *et al.* (2011) note that what matters most is how the strategy is planned, implemented, and managed.

Objective 2: to highlight the benefits and shortcomings of IT outsourcing

The presentation and analysis regarding findings as per Figure 4.10, Figure 4.11, Figure 4.12, Figure 4.13, reveal many benefits regarding IT outsourcing, such as access to the best technology, improved performance, and access to qualified professionals. As stated by Gonzalez *et al.* (2009), IT outsourcing affords organisations the opportunity to be on par with technology developments, effectively operating and managing its Information Technology.

IT outsourcing is a venture that cannot be taken lightly as it requires investigation, diligence, governance and refinement. Outsourcing involves a commitment, not only in the initial stages, but through the entire lifecycle. Figure 4.19, Figure 4.20, Figure 4.21 and Figure 4.22 show that there are many risks associated with IT outsourcing. The risks include hidden costs in the contract, fewer jobs created, lower morale of employees and vendor reputation.

5.3 Findings and discussion of results: Research questions

- How does IT outsourcing contribute to the effectiveness, productivity, and efficiency of IT services?

The survey results as per Table 4.10 (see Appendix C), indicates the majority (62,3%) agree that IT outsourcing avails IT services the best technology and Table 4.12 (see Appendix C) 54,7% supports the notion that IT outsourcing increases the professional pool of resources. This is supported by McMillan and Shukla (2010) that the biggest advantage of IT outsourcing is when it makes companies more flexible and agile, ready to meet the challenges of doing business in an increasingly technological and competitive world, while providing cost savings and service level improvements. These benefits ought to ensure that the organisation is flexible, be able to service its customers faster, provide better quality service and decrease turnaround time.

- What are processes with regard to IT outsourcing?

The results of the survey shown in Table 4.8 (see Appendix C) indicate that the IT outsourcing plan is not documented. Table 4.7 (see Appendix C) indicates that

communication is a major challenge in the department as 73.5,% disagree that there is efficient communication channels.

Table 4.9 (see Appendix C) shows that only 11 3% agree that a change control process is in place regarding NWPG IT outsourcing. This can be attributed to the fact that only managers and supervisors are sometimes the only ones with access to this type of information.

Based on the literature review and the results from the survey, Benvenuto and Brand (2005) list the key to a good outsourcing process as to

- develop a clear strategy, where terms are defined, objectives and SLAs are clear and all stakeholders know exactly what is expected;
- communicate the decision and the plan effectively;
- design an outsourcing plan, including details of transfer of assets, people, information, knowledge, hardware, software; and
- design a change control plan, as well as the transition plan.

What outsourcing benefits/problems are encountered?

The survey Table 4.19 (see Appendix C) shows that 71.7% of the respondents have the perception that hidden cost in the contract carry high to very high risk in IT outsourcing. In Table 4.20 (see Appendix C) it is shown that 60.4% of the respondents have a perception that fewer people are employed in the outsourcing process. According to Hart (2007), the failure to take all these factors into account, leaves an organisation vulnerable to an outsourcing disaster, which may be costly.

The study also highlighted that IT outsourcing can bring certain benefits to the organisation, which include improved services and quality levels, enhanced performance, and making the organisation more effective. This is supported by Table 4.30 and Table 4.31, respectively.

5.4 Recommendations

Based on the literature and data analysis, the following are recommended:

- The NWPG should adopt a sound IT outsourcing strategy and evaluate carefully which IT functions to outsource, as mentioned in Chapter 2.

- Opportunities exist in all outsourcing endeavours. NWPG needs to pursue the full benefits, as described in Chapter 2, advantages of outsourcing.
- NWPG must determine what to do with the employees that are displaced when a function is outsourced.
- The NWPG should develop a framework that will guide the outsourcing process. Furthermore, it is recommended that NWPG should establish a clear understanding of its requirements, establish sound communication and change management processes.
- According to the survey results, the IT functions most likely to be outsourced are network services, application development and the mainframe applications.

5.5 Conclusion

The research aimed to investigate the outsourcing of IT by the Department of Finance, NWPG. The study revealed that there are many benefits associated with IT outsourcing that affect the organisation's performance. Among them are access to a wide array of skills and knowledge for better innovation, a saving on investment in the latest technology, software and infrastructure.

