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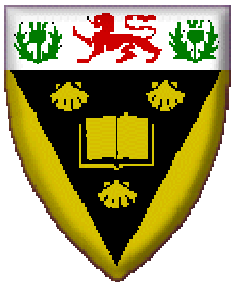

A Model for the Development of Service Agreements in the Information and Communication Technology Sector

A thesis submitted in fulfilment of the
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I. Abstract

SAs are documents that specify the business relationship between stakeholders to an outsourcing agreement. SAs specify this relationship in a legally binding manner that assists in managing expectations of the stakeholders about the service provision. According to Verma (1999), an SA is a precise statement of the expectations and obligations that exist in a business relationship between two organisation: the service provider and the client.

In order for organizations to have successful outsourcing partnerships, they need well crafted methods of developing Service Agreements (SAs). Successful methods will produce a conclusive contract that will act as a working document that details the spirit of cooperation between the service provider and the service recipient. This research investigates the development of SAs in the Information and Communication Technology (ICT) sector, and proposes a model for their development.

A number of models for SA development have been analysed. Models are analysed from leading researchers in the area, from software houses such as Microsoft and from international standards organisations such as the BS15000 which stipulates the ITIL framework. Eight development principles are identified and explored. An investigation into SAs and their development is conducted. A model is proposed that is composed of the development principles.

The development of SAs was explored in an empirical study by means of a survey administered to industry practitioners and a series of interviews with managers in the ICT industry. The results of the study indicate varying levels of support for the development principles and limited relationship between the development principles and the success of the SA, as defined by the number of changes made to the SA after it is completed.

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I acknowledge that all references are accurately recorded and that, unless otherwise stated, all work contained herein is my own.

Rob Johnston

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Chapter 1

Introduction

This chapter provides an introduction to the research. The context of the research is presented, as well as the statement of the problem. The research methodology is outlined. The results of the research are then presented, together with details of the organisation of the thesis.

1.1 Introduction

This research investigates the development process organisations follow when developing a Service Agreement for an outsourcing relationship and proposes a model for the development of a Service Agreement. Service Agreements are an integral part of Service Level Management, an activity devoted to the management of the provision of services by one party to another. This research is focused on the Information and Communication Technology Sector.

1.2 Research Context

A Service Agreement (SA) is a legally binding document between two parties that specifies the conditions of the relationship between them. According to Verma (1999), an SA is a precise statement of the expectations and obligations that exist in a business relationship between two businesses: the service provider and the client.

According to the International Engineering Consortium (2002), SAs are contracts between service providers and clients that define the service to be provided, metrics associated with these services, acceptable and unacceptable service levels, liabilities on the part of the service provider and client, and actions to be taken in specific circumstances. The primary business processes of many organisations are strongly dependant on Information and Communication Technology (ICT) (Bouman, Trienekens and van der Zwan, 1999). Despite the importance of these systems, many organisations cannot cost-effectively provide for their own ICT needs. Thus, ICT corporations are contracted to run, maintain and upgrade other corporations' ICT infrastructure. In the ICT Sector, the sphere of such Service Providers (SPs) range from those providing small yet important services to those providing massive service provisions. Any organisation that intends to enter into a relationship with an ICT SP needs an SA. An ICT SP can, for example, run, maintain and upgrade a corporation's network. This would include all cables, routers, switches and supporting equipment.

According to Bouman *et al*(1999), SA development generally follows a stepwise approach. Karten (1999) advocates a step by step procedure that includes the following:

1. An investigation of the background information of a client and the identification of their needs.
2. The determination of service levels by the provider.
3. The obligation of a provider to come to an agreement with a client
4. The development of basic rules for the collaboration between a client and a service provider. (Karten, 1999).

To be effective, an SA must incorporate two sets of elements: service elements and management elements (Cronk, Gorball, Wiener, Brooks, Fernandez, Lambert, Gross, Laverty, Motwami, Rao, Traugott, Richards, and Scott, 2004, Karten, 1999). Management elements are issues such has reporting, regular meetings, conflict alleviation and delivery monitoring. Service elements include items such as precise Service Level Agreements (SLAs) about specific services.
{For simplicity, Service Agreement(SA) refers to both Master Services Agreement and Operational Service Agreements. An Operational Service Agreement contains many Service Level Agreements about individual aspects of the service.}

Although much evidence exists about the role and importance of SA's, they show many shortcomings in practice (Bouman, *et al*,1999). Three major reasons have been identified why SAs fail:

1. They are either formal legal contracts between financial and legal representatives of the client and the service provider that can only be properly comprehended by lawyers, or, continues McBride (1998), so technical that they can only be understood by a small group of technically-oriented people.
2. They are basic adjustments to a template. According to Karten (1999), establishing an effective SA requires much more than simply filling in the blanks of an SA template or modifying a sample agreement. The process of communicating and building the foundation for a successful relationship is essential to the success of an SA. When this process succeeds, continues Karten (1999), the resulting document is secondary because the parties to the agreement have developed a level of trust that enables them to readily and

smoothly address problems and concerns. Conversely, if this trust is lacking, even the best-written document is worthless. In the template approach, the Management Elements are often omitted or forgotten.

3. They are only used during disagreements. SA's should be used as blueprints for a mutually advantageous relationship, and not only used to ensure that external SPs deliver or during disagreements (Blum, 2003). An SA should document the spirit of co-operation between the SP and the client. Sturm (2002) lists common ways that a stakeholders in an SA may bias the agreement in their favour. This destroys the spirit of the agreement. Without spirit, warns Sturm (2002), an SA is destined for failure. Karten (1999) agrees, saying that for an agreement to succeed, both parties must view it as a communication tool designed to manage expectations, improve communications, clarify responsibilities and strengthen relationships.

SAs are a vital link between the service provider and the client. Their competent development is critical to the success of the ensuing relationship.

1.3 The Statement of the Problem

This research proposes to construct a model for the development of Service Agreements in the Information and Communication Technology sector. The model should enable a party responsible for the development of a Service Agreement to produce a conclusive contract that acts as a working document that details the spirit of cooperation between the service provider and the client.

1.4 Research Methodology

The following steps will be undertaken:

1. A general study of SAs will be performed to place the research in context.
2. A study of current models for the development of SAs will be conducted. From this study, a list of areas of importance will be developed.

3. An extensive literature survey will be conducted that will focus on these areas of importance and expand upon them.
4. The models will be analysed according to the areas of importance identified in step two and expanded upon in step three.
5. A model based on the analysis thus far is constructed, to illustrate the interaction of the areas of importance identified and the SA development process.
6. An empirical study encompassing both interviews and a survey will be designed and conducted. The study will test the identified areas of importance.
7. The results of the empirical study will inform changes to the model presented in step four.

1.5 Summary of the Results

This research makes the contributions in the following areas:

- Service Agreements in Service Level Management
  SAs form a vital part of SLM, as they specify the business relationship between the SP and the client in a legally binding manner.

- The Service Agreement Life Cycle
  An SA has three stages in its life cycle: creation, operation and removal.

- The importance of proper SA development
  The effective development of an SA is essential for a successful relationship between the SP and the client.

- The Development Team
  An SA is best constructed by a development team.

- The Development Principles
  SA development is guided by eight development principles.

- Success of an SA

Success of an SA is defined in this thesis as the degree to which the SA represents the desired service provision.

- A model for the development of an SA in the ICT sector
  This model can be used by the stakeholders to an SA development to enrich their development process.

1.6 Thesis Organisation

Chapter 1: Introduction
The research area and the specific problem under investigation are introduced by providing contextual background information and the rationale for the research. The research methodology is outlined. The summary of results and a discussion of the thesis organisation are also contained within this chapter.

Chapter 2: Service Agreement Overview
This chapter provides further detail regarding SAs. Firstly, a brief synopsis is given of SAs. This section is not designed to be a definitive guide to the contents of an SA, but rather to highlight the important aspects. Thereafter, the life cycle of an SA is outlined and particular attention is paid to the creation phase.

Chapter 3: Models for the Development of Service Agreements
This chapter investigates various models for the development of SAs. Models are sourced from researchers in the area; software houses; and international standards organisations.

Chapter 4: Investigation of the Development Principles
This chapter investigates the development of an SA under the Development Principles identified in the previous chapter. At the end of this chapter, the Development Principles are augmented with a number of Supporting Conditions that further our understanding of them.

Chapter 5: Analysis of Current Models

This chapter analyses the various models for the development of SAs that were presented in chapter three against the framework developed at the end of the previous chapter. Models are sourced from researchers in the area; software houses; and international standards organisations.

Chapter 6: Theoretical Model

This chapter uses the investigation into SA development in chapter 3 and the current model analysis in chapter 4 as the basis for a model for the development of an SA. The chapter presents the model graphically and discusses it in detail.

Chapter 7: Design of the Empirical Study

This chapter details the design of the empirical study. The empirical study explores the model proposed in the previous chapter. The first part of the chapter details the hypotheses that the empirical study is intended to explore. The survey instrument and the interview preparation is then discussed. A copy of the survey can be found in Appendix B.

Chapter 8: Results of the Empirical Study

This chapter presents the results of the empirical study. The chapter presents the results of the survey after which the hypothesis tests results are presented. Finally a summary of the interviews is presented. More detailed results of the empirical study can be found in Appendix C.

Chapter 9: Analysis of the Empirical Study

This chapter analyses the results of the empirical study and discusses the impact that they have on the research and the theoretical model. Each development principle is discussed in turn and a summary of the results is then provided. Finally, the author discusses further issues related to the analysis of the results of the empirical study.

Chapter 10: Revisions to the Model

This chapter details the revisions made to the model the empirical study. The impact of the empirical study is discussed followed by an explanation of the revisions made to the model.

Chapter 11: Conclusion

This chapter concludes the research. It discusses the contributions of the thesis and presents possible further research areas.

References

The cited authors are referenced.

Appendixes

The first appendix provides a list of further readings on the subject of Service Agreements and Service Level Management. The second appendix is a complete copy of the survey presented in this research. The third appendix is an in depth presentation of the results of the empirical study. The fourth and final appendix is a guide to the development of a Service Catalogue by the TechRepublic.

Chapter 2

Service Agreement Overview

This chapter provides further detail regarding SAs. Firstly, a brief synopsis is given of SAs. This section is not designed to be a definitive guide to the contents of an SA, but rather to highlight the important aspects. Thereafter, the life cycle of an SA is outlined and particular attention is paid to the creation phase.

2.1 Introduction

A contract is a written document that details the relationship between two parties. A service agreement (SA) is a special type of contract that is frequently inappropriately developed. An SA needs to act as a working document that details the spirit of cooperation between the service provider and the service recipient. Eventually, an SA documents the relationship between the stakeholders, together with the formal legal and financial clauses and technical specifications.

An SA is suggested to take between three and six months for a sufficiently developed agreement to be constructed. However, this is not the end of it. In order for the relationship to continue to prosper, the SA needs to be continuously reassessed and renegotiated, but on a smaller scale than during the creation phase.

2.2 Definitions

An SA is a legally binding document between two parties that specifies the conditions of the business relationship between them. According to Verma (1999), an SA is a precise statement of the expectations and obligations that exist in a business relationship between two organisation: the service provider and the client.

According to the International Engineering Consortium (2002), SAs are contracts between service providers and clients that define:

- the services to be provided,
- the metrics associated with these services,
- the acceptable and unacceptable service levels,
- the liabilities on the part of the service provider and client, and
- the actions to be taken in specific circumstances.

Caine (1997) explains the term "Service Level Agreement" is used variably, including to refer to the whole SA. This could be somewhat confusing and misleading because the expression "Service Level Agreement" places the emphasis on the level at which the services are to be provided, and it often happens that other important contractual and commercial/business issues (and their legal ramifications) are overlooked.

2.3 Purpose of Service Agreements

The primary business processes of many organisations are strongly dependant on Information and Communication Technology (ICT) (Bouman, Trienekens, and van der Zwan, 1999). Despite the importance of these systems, many organisations can not cost-effectively provide for their own ICT needs. Thus, ICT corporations are contracted to run, maintain and upgrade other corporations' ICT infrastructure. This is known as outsourcing. An ICT Service Provider can, for example, run, maintain and upgrade a corporation's network. This would include all cables, routers, switches and supporting equipment. In the ICT Sector, the sphere of such Service Providers (SP) range from those providing small yet important services to those providing massive service provisions. Any organisation that intends to enter into a relationship with an ICT SP needs a SA.

2.4 Synopsis of Service Agreements

2.4.1 Roles of a Service Agreement

Although an SA is an excellent expectations-managing mechanism, it is important to manage expectations of what the SA can realistically accomplish. Karten (1999) argues that some people incorrectly view an SA as a complaint-stifling mechanism or a quick fix to a troubled relationship; however, using it for such purposes creates more problems than it solves. Instead, Karten (1999) believes that an SA should be viewed as:

- *A communications tool*. The value of an agreement is not just in the final product; the very process of establishing an SA helps to open up communications.
- *A conflict-prevention tool*. An agreement helps to avoid or alleviate disputes by providing a shared understanding of needs and priorities. And if conflicts do occur, they tend to be resolved more readily and with less damage to the relationship.
- *A living document*. An SA is not a dead-end document meant to be filed and forgotten. At a predetermined frequency, the parties to the SA review the

agreement to assess service adequacy and negotiate adjustments. This is one of its most important benefits.

- *An objective basis for gauging service effectiveness*. An SA ensures that both parties use the same criteria to evaluate service quality.

In effect, an SA is an agreement between the client and the SP quantifying the minimum acceptable service from the client's perspective (Hiles, 2002). An SA is probably the most important document in a SP/client relationship. An SA, when properly written, is distinguished by clear, simple language and a focus on the needs and wants of the client's business (CIO, 2001). Creating a sound, mutually agreeable SA is a matter of due diligence by both parties.

2.4.2 Content of a Service Agreement

Wustenhoff (2002) agrees with Pras and Sprenkels (2001), Navarro (2001), ITWorld (2001), and Deckelman (1997) that SAs generally address the following aspects:

- A description of the service that is to be provided
- The expected performance of the service
- A detailed procedure for handling problems with the service
- A procedure for monitoring and reporting the service level to the client
- The consequences of the SP not meeting the agreed service level
- A description of under which circumstances the SA does not apply

According to all these authors, the parties involved in the development of an SA should be concerned with the following points:

• A description of the service that is to be provided.

- What is included and what is excluded
- When the SA comes into effect
- The validity period of the SA
- Frequency of review/amendments
- Scheduled meetings between SP and client (Frequency is important here)
- Is there need for an installation timetable

• The expected performance of the service.

- Does this include routine maintenance, client induced outages
- Network-based availability or site-based availability
- How is performance measured (Throughput, loss, downtime, etc)
- Who monitors the hardware (Client or SP)
- When does a problem start counting. When it is reported, confirmed, or detected
- Confidentiality Clauses

• A detailed procedure for handling problems with the service.

- Feedback
- Contact people - Who to call about what
- Mean time to respond *(plus/minus* 4 hours is average)
- Mean time to repair *(plus/minus* 4 hours is average)
- Remember - Compensation is NOT the reason for service level agreements

• A procedure for monitoring and reporting the service level to the client.

- How will the service be monitored
- How good is the reporting
    - Interpretation of the reports and statistics
    - Detail the process for the gathering of data as well as any gaps in the data
    - Suggestions for optimisation (Capital Investment, bandwidth, heavy users or applications)
    - Warning indication of degradation before it becomes a problem

• The consequences of the SP not meeting the agreed service level

- Rewards and/or Penalties
- Can a financial penalty compensate for lost clients
- Termination conditions
- Repeated breaches of SAs - implement a Chronic Service Failure Termination Right

• A description of under which circumstances the SLA does not apply

- Increase in the number of users/traffic
- Force Majeure. (Acts of God or Terrorism for example)

2.4.3 Structure of a Service Agreement

To be effective, an SA must incorporate two sets of elements: management elements and service elements. Management elements are issues such has reporting, regular meetings, conflict alleviation and delivery monitoring. Service elements include items such as precise Service Level Agreements (SLAs) about specific services. These two elements can be included in two ways:

1. The management elements for the relevant service are contained in the Master Services Agreement and the quantification of the service is contained in an Operational SA (Cronk, Gorball, Wiener, Brooks, Fernandez, Lambert, Gross, Laverty, Motwami, Rao, Traugott, Richards, and Scott, 2004), or
2. Both are contained in a single SA (Karten, 1999).

Caine (1997) has a similar view, but expresses the sections slightly differently. She suggests that an SA has two sections: Agreement clauses and Schedules.

Ideally, the Agreement clauses serve a number of very useful functions:

- They set out the framework or structure of the Agreement, and the core issues, in a comprehensive, logical and hopefully easily understandable, manner
- They set out the management structures and arrangements that are put in place by the parties to oversee the outsourced activity and which provide a focal point for issues such as change control and dispute resolution
- They contain the Interpretation Provision which collects all the defined terms that are used throughout the SA
- They contain a summary of the major obligations of both parties
- They describe the financial arrangements that are to apply for the duration of the contract
- They set out the warranties that will be applicable
- They deal with the liability regime that is to apply across the entire Agreement
- They set out the dispute resolution process or procedures that are to apply
- They address in detail the intellectual property issues that are relevant to the transaction
- They describe the termination and disengagement arrangements that are such an important feature of outsourcing arrangements

The Schedules are traditionally used to include high level detail about particular aspects of, or arrangements under, the SA. Schedules therefore usually contain:

- Details of the services to be provided
- Details of the levels at which the services are to be provided
- Lists of equipment that exists, that is to be sold, that is to be leased, that is to be provided to the SP to be used in the provision of the services
- Lists of software owned by the Client, owned by third parties, etc that is to be used in the provision of the services
- List of rates that will be applicable to the provision of specified services (usually by reference to a particular classification of employee of the SP)
- Details of the service fees to be paid, the dates on which these are to be paid and other details associated with the price and payment arrangements
- Relevant plans (for example, plans for Transition; Quality; Management; Disaster Recovery)
- Deed of Guarantee
- And many others - depending on the nature and size of the transaction

In the model by Caine described above for the SA, the "Service Level Agreement" is that part of the SA that defines the services to be provided and the levels at which the services are to be provided. But not only are there different models for SAs, there are also different models used for constructing an SLA. A model suggested by Caine (1997) for the structure of an SLA, comprises the following components:

- Statement of Work: this part of the SA defines the types of services that are to be performed by the SP
- Service Level Details: this part of the SA quantifies the services that are to be provided (service levels) and the measures used to assess how the services are being provided;
- Description of roles and responsibilities: this part of the SA sets out the roles and the responsibilities of the client and the SP and makes it clear who is accountable for ensuring that the Statement of Work and the service levels are maintained.
- Reporting procedures: this part of the SA defines the reporting arrangements and reporting deliverables that are required from the SP.

SLAs are one of the most important aspects of an SA. SLAs define the level of service that is to be provided, as agreed to by the parties involved. They are articulated in the context of business goals and contain one or more service level indicators (SLIs) (Sturm, 2003).

If an SA is going to be valuable, believes Sturm (2003), it must have good SLAs, which should:

- Identify what aspects of service are covered by the agreement
- Define the target level for each aspect of service
- Identify SLIs for each aspect of service
- Relate to specific business objectives

Each aspect of the SLA, such as availability, must have a target level of achievement. But the agreement might include two measures for each aspect: a minimum acceptable level of service to achieve, and a desired level of service that the SP should aim to achieve and for which a reward can be given. Sturm (2003) believes that planners should aim for between 5 and 10 SLAs per SA, with the goal of keeping it simple.

SLIs are at the heart of any SA. They allow the service provision to be measured and quantified. Typical metrics are a percentage of time available or level of performance for a single aspect of a single type of technology (Sturm, 2003). Ideally, SLIs should:

- Allow quality to be quantified
- Reflect users' pain points/priorities
- Include availability, performance, and accuracy metrics
- Take into account security features and systems
- Be affordable

Sturm (2003) believes that the best way to measure service levels is from the user's perspective. How available were the services that users need to do their jobs and how responsive were the services. Whichever way these user perceptions are measured, the

SA needs to document each SLI used to measure the objectives, and to specify the data source for each.

