Outsourcing IT Services and Service Level Agreements in South Africa's Retail Sector

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Abstract

This research project is an attempt at examining the state of outsourcing IT services and the use of Service Level Agreements (SLAs) amongst the large retailers of South Africa. Questionnaires were sent to all the large retailers, and various respondents from these organisations provided information regarding their involvement with outsourcing IT services and experience with the use of SLAs.

The hypotheses for this research aimed to investigate the following:

- Which IT services were outsourced, and which were most likely to be outsourced amongst large South African retailers;
- Whether outsourcing IT services has given South African retailers a competitive advantage;
- Whether SLAs have been used in conjunction with outsourcing IT Services; and
- What changes should be made to SLAs to make them more useful when outsourcing IT Services.

The findings from this research suggest that 94% of the large retailers in South Africa were involved in outsourcing parts of their IT services. These services were mainly deployment and management of networks, application development and systems maintenance, and support/helpdesk services.

Thirty six percent of respondents believed outsourcing had given them a slight competitive edge, while 6% had experienced a substantial competitive advantage. Furthermore, more than 50% of the large retailers used Service Level Agreements (SLAs) when outsourcing their IT services. The most significant change suggested for SLAs is to have better measurement metrics, so as to provide a clearer understanding of what services has been performed by the parties involved.

Table of Contents

Chapter 1: Introduction

Kern (1997) state that "Ever since the Eastman Kodak Company decided to outsource its entire IT function in 1989, information technology (IT) outsourcing has continued to grow to such an extent in market size and organizational influence, that it nowadays has become considered an integral component of the information management process".

Information Technology (IT) outsourcing, according to Kliem and Ludin (2000), is the use of a third party to provide services rather than using those in-house. They further state that it has become commonplace for firms to outsource at least some aspect of their IT services. Griffiths (2001) views outsourcing as "the strategic use of outside resources to perform activities traditionally handled by internal staff and resources." Griffiths (2001) further states that outsourcing is a strategy by which an organisation contracts out major functions to specialized and efficient service providers, who become valued business partners. These were the views of outsourcing IT services as seen by Griffiths (2001), and Kliem and Ludin (2000). The definition of outsourcing used in this research is in accordance with Eccles et al (2000), and is stated in section 2.2.1 of this paper. Kliem and Ludin (2000) highlight some of the more popular IT services to be outsourced as:

- Application development;
- Data centre;
- Desktop/personal computers;
- Network (e.g. LANs, WANs);
- Support services/help desk; and
- Training.

These areas were mentioned as they were used as a benchmark in the questionnaire for this research, in order to identify which IT services have been outsourced by South Africa's retail sector.

However, even though outsourcing is considered as "an integral component of the information management process", Goolsby (2002) states that not all outsourcing relationships work well. Goolsby (2002) further states that if an outsourcing relationship is not crafted well from the outset, it will fail to achieve the buyer organisation's desired results and will be very unsatisfactory for both parties.

Once the decision has been made to outsource part or all of the IT and the contract negotiated, the ensuing concern of IS practitioners according to Kern (1997) is how best to manage the outsourcer. Kern (1997) further states that the aim of outsourcing is to achieve a win-win situation, while ensuring savings, service levels, and other outsourcing objectives. The chapter will now introduce the concept of Service Level Agreements (SLA's) and highlight their purpose in outsourcing ventures.

Shand (2001) defines Service Level Agreements (SLAs) as a contract that defines the technical support or business parameters that the IT outsourcing firm will provide its clients. They further state that these agreements typically spell out measures for performance and consequences for failure.

According to Du Plessis (2002), the BMI-TechKnowledge group (2002) stated that South African IT market is the 20th largest market in the world and it continues to grow every year. From an IT expenditure point of view, BMI-TechKnowledge group (2002) list the following industry sectors as the most important in South Africa:

- Manufacturing;
- Mining;
- Retail/Wholesale;
- Insurance;
- Banking and financial;
- Transport;
- Research and Education;
- Utilities; and

- Public Sector.

The retail/wholesale sector had been seen by the BMI-TechKnowledge group (2002) as an important sector in terms of an IT expenditure point of view. It was for this reason that this research addressed the outsourcing of IT services amongst the large retailers of South Africa. To assist with the study, a survey was conducted into outsourcing IT services in this sector as well as their use of Service Level Agreements (SLAs).

1.1 Context/History

Outsourcing IT Services was seen as one of the key focus areas in the computer industry today. According to Africa Business Direct (2002a), outsourcing has been identified as a major trend, in South Africa's IT industry. Africa Business Direct (2002b) also state that the US State Department's Country Commercial Guides (2001) affirms that in a bid to become more competitive in the global market, South African companies and parastatals were increasingly turning to outsourcing as a means of improving operational efficiencies and reducing costs. The US State Department's Country Commercial Guide (2001) further states that software growth in South Africa has been consistently higher than the world average over the past several years, and was expected to show substantial growth for the next two to three years.

Berkowitz et al (2001) found that outsourcing IT Services reached position 24 out of 28 on the list of Key Management Issues in South Africa. Furthermore, Wesgro (2001) stated that Western Cape companies were developing software largely for the financial services, retail and manufacturing sectors, and that "outsourcing has led to substantial growth."

From the above it could be seen that outsourcing was an upcoming and thus relevant topic in South Africa. This dissertation includes surveys conducted in the large retail sector of South Africa and determined the use of outsourcing IT services. In order to

manage the outsourcing process, parties may include specified actions or consequences that need to occur, and these terms are known as Service Level Agreements (SLAs).

Barthelemy (2001) suggests that one reason why companies choose to outsource was to reduce costs. Barthelemy (2001) further states that IT is one of the most expensive parts of the organisation to establish and maintain, however, through outsourcing, a vendor with many clients can operate at a scale a single enterprise cannot. Barthelemy (2001) suggests that improved performance is another reason companies may decide to outsource their IT, since these vendors will have the expertise to deliver what is needed more efficiently.

This research also takes a look at the use of Service Level Agreements (SLAs) in conjunction with outsourcing IT services amongst the large retailers in South Africa.

Initially Service Level Agreements (SLAs) were seen as a means of making the outsourcing ventures a success. This is supported by Goolsby (2001), who stated that determining appropriate service level specifications is a crucial foundation for a successful outsourcing relationship. However, Goolsby (2001) further emphasized that "unfortunately, many buyers go to market without first determining service level specifications" (Goolsby, 2001, pg 2), thus working with SLAs had their own problems that needed to be resolved.

According to Larson (1998), SLAs have been around in one guise or another ever since there has been fee-for-service arrangements. Larson (1998) further states that the nature, completeness and enforceability of this agreement between service buyer and service provider are what vary.

"SLAs were becoming a necessary component of running an enterprise network" as suggested by Muller (1999), "and were contracts that specify performance parameters within which a network service is provided."

According to Goolsby (2001) service level specifications play two vital roles in an outsourcing agreement. They ensure accountability on the part of the provider, and they determine the price of the service. She further explains that in an outsourced situation, where the buyer gives control of an important business function to another company, the only way to ensure a comfort level for the buyer is to set required service level specifications and then regularly measure the provider's performance to determine whether it has achieved those levels.

SLAs can be used as a means of ensuring that the outsourcing venture is successful. This research will look at how widely SLAs were used in South Africa's retail sector, as well as what needs to be done to make them more helpful in the outsourcing agreement.

1.2 Research Topic

The research topic is as follows:

Outsourcing IT Services in South Africa's retail sector:
An investigation into the trends of outsourcing IT services and the use of SLAs amongst South Africa's Large Retailers.

The purpose of this research was to determine which IT services have been outsourced by the large retailers and, whether outsourcing IT Services have given South African retailers a competitive advantage. This research also aims to gain insight from IT managers on ways to improve the SLAs used in these outsourcing services.

1.3 Necessity for Research

Larson (1998), Kern (1997), Parish (1997) and Hiles (1994) have highlighted the 'uncertainties' of outsourcing. Different views highlight why research needs to be conducted in this area.

Larson (1998) gives us an understanding of the position of managers with respect to SLAs when he states that "because outsourcing is a relatively new way of providing and receiving IT services, the managers of outsourced IT servicing arrangements are still ascending a learning curve. The mechanics of such a relationship are still not thoroughly defined in many circumstances. The most basic requirement of successfully managing these arrangements is to define the expectations of both service buyer and service provider in unambiguous terms: to develop a mutually acceptable service level agreement".

This research addresses the uses of service level agreements amongst the large retailers of South Africa, and highlights the problems and areas for improvement.

Kern (1997) states that understanding the relationship that arises in IT outsourcing is vital, since it comes about not only through the operationalisation of the contract, but also as a natural consequence of the resulting issue of dependency. However, Kern (1997) further states that the area in the IT outsourcing literature that has received the least research attention so far is the outsourcing relationship and more precisely the characteristics that determine such a relationship. This research attempts to address the "outsourcing relationship" by investigating SLAs and its impact on the outsourcing venture.

Besides the views that were stated above, Parish (1997) suggests that even though SLAs do seem to be imperative when outsourcing, one needs to be aware of the potential pitfalls regarding the adoption of them. Parish (1997) particularly makes reference to the bureaucracy of SLAs. By this he implies that the SLA process incurs a cost overhead. Furthermore, some organisations, after having successful attempts with SLAs, may decide to implement SLAs on many processes that were successful without them. Parish (1997) emphasizes that it's these circumstances where unnecessary costs have occurred, without offering any benefits to the organisations.

Yet another problem highlighted by Parish (1997) shows that the production of SLAs may encourage suppliers to focus solely on their business process, losing sight of the needs of the external customer at the end of the process.

In addition, Hiles (1994) raises some pertinent factors that lead to the failure of service level agreements. He suggests that SLAs will fall in to disrepute if no action is taken on service shortfalls. Hiles (1994) gives some of his reasons as to why SLAs were failing. These include poor measurements, inadequate definitions and cumbersome SLA documentation. However, Hiles (1994) states that the foremost reason for failure is probably that lack of commitment, from management and customers.

Those involved in outsourcing IT services were still experiencing a learning curve, and much work needs to be done in order for outsourcing to become a win-win situation for all parties involved. Furthermore, Kern (1997), Hiles (1994) and Parish (1997) have implied that SLAs have not helped in creating this win-win situation either. Larson (1998), Kern (1997), Parish (1997) and Hiles (1994) have shown that SLAs and outsourcing IT services require further investigation with regards to improvements in this area. This dissertation investigates which IT services have been outsourced, looked at the use of SLAs when outsourcing IT Services in the retail sector of South Africa, and alerts retailers to the pitfalls and uses of outsourcing and service level agreements.

1.4 Value of Research

By investigating retail companies that have participated in outsourcing, this research was able to determine:

- Which IT services were outsourced, and which were most likely to be outsourced amongst large South African retailers;
- Whether outsourcing IT services has given South African retailers a competitive advantage;
- Whether SLAs have been used in conjunction with outsourcing IT Services;

- What changes should be made to SLAs to make them more useful when outsourcing IT Services.

1.4.1 Who are the stakeholders?

The stakeholders are those parties that are involved in the outsourcing agreement. Retail organisations that wish to embark on outsourcing will be able to get a clearer understanding into what can be done to create effective service level agreements (SLAs), as well as obtain an insight into which IT services were outsourced amongst South Africa's large retailers.

1.4.2 Who is the research aimed at?

This research will be aimed specifically at IT managers, working in the South African retail sector. The study aims to help these managers improve their outsourcing ventures, and increase the likelihood of the outsourcing initiatives becoming more successful. The IT managers would be able to identify where SLAs were being used and how they can be changed to improve their effectiveness.

1.5 The Research Hypotheses

The research hypotheses were as follows:

1. 50% or less of the large retailers in South Africa outsource all or part of their IT services;
2. Outsourcing IT services has not given the large retailers in South Africa a competitive advantage;
3. 50% or less of the large retailers in South Africa use SLAs when outsourcing their IT services;
4. The retail industry in South Africa use more internal SLAs than external SLAs;

5. 50% or more of IT Managers who use SLAs when outsourcing their IT services have experienced problems with the SLAs.

The hypotheses were based on literature, which had been reviewed, concerning outsourcing and service level agreements. It was found that there was a lack of up-to-date research conducted in South Africa with respect to these areas of IT. After numerous consultation sessions with the research supervisor, the above hypotheses were derived to assist in bringing value to those parties involved, as well as to those who will be involved in outsourcing and the use of service level agreements.

1.6 Overview of Dissertation

The chapters are as follows:

Chapter 2 : Literature Review

This chapter contains literature with respect to outsourcing and service level agreements (SLAs). It offers a critical view of what has been said about outsourcing IT services and SLAs thus far, and expresses other authors' opinions regarding this subject. Reference to South Africa's retail sector will also be made, highlighting the reasons why this industry sector was chosen.

Chapter 3 : Methodology

Chapter 3 highlights the research methodology that was used. It outlines the sampling methods, data collection techniques and some data integrity issues that were dealt with. The actual data collection experience is described in detail, as well as the general description of the research sample. The quality of data that was collected is described, as well as the format in which the data is presented.

Chapter 4 : Analysis and Results

Chapter 4 shows the analysis method that was used, and gives either positive or negative support for the hypotheses. This chapter displays the results of the analysis.

Chapter 5 : Summary

Chapter 5 links the theory discussed to the results of the research, and provides a summary of the important aspects of the research. The main aim of chapter 5 was to highlight the implications for the theory, as well as the implications for practitioners in South Africa's large retail sector, and the outsourcing sector as a whole.

Chapter 2: Literature Review

2.1 Introduction

This chapter deals with the review and critical analysis of the studies relevant to this topic, and is divided into 3 sections as follows:

- The first section looks solely at outsourcing IT services, and addresses issues such as the risks involved as well as the benefits of outsourcing IT.
- The second section analyses the literature covering SLAs. A definition of SLAs is given, followed by the different kinds of SLAs that can be used, and finally the advantages and pitfalls of SLAs are highlighted.
- Finally, the third section gives an account of the current state of South Africa's retail sector and its stance when it comes to Information Technology.

2.2 Outsourcing

2.2.1 Definition of Outsourcing

According to Eccles et al (2000), outsourcing involves using an external company, which specialises in IT services, in order to fulfill specific tasks within the organisation. Similarly, Kern et al (2002) define outsourcing as "the practise of contracting out or selling the organization's IT assets, people and/or activities to a third party supplier for monetary payments over an agreed period of time."

Outsourcing can be proposed for a number of services within the Information Technology department of any organisation. As stated by Kliem and Ludin (2000) earlier in chapter one, some of the services that may be applicable to outsourcing include:

- Application development;

- Data centre;
- Desktop/personal computers;
- Network (e.g. LANs, WANs);
- Support services/help desk; and
- Training.

Eccles et al (2000) state that the outsourcing agreement between the company and the outsourcer may cover one or two specific services, or in fact can also cover the entire IS function. The outsourcing agreements between the parties involved may see an integration of existing staff into the outsourcer's company, or alternatively, the service providers' personnel may be used.

During the data collection phase of the research, the following definition of outsourcing was used in the questionnaire:

"Outsourcing involves using an external company, which specialises in IT services, in order to fulfil specific tasks within the organisation" (Eccles et al, 2000). This definition was used since it provided a simple and clear understanding of what was being investigated.

2.2.2 Why Outsource?

There are number of reasons why organisations have turned to outsourcing their IT functions. Frost (2000) stated that outsourcing of computer operations or data centres to vendors has been the most popular form of outsourcing. According to Frost (2000), this had been done to ensure that the institutions IT facilities were up to date and that IT maximized the efficiency of the business overall. Eccles et al (2000) and Griffiths (2001) mentioned some of the most common reasons for outsourcing IT services:

- Focus on core business activities

  The organisation may need to concentrate their efforts on their core business activities in order to operate as efficiently as possible.

- Access to new technologies & specialised skills

  Another reason may be to expose themselves to the latest technologies that are in the market by using an outsourcer that is up to date.