This study also identified the risks in the form of hidden costs in the contract, fewer people employed and negatively affected staff morale. These aspects, mentioned in the previous chapters as the most threatening to the IT outsourcing could act as factors counteracting the benefits that come with outsourcing. It is paramount therefore that such risks be given utmost consideration before the NWPG embarks on outsourcing its IT services.

An assessment of the IT outsourcing decision should be a continuous process for NWPG. In order for the department to thrive, the NWPG should, therefore, invest in performing the adequate planning, and risk management control before outsourcing.

Significant time and effort needs to be taken to manage the service during and after outsourcing. These recommendations can also be supplemented with some best practices that have been established elsewhere, but have not been investigated in this study.

5.6 Future work

This research provided insight into IT Outsourcing by NWPG. Further study is required to provide a better understanding of IT outsourcing concept and how to achieve optimal benefits. Areas of further study may include:

- Outsourcing model that can provide value for the NWPG.
- The impact the NWPG IT outsourcing will bring to the existing staff.
- IT outsourcing involving the end-users of the IT services.

A study on organisations with more mature outsourcing strategies would be encouraged.

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APPENDIX A: Survey permission

finance

Department:

finance

North West Provincial Government

Republic of South Africa

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MMABATHO

INFORMATION TECHNOLOGY

Tel: 018-388 4149
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TO :Mr. M.R Haffejee
Data Technology Manager

DATE : 24September 2012

FROM :Mtotoba D.S
Senior Database Administrator

SUBJECT: PERMISSION TO DISTRIBUTE RESEARCH QUESTIONNAIRS IN FULFILLMENT OF MY MASTER OF BUSINESS ADMINISTRATION

I am an MBA student at the University of North West, Mafikeng Graduate School. I am conducting the research in fulfilment of my MBA. The research topic is to investigate the impact of IT outsourcing in the North-West Provincial Government in Mafikeng.

The research investigates the outsourcing drivers, benefits, risks and success factors.

REQUEST

Request is hereby sought to distribute the questionnaires, to Information Technology officials in the department. The research is purely an independent study that is not conducted on behalf of any organisation or department. There are no right or wrong answers. The focus of the survey is on opinions. All answers will be held in the strictest confidence. No individual respondent will be identified by name in any analysis report. Only summarised data will be reported.

If you have any comments or concerns regarding this study, or would like additional information please contact my supervisor Prof.Nehemiah Mavetera at 018 389 2143 or by email at Nehemiah.Mavetera@nwu.ac.za

Thank you

Mtotoba D.S

Approved / Not Approved

Mr. M.R Haffejee

APPENDIX B: Questionnaire

Dear Participant

REQUEST TO PARTICIPATE IN A RESEARCH STUDY

This letter is an invitation to participate in a research study. As an MBA student at the North-West University, Mafikeng Graduate School. I am currently conducting research under the supervision of Professor Nehemiah Mavetera. The research topic is to investigate the impact of IT outsourcing in the North-West Province in Mafikeng.

The research investigates the outsourcing drivers, benefits, risks and success factors.

The research questionnaire is divided into three parts. There is no right or wrong answers. The focus of the survey is on opinions. All answers will be held in the **strictest** confidence. No individual respondent will be identified by name in any analyses report. Only summarized data will be reported.

For further information please contact:

Student:Mtotoba Dumisane

Contact number: 018 3884149

E-mail: DMtotoba@gmail.com

or

Supervisor: Professor Nehemiah Mavetera

Contact number: 018 389 2143

E-mail: Nehemiah.Mavetera@nwu.ac.za

Thank you for your participation!

SECTION A

DEMOGRAPHICAL BACKGROUND

Kindly answer the following questions

1. Gender

Make a mark 'X' in the appropriate box

1.1	Male	
1.2	Female	

2. What is your qualification?

Make a mark 'X' in the appropriate box

2.1	Matric	
2.2	Matric+ Short course	
2.3	Diploma	
2.4	Degree	
2.5	Honours and above	

3. What is your job function?

Make a mark 'X' in the appropriate box

3.1	Management	
3.2	System Admin & Support	
3.3	Information Security	
3.4	Development/Programming	
3.5	Networking	

4. Which of the following best indicate the number of years of experience in IT?

Make a mark 'X' in the appropriate box

4.1	1 – 3	
4.2	4 - 6	
4.3	7 – 10	
4.4	11 and above	

SECTION B

5. To what extent do you agree with the following statement?

		Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
5.1	I understand the IT outsourcing processes					

6. To what extent do you agree with the following statements?

Make a mark 'X' in the appropriate box

		Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
6.1	There is a clear strategy by the NWPG to outsource its IT services to SITA					
6.2	There is efficient and open communication channels between NWPG IT staff and management regarding IT outsourcing to SITA					
6.3	There is a documented outsourcing plan including details of transfer of assets, people, information, knowledge, hardware, software, by the NWPG.					
6.4	There is a change control process in place regarding NWPG IT outsourcing.					