Clients need to determine the most critical aspects of a service and then to ensure that SLAs are defined and negotiated to address them. Critical aspects include service security, service levels, service response times, infrastructure uptime/downtime, network performance, backup and disaster recovery, scalability, reporting, client and client satisfaction, overall end-to-end performance of service features, and escalation processes (Navarro, 2001).

2.5 Service Agreement Life Cycle

The life cycle of an SA has been loosely delineated by many authors. The most comprehensive of which are by Dan, Ludwig and Pacifici (2003) and by Pras and Sprenkels (2001). The following stages have been identified by these authors:

Service Agreement Life Cycle	
Dan, Ludwig and Pacifici, 2003	Pras and Sprenkels, 2001
Creation	Creation Phase
Deployment and Provisioning	
Enforcement and Monitoring	Operational Phase
Termination	Removal Phase

Table 2.5.1 SA Life Cycles

It should be noted that, depending on the business scenario, each phase may consist of many sub phases. Additionally, some provisioning activity (putting processes and assets in place to offer the service) may take place prior to creation of a SA, and/or deferred until runtime invocation of a service.

Creation Phase

An SA is first created when a client subscribes to a service that is offered by an SP. A (possibly complex) chain of events leads to the point where the client wants to subscribe to the service. The client would first have found out about the existence of the service offering, and gathered enough detailed information about this offering to judge if it is a service that the client wants (Pras and Sprenkels, 2001). The client

might have been actively searching for a service offering to fit a given client need that exists. Alternatively the client might not have been searching for a service offering, but got to know about it through unsolicited advertisements, word of mouth, or via some other means.

Pras and Sprenkels (2001) state that SA creation involves two activities:

- Development of the SA. This reflects that the client has actually subscribed to the service, is aware of the detailed, legally binding extent of what is comprised in the service delivery and has copies of all relevant information about the service. In this step the client signs a service delivery contract.
- Beginning the service provision. All required Service subsystems need to be configured to accommodate this new service subscription. So this includes access authorization systems for the service, entries into billing systems, entries into the service logic of the service, reservations of required and per-client service resources, for example.

The SA creation phase is usually also an input into longer term resource planning activities for the SP.

Operational Phase

During the provision of a service, an SP monitors the service level as per the associated SA with the client and actively manages resources to avoid any violation of guarantees. This includes prioritization of requests to be served next, based on service level assessment, and/or dynamic allocation of resources by assigning a thread priority (Aman, Eilert, Emmes, Yocom and Dillenberger, 1997). The SP also controls client access to a service so that it does not exceed the guaranteed throughput level.

A client may also monitor the service level received to avoid any blind trust on a SP (Dan, Ludwig and Pacifici, 2003). In some scenarios, the two parties may agree to use a third-party for monitoring this service level. Obviously, this is possible if the third-party is able to independently measure the service level either via special probe

transactions, or by receiving raw performance data from multiple sources (client and SP for example) (Dan, Ludwig and Pacifici, 2003).

Any violation of guarantees are noted for future penalty assessment and/or dynamically notified to the parties to the agreement. Upon identifying a violation, the client may choose to terminate its SA with the SP. The SP may use this violation (as well as alerts on potential future violations) to dynamically provision new resources (Crawford and Dan, 2002). When an SP is not able to meet all its commitments, it may prioritize its business commitments using various business objectives (for example, profit maximization, preferential treatment of loyal clients.) (Ludwig, Keller, Dan and King, 2002), and in the worst scenarios terminate certain SAs.

Removal Phase

An SA specifies a validity period, after which the service provision detailed in the SA is terminated (Pras and Sprenkels, 2001). The SA may also be terminated explicitly either by the client or the SP (due to the change in requirements of a client and/or capability of the SP). The business and legal implications of such a termination is outside the scope of this research. The termination may also be initiated as a result of multiple/excessive violations of guaranteed service levels specified in the SA. Finally, an SA may be renegotiated to extend the validity period, and/or agree on a new service level and price (Dan, Ludwig and Pacifici, 2003).

2.6 Conclusion

It is important to understand the uses and the content of SAs before the development of SAs can be investigated. The different parts of the SA need to be developed in respect of their content and possible uses once the agreement is in use. The creation life cycle is the most significant part of the SA life cycle and is the focus of the remainder of this research.

Chapter 3

Models for the Development of Service Agreements

This chapter investigates various models for the development of SAs. Models are sourced from researchers in the area; software houses; and international standards organisations.

3.1 Introduction

In the following section the author presents seven different models for the development of SAs. The models are from varying sources and have different methodologies. Some are step by step approaches, others are graphical models, and some are simply a set of guidelines.

Karten's model is based on her personal experience with SAs and there development. Bouman uses Karten's model as a basis for a case study. Walker's model was developed during an SLM implementation at a university. Lacity's model is the oldest and was proposed when SLM was starting to become an important part of ICT service provisioning. The ITIL model is part of the ITIL framework for implementing SLM in an organisation. The ITIL has recently been adopted as the British Standard BS15000. Microsoft's model is focused in service provision from a Microsoft Server environment but can be generically used for any SA. Bryant's model is service level metric intensive, and can be seen as converse to Karten's model.

The table below shows the model representations in terms of their origins, era, and applicability.

MODELS	KARTEN	BOUMAN	WALKER	LACITY	ITIL	MICROSOFT	BRYANT
Item							
Based on the BS15000 Standard					X		
Outsourcing Book				X			
Vendor/Commercial Viewpoint						X	
Keynote Speaker	X						
Technical Background							X
University Research Based on University Experience			X				
University Study for Government (the Netherlands)		X					
4 Year old model	X	X					
8 Year old model			X				

Table 3.1.1 Model Details (continues over page...)

11 Year old model				X			
Brand New approach					X	X	X
Client Biased				X			
Service Provider Biased					X		
Case Study		X					
Diagrammatic Model					X		
Diagrammatical Set of Steps							X
Generalised ideas (rough model)				X		X	
Set of Steps	X		X				

Table 3.1.1 Model Details

Each model is discussed in turn and is accompanied by a brief introduction into the origin of the model and its author.

3.2 Desired Outcome of the SA Development Process

SAs document the desired service provision that clients require of their service providers. Indeed, the effort that is expended in the process of crafting SAs is directed solely at producing an SA that accurately represents the desired service provision.

Having crafted an SA, it serves to regulate the agreement struck between the client and service provider. SAs persist for an agreed period following which the contract terminates. SAs can be changed at the request of either party, and following mutual agreement between the client and service provider. SAs can also be terminated prematurely. Premature termination is usually associated with gross non-performance on the part of the service provider and/or where client requirements change drastically.

The number of changes made to an SA following its completion serves as a useful indication of the success of the SA (represents the desired service provision), that is, minimal changes represent a more successful SA, whilst many changes represent a less successful SA. It is argued that possible reasons mentioned above for premature termination cannot reasonably be foreseen at SA development time and therefore

ought not to be used as a yardstick for success of an SA in terms of accurately representing the desired service provision.

This research uses the number of changes made to the SA in the first six months of its operation as a measure of the success of the SA.

3.3 Karten

3.3.1 Nature of the Model

Karten's (1999) model is a definitive set of steps that form a generalised guideline to the development of SAs. This set of steps is generic for the ICT environment.

Naomi Karten has an M.A. in Psychology and corporate experience in technical, client support and management positions. She has presented seminars and keynotes to more than 100 000 people internationally since opening her own business in 1984. She is the author of several books, the most pertinent to this research is entitled: *How to Establish Service Level Agreements* (Karten, 1999).

3.3.2 Details of the Model

A step wise approach to developing SAs is advocated:

An SA is an excellent tool for helping two parties improve communications, manage expectations, clarify responsibilities and build the foundation for a win-win relationship. However, establishing an SA is neither a quick nor a simple process. Having worked with numerous organizations internationally on establishing SAs, Karten recommends paying particular attention to the following key steps:

1. Gather Background Information
2. Ensure Agreement about the SA
3. Establish Ground Rules for Working Together
4. Develop the SA
5. Generate Buy-in
6. Complete Pre-Implementation Tasks
7. Implement and Manage SA

Step 1. Gather background information

The client and the SP start by gathering information so that each has a solid basis from which to negotiate. Before eliciting commitments from their SP, clients should carefully review and clarify their service needs and priorities. And before making any commitments to clients, SPs should examine their service history and determine the level of service they can realistically provide. In addition, SPs should assess client satisfaction with the current service provision so as to clearly understand client concerns and establish a baseline for assessing service improvements.

Step 2. Ensure agreement about the SA

The two parties to an agreement often have different views about the role of the SA and what it can realistically accomplish. Both sets of views may be valid, yet sufficiently different as to cause a breakdown in SA negotiations. The difference is usually based on the degree of importance of the SA and its level of detail. Before any SA development work is done, it is advisable for the two parties to hold an open discussion to ensure that they have a basic level of agreement about the SA. If they do not – and until they do – any further SA effort may prove futile.

Step 3. Establish ground rules for working together

In this critical, but often overlooked, step the SA developers (those assigned to negotiate the SA) focus not on the SA, but on the process by which they will work together to create the SA. Issues to be discussed include the division of responsibility for development tasks, scheduling issues and constraints, and concerns regarding potential impediments. In addition, the developers can benefit greatly by discussing their communication styles and preferences. By identifying similarities and differences at the start of the negotiation period, they will be in an excellent position to minimize conflict.

Step 4. Develop the SA

This step is frequently and falsely regarded as the only step in the SA development process. In this step, the two parties first create a structure for the SA document. This involves deciding on the items to be included and the formatting styles. Secondly, the parties discuss, debate, negotiate and, over time, reach agreement about the contents

of the SA. In doing so, they may each solicit assistance, input or feedback from others in their own organization. These include all stakeholders, from users to top management. The duration of this step typically varies from several weeks to several months, depending on the developers' previous experience with SAs, their familiarity with the key elements of an SA, the demands of their other responsibilities, and the state of the relationship between the two organizations.

Step 5. Generate buy-in

The result of Step 4 is a draft of an SA, not a completed SA. Before implementing an SA, all members of both parties who have a stake in, or responsibility for, the success of the SA should have an opportunity to review the draft, raise questions, and offer suggestions. Using this feedback, the developers can conduct further negotiations, gain the necessary approvals, and finalize the document. In addition to generating broad agreement and support, this step improves the quality of the final document.

Step 6. Complete pre-implementation tasks

This step entails the identification and completion of tasks that must precede SA implementation. Such tasks might include, for example, developing tracking mechanisms, establishing reporting processes, developing procedures for carrying out stated responsibilities, communicating expectations to staff, and providing pertinent training to staff in all parties regarding individual aspects of the service provision.

Step 7. Implement and manage the SA

An agreement that is not managed dies upon implementation. Management responsibilities include providing a point of contact for problems related to the SA, maintaining ongoing contact with the other party, conducting service reviews, coordinating and implementing modifications to the SA, and assessing and reporting on how the two parties can further enhance their working relationship.

3.4 Bouman

3.4.1 Nature of the Model

Bouman, Trienekens and van der Zwan (1999) used Karten's stepwise approach as a basis for a case study carried out on the Kwintes Project. The Kwintes Project was

tasked with quantifying information technology services, and is directed at the development of tools and methods that will help suppliers of information technology services improve their service delivery. They supplemented the Karten's Model with eight pre-understandings and seven lessons learned.

Jacques Bouman has a MSc in Computer Science from Eindhoven University of Technology and is a PhD researcher in the Kwintes Project. Mar van der Zwan has a MSc in Industrial Engineering from Eindhoven University of Technology and is a fellow researcher in the Kwintes Project focused on the management of IT related services. Dr Jos Trienekens is a part-time associate professor in the Information Systems department at Eindhoven University of Technology, in the Netherlands. He is a lead researcher in the Kwintes Project. He has produced more than 30 refereed international papers.

3.4.2 Details of the Model

Pre-understandings:

The pre-understandings have been subdivided into four sections. The first section deals with a general pre - understanding which covers the main principle of SAs and SA development. The second section deals with pre-understandings regarding the structure and the format of SAs. Next, the pre - understandings regarding the influences of situational factors in business for the composition of a SA, (strategy, market, and organisational structure for example) are addressed. The final section deals with pre - understandings that reflect the approach that should be followed to specify a SA.

The general pre - understanding

1. An SA is more effective when it reflects the needs of a client in understandable terms.

> An SA is of equal importance to a service provider and a client. Both parties are involved and should be able to understand the content of an SA

completely. In that perspective, it is often better that a service provider strives to use the terminology of a client than the other way around.

Pre - understandings regarding the content of Service Agreements

2. An SA should be specified in terms of business effectiveness.

A main problem of current SAs is the limited clarity about the effectiveness of an SA for a business system. SAs often do not address the results of services regarding particular business processes, but are restricted to a description of the amount of effort the SP puts into the provision.

3. A SA that is specified in measurable terms will increase its understanding and the consensus-building process of the various involved parties.

Subjective and qualitative aspects in the service specifications cause many misunderstandings and conflicts in SA development and SA usage. Metrics and quantitative measurement should limit these problems.

4. A SA should be based on well - defined SLA components

Examples of a number of SLA components include Availability, Integrity, Security, Performance, Calamity, User Support, Education and Change Management.

Pre - understandings regarding the development of Service Agreements

5. Different user groups have different service needs.

Differentiation of services leads to more effective and efficient service processes. In business situations with many users, it can be difficult or impossible to determine all the various needs and wishes. In these situations, users should be clustered in user groups or a typology developed, for example,

on the basis of the specific functional characteristics regarding the usage of an IT system for each user group

6. Structured design of a SA will increase its quality and will limit the time that is needed for its development.

Developing SAs following a well-founded and formal approach avoids ad hoc decisions and poorly motivated and incomplete SAs.

Pre - understandings regarding the importance of specific Business Characteristics

7. The relative importance of the various SA components can be derived from business characteristics.

SAs have to fit with the needs of the business processes of clients. Knowledge of these business processes is a prerequisite for the specification of SAs. Specific business characteristics should be used to identify pointers to priorities regarding the various SA components.

8. The relative importance of the Service Levels of agreements can be derived from business characteristics.

An equal rationale as under 7 can be given regarding the reformulation of the relative degree of importance of the prioritised service components.

Lessons Learned:

Being a practical case study, the questions that Bouman *et al* (1999) asked focused mainly on the ‘how’ and ‘what’ of the SA process. The answers that were found are described here as the lessons learned. In total, seven lessons are presented, all of which are directly applicable in any SA process.

Lesson 1: Decide at an early stage what the serviced objects are, seen from the eyes of the user, and determine how this can be reflected in the document structure of the SA.

Lesson 2: Try to untangle components of the needed service(s) and focus on these parts, rather than on the whole service at once.

Lesson 3: Create a readable and easy to adapt document, by including descriptions of decisions taken on both document structure and services.

Lesson 4: At the start of the SA process, appoint the responsible and accountable managers from all stakeholders.

Lesson 5: The review board is essential during the writing of the SA and should be involved when the draft version of the SA document structure is ready.

Lesson 6: The possibility to discriminate between user groups depends on the technical and organisational possibility and desirability of the situation.

Lesson 7: In each aspect of the development, the balance between commitments on results and efforts should be determined between both provider and client in order to be sure of the needed co - operation.

3.5 Walker

3.5.1 Nature of the Model

This model is based on the evolutionary steps Griffith University's LAN and Workstation Support Group (LWSG) made in developing Service Agreements (SAs) with its clients. The improving levels of technology employed by the University, the higher expectations of everyone for the technology to function within the desired parameters, and the prospects of increasing competition for the supply of truly valuable support have required the LWSG to become far more centred upon truly identifying and meeting the needs of their clients. Walker (1996) explains the LWSG's model by presenting 5 guidelines and six steps.

3.5.2 **Details of the Model**

Walker (1996) suggests the following guidelines and steps that were used by Griffith University in Australia to develop their SAs.

Guidelines In SA Negotiation Process

1. Involve as many clients and support staff as possible
2. Allow every issue to be addressed, but avoid confrontation.
3. Set parameters for the level of support, but maintain flexibility.
4. Explain and detail:

   Objectives of the SA,
   The scope of available support options,
   The support requirements of the client, (phone, on-site, simple workstation, advanced server, …)
   Limitations of support services and the SA,
   Costs and charges in the SA,
   Statistics that are to be collected and the monitoring of the SA.
   Reporting service provision performance to the client.

5. Sell the benefits of SAs and the negotiation process to both clients and the service providers.

Stages In Building A Service Level Agreement

Ensuring the success of an SA requires careful construction via a detailed process. Such a process can be sub divided into a number of steps. Each step should be adapted to suit the specific environment in which the SA is to function.

The steps are:

1. Scope the Agreement
2. Gather details for a formal SA proposal
3. Confirm the capability of the support group to meet commitments in the SA

4. Detail the agreement
5. Negotiate with the client using the draft SA as a starting point only
6. Finalize the agreement.

Walker gives the following detailed points for each section:

1. Scope the agreement

- Prepare the groundwork for the negotiation.
- Review and Document aims and objectives of the past and future service provisions.

2. Gather details for a formal SA proposal

- Review the IT services that can be offered to the client including the costs and value of each service.
- Determine the services to be offered in an SA leaving further details for later.
- Involve as many stakeholders as possible in interviews and other similar exercises to gather information as to their needs and perceptions of IT support.
- Use meetings, questionnaires and focus groups to collect information.
- Review the results of all the above steps.

3. Confirm the capability of the support group to meet commitments in the SA

- Check support criteria, and call response and resolution times.
- Confirm monitoring tools.
- Confirm that the necessary technical and personal skills exist in support staff.

4. Detail the agreement

- Define the process for logging a service call including details as to whom will be responsible for specific services functions.
- Describe the agreed response for each support call from clients.
- Include flexibility as a valuable component of the SA.
- Allocate staff to support the SA and specify other needs such as a work area and printing needs.
- Allocate a support staff representative to chiefly manage the SA and act as an "account manager" for the clients.

- Explode generic services into detailed plans and procedures.
- Define all costs involved in the agreement and detail the charging involved.

5. Negotiate with the client using the draft SA as a starting point only

- Complete the draft agreement and circulate amongst client representatives and support staff.
- Ask for feedback and consider all suggestions.
- Make amendments as required.
- Negotiate with clients and support staff to ensure that all details in the agreement are acceptable.
- Ensure that changes to the proposal stay within the capabilities of the group.
- Set a starting and ending date for the SA or at least a date for renegotiation.

6. Finalize the agreement

- Ensure that the SA agrees with the results of stage 1 and the objectives of the SA.
- Nominate client representatives as contacts between support staff and SA clients.
- Confirm the SA with the signatures of client and support staff representatives.
- Promote and market the SA to all interested parties.

Walker (1996) believes that marketing existing and potential SAs is vital to the success of an agreement. Management must be approached directly with an appropriate strategy to promote the actual or potential benefits of an SA. It has been found that terms such as "cost reduction", "improved performance and efficiencies", and "problem reduction" sell very well to management provided they are reinforced with a proven track record by the support. Comparative statistics should also be used to measure changes to costs, efficiencies, and the nature of support calls.

3.6 Lacity

3.6.1 Nature of the Model

Lacity and Herschheim's (1993) model reveals many insights into the intentions, motivations and consequences of IT outsourcing that took place in 13 different firms. The model was presented at a time when outsourcing was still a new phenomenon and very few formal processes had been developed for the development of an outsourcing relationship.

At the time of publication, Lacity was an Assistant Professor of MIS at the University of Missouri, St Louis. Her research interests where into the organisation, management and delivery of IS products and services. Hirschheim was the Director of the Information Systems Research Center and professor of Information Systems in the College of Business Administration at the University of Houston.

3.6.2 Details of the Model

Lacity and Hershheim do not promote a specified set of steps or use a graphical representation of their model. They simply list 14 key points that prescribe a method for clients/users to use when entering into an outsourcing agreement:

1. Discard the vendor's standard contract
2. Do not sign incomplete contracts
3. Hire outsourcing experts
4. Measure everything during the baseline period
5. Develop service level measures
6. Develop service level reports
7. Specify escalation procedures
8. Include penalties for non-performance
9. Determine growth
10. Adjust charges to changes in business volume
11. Select your account manager
12. Include a termination clause
13. Beware of "change of character" clauses

14. Take care of your people

Lacity and Hershheim detail these 14 steps as follows:

1. Discard the vendor's standard contract

The vendor's standard contract is normally heavily biased towards the vendor and should be discarded immediately. It is believed that for a successful outsourcing relationship to develop, a site-specific SA must be developed.