- Quantify costs

  Outsourcing may also force companies to quantify expenses, and make internal costs more explicit. This implies that outsourcing will encourage companies to cost the maintenance and operation of the IT department. This cost can then be compared to the cost of the outsourcer, and determine if outsourcing is a viable option.

- Seasonal Processing

  This refers to the times when organisations have high volumes of transactions at seasonal times of the year, and will outsource part of their IT processing during these periods.

- Specialist Services

  This includes services that require special hardware and software expertise, for example, customised applications that were developed for an organisation requires specialist skills in order to maintain the applications.

However, Barthelemy (2001) does highlight the drawbacks of outsourcing as well. In his study, which investigated the hidden costs of outsourcing, Barthelemy (2001) emphasises that 14% of IT outsourcing operations were deemed failures, due to the fact that companies entering an outsourcing agreement believed that they understood all the major costs involved. Barthelmy (2001) further stated that some costs were not negligible and halved or even cancelled out the company's potential savings from outsourcing.

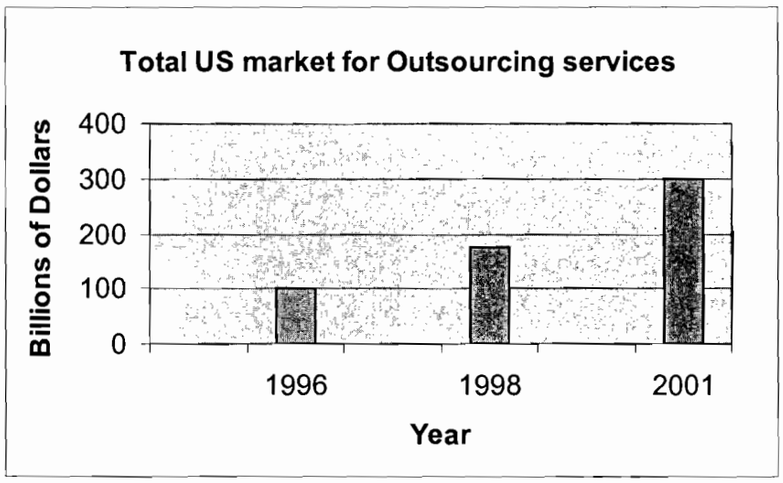
Further reasons encouraging outsourcing IT services were stated in a survey conducted by Hurley and Schaumann (1997) from KPMG in Australia, which showed that access to IT skills scored highest in a list of objectives in outsourcing IT. Improved service quality, defined service levels, focus on core business activities and additional flexibility, constituted the top 5 out of 10 objectives to outsource, with cost savings being placed 8th overall.

2.2.3 Trends in Outsourcing

Antonucci and Tucker (1999) stated that outsourcing of all service types has experienced strong growth in recent years. They mentioned that the total US market for outsourcing services has increased from the 1996 level of $100 billion to over $300 billion in the year 2001. Antonucci and Tucker (1999) also referred to a survey conducted by the Outsourcing Institute in 1997, which found that 51% of managers planned to increase expenditures for outsourcing, 49% planned no change, and 2% planned to decrease expenditures. Another survey, conducted by the Outsourcing Institute (1996), of North American CIOs, indicated that all IT areas experienced significant outsourcing-related activity for both large and small firms, ranging from 77% for disaster recovery to 23% for data entry. Antonucci and Tucker (1999) further stated that the US outsourcing market would continue to experience strong growth.

Antonucci and Tucker (1999) have also found that of the total US market for outsourcing services, the growth rate of IT outsourcing, with revenues of $184 billion in 2001, far outpaced other service areas. The next largest outsourcing service area, administration, projected revenues of only $40 billion in 2001. The top three growth areas of individual outsourcing of IT functions were applications development, applications maintenance and desktop systems. These figures have been highlighted in Figure 1 on the following page.

Figure 1: Graph Showing the US Market for Outsourcing Services



Antonucci and Tucker (1999, pg 2)

The KPMG survey conducted amongst corporate Australia by Hurley and Schaumann (1997) showed that 61% of the respondents to the survey were outsourcing some portion of IT, while 18% were considering outsourcing. Furthermore the most common of all the IT functions to be outsourced in the KPMG survey was that of hardware maintenance. This was followed by data centre operations. Application development, network services, and helpdesk services also ranked high on the list.

According to the above research papers, outsourcing had experienced significant growth in the Unites States as well as in Australia, with both countries investing substantially in outsourcing IT services.

2.2.4 Risks in Outsourcing

This section of the literature addressed the downside of outsourcing. It investigates some of the risks and problems that organisations might experience when embarking on an outsourcing exercise.

Earl (1996) stated that there were many risks that limit outsourcing. According to Earl (1996), those who have outsourced have more regrets than they acknowledge and more anxieties about vendors that they care to confront. Earl (1996) along with Lanz et al (2000) have cited risks when it comes to outsourcing. Furthermore, Antonucci and Tucker (1999) have also examined a number of surveys, case studies, and other research, which provides insight into some of the risks associated with outsourcing.

The following are some of the risks that these authors, Earl (1996) Lanz et al (2000), and Antonucci and Tucker (1999), see as being associated with outsourcing the IT function.

IT permeates the entire organisation

IT permeates every business function in the value chain, as well as all support activities. IT is not a homogenous function, but comprises a wide variety of IT applications/activities that are integrated parts of almost all processes within an organisation, and influence directly how these processes are performed. This is especially the case for information systems that support primary processes, and even more so if these primary processes are essentially information processing (Antonucci and Tucker, 1999). In every outsourcing venture, the outsourcer runs a risk of not delivering to the agreed standard. In this case, the risk is that outsourcing will affect the entire organisation, and inhibit the growth of the company.

Possibility of Weak Management

Earl (1996) suggests that a company may be tempted to outsource its IT function to a 3rd party, whether their own poor performance is real or imagined, or whether top management's views are rational or emotional. This implies that the 3rd party responsible for delivering the required services may not be able to manage the outsourced IT function as well as the internal staff of the organisation. In other words, companies face the risk of relying on external skills who have no prior experience of their organisation, to manage their IT resources.

Information technology evolves rapidly

Lanz et al (2000) suggest that one or even two years into the outsourcing contract, the company needs to enhance their agreement with the 3rd party. This is to ensure that the outsourcing provider also adapts to the changing technologies.

The same attitude is adopted by Antonucci and Tucker (1999), where they state that although participants initially perceived that outsourcing vendors would reduce the uncertainty associated with rapid IT evolution, many discovered that outsourcing actually locks them into older technologies and may act as an inhibitor to the adoption of new technology. Thus the customer faces the risk of remaining with outdated technology until the end of the outsourcing contract.

The underlying economics of IT changes rapidly

Antonucci and Tucker (1999) say that although price/performance improvements occur in every industry, there can be a few industries where the underlying economics shift as fast as in IT. The rapid change in the underlying economics causes extreme uncertainty and thus makes it difficult for decision makers to evaluate costs of outsourcing contracts.

Outdated Technology Skills

Earl (1996) has further stated that some organisations may see their IT skills becoming outdated. Organisations that continuously make use of legacy systems need to employ the personnel to maintain these outdated systems. This can be prevented by outsourcing its legacy systems.

The costs of switching to alternative IT and IS suppliers is high

Lanz et al (2000) highlight that "terminating one outsourcer and entering into a new agreement with another can be very costly, both monetarily and in term of service

disruptions during the transition to the new outsourcer." They further state that "the more two entities work together and adapt to each other as business strategies and technologies change, the further ahead both will be." Lanz (2000) emphasizes that both entities need to develop a common goal in order for the outsourcing venture to be successful.

Hidden Costs

Earl (1996) emphasises two types of hidden costs that a company may experience. The first of these costs will be that of set-up costs, including redeployment costs, relocation costs, and longer than expected handoff or parallel running costs.

Second, companies may underestimate management costs. Earl (1996) refers to a manager at a UK company who considers their outsourcing a success, reports that "We never anticipated the management of resources and time- and thus the cost we have had to put in."

Loss of Control

Antonucci and Tucker (1999) state that critics of IT outsourcing argue that no outside vendor can match the responsiveness and service levels offered by an in-house function, largely because the outsider is not subject to the same management direction and control as employees.

Less Flexibility

Some CIO's argue that outsourcing is likely to remove, or at least significantly constrain any flexibility in the delivery of IT (Antonucci and Tucker, 1999). Antonucci and Tucker (1999) suggests that outsourcing IT services will not allow the company to have as much flexibility in terms of changing their business focus when required. This change may only occur once an agreement has been reached with the service provider.

Hostage

"Some IT professionals say that outsourcing often results in the users becoming a hostage of the vendor. The organisation often will have given up certain technical skills, transferred hardware and software to the vendor, and potentially become locked into the vendor's proprietary software and hardware" (Antonucci and Tucker, 1999).

Cost Savings

Many managers assume outsourcing vendors are inherently more efficient due to economies of scale. Antonucci and Tucker (1999) imply that in the outsourcing arena, the applicability of economies of scale model can be questioned.

When vendors submit bids that indicate savings, companies may question whether they can achieve similar results without vendor assistance. If the vendor is not inherently more efficient, perhaps the company can reduce its own IS expenses through data centre consolidation, resource optimisation, and chargeback implementation, which can also dramatically reduce costs (Lacity and Hirscheim, 1995).

2.2.5 What can be done to Reduce these Risks of Outsourcing?

In order to overcome these risks, managers need to deal with a number of factors. These factors may differ in order of importance, since every outsourcing venture may experience different problems. Lanz et al (2000) state these approaches need to be looked at when IT managers reduce the risk of outsourcing their IT services. These include:

- Developing an outsourcing strategy that reflects the company's strengths and vision, and a strategy with realistic financial goals to reduce costs;
- Outsource IT processes where there is a lack of expertise or where it is difficult to achieve efficiency within the organisation;
- Work with trusted outsourcers, and communicate expectations in the contract;

- Create an outsourcer selection team that represents all potential users to help select the appropriate outsourcer;
- Visit the outsourcers place of business to ensure that they have the ability to cope with the size of the project;
- Create a replacement plan, to switch to other outsourcers. This should be done in case of a break down of communication, and lack of service delivery;
- Create an integrated team of company and outsourcer staff to manage the transition or start-up;
- Link outsourcer compensation to outsourcer performance. Outsourcer performance requirements should specify 100% of the outcomes, and hold the outsourcer fully accountable. Best-practise companies provide incentives that encourage peak performance from outsourcers and include penalties for substandard performance.

McCracken (2002) highlights that many IT outsourcing agreements fail, and suggests poorly designed service level agreements as one of the major sources of disillusionment. McCracken (2002) quotes Rick Sturm, president of Enterprise Management Associates (a technology research firm), as saying that around 50% of companies entering outsourcing agreements do so without any service level guarantees. Furthermore, McCracken (2002) refers to an article Selective Outsourcing and Networked Systems Management, a report by Gartner in 2002, which states that through 2003, 85% of the SLAs with selective outsourcers will fail to define actual enterprise service-level requirements.

The risks of outsourcing IT services may vary from case to case, however, they are always there to sour an outsourcing venture. In order for this risk to be reduced, the use of SLAs became a common occurrence. Goolsby (2001) stresses that service level specifications (agreements) are a crucial foundation for a successful outsourcing relationship. With this in mind, SLAs shall be looked at in some detail, highlighting some of the drawbacks companies are experiencing in their use. It is important to note that this research will investigate SLAs used by the large retailers in South Africa's retail sector, and what can be done in future to eliminate these negative effects.

2.3 Service Level Agreements

2.3.1 What is a service level agreement (SLA)?

Larson (1998), states that the outputs of one or more processes or interfaces designed to meet the customers expectations, or a defined set of expectations, form the basis of the contracted services and the service level agreements. The purpose of the SLA is to provide the user of the service with the necessary information to understand and benefit from the contracted services. It is imperative that the SLAs contain the necessary information to use and manage the service delivery.

Shand (2001) defines service level agreements as a contract that defines the technical support or business parameters that an IT outsourcing firm will provide its clients. The agreement typically spells out measures for performance and consequences for failure. Furthermore, Griffiths (2001) states that SLAs help manage the strategic relationship between the outsourcing company and the supplier and includes the identification of responsibilities, which is key when processes change. Griffiths (2001) continues by saying that successful outsourcing relationships focus on results that must be objective, measurable, quantifiable and comparable against pre-established criteria.

Larson (1998) further emphasizes that SLAs can be divided into two basic types: direct services and indirect (or support) services.

Direct Services

Larson (1998) defines direct services as a set of specific services or deliverables aimed at a specific set of users. For a typical outsourced IT servicing agreement, these services may include:

- Processing services (eg: payroll);
- Processing environments to support development;

- Infrastructure services (eg: email system);
- Infrastructure support services (eg: desktop services); and
- Other support or advice (eg: help desk).

Indirect service

Larson (1998) defines indirect services as supporting the provision of direct services, but are not specifically the services being contracted. Some examples of the indirect services include:

- Periodic status or review meetings;
- Attendance at meetings to provide expert views;
- Performance reporting of service level achievement, problem events or change requests;
- Testing of disaster recovery procedures;
- Maintenance of equipment or asset inventory;
- Consultancy on strategy and standards; and
- Service billing.

Larson (1998) highlights the differences between internal SLAs and external SLAs that can be seen in figure 2 below. Muller (1999) states that an intracompany (internal) SLA is written by the IT department, and can provide "a structured approach to fulfilling its responsibilities to the company." The following table highlights the differences between the external SLA and the internal SLA. This comparison was important for the research to help determine which SLAs were used amongst South Africa's large retailers during their IT outsourcing processes.

Figure 2: Comparison of Internal and External SLAs (Larson, 1998)

Internal SLAs	External SLAs
Terminology "understood"	Terminology defined
Not legalised	Legalised
Responsibilities defined	Responsibilities defined
Service definition not precise	Service definition precise
Processes understood	Processes defined
Cost rather than price, if at all	Price rather than cost

Larson (1998) suggests that the contract should be sufficiently flexible to accommodate the changing service needs of all parties. Unlike many internal service arrangements, the definition of services involving an external party requires detailed consideration, and in many cases, legally enforceable requirements.

2.3.2 Service Level Specification Styles

The research has looked at SLAs in terms of internal and external types. Goolsby (2001) proposes another view of SLAs, that being of her specification styles.

Goolsby (2001) suggests that there are 3 styles of service level specification. The appropriate style is determined by the objective (result) the buyer hopes to achieve by outsourcing. Problems can occur when style and objective do not match. The following are the different views of SLAs from Goolsby's (2001) perspective.

- Utility

  Goolsby (2001) refers to the first style of service level specification as *Utility*. She states that this type of service level specification is what we can expect from an electric company and telephone company. If the service is on, all is well. If the service is off, we want a credit applied to our invoice for the amount of downtime. Within this type of style, Goolsby (2001) says that there are 2 levels of service: acceptable or unacceptable. A penalty is associated with the unacceptable level.

The following two of the three roles suggested by Goolsby (2001), are tied to creation and capture of additional value that can be achieved by outsourcing.

- Process Improvement Style

  This style of service level specification is used when the buyer's business objective is process improvement after the service provider takes responsibility for the process. This type of service level specification is often used in business process outsourcing (BPO), and measures the success of changes introduced to the process, rather than the end result (Goolsby, 2001).

- Value Added Style

  The third and final style of service level specification suggested by Goolsby (2001), describes the actual value i.e.: the quality of the desired result. Goolsby (2001) uses an HR example to explain this style. She states that the service level should measure the right fit of talent in a position or duration of employment, not just how many people are recruited. She goes on to say that a well constructed value-added service level specification will measure the effectiveness of results in creating value for the buyer's organisation (Goolsby, 2001).

2.3.3 Some Pitfalls of SLAs

Parish (1997) suggests that even though SLAs do seem to be imperative when outsourcing, he warns that one needs to be aware of the potential pitfalls regarding the adoption of them.