SECTION C

7. What are the IT outsourcing drivers in NWPG IT department?

Make a mark 'X' in the appropriate box

		Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
7.1	Access to best technology					
7.2	Improve performance					
7.3	Access to qualified professionals					
7.4	Improved service					
7.5	Better career opportunities					
7.6	Follow trend					
7.7	Compliance with legislation					
7.8	Reduce costs					

8. Indicate the risk level of outsourcing IT function in NWPG.

Make a cross 'x' in the appropriate box.

		Risks level				
	Risk	No Risk	Low Risk	Medium Risk	High Risk	Very High Risk
8.1	Loss of control					
8.2	Hidden costs in the contract					
8.3	Fewer people are employed					
8.4	Employee morale					
8.5	Vendor Reputation					

9. In your opinion, which of these IT functions and activities do you think should be outsourced in NWPG IT.

Make a mark 'X' in the appropriate box

		Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
9.1	Mainframe Applications					
9.2	Application Development					
9.3	Desktop Systems					

9.4	Network Services					
9.5	Help Desk					
9.6	IT Security					
9.7	Internet Application					

10. Indicate your level of agreement.

Make a mark 'X' in the appropriate box

		Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
10.1	IT outsourcing enhances the performance of the organisation					
10.2	IT outsourcing make organisations more effective					
10.3	IT outsourcing reduce costs					

Thank you very much for taking time to participate in this survey!

APPENDIX C: Frequency tables

Table 4.1 Gender

	Frequency	Percent	Valid Percent	Cumulative Percent
Male	40	75.5	75.5	75.5
Valid female	13	24.5	24.5	100.0
Total	53	100.0	100.0	

Table 4.2 Qualification

	Frequency	Percent	Valid Percent	Cumulative Percent
Matric	8	15.1	15.1	15.1
Valid Matric + short course	19	35.8	35.8	50.9
National Diploma	17	32.1	32.1	83.0
Bachelor's Degree	4	7.5	7.5	90.6
Honours degree & Above	5	9.4	9.4	100.0
Total	53	100.0	100.0	

Table 4.3 Job function

	Frequency	Percent	Valid Percent	Cumulative Percent
Management	6	11.3	11.3	11.3
System Admin & Support	17	32.1	32.1	43.4
Information security	4	7.5	7.5	50.9
Valid development/programming	12	22.6	22.6	73.6
Networking	14	26.4	26.4	100.0
Total	53	100.0	100.0	

Table 4.4 Years of experience

	Frequency	Percent	Valid Percent	Cumulative Percent
1 to 3	10	18.9	18.9	18.9
4 to 6	4	7.5	7.5	26.4
Valid 7 to 10	7	13.2	13.2	39.6
11 & above	32	60.4	60.4	100.0
Total	53	100.0	100.0	

Table 4.5 Understanding of IT outsourcing concept

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly agree	8	15.1	15.1	15.1
Agree	26	49.1	49.1	64.2
Valid Neutral	10	18.9	18.9	83.0
Disagree	6	11.3	11.3	94.3
Strongly disagree	3	5.7	5.7	100.0
Total	53	100.0	100.0	

Table 4.6 Clear Strategy by the NWPG

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly agree	3	5.7	5.7	5.7
Agree	11	20.8	20.8	26.4
Valid Neutral	13	24.5	24.5	50.9
Disagree	15	28.3	28.3	79.2
Strongly disagree	11	20.8	20.8	100.0
Total	53	100.0	100.0	

Table 4.7 Efficient communication channels

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly agree	1	1.9	1.9	1.9
Agree	3	5.7	5.7	7.5
Neutral	10	18.9	18.9	26.4
Valid Disagree	19	35.8	35.8	62.3
Strongly disagree	20	37.7	37.7	100.0
Total	53	100.0	100.0	