2. Do not sign incomplete contracts

Since both parties are often anxious for the relationship to begin, the temptation to close negotiations swiftly is strong. The SP in particular may try to convince their clients to sign the contract before items are clearly specified.

3. Hire outsourcing experts

During negotiations, the vendor uses a host of their technical and legal experts to represent their interests. These experts understand the way to measure information services and how to protect their interests. Hiring outsourcing experts to represent the clients interests ensure the client negotiates from an equally strong standpoint.

4. Measure everything during the baseline period

During SA negotiations, the client's current information services are documented during the baseline period. The baseline period becomes the yardstick that determines what services the SP is obliged to provide to the client. The SP charges a fixed fee for the delivery of this bundle of services, but charges an excess fee for services above and beyond the baseline. Therefore, clients must ensure all services are measured in the baseline to ensure that the services fall into the fixed fee.

5. Develop service level measures

Baseline measures only provide a yardstick for what the vendors obligations are during the relationship. For every service the SP is expected to provide, the service level measure should unequivocally express the level of service required.

6. Develop service level reports

During SA negotiations, all stakeholders may spend a significant amount of time developing measures, and then fail to require the SP to report on these measures. SP's may tell their clients that their standard reports address the measures identified, but this assertion is seldom true.

7. Specify escalation procedures

Clients realise that ICT is often a volatile business and that there are bound to be occasional events that prevent the SP from meeting a specified service level. Thus, in addition to service level reports, the vendor must agree upon problem escalation procedures. This typically includes a fault detection stage to determine who caused the fault. This is a protection mechanism for the SP who could otherwise be financially penalised for errors that are not their fault.

8. Include penalties for non-performance

Cash penalties serve as a motivation for the SP to perform, but may not fully compensate the client for the consequences of the sub-standard service. Clients lost due to sub-standard performance can be far more costly to the client than the penalty is to the SP.

9. Determine growth

Most SAs include a growth rate where the client gets a certain amount of growth for free. The reasoning is that the cost of a unit of processing decreases every year, so the client deserves to share in the benefits of the price/performance improvements.

10. Adjust charges to changes in business volume

Clients should also include a clause for severe volume fluctuations caused by acquisitions, mergers or sale of business units. This has a significant bearing on the SP fees and as such the SP may stipulate an advance notice.

11. Select your account manager

If the client has previous knowledge of a SPs account manager that will be a benefit to their relationship, that person should be required to be the account manager. This person is usually known to be particularly fair to clients.

12. Include a termination clause

A termination clause should be included in the contract. Either party may need to terminate because of bankruptcy or sale of the company. Most contracts require a notice period on termination.

13. Beware of "change of character" clauses

Some SPs include a clause called a "change of character" clause. This provision states that the client is charged for any changes in functionality. This can cause major disputes if it is too specific in the changes. An example of the clause being abused is given by Lacity and Hershheim as a company changing its word processing software. The SP then tried to charge the client more because of the change.

14. Take care of your people

Clients have a social responsibility to their employees to ensure that employees are treated fairly and not simply dismissed when the outsourcing relationship commences. In a typical outsourcing arrangement, the SP will hire the clients existing personal on a one-year trial basis.

3.7 ITIL

3.7.1 Nature of the Model

The Information Technology Infrastructure Library (ITIL) is a widely accepted IT process management framework in the world. ITIL used to be a set of about 40 books. Recently the individual processes have been combined into 7 major publications which describe the processes needed to manage the IT infrastructure efficiently and effectively in order to guarantee the service levels agreed upon by the IT organization and its clients.

The ITIL philosophy can be aptly represented by the following diagram. Service Level Management falls under Deliver IT Services, and SAs fall under Service Level Management. This shows the insignificance of the SA development in the overall ITIL philosophy.

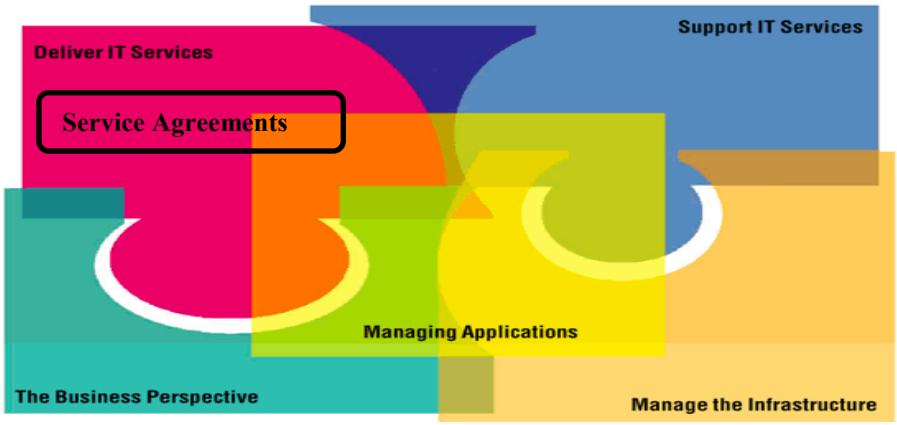


Figure 3.7.1.1 The ITIL Philosophy

The Service Level Management component of the philosophy can be depicted by the following diagram. This figure represents the complete ITIL SLM strategy and the SA development section can be seen in it.

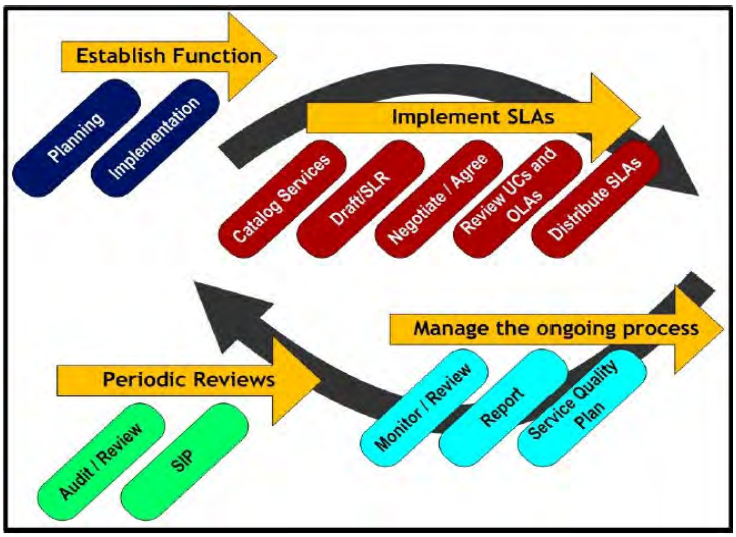


Figure 3.7.1.2 The ITIL SLM Strategy

3.7.2 Details of the Model

The ITIL approach to the development of an SA is a very small part of the entire ITIL SLM philosophy. In the ITIL book, *Service Delivery* (2004), the SA development approach is depicted as follows:

Figure 3.7.2.1 ITIL SA model

The five stages can be briefly described as follows:

1. Catalogue Services
    - This involves establishing what services the SP can provide or the client requires and at what levels.
2. Draft/SLR
    - This involves establishing what services are required and developing a draft agreement as a precursor to the next step.
3. Negotiate/Agree
    - This involves the actual negotiation between the SP and the client as to what services will be provided, at what levels and at what cost.
4. Review Underpinning Contracts and Operational Level Agreements
    - This involves the SP and the client ensuring that the new agreement will not cause them to default on any existing agreements.
5. Distribute SAs
    - This involves publicising the existence of the SA to all stakeholders, especially service desks.

The ITIL describes these steps in more detail:

Catalogue Services

Produce a Service Catalogue

In order to create an accurate picture of the services provided to the clients, it is recommended that an ICT Service Catalogue is produced.

Services are defined as one or more ICT systems which enable a business process. It is a good idea to define a hierarchy of services with the Service Catalogue, by qualifying exactly what type of services they are (business, infrastructure, network or application).

When completed, the Service Catalogue may initially consist of a matrix, table or spreadsheet. Some organisations integrate and maintain their Service Catalogue as part of their configuration management database. By defining each service as a configuration item and, where appropriate, relating these to form a service hierarchy, the organisation is able to relate events such as incidents and requests for changes to the service affected, thus providing the basis for service monitoring via an integrated tool.

Expectations Management

From the outset, it is wise to try and manage the client's expectations. This means setting proper expectations in the first place, and putting a systematic process in place to manage expectations going forward, as satisfaction = expectation – perception. SAs are just documents and in themselves do not materially alter the quality of the services being provided. A degree of patience is therefore needed and should be built into expectations.

Plan the SA Structure

Using a catalogue as an aid, SLM must plan the most appropriate SA structure to ensure that all services and all clients are covered in a manner best suited to the organisation's needs. There are two options to consider:

1. A serviced based SA is often used where an SA covers a single service for all the clients of that service.

2. A client based SA is an agreement with an individual client group, covering all the services they use. Clients often prefer such an agreement, as all of their requirements are covered in a single document.

Establish Service Level Requirements and Draft SA

Once the SA structure has been agreed, a first SA must be drafted. It is important to involve the client from the outset, but rather than going along with a blank sheet to commence with, it may be better to produce a first outline draft as a starting point for more detailed and in-depth discussion. Be careful not to go too far and appear to be presenting the client with a template.

Many organisations have found it valuable to produce a pro-forma that can be used as a starting point for all SAs. The pro-forma can often be developed alongside the pilot SA. The key components of an SA are:

- Introduction
- Service hours
- Availability
- Reliability
- Support
- Throughput
- Transaction response times
- Batch turnaround times
- Change
- ICT Service continuity and security
- Charging
- Service reporting and reviews
- Performance incentives/penalties

The wording of SAs should be clear and concise, leaving no room for ambiguity. There is normally no need for agreements to be couched in legal terminology; and plain language aids a common understanding. It is often helpful to have an independent person, who has not been involved in the drafting, to do the final read-

through. This often reveals potential ambiguities and difficulties that can then be addressed and clarified.

It is also worth remembering that SAs may have to cover services offered internationally. In such cases, the SA may have to be translated into several languages. Remember also that an SA drafted in a single language may also have to be reviewed for suitability in several different parts of the world.

Negotiate and Agree

Using the draft agreement as a basis, negotiations must be held with the client to finalise the contents of the SA and the initial service targets, and with the service providers to ensure that these are achievable.

One problem that might be encountered is identifying a suitable client with whom to negotiate. This is due to the fact that there are various client groups and often the negotiator is the signatory on the agreement, yet may not be a user of the service. It is important that the client representative is genuinely able to represent the views of the client community.

If there is no previous experience of SLM, then it is advisable to start with a pilot SA. A decision should be made on which services/ clients to be used for the pilot. It is helpful if the selected client is enthusiastic and wishes to participate. The results of the initial client perception may give pointers to a suitable pilot.

One difficulty sometimes encountered is that staff at different levels within the client community may have different objectives and perceptions. For example, a senior manager may rarely use the service and may be more interested in issues as value for money and output, whereas a junior member of staff may use the service throughout the day and may be more interested in issues such as responsiveness, usability and reliability. It is important that all of the appropriate and relevant client's requirements, at all levels, are identified and incorporated in SAs.

The SP (whether internal or from a third-party supplier) should also be consulted. They need to agree that targets are realistic, achievable and affordable. If they are not, further negotiations are needed until a compromise, acceptable to all parties, is agreed. The views of suppliers should be sought and any contractual implications should be taken into account during the negotiation stages.

Where no past monitored data is available, it is advisable to leave the agreements in draft format for an initial period, until monitoring can confirm that the initial targets are achievable. Targets may have to be re-negotiated in some cases. When targets have been confirmed, the SAs must be signed.

One point to ensure is that at the end of the drafting and negotiating process, the SA is actually signed by the appropriate managers on the client and ICT provider sides to the agreement. This gives a firm commitment by both parties that every attempt will be made to meet the agreement by both sides. Generally speaking, the more senior the signatories are within their respective organisations, the stronger the message of commitment. Once an SA is agreed, wide publicity needs to be used to ensure that clients and ICT providers alike are aware of its existence, and of the key targets.

It is important that the service desk staff are committed to the SLM process and become proactive ambassadors for the SAs, embracing the necessary service culture, as they are the first contact point for client incidents, complaints and queries. If the service desk staff are not fully aware that SAs are in place, and therefore do not act upon them, clients will very quickly loose faith in SAs.

Nothing should be included in an SA unless it can be effectively monitored and measured at a commonly agreed point. The importance of this cannot be overstretched, as inclusion of items that cannot be effectively monitored always results in disputes and eventual loss of faith in the SLM process. A number of organisations have discovered this the 'hard way' and as a consequence, have absorbed heavy costs both in a financial sense as well as in terms of negative impacts on their culture.

Existing monitoring capabilities should be reviewed and upgraded as necessary. Ideally this should be done ahead of or in parallel with, the drafting of SAs, so that monitoring can be in place to assist with the validation of proposed targets.

Review Underpinning Contracts And Operational Level Agreements

Most ICT Service Providers are dependent to some extent on their own suppliers (both internal and/or external). They cannot commit to meeting SA targets unless their own suppliers' performances underpin these targets. Contracts with external suppliers are mandatory, but many organisations have also identified the benefits of having simple agreements with internal support groups, usually referred to as OLAs.

OLAs need not be very complicated, but should set out specific back-to-back targets for support groups that underpin the targets included in SAs. For example, if the SA includes overall time to respond and fix targets for incidents (varying on the priority levels), then the OLAs should include targets for the each of the elements in the support chain. In addition, overall support hours should be stipulated for all groups that underpin the required service availability times in the SA. If special procedures exist for contacted staff these must also be documented.

Before committing to SAs, it is therefore important that existing contractual arrangements are investigated and where necessary, upgraded. This is likely to incur additional costs, which must either be absorbed by ICT, or passed on to the client. In the latter case the client must agree to this, or the more relaxed targets in existing contracts should be agreed for inclusion in SAs.

Define Reporting and Review Procedures

The SA reporting mechanisms, intervals and report formats must be defined and agreed with the clients. The frequency and format of service review meetings must also be agreed with the clients. Regular intervals are recommended. Periodic reports should fit in with the reviewing cycle.

The SAs themselves must be reviewed periodically (annually in line with financial cycle for example) to ensure that they are still current and indeed still relevant - does the SA still fit the needs of the business and the capabilities of ICT? All SAs should be under strict Change Management control and any changes should be reflected in an update to the Service Catalogue, if needed.

Publicise the Existence of SAs

Steps must be taken to advertise the existence of the new SAs amongst the service desk and other support groups with details of when they become operational. It may be helpful to extract key targets from the SAs into tables that can be on display in support areas - so that staff are always aware of the targets to which they are working. If support tools allow it, these targets should be included as thresholds and automatically alerted against when a target is threatened or actually breached. SAs and the targets they contain must also be publicised amongst the client community, so that clients are aware of what they can expect from the services they use, and know at what point to start to express dissatisfaction.

3.8 Microsoft

3.8.1 Nature of the Model

Microsoft (2003) suggests guidelines for the development of an SA. These guidelines are specifically referenced to managing the windows platform, but can be generically used for any SA. No actual set of steps or model is given although a general sequence of events can be synthesized from the guidelines.

This guide provides detailed information about the Service Level Management service management function for organizations that have deployed, or are considering deploying, Microsoft technologies in a data centre or other type of enterprise computing environment.

3.8.2 Details of the Model

Defining Types Of Service Agreements

A successful SA may be the result of many hours of negotiation, but the final report may be only a single-page. An SA will qualify as successful if it delivers what was requested, if it offers a simple representation of the complexity of the service and component architecture, if it can demonstrate the measures on performance, and if it is delivered in a suitable format. As long as they meet their objectives, SAs do not need to be long, complex, multipage documents.

Although there are different types of SAs, the basic process for their creation and content is fundamentally the same. The differences arise from the groups for which the agreement is made. A group's needs affect the requirements of the document and the actions taken should the SA not be met.

The different types of SAs discussed here are:

- Internal Service Agreements
- External Service Agreements

Internal Service Agreements

An internal SA is most common between an IT department and another business department—for example, sales and marketing or human resources. However, an internal SA can also exist between other, non-IT departments. For example, scanning, mail, client service, and billing departments may all have SAs with other business areas to which they deliver their services.

Although internal SAs between two departments within one organization rarely have legal consequences, the internal SA describes the relationship, the expectations, and the timescales for the delivery of the service. It is binding in that it represents an agreement between the two parties. Every endeavour should be made to meet the levels of services documented and signed off within it. The internal parties are

accountable for what they do and do not achieve as outlined in the SA. There may be repercussions within the organization when an agreed-upon service is not fulfilled, even though the document is not a legal contract. The status of IT may suffer, for example, if there are issues on chargeable services or if the costs of providing an agreed-upon service cannot be justified.

External Service Agreements

External SAs are more formal, legally binding contracts than internal SAs. External SAs may be more structured than internal SAs because they usually include costs, bonuses, and sometimes penalty clauses. The service is still agreed on at a specified cost and deliverables—for example, availability and security are often included in the cost. The variation and termination of this SA differs from an internal SA in that it is usually less flexible and involves a stated, rather than an undisclosed, cost every time service criteria are changed. Increased hours of support from an outsourced service desk, for example, will incur charges for increased staff and availability of services. Internally, these costs would still be present, and in some instances may be charged back to the business. However, they are likely to be justified by the increase in business revenue provided by the longer hours of service.
Any legal implications in the SA contract—including termination, re-tender, bonuses, penalties, and costs—should be considered before the SA is agreed on.

An external SA needs to be legally binding and as such it should be checked by a legally qualified professional. This may be an internal legal department or an external legal counsel. The legalities will differ in different situations, organizations, and countries, but a contractual SA should not be entered into without confirmation of the legal implications in the SA contract. This includes descriptions of termination, bonuses, penalties, and costs.

Defining Service Agreements

The definition of SAs can begin when all parties understand how they fit within the end-to-end Service Level Management process. Although initially it may seem unusual to define the SA before negotiating and agreeing to it, it can be useful to

begin formulating the SA and then using it as a starting point for the cycle of negotiation and agreement. The first SA can be the most difficult as it is a new experience for both parties, but taking a simple step-by-step approach should overcome these issues.

Start with the existing services for the area that are available from the service catalogue, plus any existing performance metrics gathered during the baselining exercise for the setup activities. This enables the discussion to focus on whether the services are adequate or in need of improvement. The priorities of the services for the business can also be clarified.

The measures for the service level objectives should be carefully considered using the following criteria:

- Do they support the business objectives?
- Are they specific?
- Can they be measured?
- Are they attainable, even if this requires significant effort on the part of IT?
- Are they realistic in relation to the benefit they will bring to the business?

Negotiation And Agreement Of Service Levels

When the requirements of the SA have been defined, determine if they can be delivered at a reasonable cost to the business and to the IT department. The relationship between IT and the business has begun to mature and there has been involvement from both parties in defining the services, priorities, and the requirements of the SA, but there may still be issues that become apparent at the negotiation stage. The ideal result of any negotiation for an internal SA is that all parties benefit from it. In external and contractual SAs, the result should encourage a sense of partnership between the groups involved, although the costs, penalties, and rewards may be more debatable in this situation.

In external and contractual cases it may be necessary to use the negotiation skills available in other areas of the business, for example, commercial departments. If there will be an ongoing need for contract negotiation, it might be advisable to train the

employees who will be involved. Internally, however, if there are issues to overcome, they can often be managed with relative ease by negotiating the SA objectives and deliverables. As long as the IT department knows what it can provide, including monitoring and reporting capabilities, and the business can justify the cost of exceptions to these capabilities, then the negotiation should be straightforward. This may be where the service level management sponsor can be useful, as any issues that cannot be resolved may have to be advanced up the management chain for a decision if cost justification is contentious. The service level management sponsor is the primary promoter of service level management within the organisation.