- Bureaucracy of SLAs

  By this he implies that the SLA process incurs a cost overhead. As stated earlier, some organisations, after having successful attempts with SLAs, may decide to implement SLAs on many processes that were successful without them. Parish (1997) emphasises that it's these circumstances where unnecessary costs have occurred, without offering any benefits.

- Supplier focus on the own business process

  Another problem highlighted by Parish (1997) shows that the production of SLAs may encourage suppliers to focus solely on their business process, losing sight of the needs of the external customer at the end of the process.

- Services shortfall

  Hiles (1994) also raises some pertinent factors that lead to the failure of service level agreements. He suggests that SLAs will soon fall in to disrepute if no action is taken on service shortfall. Hiles (1994) also gives some of his reasons as to why SLAs are failing. These include:

  - Poor measurements;
  - Inadequate definitions; and
  - Cumbersome SLA documentation.

  However, he states that the foremost reason for failure is probably the lack of commitment, from management and customers.

2.4 Information Technology and the Retail Sector in South Africa

According to the South African ICT Development Framework (SAITIS) 2000, the wholesale and retail sector of South Africa contributed 16% to GDP, and accounted for 18% of ICT revenues in 1997, with growth in ICT spending (12% in 1997).

SAITIS (2000) further stated that this growth was estimated to decline until 2001. The major chain stores comprise about 70% of that market, and exploit ICT on a par with global best practices. There were 24 PCs per 100 employees in the retail sector (SAITIS, 2000). As the sector matures, there was expected to be a shift towards market level logistics systems, such as industry-wide distribution systems; emphasis on global markets; outsourcing of more non-core processes such as finance and accounting; and growth in home shopping, based on the results of the Baseline Studies. *(The Baseline Studies report was developed to establish baseline data for the SAITIS project, and to*

assist in creating a framework for monitoring the eventual outcome and impact of the strategy.)

SAITIS (2000) further stated that the retail sector continued the process of international consolidation. Customer service has become an even stronger differentiation tool through the use of ICT. The retail sector has been among the first to adopt internet technologies in order to reach customers and improve customer service.

Du Plessis (2000) published the *SA IT Vertical Markets* report, highlighting trends and issues in industries such as financial services, manufacturing, finance, insurance and business services, and the retail sector in South Africa. Du Plessis (2000) stated that foremost, IT spending patterns were a function of the industry and its primary business. She also highlighted that business and financial service companies were more IT intensive than retail and wholesale service organisations in terms of spending. According to the report, there was a strong indication that the majority of retail companies reported total IT budgets of less than R50m, significantly below the market average. Du Plessis (2000) continued by saying that IT budgets were reported to increase between 2001 and 2002 for roughly 80% of SA companies with PC's.

2.5 Summary

This section investigated the relevant literature regarding outsourcing and service level agreements. A brief background about outsourcing has been described, as well as highlighting some of the advantages and disadvantages of it. This research aimed to investigate the state of outsourcing IT services amongst the large retailers in South Africa. Also included in this section was the description and definition of SLAs. Literature concerning the negative aspects of SLAs was also stated to provide an understanding on why research needs to be conducted in this area. South Africa's retail sector has been mentioned with respect to ICT spending budgets amongst the retailers.

This research investigates the use of outsourcing IT services amongst the large organisations in South Africa's retail sector. The use of SLAs being used in conjunction with outsourcing IT services has also been researched. The survey looked at which outsourced IT services were associated with SLAs, and attempts to provide an understanding as to how SLAs can be used more effectively.

Chapter 3: Methodology

3.1 Introduction

This section explains the stages and procedures followed to gather the data and methods employed to analyze the data from which the hypotheses could be tested. From this, an accurate view of the current state of outsourced IT services and service level agreements in South Africa's retail sector can be obtained, and reviewed.

3.2 Methodological Issues

The literature review contained an analysis into the advantages and risks of outsourcing. Service Level Agreements (SLAs) were discussed in detail, highlighting their pitfalls and uses. As highlighted in chapter 2, service level agreements were considered as one of the mechanisms that helped reduce the many risks of outsourcing IT services. However, SLAs also became a critical issue that needed to be addressed. The theory mentioned in this research has been around for some time. There have been various suggestions as to how SLAs should be implemented; however, nothing can be said to have made a significant impact on the improvements of the use of SLAs amongst the large retailers in South Africa.

The aim of this research is to examine ideas as to what can be done to SLAs in order to make them more effective and meaningful for retailers in South Africa. The approach this research took is that of a quantitative one. By completing the questionnaire, IT managers in the retail sector of South Africa were asked to give their views, uses and recommendations for improvements on SLAs, as well as areas of their IT which have been outsourced.

The results of the analysis show what needs to be done to SLAs to help their development. These results apply specifically to the retail sector of South Africa. It

cannot be said that all IT managers need to incorporate these results into their SLAs, since each outsourcing relationship depends on the goals and objectives of the parties involved. The findings of this research will give IT managers a clearer understanding of further improvements to SLAs, and allow them to be applied, if relevant to their organisation.

Data always plays an important role in this type of research. The results of the analysis are dependant on the responses of the IT managers interviewed. For this reason, it was imperative that as much data and feedback as possible was collected from IT managers in order to obtain an accurate reflection of the state of SLAs amongst the large retailers in South Africa.

3.3 Sampling Frame

The sample frame investigated in this research includes the IT managers of the large retail companies in South Africa.

The retail sector was chosen due to the fact that South African retailers have contributed substantially to the IT sector. As mentioned previously in chapter 2, SAITIS (2000) noted that the wholesale and retail sector accounted for 18% of ICT revenues in 1997, with growth in ICT spending (12% in 1997). The major chain stores comprise about 70% of that market, and exploit ICT on a par with global best practices. There are 24 PCs per 100 employees in the sector (SAITIS, 2000).

These organisations were considered to be large companies, and were likely to have a substantial IT base. The sample frame tried to incorporate as many large retailers in South Africa as possible. This was done to ensure that an accurate reflection of the entire sector was obtained.

3.4 Sampling Method

A list of all the large retailers in the Western Cape was obtained from the Cape Chamber of Commerce. This was done by initially making contact with the Chamber. From here, the information which was needed was obtained from their web-site *http://www.capechamber.co.za*. The web-site contained an updated listing of all retailers in the Western Cape. Included in this list, were the size (number of employees) of the organisations. According to the South African Government (1996), a company is classified as large if it contains 100 or more full-time employees.

In addition to this, a list of large retailers for the rest of South Africa was obtained from various sources, including: the Retail Sector listing of the JSE, *McGregor's Who Owns Whom in South Africa (2002)* and *McGregor's Company Database* at the University of Cape Town's Graduate School of Business (GSB) Library. Reference was also made to the *Mbendi Information for Africa* web-site, *http://www.mbendi.co.za*.

3.5 Data Collection Techniques

In order to obtain the necessary information, questionnaires were used. All information gathered from these questionnaires were viewed as extremely confidential, and treated in such a manner.

The questionnaire consists of 18 questions. From these questions, feedback regarding the decision to embark on outsourcing initiatives can be obtained. In terms of SLAs, the questionnaire requests the respondents to express his/her experience with the use of these agreements. All the data collected from the questionnaires have been obtained from large retailers in South Africa.

Initially, one-on-one interviews with the respondents were planned. This would have been done in a purely supervisory manner, and not to influence the outcome of the data collection process. In order for this to occur, appointments had to be made. The

interviews/questionnaires were planned to be conducted from about the 8 March 2002 until the 8 June 2002, each session lasting for approximately 30 minutes.

This questionnaire was designed after reviewing a sample questionnaire from an MBA student's (Kalawe, M, 1998) research paper. This student focused on the diffusion of technology outsourcing in the South African market. It was decided that the questionnaire for this research should have a similar look and feel, since it was a tried and tested questionnaire. In designing the questionnaire, a fair amount of consultation took place with the research project supervisor. Out of these sessions it was decided that the questionnaire should be structured the way it was.

After making contact with retail companies in South Africa, it was found that many of the key people involved would rather have the questionnaire e-mailed to them, and returned the same way. It seemed that most managers were too busy to make an appointment for one-on-one interviews. As a result of this, it was decided to give the participants two weeks to fill in the questionnaire, before receiving or collecting them.

A total of 63 questionnaires were sent out to the large retailers in South Africa. Thirty seven questionnaires were sent out to the Western Cape (Cape Town), which is home to the majority of the major retailers in South Africa. Twenty questionnaires were sent to the Gauteng (Johannesburg) region and 6 sent to Kwa-Zulu/Natal (Durban).

The data collection process lasted much longer than anticipated. Once contacted, the relevant people responsible for the outsourcing venture at their respective companies seemed eager to assist in completing the questionnaire. The actual time taken for some of the respondents to complete the questionnaire was considerably longer than expected. Fortunately, this did not have a great impact on the progress of the research, since additional time was allocated for this to occur. Furthermore, this stage of the project was crucial, since one could not rush the respondents to complete the questionnaire, thus increasing risk of receiving inaccurate data. For the purpose of data accuracy, participants

were encouraged to take their time, and were given a reminder, either via telephone or mail, once a week.

3.5.1 Motivation for Questions used in the Questionnaire

The questionnaire used in this research consisted of 3 sections. Each section focused on specific aspects of the business in terms of general information, the organisations' use of outsourcing, and the organisations' use of service level agreements with the outsourcing of IT services. A brief discussion follows, of the various sections of the questionnaire, highlighting the type of information that was collected and the motivation for such information.

3.5.1.1 General information

The questions in this section aimed to determine the position of the person responsible for the outsourcing relationship in the organisations. The primary nature of the businesses was expected to be retail, since this research targeted the large retailers in South Africa.

The sizes of the organisations (in terms of number of employees) involved in outsourcing were determined. Once again, the large organisations were targeted, so a standard response was expected from this section of the questionnaire.

Organisations have different ways in which their IT structure has been developed. From the questionnaire, one was able to gain an insight into the different structures of the IT environment of South Africa's large retailers.

This research focused on the kind of services performed by most of the IT departments of the large retailers in South Africa. An understanding of these services would highlight what the IT departments were capable of performing, and thus give an overview of which services the large retailers were likely to outsource.

The responsibilities of the most senior IT-related individuals in the company were determined to identify the importance these large retailers placed on IT services.

3.5.1.2 Organisations use of outsourcing

The second section of the questionnaire looked at the current state of outsourcing amongst the large retailers in South Africa. A brief definition of outsourcing was given to assist the respondents in obtaining an indication of what the research aimed to investigate.

The questionnaire determined what IT activities/functions the company was currently outsourcing. Not all retailers in South Africa outsource their entire IT function. Some organisations prefer keeping their critical IT functions in-house, and outsourcing the non-value adding functions. The most common IT functions to be outsourced in the retail sector was determined.

Not all retailers had the option to outsource their IT activities. The questionnaire took a look at what could be expected of these large retailers outsourcing their IT services in the future. They were asked to consider the types of IT services that their organisation would be eager to outsource.

Organisations have different reasons as to why they chose to outsource certain IT activities. The questionnaire aimed to determine the reason for outsourcing, and to understand which was the most common reason to outsource IT services amongst the large retailers in South Africa.

Outsourcing does not ensure that the organisation will be more successful. It could prove to be unhealthy. The research aimed to determine whether the retailers had a positive experience with outsourcing, and what they gained, if anything, out of that relationship.

3.5.1.3 Service Level Agreements (SLAs)

The third section of the questionnaire dealt specifically with Service Level Agreements (SLAs). Various aspects of SLAs were questioned, the most prominent being how useful SLAs were, and what could be done to improve them. A definition of service level agreements was given to assist the respondents in understanding what the research involved.

One of the questions aimed at the respondents, was to determine how popular the use of SLAs were in outsourcing IT relationships.

The problems experienced by organisations with SLAs was also investigated. These problems varied according to the type of relationship organisations' had with the outsourcer.

This research addressed how external and internal SLAs have been used within the large retail organisations in South Africa. As discussed in chapter 2 and outlined in the survery questionnaire, internal SLAs refer to the agreement between the IT department and the rest of the organisation, whereas external SLAs refer to the agreement between the service provider and customer. The research also looked at which of the outsourced IT activities were most likely to use SLAs amongst the large retailers, in order for the outsourcing relationship to be improved.

The experiences of the respondents who used SLAs were also taken into account, specifically emphasizing the problems of working with SLAs. These problems will show why SLAs were not fulfilling their role in the outsourcing relationship.

The respondents were required to make recommendations, by asking them what needed to be done in order for SLAs to become more effective. Essentially, this question drew upon the respondents' knowledge and experience of SLAs. Furthermore, the research

took into account their feedback with respect to making changes to SLAs if the respondents were to use them again.

3.5.2 Response Rate

The method of data collection used, was chosen since the research survey involved large retailers from throughout the South African retail sector. In conjunction with the research supervisor, it was determined that an email survey would be the most cost effective and efficient method in obtaining feedback from the necessary respondents. Furthermore, each of the respondents were individually contacted to be informed of the survey prior to sending out the questionnaire.

The response rate experienced was as follows:

- Western Cape had a response rate of 56.76% i.e. 21 out of 37;
- Gauteng had a response rate of 65% i.e. 13 out 20; and
- Kwa-Zulu/Natal had a response rate of 66.67% i.e. 4 out of 6.

This gives an overall response rate of 60.32% i.e. 38 out of 63 questionnaires returned.

3.5.3 Testing of the Questionnaire

Data collection involved using an email approach, which was pre-tested with 4 volunteer companies, 2 of which were in the Kwa-Zulu/Natal region. Responses from these questionnaires were analysed by the researcher to ensure that respondents easily understood the questionnaire. Once approved the questionnaires were sent out via email to all organisations that were included in the sample frame. Each questionnaire was addressed to the IT Manager/Managing Director/CIO, as the research required respondents to have knowledge of IT as well as involvement in the outsourcing venture. A covering letter was also attached to each questionnaire explaining the purpose of the research, and the parties involved. Questionnaires were returned by email or collected from the various organisations.

3.5.4 Method of Analysis

The data from the questionnaires was captured and compiled using Microsoft Excel spreadsheet. Once compiled, the data was imported into the Statistica 5.5 package for statistical analysis. Microsoft Excel was also used for statistical analysis. Data analysis was conducted using the Normal distribution test. The level of confidence, the probability level needed for rejection of the null hypothesis, was set at 0.05. Finally all documents were composed using Microsoft Word.

3.6 Limitations of Research

This research aimed to obtain information from IT managers concerning their outsourcing strategies and contracting agreements. This type of information may be confidential to some organisations. However, as stated before, respondents and their organisations will remain anonymous throughout the entire analysis process, and data will be treated with utmost confidentiality.

Other limitations that were experienced concern the size of the organisations. The research included only large retailers throughout South Africa. The large retailers form the bulk of ICT spending in their sector. In the South African context, an organization is considered to be large if it has 100 or more full-time employees (South African Government, 1996).

While making contact with the relevant players in the retail sector, it was learned that some companies were considered to be holding companies, with a number of different retail chains within their portfolio. It has been assumed that the outsourcing of IT services and the use of SLAs was standard across the different retail chains under the same group.

3.7 Data Integrity Issues

The data collected in this research was part of the various strategies that the respective participants adopt. The data collection period spanned a time frame of about 5 months. During this time it was highly unlikely that the participants changed the way they managed their businesses. For this reason, the data collected was valid, and will survive across the duration of the research.

Upon receipt of each completed questionnaire, the questionnaire was reviewed in order to verify that it contained the necessary information to conduct the analysis. Respondents were contacted and asked to clarify any discrepancies or missing data that existed in the questionnaires.

3.8 Analysis "Look Ahead"

The analysis proposed was that of a quantitative nature. The data collected was easy to code into numbers as measurements, and then further analyzed. The questionnaire was designed to promote specific responses where possible, thus making analysis more defined.