Table 4.8 Documented outsourcing plan

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly agree	2	3.8	3.8	3.8
Agree	4	7.5	7.5	11.3
Neutral	10	18.9	18.9	30.2
Valid Disagree	19	35.8	35.8	66.0
Strongly disagree	18	34.0	34.0	100.0
Total	53	100.0	100.0	

Table 4.9 Change control process

	Frequency	Percent	Valid Percent	Cumulative Percent
Agree	6	11.3	11.3	11.3
Neutral	12	22.6	22.6	34.0
Valid Disagree	17	32.1	32.1	66.0
Strongly disagree	18	34.0	34.0	100.0
Total	53	100.0	100.0	

Table 4.10 Access to latest technology

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly agree	15	28.3	28.3	28.3
Agree	18	34.0	34.0	62.3
Neutral	13	24.5	24.5	86.8
Valid Disagree	3	5.7	5.7	92.5
Strongly disagree	4	7.5	7.5	100.0
Total	53	100.0	100.0	

Table 4.11 Improve performance

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly agree	9	17.0	17.0	17.0
Agree	23	43.4	43.4	60.4
Neutral	11	20.8	20.8	81.1
Valid Disagree	5	9.4	9.4	90.6
Strongly disagree	5	9.4	9.4	100.0
Total	53	100.0	100.0	

Table 4.12 Access to qualified professionals

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly agree	6	11.3	11.3	11.3
Agree	23	43.4	43.4	54.7
Neutral	17	32.1	32.1	86.8
Valid Disagree	4	7.5	7.5	94.3
Strongly disagree	3	5.7	5.7	100.0
Total	53	100.0	100.0	

Table 4.13 Improved service

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly agree	9	17.0	17.0	17.0
Agree	21	39.6	39.6	56.6
Neutral	14	26.4	26.4	83.0
Valid Disagree	4	7.5	7.5	90.6
Strongly disagree	5	9.4	9.4	100.0
Total	53	100.0	100.0	

Table 4.14 Better career opportunities

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly agree	10	18.9	18.9	18.9
Agree	14	26.4	26.4	45.3
Neutral	12	22.6	22.6	67.9
Valid Disagree	13	24.5	24.5	92.5

Strongly disagree	4	7.5	7.5	100.0
Total	53	100.0	100.0	

Table 4.15 Follow trend

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly agree	9	17.0	17.0	17.0
Agree	22	41.5	41.5	58.5
Neutral	14	26.4	26.4	84.9
Disagree	5	9.4	9.4	94.3
Strongly disagree	3	5.7	5.7	100.0
Total	53	100.0	100.0	

Table 4.16 Compliance with legislation

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly agree	10	18.9	18.9	18.9
Agree	25	47.2	47.2	66.0
Neutral	12	22.6	22.6	88.7
Disagree	4	7.5	7.5	96.2
Strongly disagree	2	3.8	3.8	100.0
Total	53	100.0	100.0	

Table 4.17 Reduce costs

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly agree	2	3.8	3.8	3.8
Agree	9	17.0	17.0	20.8
Neutral	18	34.0	34.0	54.7
Disagree	15	28.3	28.3	83.0
Strongly disagree	9	17.0	17.0	100.0
Total	53	100.0	100.0	

Table 4.18 Loss of control

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid No risk	3	5.7	5.7	5.7
Low risk	4	7.5	7.5	13.2

Medium risk	23	43.4	43.4	56.6
High risk	12	22.6	22.6	79.2
Very high risk	11	20.8	20.8	100.0
Total	53	100.0	100.0	

Table 4.19 Hidden costs in the contract

	Frequency	Percent	Valid Percent	Cumulative Percent
No risk	1	1.9	1.9	1.9
Low risk	3	5.7	5.7	7.5
Medium risk	11	20.8	20.8	28.3
Valid High risk	23	43.4	43.4	71.7
Very high risk	15	28.3	28.3	100.0
Total	53	100.0	100.0	

Table 4.20 Fewer people are employed

	Frequency	Percent	Valid Percent	Cumulative Percent
No risk	1	1.9	1.9	1.9
Low risk	5	9.4	9.4	11.3
Medium risk	15	28.3	28.3	39.6
Valid High risk	15	28.3	28.3	67.9
Very high risk	17	32.1	32.1	100.0
Total	53	100.0	100.0	