While it is important to remember that the long-term aim of Service Level Management is improved service, there may be times during its initial stages in which the service does not meet the expectations and agreed-upon constraints. This is not necessarily a failure, but it can mean that the marker has been set too high and must be adjusted while the service gradually improves. SA negotiation must strike a careful balance between the expectations and the realities of the service. At first the SA will be measuring only the existing processes and technologies; but after the measurement has been made, methods for improvement can be developed.

3.9 Bryant

3.9.1 Nature of the Model

This model was prepared in order to detail the development of a Service Level Agreement between a fictitious Company and an outsourcing vendor. Several specific requirements were assumed and documented in this model. Bryant's goal was to produce a template that companies could use to begin work on their own SA.

3.9.2 Details of the Model

Bryant's (2002) model was developed to help with the construction of an SA in a Microsoft Exchange environment. Only the first four boxes are discussed as the others are irrelevant to this research. These four sections require the input of the client management and, in some cases, end-user surveys.

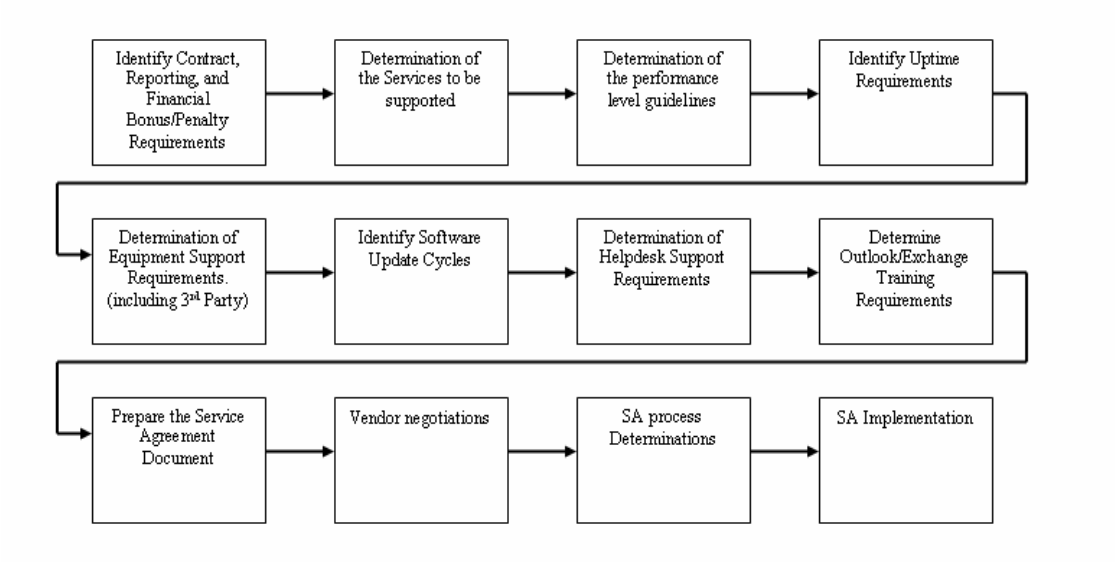


Figure 3.9.2.1 Bryant SA Model

Identify Contract, Reporting, And Financial Bonus/Penalty Requirements

First, name the key contact to the Service Level Agreements and delegate SA management tasks to others. The frequency and detail of reports must be identified as well. Reporting can then be further broken down into two techniques:

- Automated system reporting should be implemented in order to provide current and historical data. This data should be made available to the above named contacts on a regular basis. The methods for providing reports to the named contacts may include a secured website or electronic mail attachments. Hard copies of the reports may also be requested. The reports, for these contacts should be fully detailed reports with data analysis and a trend summary for the month. Moreover, historical data should probably be included.
- It may be necessary for regional and divisional managers to receive a summary report/graphic depicting uptime and overall system performance once a month, similar to the graph depicted to the right.

The client may also require that an automatic mechanism be put into place to notify the named contacts when critical performance thresholds are met. Specific thresholds are discussed later.

Questionnaires and end-user canvassing methods should also be performed by the client and/or the SP as part of an overall client service initiative.

Payment terms and contract length are negotiated with the outsourcing vendor. The client in an MS Exchange SA may prefer a contract length of six months, but will consider contracts as long as one year. Renewals can be handled in many ways including automatic six month extensions. Both the client and the outsourcing vendor should be able to request a formal renewal meeting to update the SA with riders and to negotiate new terms.

There are two types of terminations possible:

1. Contract Termination- Indicates that either the client or the outsourcing company elects to terminate the contract. A "Technology Transfer" and associated fee would probably be required in order to shift the maintenance and support to another group.
2. Technology Termination- A termination in technology would occur when the support requirements are no longer required due to a shift in the client technologies. This form of termination may or may not require a formal "Technology Transfer."

Termination Options are described as follows:

- The client may reserve the right to cancel the contract for either termination option with 60 days notice to the outsourcing company. The client understands that there may be financial penalties for "Contract Termination" if the SLA objectives were met by the outsourcing vendor. These penalties often reflect the fee for one month of support.
- The outsourcing vendor may reserve the right to "Cancel Termination" with 180 days notice to the client. A "Technology Transfer" fee would be charged to cover labour costs associated with transferring the knowledge and technology to another group.

Determination of the Services to Be Supported

There should be a formal review to evaluate the performance and client service levels as well as staff reviews. A quarterly review is sometimes formalized in order to include discussions on SA fulfilment, staffing and future projects that may affect the SA. SLM is accomplished by negotiating a change or additional to an existing Service Agreement. Out-of-scope or new projects need not be discouraged. A change process occurs during every review process and can also be instigated as needed. Several things could require a change or addendum to the existing SA:

- A change in the process workflow
- Additional services
- Missed performance or client service thresholds
- Additional third-party applications

Changes are not made directly to the SA. Instead, contract riders are appended to the SA until such time that the SA is rewritten to incorporate the addendums. The SA can only be written during a renewal cycle with both parties present.

Most groups believe that the total cost of ownership (TCO) is more a function of cost of service and support of the system than a function of the cost of hardware and software. SAs can drive down TCO by identifying damages for missed service levels.

Penalties and bonuses for SA performance guidelines could be "paid" quarterly. Performance objectives are met based on a +10/-10 (percent?) allowance. Penalties are paid as a deduction of regular costs for the pay period immediacy following the review cycle. Bonuses are paid with four weeks of the review cycle and do not require a separate purchase order from the client.

Determination of the Performance Level Guidelines

Bryant lists some of the important performance level guidelines for an Exchange System.

Inter-site Message Transfers

Because the outsourcing vendor may have little control over the stability of the hub servers, the client may not require guaranteed delivery times for mail originating from, or addressed to, any mailbox outside of the client's site.

However, inbound Internet email with legitimate addresses should not get returned as undeliverable from the Exchange systems within the supported (environment?). The outsourcing vendor should remedy any internal Exchange process that returns mail.

Intra-site Message Transfers

The client requires that intra-site Exchange mail be delivered to the recipient's server-based mailbox within 15 minutes of delivery to a server within the supported site.

Remote Synchronization Performance

Remote users who replicate the Offline Address Book should never wait more than thirty minutes for a complete refresh to transfer over a 56K connection.

Identify Uptime Requirements

System availability can be an expensive requirement. It is important that we identify the specific requirements from a resource access standpoint and not necessarily on a server by server basis. The specifics dictate the availability of the servers.

While the table represents system availability, it is important to note that the figures represent unscheduled down time. It is critical that "windows" are allowed for scheduled maintenance and upgrades. The down time is always be scheduled on the same day every week over the weekend. Many companies detail acceptable times during the weekend such as 11 p.m. Saturday to 2 p.m. Sunday. The specific time needs to be negotiated.

You may want to send out a user survey in order to determine the best time for scheduled maintenance.

The outsourcing vendor must balance the uptime requirements with the inevitable cost. The foundation for a mission-critical architecture has specifications for server availability, data accessibility, data protection and disaster tolerance.

3.10 Identification of Development Principles

The models presented in this chapter each describe an SA development process. The common threads of the processes suggest a set of eight development principles:

1. The negotiation period is focused on the amount of time it takes to develop an SA and the major influencing factors.
2. The Preparation development principle is the initial groundwork that needs to be completed before the project can commence.
3. The People development principle refers to the people that need to be involved in the development process and how best to involve them.
4. The Relationships in the Partnership development principle refers to the interaction that occurs between the stakeholders during the negotiations and what should result from them.
5. The Scope of Services development principle refers to the identification and definition of services.
6. The Service Level development principle, although small, has great importance in the development process and refers to the identification and specification of initial, intended and desired levels of service.
7. The Remedies for Non-Performance development principle refers to procedures for situations when service levels are not maintained.
8. The Flexibility development principle refers to the understanding that all stakeholders must have, that once the SA is agreed and signed, it will be in a constant state of change. Because of this, the SA must be written to enable change.

3.11 Conclusion

Each model discussed in this chapter has a unique perspective on the development of SAs in respect of its target audience and origins. The models have provided a

structure which will be used to further investigate the development of SAs. This structure is known as the development principles and these will play a crucial role in the remainder of the thesis.

Chapter 4

Investigation of the Development Principles

This chapter investigates the development of an SA under the Development Principles identified in the previous chapter. At the end of this chapter, the Development Principles are augmented with a number of Supporting Conditions that further our understanding of them.

4.1 Introduction

The successful development of an SA is vital to the continuing relationship between a client and an SP. An SA is supposed to document the terms of the business relationship between the stakeholders. It is thus important that the SA development process involves all the stakeholders that will be affected by the intended service provision. The SA needs to document exactly what services will be provided and at what levels, along with procedures for dealing with problems should they arise. SAs are usually in effect for between three and five years, so the original authors of the SA may not be available if a problem arises. The document needs to be detailed enough to allow any new stakeholder to effectively manage the relationship.

This chapter builds upon the DPs identified at the end of the previous chapter and ends by further qualifying each of the DPs with a list of supporting conditions.

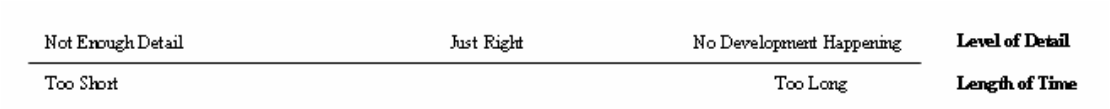
4.2 The Negotiation Period

One of the most important aspects of the SA development process is the length of time allocated to the process. Karten (1999) believes that it is not conducive to successful negotiations to specify a time limit for the negotiations. An SA is an excellent tool for helping SPs and their clients improve communications, manage expectations, clarify responsibilities, and build the foundation for a mutually beneficial relationship. Karten (1999, 2004) believes that many factors can influence the duration of the effort, such as:

- *The service environment:* The more services covered by an SA, and the more complex these services, the longer it takes the two parties to discuss, negotiate and document the conditions of service delivery.
- *The proximity of the parties:* Face-to-face negotiation is crucial in establishing an SA. However, if travel is needed to enable this face-to-face contact, it can add significantly to the elapsed time.

- *The span of impact of the SA:* Establishing an SA between two parties in a home office generally takes less time than establishing an SA that spans regional, national or international boundaries.
- *The relationship between the parties:* When the relationship is characterized by trust and respect, the effort proceeds much more quickly than when it is marred by distrust and dissatisfaction. In the latter situation, additional steps may be needed to begin to repair the relationship before undertaking the more formal SA process.
- *The availability of a model:* The first SA in an organization usually takes the longest time to construct. Once it is completed and in operation, however, both the document and the process can serve as a model for subsequent SAs. If the first SA is successful, later ones usually proceed much more rapidly.
- *Prior SA experience:* The most expeditious SA efforts are those led by SA developers who have had prior successful experience establishing an SA. Conversely, if prior experience is lacking or failed to result in an effective SA, the development process often hobbles along.

Taking all these factors into account, the time period required to develop a successful SA can be best described along a linear axis as depicted in the following diagram:



Too short

A misconception about SAs regularly encountered is that they can be created quickly. Some stakeholders begin under orders from management to complete the negotiations the following week. Management mandate notwithstanding, participants soon understand the impossibility of this task, and face the challenge of helping their management achieve this same understanding.

Developing an SA in a week or even a month is both difficult and inadvisable. It is difficult because of the extensive workload involved in such tasks as negotiating

service standards, establishing tracking mechanisms, preparing supporting procedures, gaining approvals and generating buy-in. And it is inadvisable because the process is designed to help the two parties build the foundation for a strong, successful, long-term relationship. To rush this process is to sabotage the entire effort.

Too long

"Too long" refers not to a specific time period, but to an effort that has stalled and is making no progress. One major contributor to a stalled effort is a lack of familiarity with the process of establishing an SA. Karten (1999, 2004) states a second major reason that the effort often stalls, is that one or both parties fail to bring a serious commitment to the effort. When management refuses to allocate staff to establish the SA, or the effort is given a low priority, or one or both parties are unwilling to negotiate in good faith, progress becomes impossible.

Just right

Establishing an SA is typically a many-month process of information-gathering, analyzing, documenting, educating, negotiating, and consensus-building. Karten (1999, 2004) believes that 3-6 months is a reasonable amount of time. When circumstances are optimal, three months is realistic, and sometimes even less. At the other extreme, if the situation is complex, six months may not be enough. However, if significant progress has not been made within six months, it is time to stop the effort and examine why.

4.3 **Preparation**

A key factor in the success of the negotiations is identifying the human resource requirement (Gardner, 2000). The set of skills and experience team members bring to the project should be appropriate to that particular SA development. Clearly identifying project stakeholders early in the process allows the sponsor and project manager to see the “landscape” of the organizations and individuals they must involve in order to make the project successful.

According to Gardner (2000), a list of characteristics of these stakeholders facilitates:

- Establishing the most appropriate project sponsorship based on power, structure, and influence
- Understanding what stakeholders must contribute (resources, advocacy) to the project
- Selecting project participants in the early phases, as well as throughout the project.

Karten (1999) believes that establishing ground rules for working together is a critical, but often overlooked, step. The SA developers (those assigned to negotiate the SA) focus not on the SA, but on the process by which they will work together to create the SA. Issues to be discussed include the division of responsibility for development tasks, scheduling issues and constraints, and concerns regarding potential impediments. In addition, the developers can benefit greatly by discussing their communication styles and preferences. By identifying similarities and differences at the start of the negotiation period, they will be in an excellent position to minimize conflict.

It is important to involve the client from the outset of the SA development process, but rather than going along with a blank sheet to commence with, it may be better to use a template as a starting point for more detailed and in-depth discussion (ITIL, 2004). An SA template is a skeleton document that contains not much more than the headings of the intended document and some of the standard contractual elements. An SA template is very different to a standard SA. In an attempt to speedup negotiations, SP's frequently have a standard SA that generally covers their services and is usually not customised for each client.

The degree to which a standard SA can be used in SA negotiations depends entirely on the complexity of the SA and the previous SA experience of the development team. If an SA is for a single service that is mass produced, like a cellular telephone contract, then there is no point in conducting active negotiations over a three month period with each user. Just offer a small range of standard "packages" for the client to choose from. This way, the client can select a package that closely resembles their

requirements. However, if an SA covers an extensive service provision for a multinational conglomerate, it is unlikely that a generic SA exists that covers the service provision required. Thus, a far more intensive negotiation needs to take place and an SA template can be used.

Karten (2004) believes that one of the first steps in creating SAs is to develop a template that can serve as a guide for both initial and future SAs. Use of a template ensures consistency across SAs and guarantees inclusion of all necessary elements, while allowing for provisions that address unusual circumstances or special considerations. Again, be careful of how much detail is in the template. No stakeholder should get the impression they are being given a standard SA.

When comparing several SAs within a single IT organization, it is frequently found that there are many kinds of formats, styles, layouts, and verbiage being used. These are situations that should be avoided, especially when trying to minimizing downtime of critical applications to prevent loss of business. InterpromUSA (2002) recommends using a standard template when defining SAs, and that the client must insist that their vendor uses their templates and definitions.

Experience is also an aspect that needs careful consideration. An expert in the development of SAs will know which aspects will require negotiation and consensus and which aspects are simply industry standards.

4.4 People Involved

The SA defines the roles of both the client and the SP. As a result, the client understands exactly what they are expected to do. The SP is also agreeing on what needs to be done on the client's behalf. It is critical to involve all client stakeholders who will be responsible for ensuring SA compliance in the SA development process (Allen, Gabbard, May, 2003).

Texas Telecommunications Infrastructure Fund Board (unknown) distinguishes between three main types of people involved in the creation of a SA. They are: the

client, the SP, and the user. When developing and managing the SA the client organization interfaces with the SP in two distinct ways.

1. The client party, purchaser of the service, is responsible for developing the SA with the SP team.
2. The client and SP must agree to terms of the SA and the client is responsible for using the service according to the SA.

The Users of the service discuss day-to-day operational issues with the SP and give important feedback to the service team on the performance of the service and service improvement recommendations. It is imperative to identify, at the outset of an SA development project, those who will play these major roles in the organization (Texas Telecommunications Infrastructure Fund Board, unknown)

In order for the SA to document these aspects properly, all individuals involved in the eventual delivery of these services needs to be involved in the development process. According to Allen, Gabbard and May (2003), Caine (1997), Karten (1999, 2004) and Texas Telecommunications Infrastructure Fund Board (unknown), the following stakeholders should always be involved in the negotiations to varying degrees:

- Supplier or SP: *provides the range of services to one or more organizations*

- Client: *buyer of the service. The client will buy services from the supplier in response to user's needs*

- User*: one who uses all or some of the services described in the SA*

- Service Manager*: person in the client organization responsible for ensuring the availability of all services to the user according to the agreed SA and any related contracts. Typically, the service manager will be responsible for a related group of services and will run several service teams. Service managers should have a good understanding of the business and how it uses the services*

- Service Team*: group responsible for defining all service deliverables and establishing measures for these deliverables. One person may be a member of*

several service teams. The team often comprises the supplier, the client and the user staff (from divisions including Sales and Marketing, Finance, and IT)

- Finance Manager: *The primary reason for entering into an SA is frequently financial. The financial manager can also lend the process considerable credibility*.

- Legal Advisors: *A legal adviser with experience in outsourcing contracts is able to provide valuable input into the issues that need to be addressed, such as the schedules that need to be prepared, and the various options available for structuring the relationship for example.*

Whatever approach to development is taken it is important at a very early stage to form a project team which should prepare a project plan which includes all the activities that need to be undertaken to reach a successful sign-off of the SA. Once the team has briefed itself on the range of issues that need to be addressed, it is then possible for subject matter experts to commence preparation of the relevant parts of the Agreement. It is essential, however, that the whole team work together to put the SA together.

Because the organisation that is about to embark on an outsourcing project has probably never been involved in one of these transactions before, it is essential that it assesses at an early stage the sort of advice and assistance that is needed to successfully complete the transaction. Caine (1997) states that one of the mistakes that many organisations make is assuming that since they have been involved in the provision of the service, that they will know how to draw-up the documentation which describes the services to be provided and the levels at which these are to be provided. Experience suggests, however, that it is often extremely difficult for these people to carry out this task and it is usually advisable to seek assistance from a person who has experience in preparing such documentation (Caine, 1997). Consultants should be approached to assist in this regard.

In complex software licensing and software development projects, as well as outsourcing arrangements, the transaction documents consist initially of a master agreement and a series of schedules, project plans, and SLAs. Later, the parties will enter into various statements of works and amendments to govern new work. Tanenbaum (2004) believes that litigations arising from these agreements are often fact intensive and involve the definition of the parties' obligations, software functionality, the exact scope of outsource services, and whether performance justified payment and at what price. These issues are governed in many cases by service level schedules, statements of works, and other technical documents. Because of the litigation impact of these documents, there is a danger in having them drafted solely by technical personnel. For this reason, it is important that lawyers are involved in the drafting of these documents. It is important that the lawyers understand the technical terminology or work closely with experts who do.

Unless the team works together the SA is unlikely to be coherent, workable or effectively able to manage the provision of the services from the new SP.