Chapter 4: Analysis and Results

4.1 Introduction

This chapter of the dissertation addresses the analysis and results of the research. The chapter portrays the results obtained from the different sections of the questionnaire, namely General, Outsourcing and Service Level Agreements (SLAs). In each section, the questions were presented, the hypothesis stated where applicable, and results depicted based on the responses. The hypothesis was accepted or rejected and an explanation of the results followed. The analysis of the questionnaire was done with a sample of 38 respondents. Unless otherwise stated, the number of respondents throughout this chapter was 38 (i.e. n=38). This study focused only on the large retailers in South Africa.

4.2 Results

4.2.1 General Section of Questionnaire

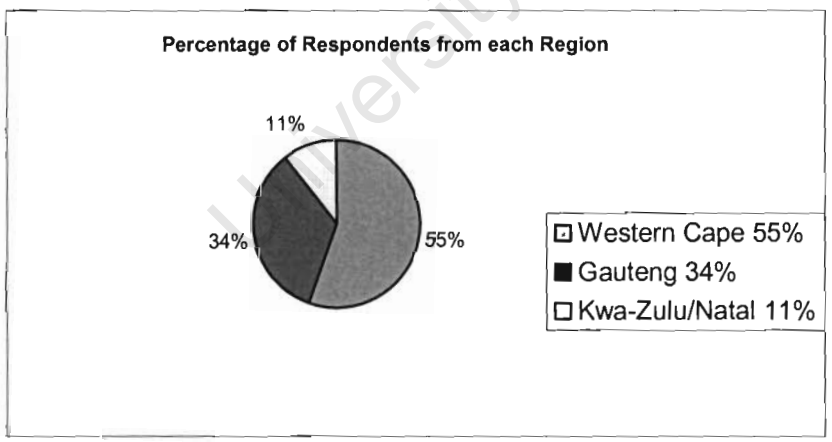


Chart 1 Percentage of respondents from each Region

Chart 1 shows the number of respondents from the different regions throughout South Africa, which were as follows: the Western Cape (55%, or 21 out of the 38 responses), Gauteng represents 34% and Kwa-Zulu/Natal represents 11% of the sample. From the

results, it can be seen that the majority of the responses came from the Western Cape, which is expected as most of the questionnaires were sent out to this region.

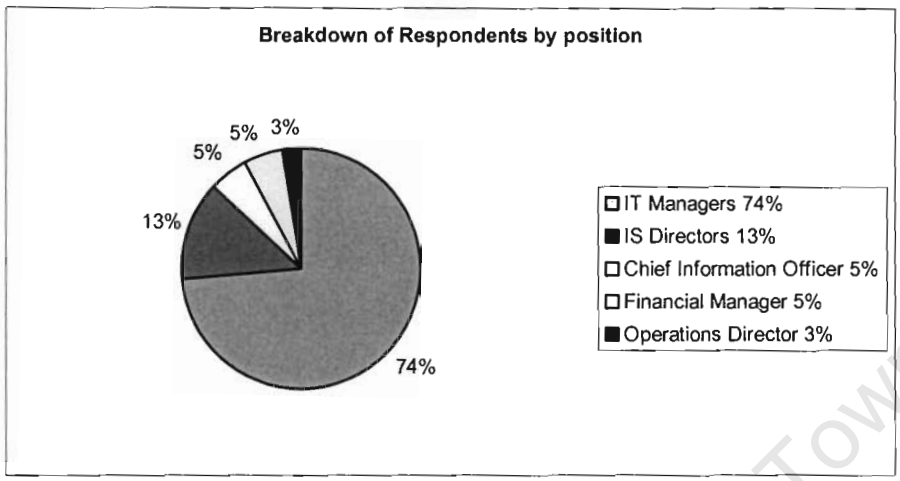


Chart 2 Breakdown of respondents by position

Chart 2 represents the breakdown of the positions of the respondents. The majority of the respondents were IT Managers. This sector comprised of 74% of responses, which suggests that the IT manager is most involved in the outsourcing of IT services and drawing up of SLA's amongst the large retailers of South Africa. Second to the IT Mangers, were the IS Directors, who made up 13% of the survey. The large retailers in South Africa see the IS Director in charge of Outsourcing IT services and dealing with SLAs. Having the IS Director involved may show the importance that the organisation had placed on the outsourcing relationship.

The remaining respondents, namely, the Chief Information Officer (CIO) and Financial Manager both contribute 5% of responses respectively, while the operations director only made up 3% of the sample. The IT manager, IS Director and CIO could be the most senior IT person in the company. These three positions made up 92% of the respondents indicating that these companies leave the outsourcing decision to them. The remaining 8% of the respondents were Financial Managers and Operation Directors, indicating that these organisations did not have any senior IT personnel responsible for the IT

outsourcing relationship, since these decisions were handled by the Financial Manager and, or Operations Director who were not considered to be IT orientated positions.

Question 1

Is your organisation considered to be a small/medium or large enterprise?

Small	**less than 10 employees**
Medium	**11-100 employees**
Large	**greater than 100 employees**

(*South African Government, 1996*)

This research was aimed at the large retailers of South Africa. All of the respondents classified themselves as "Large" organisations.

Question 2

Is your IT department centralised or decentralised?

Centralised – all IT operations done at a single location
Decentralised – IT operations occurs at different locations

Most of the respondents have IT departments that are centralized i.e. 63% have centralized IT. The remaining 37% have decentralized departments.

Question 3

What service does your IT department offer?

Application development / programming
User support / help desk services

Systems analysis and design

Systems maintenance

Deployment and management of networks

Other: please specify

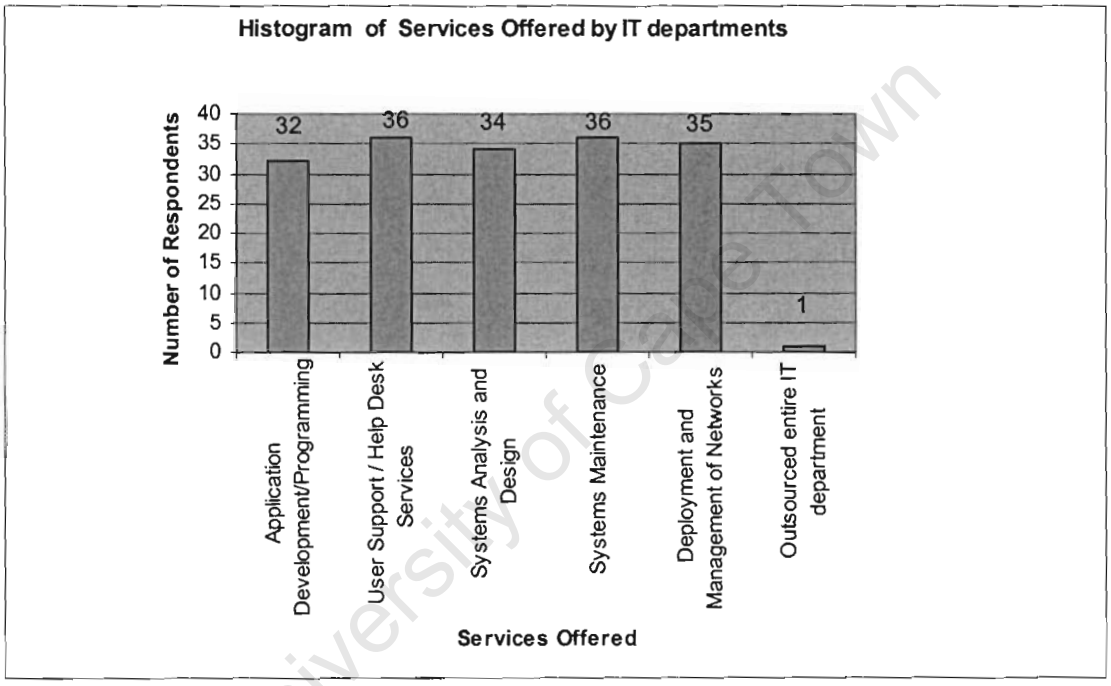


Chart 3 : Services offered by IT Departments

Chart 3 shows the types of services offered by the IT departments in the retail sector. There was a total of 38 responses and none of these respondents offered the full range of IT services listed. This suggested that the IT departments in the retail sector either do not offer these services, or were outsourcing these services. It is important to note that the most frequent services that were offered by 94% of the respondents were User support/help desk services and Systems maintenance. The next most frequent service offered by 92% of these departments was that of deployment and management of networks. Systems analysis and design, and Application development/programming were offered by 89% and 84% of the respondents respectively. It was interesting to see that

only 2% of the respondents outsourced their entire IT department, i.e. did not offer any of these services in-house. One could also argue that the 2% did not require these services in their organisation, or that these services were not required on a full-time basis.

Question 4

What services is the Head of IS/IT responsible for?

All of the above in question 3 (previous question)
Application development / programming
User support / help desk services
Systems analysis and design
Systems maintenance
Deployment and management of networks

Other: please specify

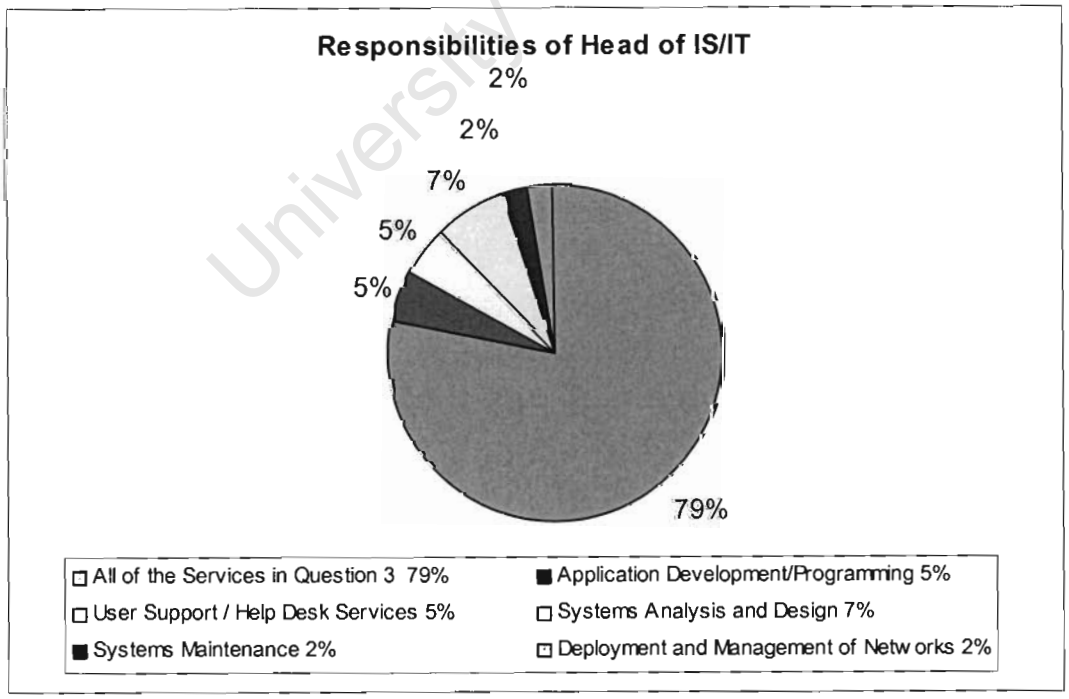


Chart 4 : Responsibilities of the Head of IS/IT

Chart 4 shows the results of the responsibilities of the Head of IT/IS in the organisations that participated in the research. The analysis indicated that 79% of respondents see their Head of IT/IS responsible for all the services that the IT department offers. Out of those not responsible for all the services, 7% were responsible for systems analysis only. Five percent were responsible for application development/programming only, and 5% responsible for user support/help desk services only. However, only 2% were responsible for deployment and management of networks, and systems maintenance only.

4.2.2 Organisations use of Outsourcing

Question 5

Is your organisation currently outsourcing any of its IT functions?

Application development / programming
User support / help desk services
Systems analysis and design
Systems maintenance
Deployment and management of networks

Other: please specify

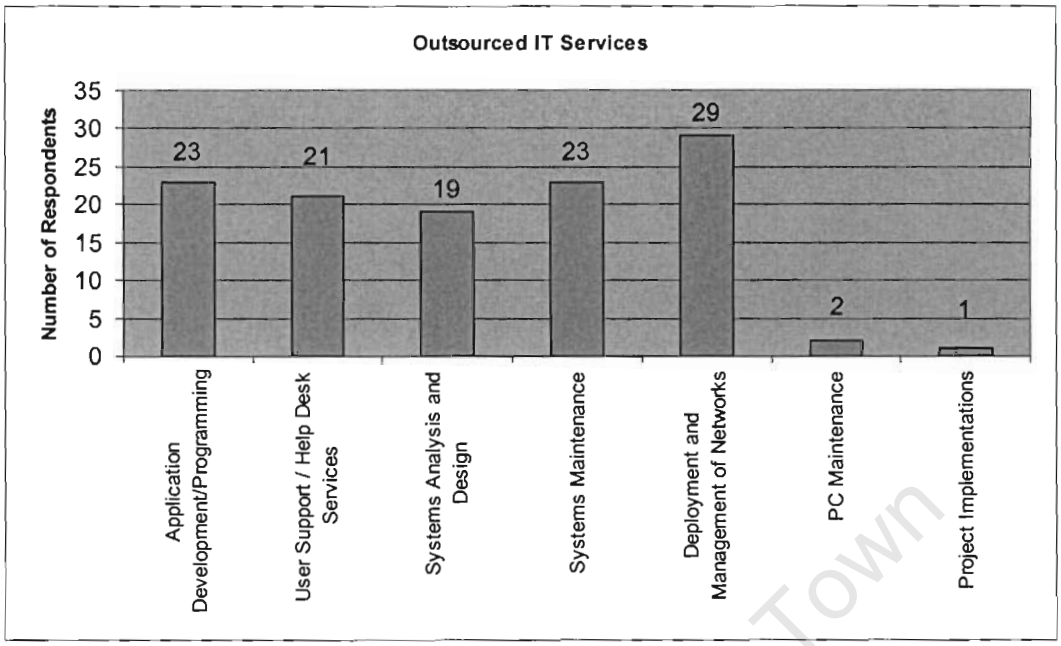


Chart 5 : Outsourced IT services

Chart 5 shows the outsourced IT services by the large retailers in South Africa. The services that were outsourced are shown. Of the 38 respondents, 76% have indicated that they have outsourced the deployment and management of their networks. Application development and systems maintenance were both outsourced by 60% of the respondents. The analysis revealed that 55% outsourced the user support/help desk services. Systems analysis and design represented 50% of the responses. PC maintenance and Project implementations were outsourced by 5% and 2% of the companies respectively. From this result, it can be seen that outsourcing played an important role in the management of their organisations, with 76% of the retailers outsourcing their deployment and management of networks.

Ninety-four percent of the respondents were involved with outsourcing all or part of their IT services. This was in line with reference to Anotonucci and Tuckers (1999) research within the US market, which has been experiencing "strong growth" in outsourcing. This 94% was significantly higher than the 61% of corporate organisations participating in Australia (Hurley & Schaumann, 1997). It must be noted that the retail sector was

targeted in this research, with the statistics proving that outsourcing IT services was seen as a critical aspect of the IT management.

Question 5 was directly related to the hypothesis of the study. For this reason, the hypothesis is stated below, and the table included contains the results of the statistical analysis of the data. This has been done for all the questions that are directly related to the hypotheses of this study. It must be noted that a figure of 50% was chosen for the hypothesis as a means of differentiating between the majority and minority of the respondents in the sample tested.

H_0: 50% or less of all the large retailers in South Africa outsource all or part of their IT services.