Table 4.21 Employee moral

	Frequency	Percent	Valid Percent	Cumulative Percent
No risk	2	3.8	3.8	3.8
Low risk	6	11.3	11.3	15.1
Medium risk	13	24.5	24.5	39.6
Valid High risk	18	34.0	34.0	73.6
Very high risk	14	26.4	26.4	100.0
Total	53	100.0	100.0	

Table 4.22 Vendor reputation

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No risk	1	1.9	1.9	1.9
	Low risk	9	17.0	17.0	18.9
	Medium risk	14	26.4	26.4	45.3
	High risk	17	32.1	32.1	77.4
	Very high risk	12	22.6	22.6	100.0
	Total	53	100.0	100.0	

Table 4.23 Mainframe application

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	10	18.9	18.9	18.9
	Agree	16	30.2	30.2	49.1
	Neutral	9	17.0	17.0	66.0
	Disagree	11	20.8	20.8	86.8
	Strongly disagree	7	13.2	13.2	100.0
	Total	53	100.0	100.0	

Table 4.24 Application development

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	4	7.5	7.5	7.5
	Agree	17	32.1	32.1	39.6
	Neutral	11	20.8	20.8	60.4
	Disagree	17	32.1	32.1	92.5
	Strongly disagree	4	7.5	7.5	100.0
	Total	53	100.0	100.0	

Table 4.25 Desktop systems

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	5	9.4	9.4	9.4
	Agree	12	22.6	22.6	32.1
	Neutral	12	22.6	22.6	54.7
	Disagree	17	32.1	32.1	86.8
	Strongly disagree	7	13.2	13.2	100.0
	Total	53	100.0	100.0	

Table 4.26 Network services

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	8	15.1	15.1	15.1
	Agree	21	39.6	39.6	54.7
	Neutral	7	13.2	13.2	67.9
	Disagree	12	22.6	22.6	90.6
	Strongly disagree	5	9.4	9.4	100.0
	Total	53	100.0	100.0	

Table 4.27 Help desk

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	7	13.2	13.2	13.2
	Agree	9	17.0	17.0	30.2
	Neutral	5	9.4	9.4	39.6
	Disagree	18	34.0	34.0	73.6
	Strongly disagree	14	26.4	26.4	100.0
	Total	53	100.0	100.0	

Table 4.28 IT security

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	9	17.0	17.0	17.0
	Agree	10	18.9	18.9	35.8
	Neutral	11	20.8	20.8	56.6
	Disagree	15	28.3	28.3	84.9

Strongly disagree	8	15.1	15.1	100.0
Total	53	100.0	100.0	

Table 4.29 Internet application

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly agree	3	5.7	5.7	5.7
Agree	8	15.1	15.1	20.8
Neutral	7	13.2	13.2	34.0
Valid Disagree	24	45.3	45.3	79.2
Strongly disagree	11	20.8	20.8	100.0
Total	53	100.0	100.0	

Table 4.30 IT outsourcing enhances performance

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly agree	7	13.2	13.2	13.2
Agree	19	35.8	35.8	49.1
Neutral	16	30.2	30.2	79.2
Valid Disagree	7	13.2	13.2	92.5
Strongly disagree	4	7.5	7.5	100.0
Total	53	100.0	100.0	

Table 4.31 IT outsourcing make organisations more effective

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly agree	5	9.4	9.4	9.4
Agree	23	43.4	43.4	52.8
Neutral	12	22.6	22.6	75.5
Valid Disagree	10	18.9	18.9	94.3
Strongly disagree	3	5.7	5.7	100.0
Total	53	100.0	100.0	

Table 4.32 IT outsourcing reduces costs

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	4	7.5	7.5	7.5
	Agree	3	5.7	5.7	13.2
	Neutral	12	22.6	22.6	35.8
	Disagree	19	35.8	35.8	71.7
	Strongly disagree	15	28.3	28.3	100.0
	Total	53	100.0	100.0	

APPENDIX D : Publication generated from this research

Mtotoba, D., **Mavetera, N.** & Moroke, N.D. 2013. *An investigation into the outsourcing of information technology services: a case of North-West Provincial Government.* 21st International Business Information management Association (IBIMA) Conference, 27-28 June 2013, Vienna, Austria, ISBN: 978-0-9821489, **ISI indexed**