4.5 Relationships in the Partnership

Well structured SA's are recognised as an important step in managing the expectations between SPs and the clients. Although it takes effort to both implement and maintain, an SA is in the best interest of both the SP and the client. By developing a set of mutually agreed-upon service characteristics, clients know which services and response times are provided. They also know at what baseline costs these services are provided (Wylder, 1998). The SP can show that it is providing timely services to corporate management and department users in language that is understandable to them. A SA provides a framework for getting additional IT resources when adding applications or improving existing services.

In an SA, both the client and the SP will pursue their own goals while being concerned about their own lack of complete project control and wary of opportunistic behaviour by their partner. These problems may be reduced somewhat through cautious vendor selection and appropriate structures (Sabherwal, 1999), but they also require development of trust between the participants. It is especially seen in

Outsourcing relationships that because participants from both sides often lack prior business relationships with one another and take a short-term, project-centred view. Moreover, trust can be difficult to develop in Outsourcing projects, which are often governed through structural mechanisms, including deliverables, penalty clauses, and reporting arrangements (Sabherwal, 1999).

Hartman and Romanhn (1999) argue that there are three different kinds of trust:

1. Competence Trust (A trusts B to do a good job because A assumes that B has the required knowledge and skills);
2. Ethical Trust (A trusts B because A assumes that B will behave according to A's expectations and will take care of A's interest);
3. Emotional Trust (A trusts B because A likes B).

These types of trust do not just comprise different levels or strengths of trust, but are based on different sources: on proof (competence trust), expectation, experience and observation (ethical trust) or on feelings and preferences (emotional trust). They exist and develop relatively independently from each other. Consequently, the level of trust one party displays is not just one-dimensional, but three-dimensional - the combination of three levels of three different types of trust. Furthermore, trust is dynamic - it depends on the situation, the other party and changes over the course of the relationship.

Sabherwa (1999) found in his case studies that distrust has a negative impact on performance, whereas trust improves performance. Distrust can lead to finger pointing, as each organization focuses on its own interests, seeking to identify how the other organization may have hurt the project. In contrast, trust characterises successful projects. Mutual trust encourages participants to work together rather than seek ways to deflect blame.

An SA should not be considered merely as a formal contract between financial and legal representatives of a client and an SP. This restricts the practical operational value of an SA considerably. According to Bouman, *et al* (1999), consensus building is one of the major aspects of SA specification. This covers:

- Content Agreement (both services and service levels)
- Conflict prevention (SP promises versus client expectations)
- Distinction between service processes (of a SP) and the business process (in a company)
- Expectation management (expectations are not stable, expectations change) (Bouman, *et al,* 1999).

Matlus and Brittian (2002) agree, stating that service levels are not often met because of the lack of communication between SPs, clients and users with reference to the service levels. Therefore, good communication is necessary for reaching consensus concerning which items to include in the service levels, setting end-user expectations, developing trust and developing the procedures governing how these items are reported.

It is known that, over time, users start to expect more, in terms of speed, functionality, and availability. This is compounded by the increased usage and demand on the underlying infrastructure. There is potential for growth in the number of users accessing systems, additional applications being loaded on servers, and new technology being added to the service provision mixture, all of which taxes infrastructure performance. According to Sturm (2003), good SAs help to avoid this phenomenon by involving all parties in active ongoing negotiations about service levels and what it takes to achieve them. SAs should be revisited periodically to refresh everyone's memory. If service levels decrease, the SP can point to changes in these circumstances as clear reasons why, and both parties can go back to the table to renegotiate the agreement (Strum, 2003). In this kind of situation a healthy trusting relationship is needed between the two parties in order for a consensus to be reached.

Wylder (1998) believes that the SP and business units must develop SA's in partnership. A SA should outline what business users can expect in terms of system response, quantities of work processed, system availability and system reliability. An SA should also detail the measurement procedures to collect the service-level data and any limitations to the agreed-upon service provisions. It is critical to describe the services in terms that business users understand.

Smith (1995) rationalizes that the success of the relationship between the SP and the client depends on essential components including:

- A clear understanding of the supplier's capacity to provide a service
- A similar understanding of the consumer's expectations of this service
- An appreciation of the limitation of each
- An agreement that addresses all of these
- Ongoing management of the relationship based on that agreement

The various authors mentioned in this section believe that relationship building is of prime importance. Together with the formal contract, a spirit of cooperation needs to be developed, that will enhance the relationship and maintain it during times of difficulty.

4.6 Scope of Services

4.6.1 Determining Available Services

A service catalogue enables a negotiating party to know what services the SP can provide and hence what services can be specified in the SA. The service catalogue is often overlooked in its importance (Smit, 2004). The best way to approach the population of a service catalogue is to understand what Services the clients perceive. Smit (2004) suggests that it is not uncommon for a client to have a single service that is made up from three or four separate applications where at least one of these is invisible to the business.

Asking clients what services they use is a starting point to documenting what goes in to the service catalogue. Where the complete set of ICT processes are in use it will be possible to get some of this information from the service desk who receive comments directly from clients on the services provided (Smit, 2004). Smit (2004) believes that each service in a service catalogue should be documented in respect of its:

- Service Name
- Basic Service Description
- Key Business Users

- Importance of Service
- Key Support areas
- Planned Maintenance/Outage data
- SLA (in place and where it is located)
- Metrics associated with this service

By providing slightly more information, it is possible for a support desk to use this resource to support the allocation of priority to faults and direct incidents to the relevant support area.

It is important to note the difference between a service catalogue and a service portfolio. A service portfolio is a high-level marketing document that details the services on offer. These services do not need to be tied to metrics and costs. A service catalogue comprises be a more detailed description of the services provided and often includes the infrastructure, the software and even the people who deliver the service.

The service catalogue is the primary documented source of information pertaining to what services an SP can provide and at what level of service they can be supplied. Ward (2001), on behalf of the TechRepublic organisation, released an excellent guide to developing a Service Catalogue (See Appendix D).

4.6.2 Deciding Which Services To Outsource

The most important part of every SA is the description of the services that are to be provided by the SP. Caine (1997) believes that this is one of the most difficult tasks encountered when preparing the SA. It is often the case in an organisation that the group (in-house sp) which has been providing the services to be outsourced have a deeply entrenched, informal, and ad hoc relationship with the users of the services that has been built up over a long period of time. Over this period, the internal SP has provided a range of services - some of which are clearly identifiable, but others may be hidden, for example because specific services are provided to selected individuals such as the Managing Director, the Head of the Department. It is also often the case that no attempt has ever been made to define the services that the in-house SP is

providing. Those organisations without any formal service provision arrangements find it most difficult to define the scope of the services (Caine, 1997).

For other Clients, it is easier to define the services or functions that should be outsourced. This would be the case, for example, where there are already internal arrangements which have all the features of a service provision arrangement. These organisations may be planning only to outsource these particular services or they may have in mind broadening the range of functions that are to be outsourced. Either way, some of the difficulty of defining services and service levels has already been gone through.

In addition to finding it difficult to define precisely what services are being provided and the levels at which these are to be provided, Caine (1997) advocates that clients are often not sure which functions to outsource because they are not sure what SPs can deliver and how much this will cost. If a Client is not sure what to outsource, one approach may be to include in the request for proposal a wide range of functions that are capable of being outsourced and include a requirement in the documentation that the potential SP unbundle, and provide separate pricing for, these functions. For example, the Client may decide to approach the market place with a proposal to outsource all of its IT functions which may include:

- The data centre
- Applications development
- Applications maintenance
- Desktop services;
- Telecommunications
- Disaster recovery
- Training

When a client does not know which services to outsource, it frequently issues a request for proposal (RFP) documentation stating that it would only outsource those areas where it proves cost effective to do so. Potential SPs are asked to provide full details of how they would provide the range of services.

Just as important as defining the services that are to be outsourced, is defining the services that the client wishes to keep in-house (Caine, 1997). This is an issue that should be given careful consideration because many of the benefits of outsourcing functions to an external SP can be lost if the SP's task is made difficult because of important, lingering linkages to certain sections of the organisation which had close links with the previous in-house SP. Sometimes it is difficult for an organisation that has been performing the services itself for a long period to surrender control of certain areas which it regards as important. However, if the organisation does not surrender control, many of the benefits that could arise from outsourcing may be lost.

4.6.3 How To Outsource Services

In addition to defining what functions to outsource, many Clients have a difficult time determining which sites to include in the outsourcing arrangement. Clients organisations can be spread across different geographic locations. The clients must decide if just one site is to be outsourced or if all the sites to be outsourced.

Another factor affecting this decision is the Client's management structure. If a Client has a decentralised structure, it is often difficult to reach a consensus about which site should be outsourced. The managers often have conflicting ideas about whether or not outsourcing is the right solution for all sites. This is usually less of a factor in public sector agencies where the decision to outsource is often made as a result of a centralised policy decision.

Caine (1997) lists further issues to be considered when defining the scope of the services to be outsourced:
Whether or not:

- the Client currently provides services to other entities and if these services are to be included in the scope
- the end users of the services have been established (employees, Clients, suppliers, independent consultants)
- there are any existing outsourcing/subcontracting arrangements in place that cover the services to be outsourced. If so, what are the costs associated with terminating or transferring these relationships

- assets will be sold or leased to the SP.
- the Client has imposed a condition that their current employees are to be transferred to the successful SP
- there are any alternative structures that should be considered for the purposes of providing the services - such as forming a joint venture with the SP or creating a separate legal entity out of the area to be outsourced and then selling that entity to the SP

It is also important for any client wishing to outsource to have a strong understanding of the tasks performed by the staff currently responsible for the functions to be outsourced. Caine (1997) suggests that it is important to address these issues early in the transaction for a number of reasons:

- If the Client does not know what services its staff provide, it is difficult to define the services the client wants the SP to provide
- If the information that is provided to it is not comprehensive and accurate, it is extremely difficult for the SP to respond with useful, accurate information in relation to the services and costings
- If the Client does not have a clear and comprehensive understanding of its current tasks, the client is in a vulnerable position when it enters into negotiations with the SP. The Client may find itself on the back foot during negotiations and unable to negotiate a cost effective deal.

Another area that is often overlooked until too late is the identification of those services that are regarded as "critical". It is crucial that these services be identified early in the SA development. If the Client has an understanding of its critical functions, it can negotiate higher standards and of course more stringent remedies if these critical functions are not met.

4.6.4 Factors Influencing The Service Specification

The most important part of every SA is the description of the services to be provided by the SP. It is most important that the Client prepare this list itself because it is in the best position to be able to do this. It is also important that when the Agreement is signed, the Agreement contains a comprehensive list of these services. If it is

discovered after the Agreement is signed that other services (which were already provided, but not listed in the Agreement) need to be provided, the SP will understandably wish to charge an additional amount for the provision of these services.

The services being outsourced also need to be defined fully in which case the Client can be sure that it has brought to the attention of the SP the services that it requires (Caine, 1997). The SP can not be expected to know that the Client wishes a service to be provided, if the service is not described in the Agreement.

As part of the effort to describe the services to the greatest and most accurate extent possible, a number of Clients hire a consultant familiar with outsourcing transactions to develop a comprehensive list of the services and the service levels historically provided by the in-house SP (Caine, 1997). Clients are often reluctant to hire a consultant to perform this task because they think that they should be able to do it themselves - since they have been providing the services themselves for a considerable period. It is counter-productive to allow feelings of embarrassment or inadequacy to intrude in what is an absolutely critical task if the organisation wants to outsource particular functions effectively. It is often the quickest and most effective way to have such a list prepared - particularly if the in-house SP is disenchanted that the services they provide are to be outsourced.

It is important to manage clients expectations in respect of the abilities of the SP. Koch (1998) states that Sun's employees often spend 12-hour days working at home or on the road, and they expect the SP to fix their broken computers wherever they are. Koch (1998) advocates talking out these expectations and the resource commitments necessary to meet them as the only way to create successful SAs. Do not start with what the SP think people's expectations are or should be; start by asking people what are their expectations. Often the expectations are higher than what is reasonable.

Before an outsourcing relationship begins, stakeholders need to be aware of changes that need to take place before the services can be provided. It would be useful for both parties to have a clear understanding of the assets that the Client owns and if there is

any thought that the SP is going to purchase these. Even if the SP is not going to purchase any equipment but is required to maintain these, upgrade them or replace them, it is extremely important that a comprehensive and accurate list of assets be prepared.

4.7 Defining Service Levels

An issue that needs to be considered early on in the SA development is service levels. Issues that need to be decided in relation to service levels are: the current level of service; the intended level of service; the measurement of the services; and the existence of industry standards for the services.

Service levels are an important aspect of the SA. Yet very often little attention is paid to these until very late in the transaction. Many of the same issues arise in defining service levels as arise in defining the scope of the services to be outsourced, for example, the in-house SPs have no expertise in preparing service level information and are reluctant to start doing this now because of they see no reason why the services should be outsourced. Maurer, Scardino and Young (2004) state that in order to ensure success in SA engagements, the development team must use a structured methodology to define service levels that is effective in achieving business objectives and driving the desired behaviours from external service providers.

SPs are often willing to commit to providing service levels that the Client is currently providing, or even better than what the Client is currently providing (Caine, 1997). But if the Client is not certain what service levels it is currently providing, not only is it difficult for the SP to provide accurate costings, it is not technically possible for the SP to agree to meet the level of services currently being provided.

In some cases, if the Client has been unable or is unwilling to provide details of service levels to the SP, the SP will often take the position that it will measure the service levels over a period of time after the SA has been signed - either within a specified period or, worse, no period of time is set for these details to be provided. It is simply not possible for the Client to monitor the service levels, if there is no accurate information on day one about what the service levels are. It is therefore

impossible to be sure that the Client is getting value for money from the SP (Caine, 1997). It is also impossible for the Client to exercise any rights it may have to rebates if it does not know whether the SP is meeting the service levels or not.

The more information the Client has about its existing service levels the better the service levels it will be able to negotiate, and the easier it will be to monitor the SP's performance after the Agreement has been signed.

If the Client is having difficulty preparing comprehensive and accurate service levels, it is advisable to seek expert assistance as soon as possible. Without detailed service levels and performance standards, it is impossible to measure the SP's performance or effectively manage the SP. Service levels are significant because they are often tied to a rebate provisions or a liquidated damages clause which requires the SP to pay damages, issue credits or forego certain payments, if it fails to meet the specified service levels. A survey conducted by Savvas (2004) found that SPs were struggling to stay one step ahead of degradation problems. In 68% of SPs surveyed, staff only learned of performance degradation when end-users notified them. Some SPs of those surveyed in the UK said they only became aware when the systems crashed.

The majority of the Service Levels in an SA need to be measurable. For the SLAs that are not measurable, both parties must be very careful with the description that is used to qualify the level of service expected. Many SAs, like many other Service Contracts, often provide that the client or the SP must use its "best efforts" or "reasonable efforts" in taking certain actions and preventing certain occurrences under the Agreement. The precise meaning of "best efforts" is elusive. While the courts have generally recognised such obligations as substantial and legally enforceable, finding a generalised meaning for the term "best efforts" has proved difficult. The courts have consistently held that the term "best efforts" is vague and is subject to an analysis of all the surrounding circumstances. A party charged with an obligation to use its "best efforts" must perform to the extent of his or her total capabilities (Caine, 1997). Just what this standard entails depends on the particular case and the agreement involved. Caine (1997) advises any Client strongly against any move to include a clause in the SA which specified that the SP was to use "best efforts" to meet the service levels.

In relation to defining "reasonable efforts", the courts have been equally ambiguous. It appears that the courts have concluded that this standard is no higher when the obligation is explicit than when the obligation has been omitted. The courts have stated that every contract contains an implied covenant that the parties will act in good faith and that their dealings will be fair (Caine, 1997).

If the courts have difficulty deciding what "best efforts" and "reasonable efforts" mean, how much more difficultly will the Client and the SP have in agreeing on what this standard means. In all circumstances, it is far preferable to state in the SA that the SP will provide the services at the levels specified in the Agreement, and the Agreement should specify precisely what those levels are. Frequently an IT metric is not a true reflection of the value of a service provision as it does not address the impact to the business of good or bad service (Yarnell, 2004). In that way, the Client knows what to expect and the SP knows what to provide. The SP also knows how to cost the services and is less likely to raise the service charges as soon as the SA is signed.

Sturm (2001) suggests that when the negotiation team specifies actual metrics for the SLAs, they should adopt a client perspective that is, they should take an end-to-end view and not a component-by-component perspective. For example, separate metrics should not be specified for the network (or even worse, network components), servers and application(s). If such metrics are used it will appear as if an attempt is being made to conceal the actual results and credibility will be lost.

4.8 Remedies for Non-Performance

4.8.1 Non-Performance

As mentioned above, SAs which include SLA's are usually inherently more complex and wide-ranging than simpler service contracts. These arrangements usually involve not only the provision of services but often the sale of the client's assets and the elimination of a large number of positions from within the client's organisation. Because of this, clients are in a very vulnerable position when the SP does not provide the services at the agreed level. For this reason, it is wise to include various measures

in the SA that can be implemented in an escalating fashion when the SP does not meet its obligation.

For obvious reasons, it may be extremely difficult to terminate the Agreement immediately and attempt either to provide the services in-house or take on a new SP. One of the easiest ways to ensure that the SP meets its obligations is to put in place management arrangements which entail regular reviews of the SP's performance (Caine, 1997). Initially regular monthly reviews are recommended which can be altered to quarterly or even biannually reviews. These arrangements should also ensure that the users are regularly surveyed to ensure that the SLA accurately reflects what the users wants, and that the users are in fact getting the service that they require.

4.8.2 **Detecting Non-Performance**

It may be that the Agreement, especially the SLA part of the Agreement, does not actually provide precise details of the levels of service that the Client requires. While this should have been done before the SA was signed, it is better to discover the inadequacies of the Agreement early on in the relationship than later on (Caine, 1997). Unfortunately, however, if the Client attempts to introduce new services or new service levels into the Agreement after the Agreement is signed, it will almost certainly result in additional charges from the SP. Obviously it is preferable that all these details are settled before the Agreement is signed.

If the SA does in fact specify precisely the services that the Client is to receive, and at what level, the outsourcing agreement will proceed smoothly only by proper and effective management of all aspects of the Agreement. It is obviously in everybody's interest to ensure that obligations are properly met by both parties and that any tendency towards non-performance is picked up at an early stage and eliminated.

Caine (1997) states that clients are very quick to suggest the SP is at fault, if there are any problems about non-performance. However, it is often the case that it is directly or indirectly the Client's fault that the SP is not meeting its obligations. For example, the Client may have had an obligation to provide certain information, or to carry out

certain tasks, or to provide certain equipment. Instead of suggesting that the SP is at fault and moving to invoke remedies for non-performance, it is essential that the Clients ensure that they are meeting all of their obligations and not hindering the SP in the performance of its obligations.

Several of the SLAs contained in the SA should stipulate the use of reports to track and manage SLA compliance. Often, these reports are generated and provided for the client by the service provider (Cronk, *et al*, 2004). Any Service Agreement that contains SLAs that require the use of reports to aid in management should also specify the details of the reports. At a minimum, details should specify the frequency of the report, content, method generated, method of delivery (or availability if web-based), frequency of reporting and availability for client review. Engel (2002) believes that this type of arrangement keeps both parties honest. The major benefits of reporting are that the client sees if the service provider is delivering the appropriate service and the SP may use performance reports to alert the client to other potential problems that may be unrelated to the SP.

4.8.3 **Resolution for Non-Performance**

Once the Client has established that it is in fact the SP who is at fault, it is important to have management and escalation arrangements in place which ensure that the non-performance issue can be dealt with quickly, effectively and in a manner that will not damage the delicate relationship between the parties. In an SA of any size, it is important to ensure that a committee is established at the identification of a non-compliance issue. This committee should comprise key personnel from the SP's organisation and key personnel from the Client's organisation that can regularly consider any issues that arise. This committee could meet weekly, fortnightly or monthly.

While a formal meeting may be appropriate on a monthly basis, there should be more informal meetings far more regularly if there are critical services that are being provided. If an issue of non-performance does arise this should be initially discussed at the lowest management level to see if the issue can be resolved. If the issues cannot be resolved, then the matter should be immediately escalated to the committee for its

consideration (Caine, 1997). The committee should consider the issue in detail, assess whether there have been past issues of non-performance, how long the non-performance has been continuing, how serious the non-performance is etc. Hopefully the SP will realise the seriousness of the situation and take steps immediately to remedy or eliminate the non-performance. If the non-performance continues, then the contractual remedies need to be invoked.