Number of Responses (n)	Mean	Standard Deviation	Variance	95% Confidence Interval (Lower)	95% Confidence Interval (Upper)	Test Statistic (z-value)	Rejection Region
38	0.947368	0.226294	0.051209	0.875417	1.01932	12.18663	1.96

Table 1 : Response to currently outsourced IT functions

Table 1 shows that the z-value of 12.18663 lies beyond the normally distributed region of 1.96. Thus H_0 will be rejected. It can be said that more than 50% of the large retailers surveyed in South Africa outsource all or part of their IT services. We can then reject H_0.

Question 6

If your organisation is not currently outsourcing any IT functions, is there any intention to outsource some or all of the functions in the future?

Yes, within 3 years

Possibly

No

Don't know

Only 5 of the respondents (13%) answered this question. Question 5 stated that 94% of the respondents have been involved in outsourcing. This implied that 6% do not outsource all or part of their IT services. During further analysis of the data, it was found that 7% of the large retailers who were already outsourcing all or part of their IT answered this question.

Chart 6 showed that there were no more than 29 respondents outsourcing one or more of their IT services at any one time. Chart 7 shows the intentions of these 13% of companies in terms of outsourcing IT services within the next 3 years.

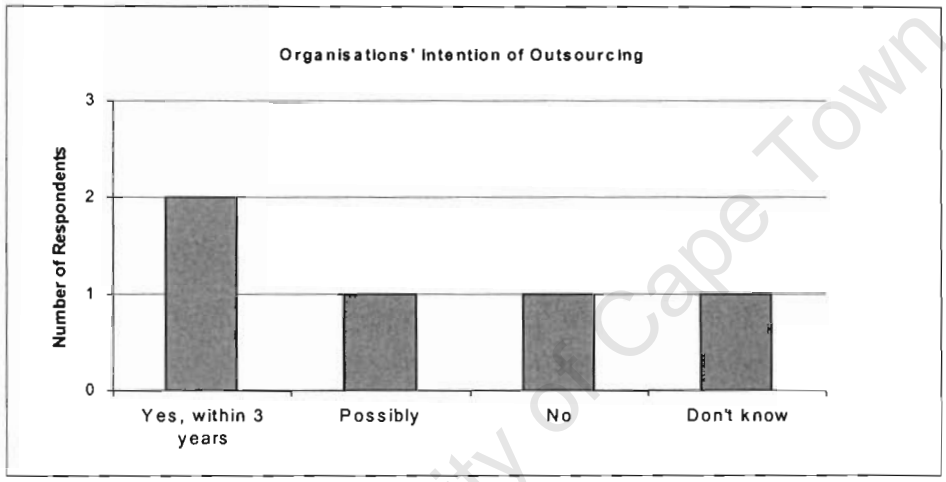


Chart 6 : Intentions of retailers to outsource their IT services

From chart 6, 2 of the 5 respondents (40%) intend to outsource all or part of their IT with in the next 3 years. Forty percent were considering outsourcing their IT services, and another 20% were not going to outsource. A further 20% did not know whether their organisations would outsource part or all of their IT services. This result represents a very small part of the sample population, and does not fully represent the state of the large retailers.

Question 7

If YES to question 6 (previous question), which area of your IT will be outsourced in the future?

Application development / programming

User support / help desk services

Systems analysis and design

Systems maintenance

Deployment and management of networks

Other: please specify

Chart 7 shows the respondents of IT services that are most likely to be outsourced by the 5 companies who answered this question. As stated earlier, only 2 organisations were not outsourcing all or part of their IT during the period of the survey, and 3 respondents who were involved in outsourcing continued to answer these questions.

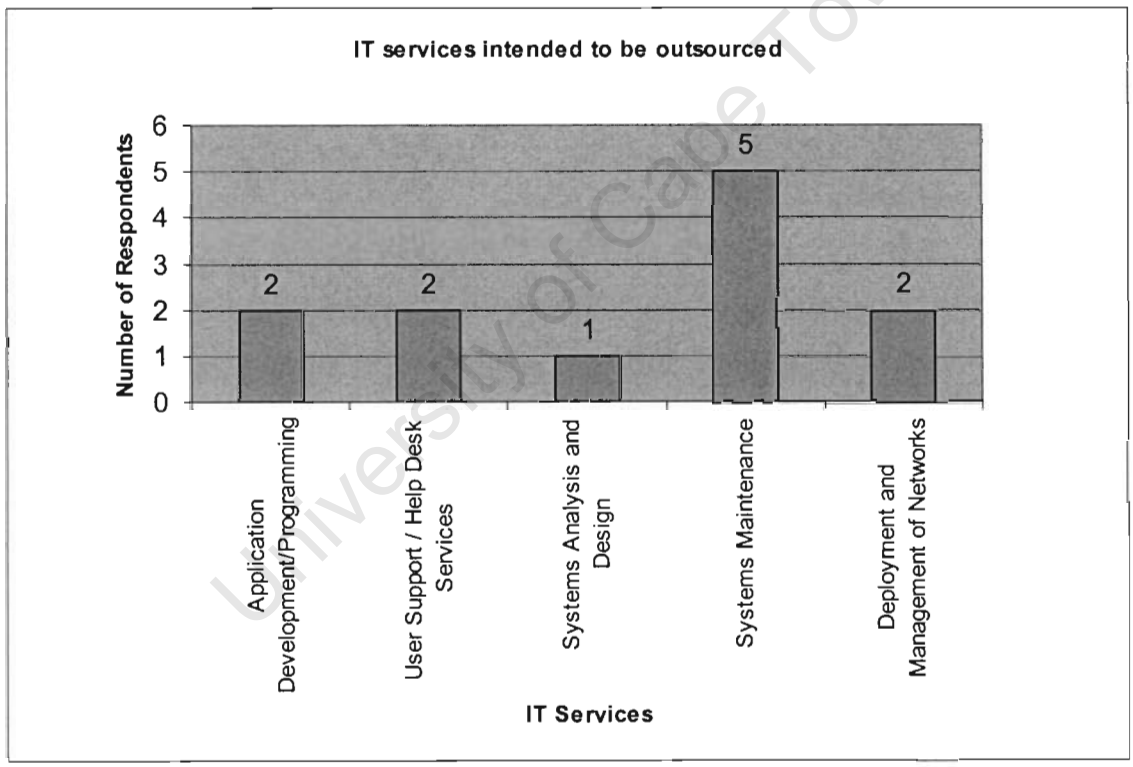


Chart 7 : IT Services intended to be outsourced

Systems maintenance was the most likely of the 5 services that will be outsourced, as all of the 5 companies indicated this. Second to systems maintenance was application development, user support and deployment and management of networks. Systems analysis and design was not a favorite for these large retailers.

Question 8

What were the main drivers for the decision to adopt IT outsourcing?

Cost savings

Access to IT Expertise

Provide organisation with increased flexibility and responsibilities

Competitive advantage

Focus on core business activities

Fluctuations in workload

Current systems inadequate to cope with increasing workload

Other, please specify

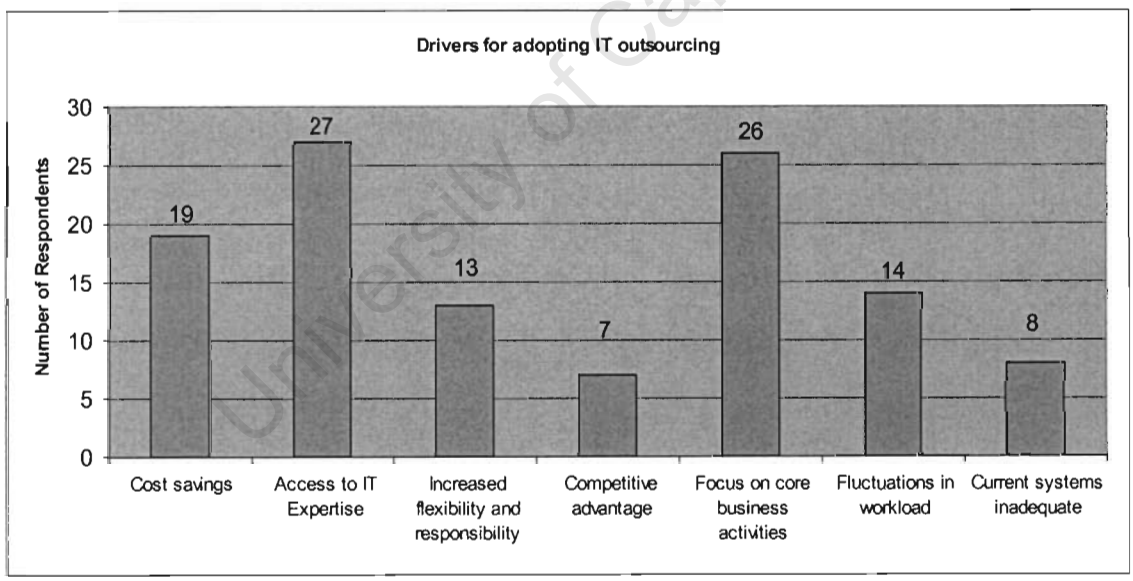


Chart 8 : Drivers for adopting IT outsourcing

Chart 8 shows the drivers for adopting IT outsourcing amongst the respondents. Access to IT expertise was the most common reason why retail organisations decided to outsource their IT services. Seventy-one percent of the respondents chose this as being the foremost driver of IT outsourcing within their organisation. Sixty-eight percent saw

outsourcing as a means of allowing their organisation to focus on the core business activities, and let the 3rd party deal with the IT services. The third most common reason was cost savings, with 50% indicating outsourcing IT services as a means of reducing costs to the company. Thirty-six percent had systems that could not handle the fluctuations in workload during different times of the year. For this reason, they chose to outsource their IT services during periods of increased business activity. Thirty four percent saw outsourcing IT services as a means of providing the organisation with increased flexibility and responsibility. Twenty-one percent saw their current systems were inadequate to handle the increasing workload of the business, and chose to outsource some of their IT services. Finally, only 18% saw outsourcing their IT services as a means of achieving a competitive advantage.

These findings were in line with Frost (2000) who stated that outsourcing of computer operations or data centres to vendors has been the most popular form of outsourcing. He further states that this has been done to ensure that the institutions IT facilities are up to date and that IT maximizes the efficiency of the business overall.

Question 9

Did your organisation gain or lose a competitive advantage when outsourcing IT Services? (Please highlight the appropriate number)

Lost	1	2	3	4	5	Gained

The literature review indicated that the US State Department's Country Commercial Guides (2001) say that South African companies and parastatals were increasingly turning to outsourcing as a means of improving operational efficiencies and reducing costs (Africa Business Direct, 2002b). Reduction in cost and increase in operational efficiencies may be considered as a means of achieving a competitive advantage. This research confirms that outsourcing has done just that for the large retailers of South Africa.

Chart 9: Organisations that gained or lost a competitive advantage

Only 33 of the 38 respondents (87%) attempted to answer this question. Five of the organisations have opted not to comment on the change (if any) which outsourcing IT services had brought upon their organization. It was assumed that these respondents referred to the overall competitive advantage to the organisation i.e. the impact of IT outsourcing on the organisation as a whole, and not to the IT department as an individual business unit.

Chart 9 shows that 51% of the respondents have had a neutral stance in terms of deciding whether or not their organisation gained a competitive advantage when outsourcing their IT services. Thirty-six percent of the respondents have gained a little from outsourcing their IT services, while 6% have gained substantially. However, it is interesting to note that 6% have lost a competitive advantage whilst outsourcing their IT services. The results of the statistical calculations were shown to assist in accepting or rejecting the hypothesis.

H_0 : Outsourcing IT services has not given the large retailers in South Africa a competitive advantage.

Number of Responses	Mean	Standard Deviation	Variance	95% Confidence Interval (Lower)	95% Confidence Interval (Upper)	Test Statistic (z-value)	Rejection Region
33	3.424242	0.708445	0.501894	3.19899	3.649495	3.69147	1.96

Table 2 : Competitive advantage gained or lost by retailers

Table 2 shows that the z-value of 3.69147 falls outside the normally distributed region of 1.96. This implies that we cannot accept H_0 and can confirm that the large retailers in South Africa have experienced a competitive advantage when outsourcing their IT services. We therefore reject H_0. It is important to note that the mean (average) of the responses is 3.4 and that the data is normally distributed. This indicates that the majority of the respondents experienced a slight competitive advantage when outsourcing their IT services.

Question 10

If your organisation has gained from outsourcing, what did it gain?

Cost savings
Access to IT Expertise
Provide organisation with increased flexibility and responsibilities
Competitive advantage
Focus on core business activities
Cope with fluctuations in workload
Able to cope with increasing workload
Other, please specify

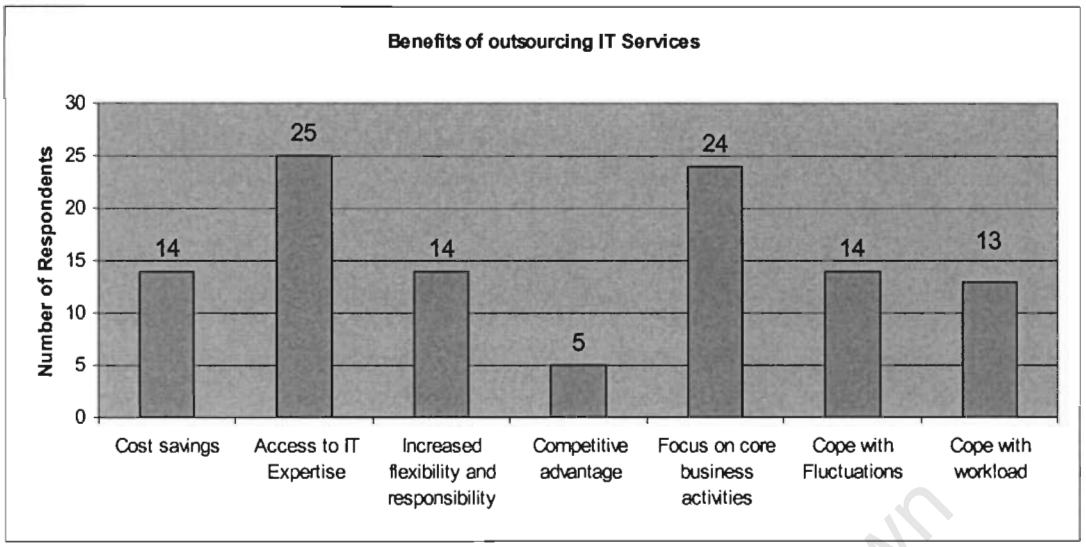


Chart 10 : Benefits gained by organisations

Chart 10 shows what was gained by 36 of the 38 respondents (94%) of the respondents when outsourcing their IT services. In contrast to question 9, it was assumed that these benefits were experienced within the IT environment of the respondents i.e. these apply to the IT department as an individual business unit. Sixty-six percent of the respondents have had access to expertise that would otherwise not have been possible. Also high on the list was allowing the organisation to focus on their core business activities, i.e. 63%. Cost savings, increased flexibility and responsibility within the organisation, and the ability to cope to workload fluctuations were experienced by 37% of the respondents. The issue of increasing workloads was reduced in 34% of the respondents, who were able to handle this by outsourcing their IT services. Thirteen percent of the respondents gained a competitive advantage within their IT department whilst outsourcing their IT services.

From the results of the survey, the following comparison can be drawn. It must be noted that this survey only focused on the large retailers in South Africa's retail sector, whereas the survey in Australia (Hurley & Schaumann, 1997) considered outsourcing practices across all industry sectors.

South African Retail Sector Ranking	Australian Industry Ranking (Hurley & Schaumann, 1997)
Access to IT expertise	Access to IT skills
Focus on core business activities	Improved service quality
Cost savings	Defined service levels
Increased flexibility	Focus on core business activities
Cope with fluctuations	Additional flexibility
Cope with workload	Access to technology

Both countries view access to IT skills as being of utmost importance when considering outsourcing IT services. The retail sector of South Africa saw focusing on core business activities, cost savings and increased flexibility as being the next 3 most important reasons. The Australian industry saw improved service quality, defined service levels and a focus on core business activities comprise the top 4 of their list. The Australian industry seemed more eager to obtain better service quality in IT, than the South African retailers. Furthermore definite service levels were one of the top 3 priorities, which showed that SLAs were considered an integral aspect of outsourcing IT services in Australia's industry.

4.2.3 Service Level Agreements

Question 11

Has your department worked with service level agreements when outsourcing IT Services?

Yes

No

As stated earlier in the chapter, the figure of 50% was chosen for the hypothesis as a means of differentiating between the majority and minority of the respondents in the sample tested.

H_0: 50% or less of the large retailers in South Africa use SLAs when outsourcing their IT services.

Number of Responses	Mean	Standard Deviation	Variance	95% Confidence Interval (Lower)	95% Confidence Interval (Upper)	Test Statistic (z-value)	Rejection Region
36	0.789474	0.413155	0.170697	0.658109	0.920838	4.319047	1.96

Table 3: The use of SLAs when outsourcing IT services

Table 3 shows that the z-value of 4.319047 falls outside the normally distributed region of 1.96. We can thus reject H_0 and conclude that more than 50% of the 36 large retailers that outsource their IT services use SLAs. Once again, it is important to note that the data used in this analysis is considered to be normally distributed. From the results, 79% of the respondents have indicated that they have used SLAs when outsourcing IT services.

McCraken (2002) states "around 50 percent of the companies entering outsourcing agreements do so without service level guarantees." However, this research has shown that more than 50% use SLAs when outsourcing IT services. It must be noted that the

research has only involved the large retailers of South Africa. Griffiths (2001) highlights in his list of "main factors influencing successful outsourcing" that a workable SLA is of "paramount importance". It is satisfying to see that most retailers in South Africa are in fact using SLAs when outsourcing their IT services.

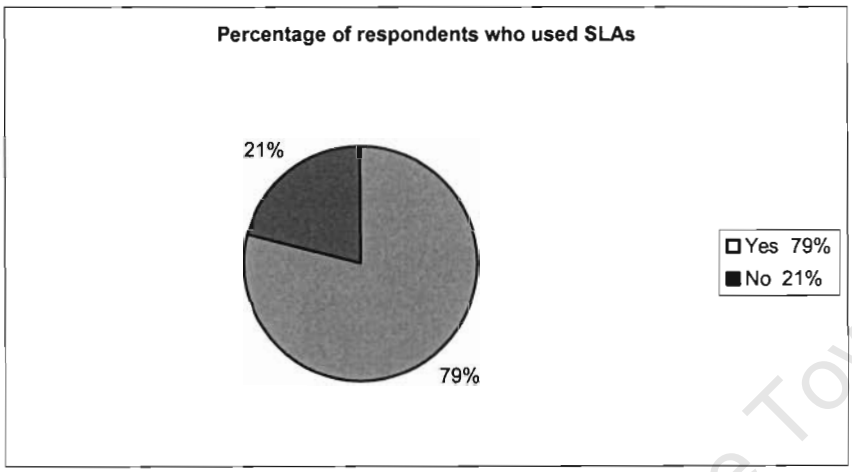


Chart 11 : Percentage of respondents who used SLAs

Chart 11 shows the percentage of respondents who used SLAs when outsourcing their IT services. As stated earlier, 79% have used SLAs when outsourcing their IT services, while 21% have not. This clearly shows that SLAs are a popular feature in outsourcing IT services, and form an important part of that relationship.

Question 12

What problems have you experienced before using SLAs?

Escalating outsourcing costs

A decrease in service delivery

Inflexible contract terms

No action taken on contract violations

Outsourced operation not running at its optimum level

Outsourcer losing focus of objective

Other, please specify:

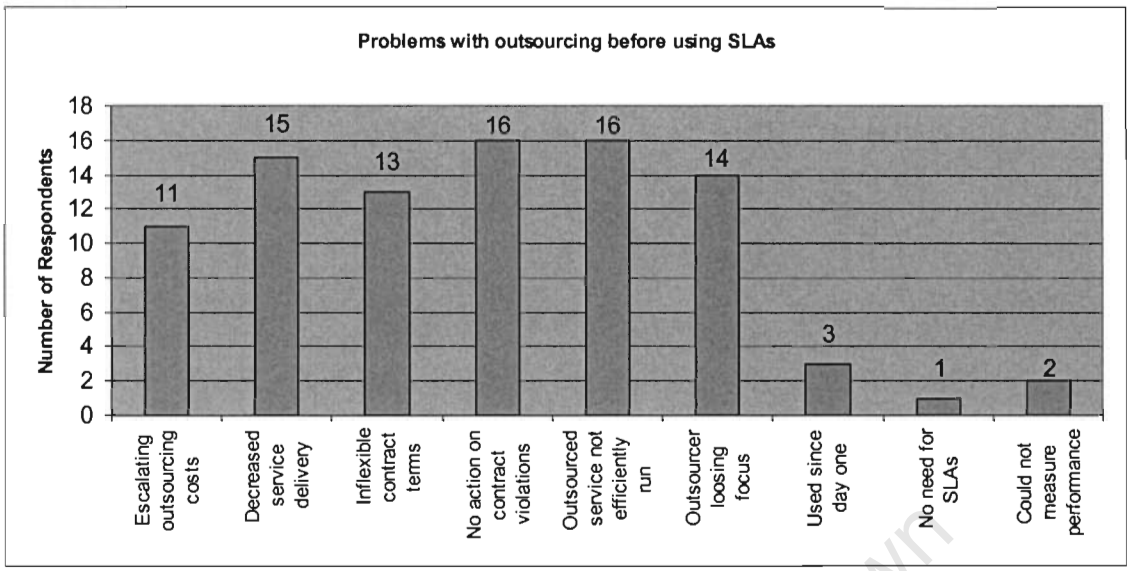


Chart 12 : Problems with outsourcing IT services before using SLAs

Following from question 11, 79% of the large retailers who have experience with SLAs, went on to answer question 12, i.e. 30 out of 38 attempted to do so. From the responses, there were 2 problems that were dominant to the majority of the large retailers in South Africa. Fifty three percent have had problems with the outsourcer violating contracts and with outsourced services not running at optimum levels. A decrease in service delivery from the outsourcer was experienced by 50% of the respondents, and 47% experienced the outsourcer loosing focus of the objectives of the outsourcing venture. Forty-three percent found the contract terms not flexible enough, and 37% found that the costs of the outsourcing venture increased over time. It was interesting to note that only 10% of the large retailers who responded have used SLAs since day one of outsourcing their IT services. This was determined by the research, as the respondents had filled in this option in their questionnaires. The inability to measure the performance of the services delivered, was considered to be a problem by 7% of the respondents. Furthermore, some of them (3%) did not find it necessary to use SLAs, so it was assumed that they were satisfied with their current outsourcing contract.

The results show that there were substantial problems experienced by the large retailers before opting to use service level agreements.

Anonucci and Tucker (1999) highlighted that outsourcing IT services could lead to the loss of control and decreased flexibility, as being some of the risks associated with such an activity. This research has identified that these risks hold true amongst the large retailers of South Africa. The respondents also experienced a decrease in service delivery as well as escalating outsourcing costs.

External SLAs exist between the company and the outsourcer. Since the majority of the respondents interviewed outsourced their IT services, SLAs have been needed. Griffiths (2001) highlights that SLAs help manage the strategic relationship between the outsourcing company and the supplier, and includes identification of responsibilities, which is key when processes change.

Question 13

Do you have an external service level agreement with your outsourcer?

Yes

No

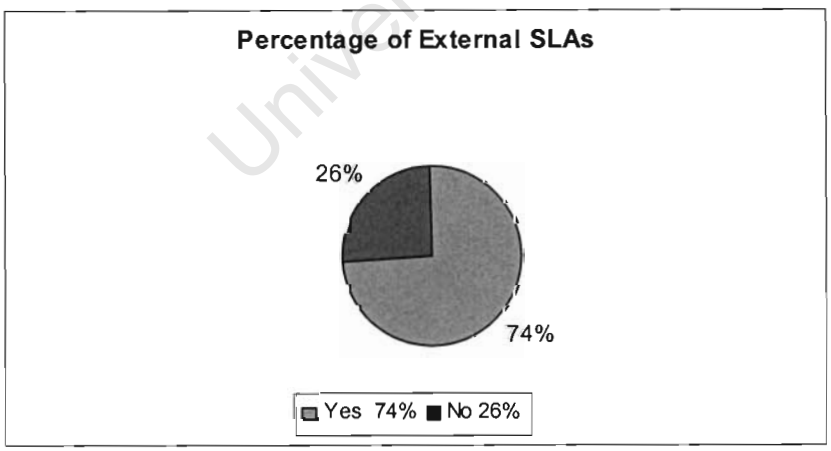


Chart 13 : Percentage of external SLAs used

Chart 13 represents the percentage of external SLAs that are used by the large retailers of South Africa. Seventy-four percent of the respondents have external SLAs with their outsourcer, and 26% do not.

Question 14

Which of your outsourced IT services use external SLA's?

Application development / programming
User support / help desk services
Systems analysis and design
Systems maintenance
Deployment and management of networks

Other: please specify

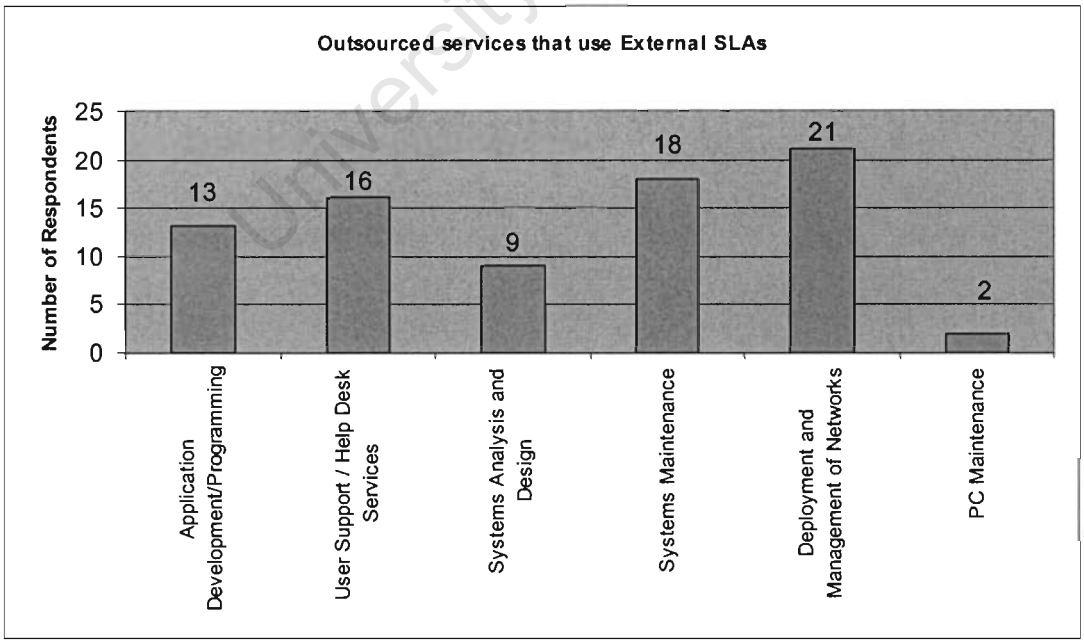


Chart 14 : Outsourced IT services that use external SLAs

Chart 14 shows the outsourced IT services that were more likely to be accompanied by external SLAs. Seventy-five percent have used external SLAs with the deployment and management of networks. Sixty-four percent have used external SLAs with outsourcing systems maintenance while 57% have used them with outsourcing user support/help desk services. External SLAs have been used in conjunction with outsourcing application development/programming by 46% of the respondents. Thirty-two percent use external SLAs when outsourcing systems analysis and design activities. Only 7% use external SLAs when outsourcing their PC maintenance.

Question 15

Do you have an internal service level agreement with IT department?

Yes

No

Analysis of the data showed that only 26% of the respondents use internal SLAs in their IT departments when working with the rest of their organisation, while 76% do not. These results compliment those of question 13. Further investigation could be performed with regards to the mix of internal and external SLAs the large retailers of South Africa use, however, this was beyond the scope of the research.

Combining the results of questions 13 and 15, the research was able to determine which of the two types of SLAs were more frequently used in the retail sector. If more than 50% of the responses indicated they used external SLAs, then it was satisfactory to state that external SLAs were more frequently than internal SLAs used when outsourcing IT services. Below are the statistical tables for analysis of both internal SLA and external SLA use.

H_0 : The retail industry in South Africa use more internal SLAs than external SLAs.

Number of Responses	Mean	Standard Deviation	Variance	95% Confidence Interval (Lower)	95% Confidence Interval (Upper)	Test Statistic (z-value)	Rejection Region
36	0.736842	0.446258	0.199147	0.594952	0.878732	3.271631	1.96

Table 4 : The use of external SLAs when outsourcing IT services

Table 4 shows that the z-value of 3.271631 falls outside the normally distributed region of 1.96. Further analysis of the data revealed that 74% of the large retailers who outsource their IT services use external SLAs. Once again, it is important to note that the data used in this analysis was considered to be normally distributed.

Number of Responses	Mean	Standard Deviation	Variance	95% Confidence Interval (Lower)	95% Confidence Interval (Upper)	Test Statistic (z-value)	Rejection Region
36	0.243243	0.434959	0.189189	0.104946	0.38154	-3.63886	1.96

Table 5 : The use of internal SLAs when outsourcing IT services

Table 5 shows the analysis of results with respect to the use of internal SLAs. The z-value of –3.63 shows that this result falls outside the normally distributed region of 1.96. As stated above, the data used was considered to be normally distributed. The results show that an 24% of the respondents use internal SLAs when outsourcing their IT services.

The statistical analysis has shown that 74% of the large retailers in South Africa use external SLAs, while only 24% use internal SLAs. H_0 can thus be rejected, stating that external SLAs are more frequently used than internal SLAs.

Question 16

Which of your IT services use internal SLA's?

Application development / programming

User support / help desk services

Systems analysis and design

Systems maintenance

Deployment and management of networks

Other: please specify

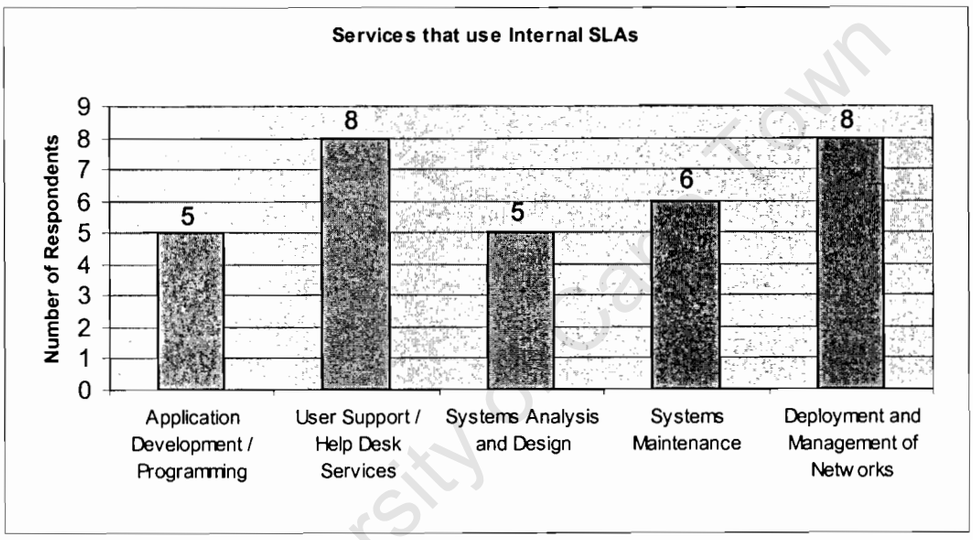


Chart 15 : IT Services that use internal SLAs

Chart 15 shows the various IT services that use internal SLAs amongst the large retailers of South Africa. The results from question 15 have shown that only 10 of the 38 respondents (26%) have indicated that they use internal SLAs. These 10 respondents were asked to specify the services the internal SLAs were used. User support services and the deployment and management of networks were the services where 80% of the

respondents used internal SLAs. Sixty percent of the respondents use internal SLAs with maintaining their systems by in-house personnel. Fifty percent of the respondents use internal SLAs with application development/programming and systems analysis and design.