The contractual remedies for non-performance should also be invoked in an escalating manner. Caine (1997) lists two commonly used remedies for non-performance. These remedies are variations on the same theme.

1. One of the remedies for non-performance is liquidated damages. Liquidated damages are an agreed on monetary remedy which is to be paid to the Client in the event of a specified breach by the SP. The amount of liquidated damages must be a genuine pre-estimate of the damage that the Client is likely to incur if a specified breach occurs. Clients often have great difficulty trying to assess what this amount should be, and many Clients abandon this as a remedy because of this difficulty.

   It is, however, a useful remedy and one that is both effective in the short-term and may stave off termination which is both damaging and disruptive to both parties. It is important, however, that the amount agreed as liquidated damages should be a genuine pre-estimate. If the amount is too high, the courts will refuse to enforce the provision because they would deem it to be a penalty. The Client would then be forced to take legal action for breach of the contract in the normal course of events - which is both time consuming and costly. If the amount of liquidated damages if far below the amount that the Client is likely to suffer if there is the specified breach, then the Client will not be receiving fair compensation for those breaches, and it is not therefore in the Client's interests to fix this figure too low.

2. Rebate clauses are clauses that take the form of adjustments to the base fee under the Agreement. For example, if the SP fails to perform according to the service levels for a specified period of time, the rebate to the Client might take

the form of a credit against the next month's base fee (or a reduction in the amount that is payable to the SP). A provision of this nature is likely to be viewed as a liquidated damages clause by a court. Thus, if the provision fixes an unreasonably large amount to be foregone by the SP, it may be regarded as a penalty.

The unreasonableness of a liquidated damages provision is judged at the time the Agreement was entered into as opposed to the time at which the damage arose. Although SPs typically resist including a liquidated damages clause in the Agreement, a persistent Client can get the SP to accept such a clause, if the amount that is proposed is reasonable and a cap is placed on the amount of such damages payable.

It is important for a Client to realise that an enforceable liquidated damages provision precludes the Client from claiming actual damages for the specified breach. A Client cannot have both liquidated damages and actual damages, since the intent of the liquidated damages provision is to fix the amount of damages in instances where the precise damages are difficult to prove, or the parties wish to avoid protracted litigation.

4.8.4 **Termination**

The ultimate remedy for non-performance is the termination of the Agreement. All SAs should provide a means by which either party may terminate the Agreement on the occurrence of certain events (Caine, 1997). Most termination clauses in an SA provide specified grounds for termination by the Client.

Caine (1997) lists seven of the most common grounds for termination of a SA.

1. If the SP has failed to provide the service at the agreed service level for a significant period of time, 3 months for example
2. If the SP has breached the Client's confidential information in a serious manner
3. If the SP assigns its rights otherwise than in accordance with the Agreement
4. If the SP becomes subject to any form of insolvency administration

5. If there is a change in the ownership of the Client which, in the Client's view, will adversely affect the provision of the services
6. If the SP has committed a "material" breach of the agreement to the extent that the Client, acting reasonably, considers it inappropriate that the Agreement continues
7. If the Client is in breach of its obligation to pay the service fees for a defined period of time, 3 months for example

Caine (1997) clarifies this further by suggesting that there is often a tendency to include in an SA a provision whereby the client may terminate where there is a "serious breach" or a "material breach" of the agreement. There is usually very little agreement between the parties during development of the SA about what these expressions actually mean. What is "material" or "serious" to one party may be not "serious" or "material" to the other party. All that these expressions do is create further antagonism and uncertainty and make it more difficult to resolve the situation. If one party insists on using the expression "material" or "serious" then it is advisable for the other party to ask for a definition of what that party means by those expressions. If the party is not able to provide an explanation about what they mean, then it is advisable not to proceed with the use of these expressions. If the party is able to provide a clear explanation of what they mean by a "serious" or "material" breach, then these grounds should go into the termination clause as explicit grounds for termination.

Another common ground for termination of an SA is if the breaching party has failed to perform any of its obligations under the agreement, which breach has not been remedied by the breaching party after notice has been provided by the injured party. The injured party would normally give the breaching party a certain period to remedy the breach (such as 30 days, 60 days, 90 days). If this breach has not been remedied by the expiration of this period, the injured party may terminate the Agreement.

When establishing the remedy period, the Client should consider how long it can realistically wait for the SP to remedy the breach. In some cases, a 24 hour period during which services are not provided will cripple a Client's business. As a result, it is often necessary to establish different periods for different breaches.

An issue highlighted in recent years by terrorism is the need to rethink the purpose of *force majeure* provisions. Tanenbaum (2004) suggests that *force majeure* provisions be combined and coordinated with disaster recovery and business continuation provisions. Disaster recovery and business continuation plans are meant to operate when certain *force majeure* events occur. The *force majeure* provision should not operate to relieve the vendor of the obligation to perform. While *force majeure* events might reduce the obligations of the vendor, they should not eliminate them. Instead, the contact should require the vendor do be part of the disaster recovery and business continuation process. In essence, the contract should specify the acts the vendor is to take in the event of particular *force majeure* events instead of simply excusing vendor performance.

4.9 Maintaining Flexibility

SAs are rarely for a term of less than three years and often extend for up to 10 years. Over such a period of time, the needs of the client's business change.

Given the inevitability of change, it is important for flexibility to be built into an SA. The consequences for certain organisations of not having built flexibility into their SAs are becoming more evident. One of the characteristics of the so-called "second wave of outsourcing" is the renegotiation of SAs because the SLAs which were originally agreed, say three or five years ago, no longer match the organisation's business requirements (Gray, 2000).

Frequently in IT outsourcing transactions, the SP charges the client on the basis of service volumes. For example, the client can agree to pay the SP on a per transaction basis. This allows for a certain amount of change in the requirements of the client without the need to amend the SA. This would be done on a long term contract, if the parties envisaged that volumes of card transactions, and volumes of ticket sales, could vary significantly.

Clients should consider whether or not to build into their SAs a capacity either to increase the scope of the services being provided by the SP, or to decrease the scope.

An SA could increase in scope as follows:

- On day one, the SP takes over the desktop functions
- If the SP performs satisfactorily in relation to the SLAs for desktop functions, the client brings into scope the provision of help desk functions
- If the SP performs satisfactorily against the SLAs for help desk functions, then corporate applications support is brought into scope
- Finally, network support is brought into scope, if the SP meets all SLAs.

Conversely, the client seeks to include in the SA a right to drop particular service functions out of scope in the event of continual sub-standard performance against SLAs.

Changes in technology may lead the client to require new types of services, and render current services obsolete (Gray, 2000). Usually, the parties include in their agreement a mechanism to accommodate such change, for example, a "change control" clause.

Unless the service level agreement can accommodate changes in technology, the client who enters into a long-term outsourcing arrangement risks being locked into paying for a range of services that may become obsolete (Gray, 2000).

Some SAs are intended to compel the SP to utilise the most up-to-date technology in the provision of the services.

Another specific variable which the parties should consider is the likelihood of change in the cost of living or change in salaries for ICT professionals. Such changes impact upon the rates which the SP pays for the personnel it engages to provide the service (Gray, 2000). It is in the SP's interests to ensure that the SA ties fees or prices to changes in an index, which reflects inflation, for example, the Consumer Price Index (CPI). Over a three, five or ten year term, this could be significant.

Whilst adjustments to reflect changes in CPI usually benefit the SP, other adjustments might benefit the client. If the cost of information technological resources are

declining or if the parties expect that efficiencies in service delivery over time will enable the SP to reduce its costs, "open book" pricing, under which the SP is able to charge for its services a fee which represents a specific, pre-agreed margin on its actual cost of providing the services, will generally benefit the client (Gray, 2000). Such open book pricing arrangements necessitate the inclusion in the SA of a mechanism which enables the client to verify the SP's costs. Verification might take place by way of periodic audit by the client and its consultants, such as auditors retained by the client.

A further layer of sophistication in such pricing arrangements, is to include terms to the effect that the SP's fees must remain at a specific percentage below the equivalent standard industry fees. This obviously raises the difficult issue of identifying a benchmark which represents the industry standard for such fees (Gray, 2000).

Gray (2000) frequently advises those who are in the process of outsourcing to accommodate business change by layering the pricing in SAs, and by avoiding aggregated or lump sum pricing structures. Layered pricing refers to pricing which is broken down and allocated to the various specific elements of the service which is to be provided. Thus, change in one element can be accommodated more easily, without necessarily requiring renegotiation of all pricing.

Assuming that the parties have recognised that change is inevitable, and built flexibility into their SAs, change must be managed (Gray, 2000).

The SA has the important function of documenting certain agreed expectations, and obligations, of the parties. It is critical that the SA documentation remain current with changes the parties may implement in the course of their relationship. Unless the underlying contractual documentation is correct, the parties have no certainty as to their rights and obligations, and their relationship at large.

Gray (2000) and Caine (1997) advise SA participants to include in their SAs formal procedures for implementing changes to SAs. Under such procedures, changes required by a party must be documented, and submitted for assessment by the other party. Only following assessment and full consideration by the parties of the impact of

the change on such things as fees and timeframes, does the change get implemented. Once the parties have agreed on the change, the formal contractual documentation is amended.

4.10 The Development Principles

This chapter has explored each of these DPs in detail, and from this exploration, the DP's can be further defined by a number of Supporting Conditions (SCs).

	Item
Negotiation Period	
	Complexity of the Agreement
	Proximity of the Parties
	State of the Relationship at the beginning of the negotiations
	Prior SA experience
Preparation	
	Form SA Project Team
	Establish ground rules for working together
	Set Document and Formatting Styles
	Review Past SA experiences
	Construct an SA Outline to Start Negotiations with
	Delegate responsibilities
People	
	Uses a Review Board
	Involves Service Provider
	Involves Client
	Involves User
	Involves Service Manager
	Involves Service Team
	Involves Finance Manager
	Involves Legal Advisor
	Emphasises Project Planning
	Promotes Team Work
	Advises Seeking Expert Assistance
Relationship	
	Emphasis on the Spirit of the SA
	States importance of consensus building
	Demands constant Communication between SP, Client and Users
	Stipulates active ongoing negotiations
	Promote clear understanding of SP Capacity and Clients Expectations

Table 4.10.1 Supporting Conditions of the Development Principles

Scope	
	Service Catalogue
	Deciding what to outsource
	Defining the scope of the Services to be outsourced
	Deciding what to keep in-house
	Engaging the staff currently providing the services
	Deciding which services are critical
	Whether or not to hire a consultant to help defining services
	Payment Terms
	Additional/New Services Should not be discouraged.
Service Levels	
	The current level of Service
	The intended level of Service
	The Measurement of Services
	Who will measure services and how
	Defining actual metrics for the measurement of services
	Scheduled Downtime
Non-Compliance	
	Regular Reviews of SP performance
	Survey users
	Using reports to track and manage SA compliance
	Contractual Remedies (Penalties and/or Rewards)
	The inclusion of a Termination clause
Flexibility	
	Building in Flexibility
	Contract Length
	Including Formal Procedures for implementing changes in the SA
	Tie fees to inflation indexes

Table 4.10.1 Supporting Conditions of the Development Principles

Each of the DPs is now discussed with respect to its SPs to provide clarity.

4.10.1 The Negotiation Period

This development principle is focused on the amount of time it takes to develop an SA and the major factors that can influence this. There are a number of factors that influence the length of the SA negotiations. If the SA is complex, in terms of the number of services documented in it, a longer time is required for a successful SA to be developed. The proximity of stakeholders can influence the negotiation period as the greater the distance between the stakeholders of an SA, the longer it takes to develop the said SA. If the stakeholders had a business relationship prior to the SA development then this decreases the time required for the negotiations. The final

factor is prior SA experience. Previous experience in developing SAs will rapidly reduce the time required for the negotiations.

4.10.2 **Preparation**

This development principle refers to the primary functions that any project has and refers to the initial groundwork that needs to be completed before the project can commence. However, stakeholders frequently rush the preparation step because they are eager to begin the negotiations. A number of factors can be identified under this principle.

The first factor refers to the creation of a SA development team. This is seen as an indication of top management's support of an SA negotiation. The team then needs to establish of ground rules for working together. These are generally trivial rules such as "no cellphones in meetings", but they limit unnecessary confrontation in a process that can be fraught with tension. The SA development team then should review prior SA experiences. The development team should collate a list of processes and procedures from these past experiences so they can leverage these in the negotiations.

Another important factor refers to the setting of simple document formatting standards. Although trivial, this can greatly reduce tension and frustration further on in the negotiations. The negotiation team needs to develop an SA template, using these formatting styles. A template serves as a base from which to start negotiations and is not a standard contract. The template can be used as a rough road map for the development and initial responsibilities of the development team members can be delegated.

4.10.3 **People Involved**

This development principle is concerned with the people that need to be involved in the development process and how best to involve them. The major contention of this principle is that all stakeholders in the SA must be involved in the negotiations. It details a number of different stakeholders and why their involvement is important. With this large number of people involved in negotiations, team work must be heavily

promoted. If the stakeholders are not experienced in the development of SAs, they should hire external expertise.

4.10.4 Relationships in the Partnership

This development principle refers to the interaction that occurs between the stakeholders during the negotiations and what should result from them. The SA development process is as important as the final document. It is about developing trust. Trust is not something that can be forcibly developed, or something that can be documented. It grows naturally during interactions between the stakeholders. So, logically, the more these parties interact, the more trust is cultivated among the stakeholders. This trust evolves into a conciliatory attitude that is necessary for the SA to be successful once it is implemented.

Constant communication must between all stakeholders, with a strong emphasis on consensus building. Stakeholders must agree on levels of, provision of, and monitoring of services. This is more easily attainable, if there is a clear understanding of the supplier's capacity and the clients'/users' expectations.

4.10.5 Scope of Services

This development principle is concerned with the identification and definition of services. The SP (either in-house or external) needs to develop a Service Catalogue. This should be done prior to the SA development process and should detail the services that the SP can provide and at what service levels. If services are being outsourced, the major decision is which services ought to be outsourced and which ought to remain in-house.

It is important that discussion of new or additional services not be discouraged during the initial SA development process as this is frequently the initial reason for beginning the SA development process. Once the services to be outsourced have been identified, they need to be defined. SAs are not easily understood by the individuals who need to use them. The stakeholders should expend a large amount of energy trying to reduce the amount of technical and legal terminology used in the SA.

4.10.6 Defining Service Levels

This development principle, although small, has great importance in the development process and refers to the identification and specification of initial, intended and desired levels of service. It is these levels that govern and ultimately maintain the relationship between the stakeholders.

4.10.7 Remedies for non-performance

This development principle details procedures for situations when service levels are not maintained. Using the metrics and their measurement, the SP should submit detailed reports to the client at regular intervals detailing the service provision and the SPs performance in terms of meeting the SLAs. This should be coupled with regular surveys of users to ensure the SP is performing effectively. Contractual remedies for the SP not meeting the agreed upon SLAs need to be specified. The SA must also include a termination clause. Early termination of an agreement usually results in financial penalties for the terminating party.

4.10.8 Maintaining Flexibility

This development principle requires a particular mindset in the stakeholders. It must be recognized that the SA, once implemented, will need to be changed. Recognition of this results in the inclusion of various mechanisms for implementing changes in the SA. It should also result in the documentation of decisions taken during the negotiations so that change implementers can understand the reasoning behind important decisions.

4.11 Conclusion

The investigation of the DPs in this chapter enabled the author to further define the DPs with a series of SCs for each DP. This can be considered a comprehensive list of what a development team should consider when developing an SA.

Chapter 5

Analysis of Current Models

This chapter analyses the various models for the development of SAs that were presented in chapter three against the framework developed at the end of the previous chapter. Models are sourced from researchers in the area; software houses; and international standards organisations.

5.1 Introduction

In chapter three, a number of different models for the development of an SA were presented. From this, eight DPs were identified, and these were then explored in detail in the investigation conducted in chapter four. At the end of chapter four, these DPs were further defined to include a number of supporting conditions. In this chapter, each of the models presented in chapter two is analysed against the DPs with their SCs. The models are analysed in the same order that they were presented originally. Following this analysis, a summary table is provided.

5.2 Karten

5.2.1 Negotiation Period

Karten mentions the negotiation period most specifically in step 4, where it is stated that the duration of the negotiation period typically varies from several weeks to several months. This is an important aspect of Karten's model. She states consistently throughout the model that the development process must not be rushed.

5.2.2 Preparation

In step 3, Karten mentions preparation where a list of various issues is given, including the division of responsibility for development tasks, scheduling issues and constraints, and concerns regarding potential impediments. In addition, it is stated that developers can benefit greatly by discussing their communication styles and preferences. No other references are made to preparation or even the establishment of the SA development team.

5.2.3 People Involved

In Step 4, Karten mentions that the SA development team may each solicit assistance, input or feedback from others in their own organization. In Step 5, it is mentioned that before implementing an SA, all members of both parties who have a stake in, or responsibility for, the success of the SA should have an opportunity to review the draft, raise questions, and offer suggestions.

Karten only mentions three specific stakeholders, being the SA development team, the client and the SP. The user is not specifically mentioned. This is an interesting omission by a model that promotes an intensive development structure.

5.2.4 Relationships in the Partnership

Karten places a lot of emphasis on the spirit of the SA. In Step 4, it is stated that the SA development team must discuss, debate, negotiate and, over time, reach agreement about the contents of the SA. This intense process builds trust and confidence between the parties. The importance of consensus building is also mentioned in this step. In Step 1, Karten mentions the importance of the SA development team having a clear understanding of the SPs abilities and the clients expectations.

5.2.5 Scope of Services

In Step 1, Karten states that an SP must first examine their service history and determine the level of service they can realistically provide. This entails the construction of a Service Catalogue which should usually be constructed before the negotiation period begins.

5.2.6 Defining Service Levels

No mention is made of service levels or metrics. The thrust of the model is the people and relationship side of the negotiations. It is, however, unusual that no mention is made of the level of service as this is usually the primary reason for an SA.

5.2.7 Remedies for Non-Performance

No mention is made of tracking service levels, of contractual remedies for non-compliance or of a termination clause.

5.2.8 Maintaining Flexibility

In Step 7 Karten briefly mentions the need to constantly adapt and manage the SA once it has been implemented. No mention is made of building flexibility into the SA during development. This can be done by specifying procedures for implementing change and by documenting the rationale for decisions made by the development team.

5.2.9 Conclusion

Karten's model deals effectual with the people, relationship and preparation phases of the negotiation. The workload involved in such tasks as negotiating service standards, establishing tracking mechanisms, preparing supporting procedures, gaining approvals and generating a broad agreement and support is extensive. The process is designed to help the two parties build the foundation for a strong, successful, long-term relationship.

However, Karten ignores the sections that have financial and legal ramifications, namely levels of service and non-compliance. Any SA that does not have strict metrics associated with it is destined for failure. The reason for this omission could be the desire to promote strongly the important aspects of relationship building.

5.3 Bouman

5.3.1 Negotiation Period

In Step 6, mention is made that developing an SA using a well defined and structured approach limits the time needed for negotiations. The use of Karten's relationship intense model in this case shows the importance of the negotiation period to Bouman *et al*, (1999).

5.3.2 Preparation

Lesson 3 states that the SA development team should, in preparation for the development, create a readable and easy to adapt document specification, by

including descriptions of taken decisions on both document structure and services. If this is done in the preparation phase, the actual negotiations are more easily concluded.

5.3.3 People Involved

Bouman *et al* suggest the use of a review board (in Lesson 5). A review board is comprised of an individual from each stakeholder group. This is different from the development team as the development team is only comprised of three or four individuals. This is an excellent way of ensuring that all stakeholders are satisfied that their needs are catered for in the SA. The only stakeholders actually mentioned by the model are the SP, the Client and the user. Bouman *et al* mention in lesson 6 and in Pre-understanding 4 that users should be broken into groups to help gather requirements.