Question 17

What problems did you experience when working with SLAs?

SLA overhead costs were too high
There was no need for a SLA, since the outsourcing was already beneficial
Suppliers of service only focused on their own contribution to the overall business process

Other: please specify

_____

_____

Morgan (2001) mentions in his article that IT departments were not drawing up adequate agreements to govern contracts. Rosemary Mulley (2001) who was the head of consulting practice at legal firm *Nabarro Nathanson* emphasized this, by stating that many of the contracts drawn up in IT were simply not up to the job of providing the basis for satisfactory agreements between the two parties.

Analysis of the data has detailed the nature of the problems that were experienced by managers within the retail sector of South Africa.

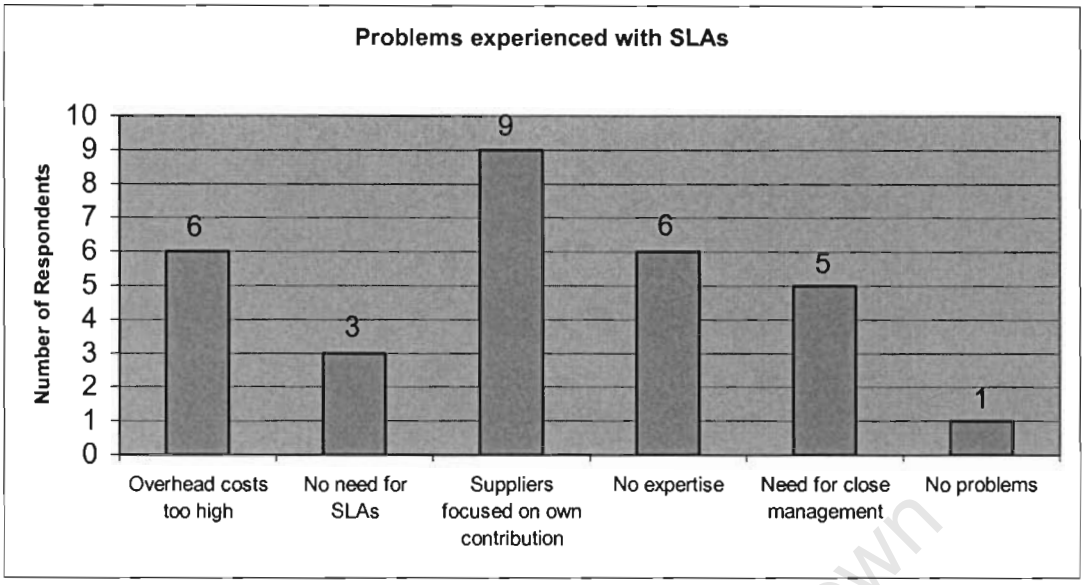


Chart 16 : Problems with SLAs

Chart 16 shows the problems that were experienced with the use of external SLAs. Only 23 of the 38 respondents attempted to answer this question. It was assumed that the remaining 15 respondents have not experienced problems that were significant enough to mention, or were not experienced with the use of SLAs.

Thirty-nine percent of the respondents indicated that the suppliers focused on their own contribution towards the outsourcing agreement, and did not take into account the needs of the company. Twenty-six percent experienced that the overhead costs to draw up SLAs were too high, as well as not having the expertise needed to develop a comprehensive SLA. Twenty-one percent indicated that the SLAs needed close management in order to be effective, and 13% of the respondents did not see a need to incorporate SLAs into the outsourcing agreement. Only 4% had no problems when working with SLAs. The statistical analysis follows. Statistical analysis of the data has shown that there were significant problems with SLAs.

Parish (1997) highlighted some of the drawbacks experienced with SLAs. The foremost problem being, that "suppliers focused solely on their business process, losing sight of the needs of the external customer at the end of the process", thus not delivering to what was agreed upon. No action on contract violations was mentioned by Hiles (1994) when

he stated that "SLAs would soon fall in to disrepute if no action is taken on service shortfall."

Hiles (1994) gave his understanding as to why these problems were occurring by saying that "poor measurements, inadequate definitions and cumbersome SLA documentation" have contributed to the problem. However, he also stated that the foremost reason for failure was probably that lack of commitment, from management and customers.

As stated earlier in the chapter, the figure of 50% was chosen for the hypothesis as a means of differentiating between the majority and minority of the respondents in the sample tested.

H_0 : 50% or more of IT Managers who use SLAs when outsourcing their IT services have experienced problems with the SLAs.

Number of Responses	Mean	Standard Deviation	Variance	95% Confidence Interval (Lower)	95% Confidence Interval (Upper)	Test Statistic (z-value)	Rejection Region
38	0.605263	0.495355	0.245377	0.447763	0.762763	1.30994	1.96

Table 6 : Problems experienced with SLAs

Table 6 shows that the z-value of 1.30994 falls within the normally distributed region of 1.96. Thus it can be said that more than 50% of IT managers have had problems with using SLAs. H_0 was accepted. Once again, it was important to note that the data used in this analysis was considered to be normally distributed. From the results, 60.5% of the respondents have experienced some problem with using SLAs during their outsourcing period. Some of these problems were highlighted above.

Question 18

If changes do need to be made to the SLA, what should those changes be?

More detailed specifications

Shorter contract

Better guaranteed availability

Better responsiveness to SLA violations

More flexibility to modify SLA terms

Better measurement metrics

ie: ways to measure the level of service that needs to be delivered

Better remuneration of SLA violations

Other please specify

_____

_____

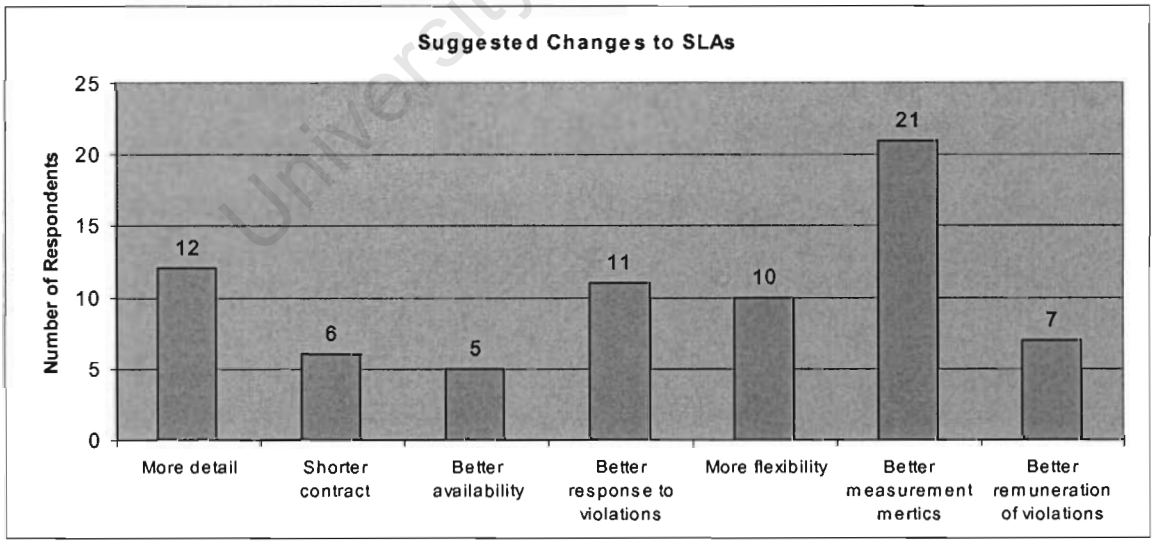


Chart 17 : Suggested changes that need to be made to SLAs

Chart 17 shows the changes suggested by the respondents, that need to be made to SLAs if they were to improve their effectiveness when used in outsourcing IT services. Only 30 of the 38 respondents (79%) attempted to answer this question.

The most dominant change that 70% of the respondents suggested was better measurement metrics should be introduced in order for SLAs to be more effective. Forty percent of the respondents suggested that the SLA needed to be more detailed about the service levels and each parties involvement. Thirty-seven percent suggested that there should be a better response to violations of the outsourcing contract. This would see the outsourcer ensuring that the service levels are constantly met. Thirty-three percent believed that the SLA terms should have more flexibility, giving both parties the power to alter terms when required. Twenty-three percent suggested more effective financial penalties to SLA violations. This will ensure that the parties who were not keeping to the agreement will be liable to pay for their inadequacy. Twenty percent believed that a shorter contract will help improve SLAs, and 17% would like SLAs to have better guaranteed availability.

The results indicated that amongst the large retailers in South Africa, outsourcing all or part of the IT was definitely a popular trend used by an average of 94% of the respondents. These companies also used service level agreements extensively with 79% of them indicating their use. However 61% of the respondents admitted that they have experienced problems when working with SLAs. The major concern with regards to problems with SLAs seemed to lie with the side of the suppliers of the service. In the retail sector, these suppliers wanted to focus solely on their contribution to the outsourcing venture.

Chapter 5: Summary of Findings

5.1 Review of the Purpose and Objective of the Study

The purpose of this study was to investigate the state of outsourcing IT services, amongst the large retailers of South Africa. The large retailers were chosen since they represented a significant portion of companies who contributed to South Africa's ICT expenditure (SAITIS, 2000). Outsourcing, especially when it comes to IT services, affects many areas of the business. There are a number of reasons as to why companies outsource their IT services. These were investigated in the research and elaborated later in this chapter. This study looked at which of the large retailers in South Africa were involved in IT outsourcing and whether or not this type of approach has been beneficial to the organisation. Along with outsourcing, comes the issue of service level agreements (SLAs). An investigation into the use of SLAs was conducted to determine whether SLAs have really been beneficial in the outsourcing of IT services. In the case of where SLAs were not helpful, the respondents made suggestions for further improvements.

The specific objectives of this study were to investigate:

- Which IT services were outsourced, and which were most likely to be outsourced amongst South African retailers;
- Whether outsourcing IT services has given South African retailers a competitive advantage;
- Whether SLA's have been used in conjunction with outsourcing IT Services;
- What changes should be made to SLA's to make them more useful when outsourcing IT Services.

The study was important for the following reasons: Firstly, it demonstrated that the outsourcing trend identified in the literature was present in the retail sector of South Africa. Secondly, retail organisations that were involved in outsourcing IT services did so

with the aim of gaining a competitive advantage. Results from the survey showed that 14 of the companies experienced a competitive advantage after outsourcing their IT services. This was inline with the literature, which emphasised that companies as a whole generally gained a competitive advantage. Eccles et al (2000) and Griffiths (2001) mention that outsourcing IT services allows the organization to "focus on core business activities" which helps in maintaining a competitive advantage.

The study looked at a number of aspects of the outsourcing process. However, only the following were investigated in detail:

- What IT services have been outsourced by the large retailers in South Africa;
- Whether outsourcing IT services had given these organisations a competitive advantage;
- Which outsourced IT services used Service Level Agreements amongst the large retailers of South Africa;
- Problems experienced with SLAs; and
- What can be done to improve SLAs effectiveness when outsourcing IT services.

The literature stated that SLAs have not been in place in many outsourcing ventures, and do have their fair share of problems. The study investigated the use of SLAs, as well as the kind of problems companies experienced with them. The research also suggested changes to SLAs that could be made in order for them to become more effective.

The results of this study contributed to the development of SLAs in the retail sector of South Africa. It should assist those involved in using SLAs and help them concentrate on the areas that need more attention and development. It should help to ensure that the SLA will be beneficial to the parties involved. The study should give an understanding of how outsourcing IT services was viewed amongst the large retailers of South Africa, and help these organisations obtain the most out of their IT service delivery.

5.2 Review of the Supporting Literature

Outsourcing has grown in popularity since the Kodak Company's successful venture in 1989. Since then other organisations around the world have been focusing their attention on outsourcing all or part of their IT services. Many of these organisations have found a means of adding value to their business by using the outsourcing concept. In the US alone, the outsourcing industry has grown from strength to strength. According to research conducted in the US, the growth rate of outsourcing services far outpaces the rate of other service areas (Antonucci and Tucker, 1999).

Some reasons that companies may choose to outsource include the following:

- To focus on core business activities;
- Gain access to new technologies & specialised skills;
- Enables them to quantify costs;
- Assists organisations in coping with seasonal processing;
- Access to specialist services/skills; and
- Enables them to cope when systems overloads occur.

However, the literature also focused on the risks that are associated with outsourcing. Some of the risks include:

- IT permeates the entire organisation and cannot be considered as an independent entity;
- Possibility of weak management could result on outsourcing becoming a failure;
- Information technology evolves rapidly. Without the appropriate SLAs, the organisations could be bound to outdated technologies;
- The underlying economics of IT changes rapidly, implies that costs of IT are always decreasing. Once again, without SLAs, the parties involved will not be able to weigh up current costs and benefits;
- Outdated technology skills of vendors may be a risk to the organisation;

- The costs of switching to alternative IT and IS suppliers is high;
- Hidden costs of drawing up the outsourcing agreement;
- Loss of control; and
- Less flexibility as the vendor only provides the level of service in the initial agreement.

There were a number of factors that needed to be considered in order to help organisations reduce the risk that was associated with outsourcing. These were some of the factors that the literature focussed on.

- Developing an outsourcing strategy that reflects the company's strengths and vision, and a strategy with realistic financial goals to reduce costs;
- Outsource IT processes where there is a lack of expertise or where it is difficult to achieve efficiency within the organisation;
- Work with trusted outsourcers, and communicate expectations in the contract;
- Create an outsourcer selection team that represents all potential users to help select the appropriate outsourcer;
- Visit the outsourcers' place of business to ensure that they have the ability to cope with the size of the project;
- Create a replacement plan, to switch to other outsourcers. This should be done in case of a break down of communication, and lack of service delivery;
- Create an integrated team of company and outsourcer staff to manage the transition or start-up; and
- Link outsourcer compensation to outsourcer performance. Outsourcer performance requirements should specify 100% of the outcomes, and hold the outsourcer fully accountable. Best-practise companies provide incentives that encourage peak performance from outsourcers and include penalties for substandard performance.

This study looks specifically at the effective use of service level agreements within the outsourcing environment. One of the objectives was to determine whether these SLAs

were really contributing to the outsourcing venture, and if not, then the question of "why not" needs to asked. The study touched on some of the changes that need to be made to SLAs in order for them to become more helpful.

SLAs are the terms of the negotiation between the parties that were involved in the outsourcing relationship. These terms and conditions apply to all parties involved and should specify the action that needed to be taken when one or more of the terms were met or when the terms were breached.

The two kinds of SLAs that were explored in this study were that of external and internal SLAs. Internal SLAs applies to the agreement between the internal IT department and the rest of the organisation. The external SLA applies to a 3rd party or outsourcer and the organisation.

Some of the different styles of SLAs were also mentioned in the literature. These took into account the type of service that is expected from the supplier of that service. The different styles of SLAs were as follows:

- *Utility*

  If the service is on, all is well. If the service is off, a credit is applied to the invoice for the amount of downtime.

- *Process Improvement Style*

  This style of SLA is used when the buyer's business objective is process improvement after the service provider takes responsibility for the process.

- *Value Added Style*

  Describes the actual value i.e. the quality of the desired result.