5.3.4 Relationships in the Partnership

In pre-understanding 3, it is stated that well defined metrics increase the understanding of the SA and the consensus building process of the negotiation. The understanding and consensus building strengthens the relationship between the SP, client and users.

5.3.5 Scope of Services

In lesson 1 it is mentioned that service objects should be identified and classified in terms the client/user can understand. This is an important concept, as one of the fundamental reasons for SA's is that they cannot be understood by all the people that need to use them.

5.3.6 Defining Service Levels

In pre-understanding 3 and in lesson 1, it is mentioned that services must be defined and benchmarked and measured using actual metrics. It is not mentioned, however, how and who monitors the services. This is where this case study grows so significant

from Karten's on which it is based. It stipulates that although people and relationships are important, metrics must be used.

5.3.7 Remedies for Non-Performance

No mention is made of non-compliance in this case study. This is possibly because the case study is based on an Internal SA, which is typically less stringent in its non-compliance requirements.

5.3.8 Maintaining Flexibility

As with Karten's model, no mention is made of building flexibility into the SA.

5.3.9 Conclusion

Bouman *et al*'s case study shows an interesting use of Karten's model as well as pointing out certain omissions in Karten's model. However, no model or set of steps as such was given as it is a case study. This is mentioned as possible future work by Bouman *et al*.

The most significant aspect of this case study is that it recommends the use of a review board. With the multitude of stakeholders in an SA, it would be a seemingly impossible task to ensure they are all sufficiently represented. The use of a review board would ease this task.

5.4 Walker

5.4.1 Negotiation Period

No mention is made of any of the time factors that significantly contribute to the negotiation period.

5.4.2 Preparation

The only preparation aspect that Walker mentions is that all past SA experiences should be reviewed. No mention is made of the SA development team formation, or of the delegation of responsibilities.

5.4.3 People Involved

Walker mentions the service team and the service manager. It is important to distinguish between the two as they have very different roles in the service provision and are subtly different from the service provider.

5.4.4 Relationships in the Partnership

In step 2 and step 3 Walker stressed the need for all stakeholders to understand the SP's capacity to provide the desired services and the client expectations of those services.

Throughout the document, Walker mentions the importance of consensus building between the stakeholders, but stresses in guideline 2 that confrontation should be avoided.

5.4.5 Scope of Services

Walker deals with Scope extensively in this model. In step 4, he states that the SA development team must define all costs involved in the agreement and detail the charges involved.

In step 5 it is mentioned that a starting and ending date for the SA or at least a date for renegotiation of the SA must be stated.

Step 2 deals with the development of a service catalogue and the identification and scoping of services to be included in the SA. However, no mention is made of the importance of identifying critical services. This is a serious omission as SPs

frequently justify their services with a single metric, which can hide a poorly performing critical service.

5.4.6 Defining Service Levels

Walker mentions the need to identify current levels of service and the need to specify who will monitor these levels. He does not mention that the levels might need to be increased.

5.4.7 Remedies for Non-Performance

Regular reviews of SP performance are recommended in the model as well as the use of reports to track and manage the SA compliance.

No mention is made of contractual remedies and/or a termination clause, possibly because this is an internal SA.

5.4.8 Maintaining Flexibility

Walker mentions in step 4 that the SA development team should include flexibility as a valuable component of the SA. In Guideline 3 it is mentioned that parameters should be set for the level of support but flexibility must be maintained.

5.4.9 Conclusion

Walker's paper is now almost 10 years old. Surprisingly, it covers a large amount of the criteria identified in the literature survey. Walker deals with the identification and definition of intended services especially well. This is an important part of the negotiations and is frequently the cause of dispute. This model discusses the need for flexibility to be built into the SA. This is an important realisation, that SAs will need to be changed, and procedures should be put in place to govern these changes.

5.5 Lacity

5.5.1 Negotiation Period

Although no specific mention is made of the expected length of the negotiations, the stipulations such as measuring all services suggests that Lacity and Hershheim intend the negotiations to be fairly lengthy.

5.5.2 Preparation

No mention is made of any preparation issues.

5.5.3 People Involved

Mention is made of large number of stakeholders. An important inclusion is that of the SA expert. The inclusion of an SA expert in the development team speeds up the process as well as increases the likelihood of success of the agreement.

5.5.4 Relationships in the Partnership

No specific mention is made of any of the relationship aspects of the development process. However, the model does have a significantly distrustful slant towards the SP.

5.5.5 Scope of Services

Specific mention is made of identifying and measuring all services in the proposed agreement. This is seen in this model to have a major financial bearing as apposed to service delivery problem.

5.5.6 Defining Service Levels

Specific mention is made of the need to define actual metrics for all services included in the SA. This is done during the baseline period, although no mention is made as to specifically how to measure the services.

5.5.7 Remedies for Non-Performance

This is dealt with conclusively in points six, seven, and eight. Lacity and Hershheim are convinced of the need to ensure the SP proves that the agreed upon level of service is being provided and what to do in the event that they are not. This underscores the apparent distrust Lacity and Hershheim seem to have for the SP.

5.5.8 Maintaining Flexibility

A small mention is made of the need to allow for growth and change in the organisation in the SA.

5.5.9 Conclusion

This model is a significantly biased towards the client. It mentions a number of important points such as discarding SP SAs and hiring SA experts that serve to strengthen the clients negotiating position.

This model's major strength is the detail with which it deals with service levels. It stipulates that the current level of service must be measured, the intended level of service must be documented, that the service provision must be measured and that actual metrics must be defined and documented for each and every service.

Its biggest omission is not mentioning any factors identified in the preparation section, except to say that the SPs SA must be discarded. No mention is made of the formation of a negotiation team, or of the need to review past SA experiences.

5.6 ITIL

5.6.1 Negotiation Period

No mention is made of any of the identified negotiation period activities. However, given the depth of detail described in this model, the ITIL approach is expected to be quite lengthy.

5.6.2 Preparation

The ITIL conclusively deals with the idea of having a pro forma SA. This is discussed in the Establish Service Level Requirements And Draft SA stage. The idea is that the document serves as a basis from which to start negotiations. The need to set document and formatting styles is also mentioned.

5.6.3 People Involved

The ITIL mentions the SP, Client and the User. It also mentions the service delivery team. This is an important additive, as the service delivery team should play a significant part in the SA development.

5.6.4 Relationships in the Partnership

The ITIL model is a recently developed model and the current trend towards the development of a relationship being important during the SA negotiation comes through strongly. The importance of consensus building is stressed, as well as the need for constant communication between all stakeholders. The ITIL approach mentions the need for the client/user to understand the limitations of the SP and the SP to understand the expectations of the client/user.

5.6.5 Scope of Services

This approach deals sparingly with the factors identified. It mentions the need for a service catalogue and the importance of engaging the staff currently providing the services. No mention is made of the need to decide which services are to be outsourced or insourced. Nothing is said about contract length or about payment terms. Contract length is usually between 3 and 10 years. Payment terms are usually in advance.

5.6.6 Defining Service Levels

The intended level of service is mentioned as apposed to the current level of service. This approach has picked up on the idea that the SA development process is usually started by the need for better levels of service.

This approach strongly emphasises the need to define actual metrics for each service and monitor and measure these metrics.

5.6.7 Remedies for Non-Performance

In line with its recommendations to define and monitor metrics, the ITIL stipulates that reports must be developed to track SP performance and that regular reviews must be made of this performance.

5.6.8 Maintaining Flexibility

No mention is made of building flexibility into the SA. It is however, mentioned in their approach to maintaining the SA. This is contrary to the opinion of the authors cited in the literature survey, that flexibility needs to be built into the SA.

5.6.9 Conclusion

The ITIL model is excellent in that it covers a wide range of the identified factors pertinent to the development of a successful SA. It is recently developed and has a strong relationship building element as well as an emphasis on the need to define metrics for every service and measure and monitor those metrics.

However, it covers the entire process superficially. This is the main problem with the ITIL model; it is a small part of a much larger philosophy. This results in the SA development process not being given sufficient attention. The author does not believe that the SA development process is sufficiently detailed to be a stand alone approach. In order to be effective, the participating parties must adopt the ITIL philosophy completely.

The ITIL approach is primarily targeted at SPs. However, the client/user also should follow this process. They must produce a service catalogue of the services they require and at what levels. They must be involved in the drafting of the SA. They need to actively negotiate with the SP in the negotiate and agree stage. The client/user must ensure they can maintain all their existing contracts with the proposed new services especially with their suppliers and distributors. They must also distribute the SAs to their employees so that the clients employees know what will be provided to them.

5.7 Microsoft

5.7.1 Negotiation Period

No mention is made of any factors influencing the negotiation period.

5.7.2 Preparation

The only preparation factor that is mentioned is that the SA development team must review past experiences. No mention is made of the initial formation of the SA development team.

5.7.3 People Involved

These guidelines are also very brief in their coverage of the different people involved in the process. However, it stipulates the inclusion of a legal advisor in the development process. An SA is a legally binding contract that can have serious financial implications. It is imperative to involve advisors from both legal and financial professions.

5.7.4 Relationships in the Partnership

Like the ITIL model, these guidelines are relatively new. As such they have enhanced on the need for a relationship to be developed during the negotiation of the SA. These guidelines pickup on the importance of consensus building and stipulate active

ongoing negotiations. These are both important mechanisms used to develop a trusting relationship between the stakeholders.

5.7.5 Scope of Services

The guidelines cover all the factors identified in the literature survey exceptionally well. It deals with deciding what to outsource, as well as what to inhouse. It recommends the use of a service catalogue and of further defining services to be outsourced. It stipulates that all services must have cost evaluations.

When discussing the ITIL approach, the author said that one of the main reasons for the development of an SA is because of the need for better levels of service. Another large contributor to the initial reasons for development is that the client requires new services.

5.7.6 Defining Service Levels

The guidelines mention both the current and the intended levels of service. Again, in common with the ITIL approach, because these guidelines are relatively new, they stipulate that all services must be measured.

5.7.7 Remedies for Non-Performance

Both contractual remedies and termination clauses are mentioned. It is strange that, having said that all services must be measured, it is not said that these measurements must be reported and there must be regular reviews of the SP's performance. This would appear to be a omission by the authors of these guidelines.

5.7.8 Maintaining Flexibility

It is suggested that formal procedures for implementing changes in the SA be included in the agreement. The guidelines advise the SA development team to build flexibility into the SA.

5.7.9 Conclusion

The Microsoft model is the first model discussed that recommends using the services of a legal advisor. An SA is a legally binding contract that can have serious financial implications. It is imperative to involve advisors from both legal and financial professions. However, it does not mention the need for there to be regular reviews of the SP's performance. This is a very important aspect of any outsourcing relationship.

The Microsoft model does not contain a step of sets or a graphical model. It is a generalised set of thoughts about the development of an SA as apposed to a prescribed method.

5.8 Bryant

5.8.1 Negotiation Period

No mention is made of any factors influencing the negotiation period.

5.8.2 Preparation

No mention is made of any factors pertinent to the preparation of a SA.

5.8.3 People Involved

Bryant only mentions the client and the user. No mention is made of a legal advisor which is in direct contrast to his emphasis on the need for measuring and reporting.

5.8.4 Relationships in the Partnership

This model only stipulates active ongoing negotiations. No other relationship building activities are mentioned.

5.8.5 Scope of Services

Bryant covers all the factors surrounding scope exceptionally well. A distinction is drawn between what to outsource and what to keep in-house. It is suggested that these services be defined further and that the people currently engaged in supplying the services be involved in this.

This model suggests deciding which services are critical and which are not. This is an important distinction as the monitoring and reporting of critical versus non-critical services would be significantly different.

5.8.6 Defining Service Levels

No specific mention is made about any service levels. This is most likely because the SA is for an exchange server which is either up or down. It will never be half up like a service such as database response times can be.

5.8.7 Remedies for Non-Performance

Both contractual remedies and termination clauses are mentioned. All services must be measured, measurements must be reported and there must be regular reviews of the SP's performance.

5.8.8 Maintaining Flexibility

The only mention of flexibility in the model is with regards to the stipulation of formal procedures for making changes to the SA. The reason for this is because Bryant expected his SAs to only last 3 months. This kind of SA would not require a lot of flexibility.

5.8.9 Conclusion

Bryant's model is focused on the MS Exchange environment and, whilst this places it on the periphery of this research, it is still instructive. MS Exchange Environments are

highly "visible" services that require very stringent performance guidelines. This requires the model to deal intimately with levels of service, measurement of these levels and non-compliance.

He does not mention in any way or form the relationship that needs to develop between the client and the SP, nor anything about preparation. However, it does illustrate the variance of SAs depending on the services they cover. Certain services require provisions that others do not. It could be argued, using this model as a starting point, that the degree of complexity of the SA and the familiarity that the negotiation team has with SAs greatly determines the amount of intensive people orientated negotiations need to occur before a SA can be produced that accurately reflects the service provision.

5.9 Analysis

The seven different models discussed in this chapter have been compared to the analytical framework that was discussed in chapter 4.11. The framework is constructed of eight development principles and 58 supporting conditions were added to the framework to further clarify it at the end of the previous chapter. The following table summarises the current model analysis:

	MODELS	KARTEN	BOUMAN	WALKER	LACITY	ITIL	MICROSOFT	BRYANT
Item								
Negotiation Period								
	Complexity of the Agreement	X						
	Proximity of the Parties *							
	State of the Relationship at the beginning of the negotiations	X						
	Prior SA experience	X			X			
Preparation								
	Form SA Project Team							
	Establish ground rules for working together	X	X					
	Set Document and Formatting Styles	X				X		
	Review Past SA experiences			X			X	
	Construct an SA Outline to Start Negotiations with					X		
	Delegate responsibilities	X	X					
People								
	Uses a Review Board		X					

Table 5.9.1 Model Analysis

	Involves Service Provider	X	X	X	X	X		
	Involves Client	X	X	X	X	X		X
	Involves User	X		X		X	X	X
	Involves Service Manager			X	X			
	Involves Service Team			X		X		
	Involves Finance Manager *							
	Involves Legal Advisor				X		X	
	Emphasises Project Planning	X	X					
	Promotes Team Work		X	X				
	Advises Seeking Expert Assistance	X			X			
Relationship								
	Emphasis on the Spirit of the SA	X					X	
	States importance of consensus building	X	X	X	X	X	X	
	Demands constant Communication between SP, Client and Users					X		
	Stipulates active ongoing negotiations					X	X	X
	Promote clear understanding of SP Capacity and Clients Expectations	X	X	X		X		
Scope								
	Service Catalogue	X		X		X	X	
	Deciding what to outsource			X	X		X	X
	Defining the scope of the Services to be outsourced		X	X	X		X	X
	Deciding what to keep in-house						X	X
	Engaging the staff currently providing the services				X	X		X
	Deciding which services are critical							X
	Whether or not to hire a consultant to help defining services *							
	Payment Terms			X	X		X	X
	Additional/New Services Should not be discouraged.				X		X	
Service Levels								
	The current level of Service		X	X	X		X	
	The intended level of Service				X	X	X	
	The Measurement of Services				X		X	
	Who will measure services and how			X	X	X		
	Defining actual metrics for the measurement of services		X		X	X		
	Scheduled Downtime *							
Non-Compliance								
	Regular Reviews of SP performance			X	X	X		X
	Survey users			X				
	Using reports to track and manage SA compliance			X	X	X		X
	Contractual Remedies (Penalties and/or Rewards)				X		X	X
	The inclusion of a Termination clause				X		X	X
Flexibility								
	Building in Flexibility			X			X	
	Contract Length			X				
	Including Formal Procedures for implementing changes in the SA			X			X	X
	Tie fees to inflation indexes *							

Table 5.9.1 Model Analysis * those SCs that are not reflected/contained in any model analysed.

All but five of the SCs are covered by any of the models analysed. These five highlight a problem that, with careful consideration, can be seen in the rest of the SCs. Not one of the models analysed covers a large number of the SCs. In the following sections, each development principle is discussed in relation to its supporting conditions.

5.9.1 Analysis of Development Principles

5.9.1.1 Negotiation Period

A number of authors mentioned the popular occurrence of executives requesting SAs to be developed in a matter of days or weeks. This, as has been subsequently seen, is not the most advantageous approach. Since the clients requirements are rarely captured correctly in such a short time period. It is surprising that Karten's model is the only model that conclusively deals with the supporting conditions identified under the negotiation period development principle. Lacity and Herschheim raised the issue of prior experience, but no model mentions the problem of the proximity of the parties. SAs are far more complex and thus harder to develop when they describe a massive service provision. An organisation that is geographically dispersed would make involving all the stakeholders difficult. This increases the amount of time required for the development of the SA.

5.9.1.2 Preparation

The majority of the models considered the preparation development principle. Bryant makes no mention of it, but as discussed earlier, it is not expected to be an issue in the development of his SAs, as they are focused on email services only. It is, however, surprising that Lacity and Herschheim make no reference to it. It was mentioned earlier that the ten year old Lacity and Herschheim model is very similar to newer models. Possibly the reason for the problem with SAs revolves around Preparation.

Under the Preparation development principle, no model mentions the formation of a Development Team (DT). This is a curious omission. It is either just assumed by the authors or the importance of it was not seen as critical. The DT has wide-ranging implications for all stakeholders and its composition needs to be carefully considered.

5.9.1.3 **People Involved**

The People development principle was covered moderately by the models, and as expected far more by some that by others. There are two important points two that need to be discussed here. The first is that Bouman *et al* is the only model that mentions the use of the review board. The author of this research is curious as to how the other authors had anticipated engaging a large spectrum of stakeholders in the development process without using a review board.

The second item is that no model mentions the need to involve financial consultants in the process. Although SAs are primarily focussed on service provision, they usually have very serious financial implications. It seems unwise to not incorporate them in the negotiations.

The Microsoft model is the only model that recommends using the services of a legal advisor. This is an interesting omission by the other models. Certainly internal SAs might not need to be completely legally sound, but external SAs are usually lengthy legal documents. It can be assumed by model authors that DTs will use legal advisors; however, the author believes it is necessary to specify their inclusion. This is a very important aspect of any outsourcing relationship.

5.9.1.4 **Relationships in the Partnership**

The relationship development principle considered by all the models. The supporting condition that was covered most comprehensively was the need for a consensus to be reached between the stakeholders. All the models mention this as it is the most obvious supporting condition. Perhaps, this is where a problem lies, in that the stakeholders have unreasonable requirements of each other.

Karten's model considers the people, relationship and planning phases of the negotiation in detail. The workload involved in such tasks as negotiating service standards, establishing tracking mechanisms, preparing supporting procedures, gaining approvals and generating a broad agreement and support is extensive. The

process is designed to help the two parties build the foundation for a strong, successful, long-term relationship.

5.9.1.5 Scope of Services and Defining Service Levels

These two development principles are discussed jointly here as all the current models deal with these two principles as one. The scope and service level development principles were contemplated well by all models except for Karten's model. As mentioned earlier, Karten does not go into any detail in these development principles. Two important aspects in these two principles are the complete lack of coverage by any model of including scheduled downtime in SAs and the possible need to hire a consultant efficient in scoping services and designing effective metrics. Services need to be defined very carefully and using as little technical jargon as possible. Metrics need to be decided on that effectively measure the whole service, not just parts of the service. This is not an easy task and the inclusion of a specialist consultant would be wise.

Lacity and Herschheim's model is a significantly biased towards the client. It raises a number of important points such as discarding SP SAs and hiring SA experts that serve to strengthen the clients negotiating position.

The model's major strength is the detail with which it deals with service levels. It stipulates that the current level of service must be measured, the intended level of service must be documented, that the service provision must be measured and that actual metrics must be defined and documented for each and every service.

5.9.1.6 Remedies for Non-Performance

Non-compliance is covered by all the models except, again, for Karten's model. It would seem that in light of all the SA failures, non-compliance is an important issue. Walker is the only model that suggests using user surveys to track service provision adequacy.

5.9.1.7 **Maintaining Flexibility**

The flexibility principle not considered by most of the models. Only Walkers model and the Microsoft model cover the idea of building flexibility into the agreement. None of the authors suggests the need to tie fees to inflation. This seems to be the easiest way to ensure fees stay within reasonable limits for both the SP and the client.