The literature focused on the reasons why the retail sector was chosen as a target area. In South Africa, the Wholesale and Retail Sector contributed 16% to GDP, and accounted

for 18% of ICT revenues in 1997, with growth in ICT spending (12% in 1997). The major chain stores comprise about 70% of that market, and exploit ICT on a par with global best practices. . As the sector matures, there was expected to be a shift towards market level logistics systems, such as industry-wide distribution systems; emphasis on global markets; outsourcing of more non-core processes such as finance and accounting; and growth in home shopping, based on the results of the Baseline Studies (2000).

5.3 Review of the Methods and Procedures

The null-hypotheses for the study were:

1. 50% or less of the large retailers in South Africa outsource all or part of their IT services;
2. Outsourcing IT services has not given the large retailers in South Africa a competitive advantage;
3. 50% or less of the large retailers in South Africa use SLAs when outsourcing their IT services;
4. The retail industry in South Africa use more internal SLAs than external SLAs;
5. 50% or more of IT Managers who use SLAs when outsourcing their IT services have experienced problems with the SLAs.

A list of all the large retailers in the Western Cape was obtained from the Cape Chamber of Commerce. This was done by initially making contact with the Chamber. From here, the information needed was obtained from their web-site http://www.capechamber.co.za. The web-site contained an updated listing of all retailers in the Western Cape. Included in this list, was the size (number of employees) of the organisations. According to the South African Government (1996), a company is classified as large if it contains 100 or more full-time employees.

The list of large retailers for the rest of South Africa was obtained from various sources, including: the Retail Sector listing of the JSE, McGregor's Who Owns Whom in South

Africa (2002) and McGregor's Company Database at the University of Cape Town's Graduate School of Business (GSB) Library. Reference was also made to the Mbendi Information for Africa web-site, http://www.mbendi.co.za.

Initially, one-on-one interviews with the respondents were planned. This would have been done in a purely advisory manner, and not to influence the outcome of the data collection process. In order for this to occur, appointments had to be made. The interviews/questionnaires were planned to take place from about the 8 March 2002 until the 8 June 2002, each session lasting for approximately 30 minutes.

After making contact with retail companies in South Africa, it was found that many of the key people involved would rather have the questionnaire e-mailed to them, and returned the same way. It seems that most managers did not have the time for one-on-one interviews. As a result of this, it was decided to give the participants two weeks to fill in the questionnaire, before receiving or collecting them.

A total of 37 questionnaires were sent out in the Western Cape (Cape Town), which is home to the majority of the large retailers in South Africa. Twenty questionnaires were sent to the Gauteng (Johannesburg) region and 6 sent to Kwa-Zulu/Natal (Durban).

The data collection process lasted much longer than anticipated. Once contacted, the relevant people seemed eager to assist in completing the questionnaire. The actual time taken for some of the respondents to complete the questionnaire was considerably longer than expected. Fortunately, this did not have a great impact on the progress of the research, since time was allocated for this to occur. Furthermore, this stage of the project was crucial, since the respondents could not be rushed to complete the questionnaire, increasing the risk of receiving inaccurate or incomplete data. For the purpose of data accuracy, participants were encouraged to take their time, and were given a reminder once a week.

The questionnaire consisted of 18 questions. From these questions, feedback regarding the decision to embark on outsourcing initiatives was obtained. In terms of SLAs, the questionnaire requested the respondents to express his/her experience with the use of these agreements. All the data collected from the questionnaires was considered as confidential and treated as such.

The response rate for the three different areas where questionnaires were sent:

- Western Cape had a response rate of 56.76% i.e.: 21 out of 37.
- Gauteng had a response rate of 65% i.e.: 13 out 20.
- And Kwa-Zulu/Natal had a response rate of 66.67% i.e. 4 out of 6.

This gives an overall response rate of 60.32% i.e. 38 out of 63 respondents.

The data from the questionnaires was captured and compiled using Microsoft Excel spreadsheet. Once compiled, the data was imported into the Statistica 5.5 package for statistical analysis. Microsoft Excel was also used for statistical analysis. Data analysis was conducted using the Normal distribution test. The level of confidence, the probability level needed for rejection of the null hypothesis, was set at 0.05 (95%). Finally all documents were compiled using Microsoft Word.

5.4 Summary of Important Findings

The analysis of the data revealed that outsourcing was still considered to be an integral part of an organisations IT management. This study shows that South Africa's retail sector has trends similar to those industries in the US. These trends highlighted by Antonucci and Tucker (1999) show that outsourcing has been experiencing substantial growth by stating that "all IT areas are experiencing significant outsourcing-related activity for both large and small firms."

5.4.1 Organisations use of outsourcing

- The large retailers were questioned about their involvement in outsourcing part or all of their IT services. The majority of the respondents (94%) indicated that they were involved in this type of activity. The study indicated that 6% of the large retail firms were not outsourcing any of their IT. These findings were in line with the first objective of this research paper.
- It was also important to note the kind of services that these organisations were outsourcing. The top 3 services outsourced were mentioned. The research indicated that the most outsourced IT service was that of deployment and management of networks. Companies preferred to obtain an external entity to maintain and manage their network infrastructure. Second to this was application development and systems maintenance. The retail sector did not have permanent IT developers on their payroll, preferring to contract this service out when needed. The third most popular outsourced service was the support/helpdesk services of the organisation.
- The issue of outsourcing giving companies a competitive advantage was also examined. It was interesting to see that not all players participating in outsourcing have really benefited in terms of gaining a competitive advantage. The majority of respondents indicated that they have a neutral stance when it comes to gaining a competitive advantage for the organisation as a whole. Only 36% of the retailers have gained a slight advantage, while 6% have gained substantial benefits to the entire organisation from outsourcing. These findings were in line with the second objective of this research paper.
- Access to IT expertise was chosen by 71% of the respondents as being the foremost driver of IT outsourcing within their organisation. Second to this was focusing on core business activities, chosen by 68% of the respondents.

5.4.2 Service Level Agreements (SLAs)

SLAs were considered to be an integral part of the outsourcing venture. Larson (1998) stated that the "most basic requirement of successfully managing these (outsourcing) arrangements was to define the expectations of both service buyer and service provider in unambiguous terms: to develop a mutually acceptable service level agreement."

- The results of the study show that SLAs were used by more than 50% of the large retailers in South Africa. This was in line with the third objective of the research paper. It seems that the outsourcing of IT services have been accompanied by the use of SLAs and would continue to be used in this context.

- The research looked into kinds of problems that SLAs were giving those who used them. The study found that problems do exist with SLAs and thus the fifth hypothesis of this research paper was accepted. The use of SLAs seemed to have brought their own set of problems along when introduced into the outsourcing venture. Some of the more dominant problems included: suppliers focusing on their own contribution towards the outsourcing agreement and not taking into account the needs of the company. The problem of overhead costs being too high to draw up the SLA featured as one of the issues. Organisations also felt that they did not have the necessary skills/expertise to develop a comprehensive SLA.

- From these problems, respondents suggested a number of changes that they would take into consideration when working with SLAs. The three most important changes that have been put forward were: the parties involved suggested better measurement metrics in order for SLAs to be more effective. Measurement metrics help the parties determine exactly how much of the agreed upon service has been delivered. More detailed SLAs were also mentioned as a means of improving SLA performance. Better response to violations of the outsourcing contract was also one of the dominant solutions. This would see the outsourcer ensuring that the service levels were constantly met by introducing penalties for

deviations from contract agreements, and rewards for achieving goals. Flexibility of SLA terms would give both parties the power to alter the terms when agreed upon and when required, thus ensuring that goals were constantly being met.

- The study found that external SLAs (between a company and outsourcer) were more widely used than internal SLAs (between the IT department and the rest of the organisation). These findings were not in line with the fourth objective of this research paper. This implied that the large retailers preferred implementing SLAs with the vendor suppliers, increasing the likelihood of a successful outsourcing venture.

- The use of external SLAs was associated with that of companies outsourcing all or part of their IT services. This would be the agreement that the parties involved will reach in order to fulfil the objectives of the outsourcing venture. The external SLA plays an important role in the outsourcing relationship, and thus increases its importance of ensuring that it is developed correctly the first time round. This research has highlighted some areas that need to be improved with regards to these SLAs.

5.4.3 Summary

The results of the research paper conformed to the international trends of outsourcing. In the US, the outsourcing of IT services was seen as experiencing substantial growth in many areas. The majority of South Africa's large retail sector was already employing outsourcing as a means of adding value to their organisation. However, only a few of them were actually experiencing this added value or competitive advantage to the entire organisation. Some reasons that could be inhibiting this include: lack of proper management, ineffective SLAs, escalating costs of the contract and outsourcers not focusing on the goals of the outsourcing agreement.

5.5 Discussion and Implication of the Study

There were a number of findings that were derived from the study, which may have practical importance for organisations wanting to or were already involved in outsourcing IT services. The analysis of the data collected has shown that outsourcing IT services has had a significant impact on the retail sector of South Africa, in line with trends in developed countries.

The results of the study indicated that the type of IT services outsourced by the retailers include systems maintenance and deployment and management of networks. These services were not considered to be core services of the organisations that were targeted. User support/help desk services also featured amongst the most outsourced IT services. This result gave an indication as to what outsourced services companies should be focusing their efforts in developing. The outsourcing trend has had an impact on the retail sector of South Africa in terms of the number of retailers involved. This may result in an increase in IT spending in other sectors of South Africa and boost the outsourcing trend further.

The process of outsourcing also helped the retailers to concentrate their efforts on areas that were of importance to the business. The organisation as a whole was able to become more focused and more efficient in achieving their business goals. These were seen in the reasons/drivers as to why retailers embarked on the outsourcing venture.

The use of SLAs proved to be popular. SLAs used in the outsourcing venture need to be developed to the required standard, and ensure that all parties involved agreed with the terms stipulated in the SLA. Once again, the SLA has to ensure that the goals of the outsourcing venture were met.

The retailers of South Africa needed to take into account their experience with SLAs and be determined to better the SLAs in future outsourcing ventures. This would help to eliminate some of the problems that may have caused concern in present SLAs.

The need for SLA experts came to the fore. Independent professionals that have a good grounding in drawing up SLAs should be contracted and help develop the SLA between the parties involved. This independent party should assist in monitoring the agreement to ensure that both parties are adhering to the agreed upon terms. The use of SLAs have brought some relief to the outsourcing activity, however, organisations need to ensure that the independent committee/person continuously monitors the progress of the outsourcing contract and ensure that the goals of the outsourcing venture were continuously being met.

5.6 Suggestions for Further Research

There are a number of areas in which further research may be conducted.

Outsourcing IT services has a pattern in terms of the types of services that are outsourced. Further studies may be conducted to examine other areas of IT that organisations may feel the need to outsource.

A comparison may be drawn up between companies who outsource IT services in other sectors of South Africa's economy. From this study, a number of findings could be derived, including determining whether the drivers of outsourcing are similar to those adopted in the retail sector. The use of SLAs in other sectors and other disciplines as well as problems experienced with them, could be of interest.

Research in developing a methodology for the drawing up of SLA contracts could be investigated. A look at the various ways different organisations approaches the development of SLAs, and tries to identify the most common and important steps in this process.

Another aspect of looking at the use of SLAs could be that from the view of the outsourcer. The outsourcer will be the company providing the service. An investigation

into their experience with SLAs may be conducted as well as looking what other services they may be planning to offer in the near future.

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Appendix A

Questionnaire used in Research

Questionnaire for Outsourcing / Service Level Agreements research

Name : _____

Company Name : _____

Position : _____

Primary nature of business : _____

General Information about your organisation

1 Is your organisation considered to be a small/medium or large enterprise?

Small	less than 10 employees	☐
Medium	11-100 employees	☐
Large	greater than 100 employees	☐

(*South African Government, 1996.*)

2 Is your IT department centralised or decentralised?

Centralised – bulk of data processing done at a single location	☐
Decentralised – data processing occurs at different locations	☐

3 What service does your IT department offer?

Application development / programming	☐
User support / help desk services	☐

Systems analysis and design ☐

Systems maintenance ☐

Deployment and management of networks ☐

Other: please specify

_____

_____

4 What services is the Head of IS/IT responsible for?

All of the above in question 3 ☐

Application development / programming ☐

User support / help desk services ☐

Systems analysis and design ☐

Systems maintenance ☐

Deployment and management of networks ☐

Other: please specify

_____

_____

Organisations use of outsourcing

Definition of outsourcing:

Outsourcing involves using an external company, which specialises in IT services, in order to fulfil specific tasks within the organisation.

5 Is your organisation currently outsourcing any of its IT functions ?

Application development / programming	☐
User support / help desk services	☐
Systems analysis and design	☐
Systems maintenance	☐
Deployment and management of networks	☐

Other: please specify

_____

_____

6 If your organisation is not currently outsourcing any IT functions, is there any intention to outsource some or all of the functions in the future?

Yes, within 3 years	☐
Possibly	☐
No	☐
Don't know	☐

If you answered "No" or "Don't Know" then go to **Question 11, page 6**.

7 If YES to question 6, which area of your IT will be outsourced in the future?

Application development / programming ☐

User support / help desk services ☐

Systems analysis and design ☐

Systems maintenance ☐

Deployment and management of networks ☐

Other: please specify

_____

_____

8 What were the main drivers for the decision to adopt IT outsourcing?

Cost savings ☐

Access to IT Expertise ☐

Provide organisation with increased flexibility and responsibilities ☐

Competitive advantage ☐

Focus on core business activities ☐

Fluctuations in workload ☐

Current systems inadequate to cope with increasing workload ☐

Other, please specify

_____

_____

Competitive advantage

9 Did your organisation gain or lose a competitive advantage when outsourcing IT Services? (Please highlight the appropriate number)

Lost	1	2	3	4	5	Gained

10 If your organisation has gained from outsourcing, what did it gain?

- Cost savings ☐
- Access to IT Expertise ☐
- Provide organisation with increased flexibility and responsibilities ☐
- Competitive advantage ☐
- Focus on core business activities ☐
- Cope with fluctuations in workload ☐
- Able to cope with increasing workload ☐

Other, please specify

_____

_____

Service Level Agreements (SLA's)

Definition of service level agreements:

Identifies the service commitments of both service supplier and the service buyer to each other at the boundary of their responsibilities.

Eg: We want our data centre to be 99.9% operational 7x24.

External service level agreement: SLA between outsourcer and your organisation
Internal service level agreement: SLA between your IT department and the rest of your orgn.

11 Has your department worked with service level agreements when outsourcing IT Services?

Yes ☐

No ☐

12 What problems have you experienced before using SLA's?

Escalating outsourcing costs ☐

A decrease in service delivery ☐

Inflexible contract terms ☐

No action taken on contract violations ☐

Outsourced operation not running at its optimum level ☐

Outsourcer losing focus of objective ☐

Other, please specify:

_____

_____

13 Do you have an external service level agreement with your outsourcer?

Yes ☐

No ☐

14 Which of your outsourced IT services use external SLA's?

Application development / programming ☐

User support / help desk services ☐

Systems analysis and design ☐

Systems maintenance ☐

Deployment and management of networks ☐

Other: please specify

_____

_____

15 Do you have an internal service level agreement with IT department?

Yes ☐

No ☐

16 Which of your IT services use internal SLA's?

Application development / programming ☐

User support / help desk services ☐

Systems analysis and design ☐

Systems maintenance ☐

Deployment and management of networks ☐

Other: please specify

_____

_____

17 What problems did you experience when working with SLA's?

SLA overhead costs were too high ☐

There was no need for a SLA, since the outsourcing was already beneficial ☐

Suppliers of service only focused on their own contribution to overall business process ☐

Other: please specify

_____

_____

18 If changes do need to be made to the SLA, what should those changes be?

More detailed specifications ☐

Shorter contract ☐

Better guaranteed availability ☐

Better responsiveness to SLA violations ☐

More flexibility to modify SLA terms ☐

Better measurement metrics ☐

ie: ways to measure the level of service that needs to be delivered

Better remuneration of SLA violations ☐

Other please specify

_____

_____