5.9.2 **Conclusion**

The analysis of the current models for the development of SAs permitted further exploration of the development principles and supporting conditions. The relationships in the partnership, scope and service levels development principles were supported by the models. However, the preparation, people involved and flexibility development principles were not considered thoroughly by most of the models. None of the models covered all the development principles conclusively and this leads to the construction of a model for the development of an SA. This model should include as many of the supporting conditions as possible.

Chapter 6 Theoretical Model

Chapter 6

Theoretical Model

This chapter uses the investigation into SA development in chapter four and the current model analysis in chapter five as the basis for a model for the development of an SA. The chapter presents the model graphically and discusses it in detail.

6.1 Introduction

During the literature study, eight development principles were identified. These development principles were then further defined to include 58 supporting conditions. The development principles facilitated the analysis of seven models for the development of SAs. The analysis of these models identified that none of the models covered all of the development principles thoroughly. In this chapter a model for the development of an SA is proposed. This model covers the development principles extensively.

6.1.1 High-level description of the model

The model for the development of an SA comprises a set of development principles that impact the development process, and a process for individual SLA specification.

1. The development principles are a set of factors that have a bearing on some part of the second part of the model. The Development Team (DT) must continuously take these factors into account during the development process.
2. The individual SLA specification process is represented as a set of steps that the negotiation team must physically perform. The steps are: Define; Monitor and Agree; Document; and Review and Optimise. The four-step process is repeated for each Service Level Agreement (SLA).

6.1.2 The Development team

The Preparation development principle discusses the need to establish a group of individuals who are charged with responsibility for the development of the SA. This group is known as the Development Team (DT). This team should be comprised of between three to five members. These members should come from finance, legal, sales and technical divisions. A client should also be included in the DT. The formation of the team must be formally announced to all involved parties, as everybody in the organisation(s) are involved and affected by the process.

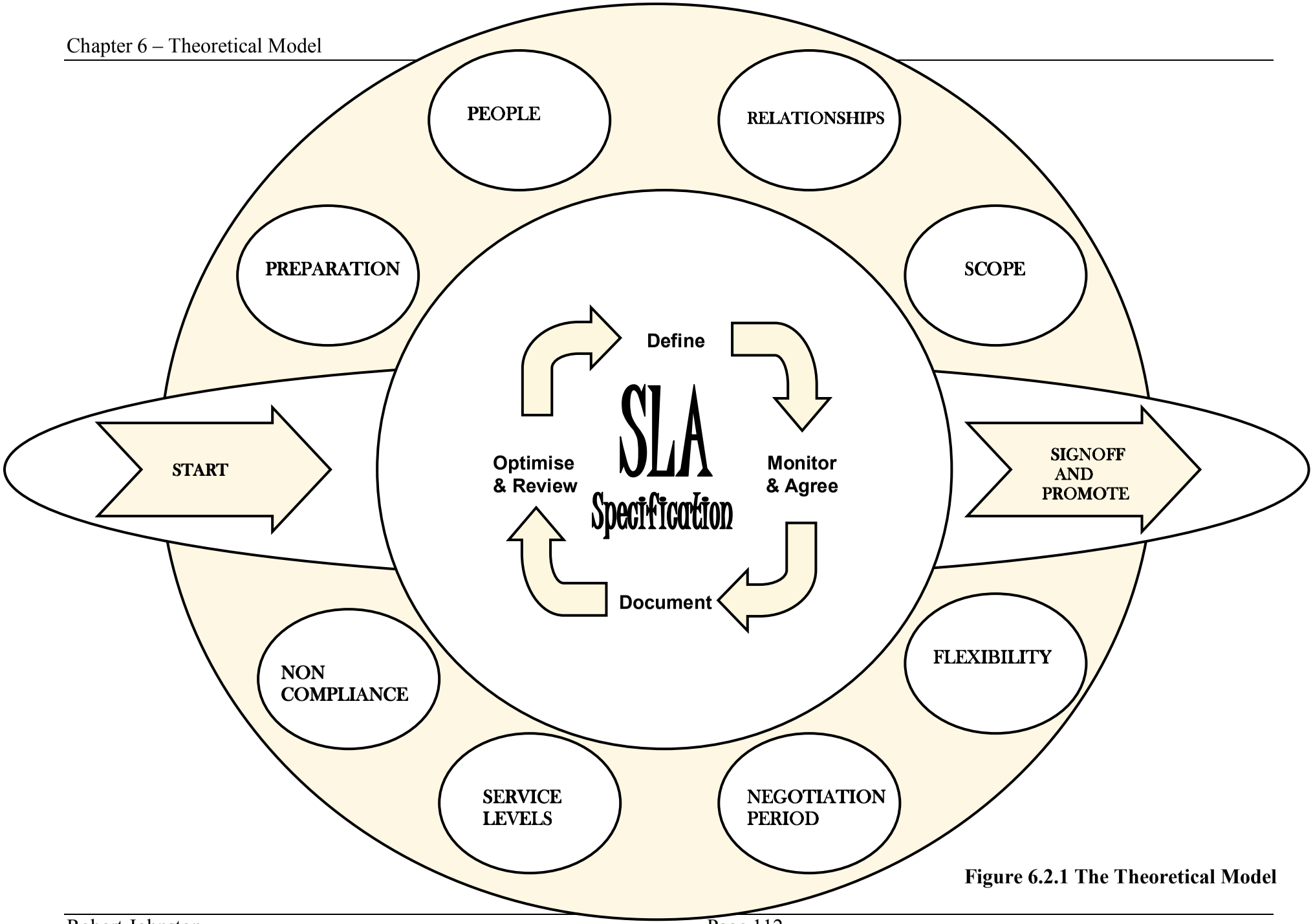


Figure 6.2.1 The Theoretical Model

6.2 The Graphical Model

The model is depicted in figure 5.2.1. The development principles have a bearing on the individual SLA specification process and are depicted by the circles around the outer sphere of the diagram. The development principles are:

- Negotiation Period
- Preparation
- People
- Relationships
- Scope
- Service Levels
- Non-Compliance
- Flexibility

The Development Team (DT) must be ever mindful of these factors during the entire development process.

The individual SLA specification phase is represented as a set of steps in the centre of the diagram. These are steps that the DT must physically perform. The steps are:

- Define
- Monitor and Agree
- Document
- Review and Optimise

The four step process is repeated for each Service Level Agreement (SLA).

6.3 The Model Explanation

6.3.1 Development Principles and the SLA Specification

The model comprises eight development principles that have a bearing on the development. The DT must bear these in mind at every stage of the SA Specification. These are: The Negotiation Period; Preparation; People; Relationships; Scope; Service Levels; Non Compliance; and Flexibility.

6.3.1.1 The Negotiation Period

The final physical SA document is vitally important. However, the relationships that are built during the SA development process are what determine the eventual success or failure of the business relationship. The DT must continuously reiterate the fact that the development process is far more important for the success of the business relationship than the final document.

For this reason, it is suggested that the SA should not be developed under time pressure. The following factors influence the negotiation period.

- Complexity of the Agreement
  - This refers to what services are being provided and how intertwined they are. If only one service is being provided, then the negotiations are far shorter than if 25 services were being provided.
- Proximity of the Parties
  - This refers to the difficulty of negotiating over long distances. Many larger firms have geographically separated business units. This increases the time required for the negotiation.
- State of the business relationship at the beginning of the negotiations
  - This refers to the notion that if the parties have worked together before, a rapport already exists between them. If, however, the parties have not worked together before, an initial period of adjustment and familiarisation is necessary.
- Prior SA development experience

This refers to the idea that previous SA development experience makes a significant difference to the time required for the development. If the DT already has some understanding and experience of the process, the process is accelerated.

6.3.1.2 **Preparation**

The first action that must be taken when developing an SA is to formally announce the DT. This team should be comprised of between three to five members. These members should come from finance, legal, sales and technical divisions. A client should also be included in the DT. These are the four areas of expertise that are of most use during the negotiation period. Preference should be given to people with experience in developing SAs. The formation of the team must be formally announced to all involved parties, as everybody in the organisation(s) are involved and affected by the process.

The new DT must then set ground rules for working together. This is done to avoid any unnecessary ill feeling developing later in the negotiation. The DT must delegate major areas of responsibility, namely communications, and document collation. Although these invariably change throughout the negotiation period, it helps to set a starting point.

The DT now needs to develop a pro forma SA. This serves as an outline for the negotiations and closely resembles a table of contents. Whilst developing this document, the DT needs to specify formatting styles such as font styles, structural layout and specific terms/abbreviations for the document and detail these decisions in the SA.

6.3.1.3 **People Involved**

Many different groups have vested interests in the SA development. Sub-groups within each of these groups can also exist. The following groups have been identified: the Service Provider (SP); the client; users; service managers; delivery managers; service teams; service facilitators; financial managers and advisors; and legal advisors.

It is important to remember the difference between a user and a client. The client is the person who is paying and may or may not be a user.
The most likely group to have sub-groups is the users group.

The users subgroups comprise the following:

- Major groups, such as Marketing, or Logistics.
- Some individual users with special needs (usually the CEO and CIO)
- All users are part of the user community as they have common needs (such as email, anti-virus, etc)

The DT must involve all the different stakeholders in the development process if the resulting SA is to accurately document the desired service provision. However, involving a large number of stakeholders in the negotiations would significantly increase the time required. So, the use of a review board is suggested. This board should be comprised of at least one representative from each discernable group that has a stake in the services and their provision.
This board has the responsibility to ensure that all interests are taken into account and that the newly documented SLA can be understood to mean exactly what was agreed upon.

The DT must heavily promote team work and rigorous project planning specifically because of the large amount of people involved and the volume of work that needs to be completed.

6.3.1.4 **Relationships in the Partnership**

The SA development process as important as the final document. It is about developing Spirit. Spirit is not something that can be forcibly developed, or something that can be documented. It grows naturally as trust and understanding increases between the stakeholders. This trust and understanding develops during interactions between the stakeholders. So, logically, the more these parties interact, the more spirit is cultivated among the stakeholders.

The DT must demand constant communication between all stakeholders, with a strong emphasis on consensus building. Stakeholders must agree on levels of, provision of,

and monitoring of services. This is more easily attainable, if there is a clear understanding of the supplier's capacity and the clients'/users' expectations.

The easiest way to develop trust and understanding amongst the stakeholders is to have as open a policy as possible. Stakeholders should be encouraged to be frank about their needs and their concerns. Remind the stakeholders that this is meant to be a mutually advantageous relationship. Organise an initial team building exercise in an effort to create a common sense of pride in the project amongst the stakeholders.

6.3.1.5 **Scope of Services**

The SP (being either in-house or external) needs to develop a Service Catalogue. This should be done prior to the SA development process and should detail the services that the SP can provide and at what service levels. It can also include costs. Ward (2001) on behalf of the TechRepublic organisation, released an excellent guide to developing a Service Catalogue and this has been included as Appendix D. A Service Catalogue is an excellent vantage point from which to launch into the negotiation of an SA.

If services are being outsourced, the major decision is which services ought to be outsourced and which ought to remain in-house. Frequently organisations outsourcing services initially outsource only a few services and may gradually move more services to the outsourcer. Important in this regard is identifying which services are critical and which are not.

Once the services to be outsourced have been identified, they need to be defined. A major problem with SAs is that they cannot be understood by the individuals that need to use them. The DT should expend a large amount of energy trying to reduce the amount of technical and legal terminology used in the SA.

The DT needs to scope the services and should consult with the current supplier of the service to get a clearer picture. An external consultant can be brought in to help scope the services. Payment terms are also specified for each service.

It is important that discussion of new or additional services should not be discouraged during the initial SA development process as this is frequently the initial reason for beginning the SA development process.

6.3.1.6 **Defining Service Levels**

The level of service is the most contentious issue in any SA specification. There are four important factors that need to be considered:

- The current level of service
  - If the service is currently being provided, the level at which the service is being provided needs to be determined. Consider volume, time, usage and reliability.
- The intended level of service
  - Determine the appropriateness of the intended level of service. Ensure that the requirement is realistic in terms of the clients'/users' intended usage.
- The Measurement of Services
  - Identify tangible metrics for the services being provided. Metrics should measure entire services, not individual parts. An incomplete service measurement could bias the service towards a stakeholder.
- Individuals responsible for and mechanisms to measure services
  - In the majority of cases, the SP monitors the service provision. They are far better equipped to do this than the client. However, this assumes that there is a culture of trust between the SP and the client. If there is a lack of trust between the stakeholders, a third party can be requested to monitor service levels. A mutually trustworthy third party could enhance levels of trust between the SP and the client.

It cannot be stressed enough that SLAs must have measurable metrics that adequately represent the service involved.

6.3.1.7 Remedies for Non-Performance

Using the metrics and their measurement, the SP should submit detailed reports to the client at regular intervals detailing the service provision and the SPs performance in terms of meeting the SLAs. This should be coupled with regular reviews of users to ensure the SP is performing effectively.

Included in the SA should be contractual remedies for the SP not meeting the agreed upon SLAs. These usually include financial penalties. Financial penalties are only usually present in outsourcing SAs as apposed to in-house SAs. Penalties are usually based on a sliding scale and are imposed by decreasing the outsourcing fee the month preceding the service failure. Provision must be made in these, however, for failure outside of the control of the SP (User induced failures, or power failures for example).

The SA must also include a termination clause. Early termination of an agreement will usually result in financial penalties for the terminating party.

6.3.1.8 Maintaining Flexibility

Flexibility must be built into the SA at every possible opportunity. No business remains the same and has the same requirements over the entire contract length. The DT must build flexibility into the SA. Include formal procedures for implementing change in the SA and document these as well as any other decisions taken in the development process in the document. This helps stakeholders involved in formulating changes after the agreement has been concluded.

All fees should be tied to financial indicators, such as the CPI, to ensure there continued appropriateness. These should be reviewed annually by a joint task force.

6.3.2 The Service Level Agreement Specification

The DT then enters the SLA Specification phase. This phase comprises four steps:

1. Define;
2. Monitor and Agree;

3. Document; and
4. Review and Optimise.

This sequence is repeated for each and every Service Level Agreement (SLA). An individual SLA can repeat the sequence as many times as necessary.

6.3.2.1 **Define**

The first step is to define an SLA. It is better to have several SLAs based on critical service provisions than an SLA for every service provision. An example of an SLA for bandwidth can be found in appendix D.

This should be done in consultation with representatives from all identified parties that use, supply or rely on the service. This includes current and intended suppliers of the service if they are different.

6.3.2.2 **Monitor and Agree**

It is unusual that any metrics will be available at the onset of the negotiations. The SP needs to begin monitoring the initially identified services as soon as possible. This provides a current level of service base line to use. This step involves the DT and other involved parties monitoring the current provision of the service, and agreeing on the all aspects of the specification of the service.

6.3.2.3 **Document**

The next step is to document clearly and in line with previously agreed upon standards, all aspects of the service. This needs to done in relatively simple language, as not everybody that needs to use the document in the future will be technically, legally or financially proficient. Again, an example of an SLA for bandwidth can be found in appendix D.

6.3.2.4 **Review and Optimise**

Finally, the documented SLA should be submitted to a review board. This board comprises of at least one representative from each discernable group that has a stake in the services and their provision. This is different from the development team as can be seen in the table below:

Development Team	Review Board
Sales Representative	Service Provider
Technical	Client
Legal Advisor	User Group 1
Financial Advisor	User Group 2
Client	User Group n
	Service Manager
	Service Team
	Financial Manager
	Legal Manager

Table 6.3.2.4.1 The Review Board

The board has the responsibility to ensure that all interests are taken into account and that the newly-documented SLA can be understood to mean exactly what was agreed upon in step two. The DT should then optimise the SLA documentation inline with the review board's suggestions, or send the SLA through another iteration of these steps.

6.3.3 **Sign-off and Promotion**

Once the DT has successfully documented all the agreed service levels, and included all additional legal and financial clauses, the major stakeholders need to sign off on the final document. This final document should have also resulted in a healthy trusting relationship having been developed between all the stakeholders. It must be remembered that the more executives that sign off on the agreement, the more weight it will carry with all stakeholders.

The DT must then promote the existence of the SA to everybody it effects. This can be done by simple informative emails or on group notice boards. The help desks and service agents must be educated on the agreement and the ramifications of it.

The DT then hands over the management of the agreement and business relationship to the Service Level Management department.

6.4 Conclusion

The model described in this chapter proposes that if the development team, whilst defining, monitoring, documenting and reviewing the SLAs, bears in mind the eight development principles, the SA development process will be more successful. This model would form part of a greater SLM approach in an organisation.

Chapter 7

Design of the Empirical Study

This chapter details the design of the empirical study. The empirical study explores the model proposed in the previous chapter. The first part of the chapter details the hypotheses that the empirical study is intended to explore. The survey instrument and the interview preparation is then discussed. A copy of the survey can be found in Appendix B.

7.1 Introduction

In order to explore further the theoretical model proposed in the previous chapter, it is necessary to conduct an empirical study. This study explores the importance of the development principles in the development of an SA and the relationship between the development principles and the success of an SA. An online survey and a series of interviews constitute the empirical study.

7.2 Hypotheses

The development principles that impact the development of a successful SA were identified during the Literature Survey, and then explored in the Current Model Analysis and finally in the Theoretical Model discussion. The development principles and the supporting conditions can be found in Table 6.2.1.

1 Negotiation Period	
1.1	Complexity of the Agreement
1.2	Proximity of the Parties
1.3	State of the Relationship at the beginning of the negotiations
1.4	Prior SA experience
2 Preparation	
2.1	Form SA Project Team
2.2	Establish ground rules for working together
2.3	Set Document and Formatting Styles
2.4	Review Past SA experiences
2.5	Construct an SA Outline to Start Negotiations with
2.6	Delegate responsibilities
3 People	
3.1	Uses a Review Board
3.2	Involves Service Provider
3.3	Involves Client
3.4	Involves User
3.5	Involves Service Manager
3.6	Involves Service Team
3.7	Involves Finance Manager
3.8	Involves Legal Advisor
3.9	Emphasises Project Planning
3.10	Promotes Team Work
3.11	Advises Seeking Expert Assistance
4 Relationship	
4.1	Emphasis on the Spirit of the SA
4.2	States importance of consensus building

4.3	Demands constant Communication between SP, Client and Users
4.4	Stipulates active ongoing negotiations
4.5	Promote clear understanding of SP Capacity and Clients Expectations
5 Scope	
5.1	Service Catalogue
5.2	Deciding what to outsource
5.3	Defining the scope of the Services to be outsourced
5.4	Deciding what to keep in-house
5.5	Engaging the staff currently providing the services
5.6	Deciding which services are critical
5.7	Whether or not to hire a consultant to help defining services
5.8	Payment Terms
5.9	Additional/New Services Should not be discouraged.
6 Service Levels	
6.1	The current level of Service
6.2	The intended level of Service
6.3	The Measurement of Services
6.4	Who will measure services and how
6.5	Defining actual metrics for the measurement of services
6.6	Scheduled Downtime
7 Non-Compliance	
7.1	Regular Reviews of SP performance
7.2	Survey users
7.3	Using reports to track and manage SA compliance
7.4	Contractual Remedies (Penalties and/or Rewards)
7.5	The inclusion of a Termination clause
8 Flexibility	
8.1	Building in Flexibility
8.2	Contract Length
8.3	Including Formal Procedures for implementing changes in the SA
8.4	Tie fees to inflation indexes

Table 7.2.1 The Development Principles and Supporting Conditions

These development principles are now converted into a series of hypotheses that are to be tested quantitatively in the questionnaire and qualitatively in the interviews. The hypotheses are listed below along with their null hypothesis. Together the null hypothesis and the alternative should constitute mutually exclusive and collectively exhaustive descriptions of all the possible resolutions in the population relating to the variable under scrutiny.

The empirical study tests the model as depicted by the illustration in the figure 6.2.2. The smaller circles represent the development principles and the large circle represents the desired outcome (a successful SA that effectively represents the desired

service provision – see section 3.2 for a discussion of how this research uses the number of changes made to the SA in the first six months of its operation as a measure of the success of the SA). Aspects that each hypothesis tests are shown by H_1 to H_{10}.

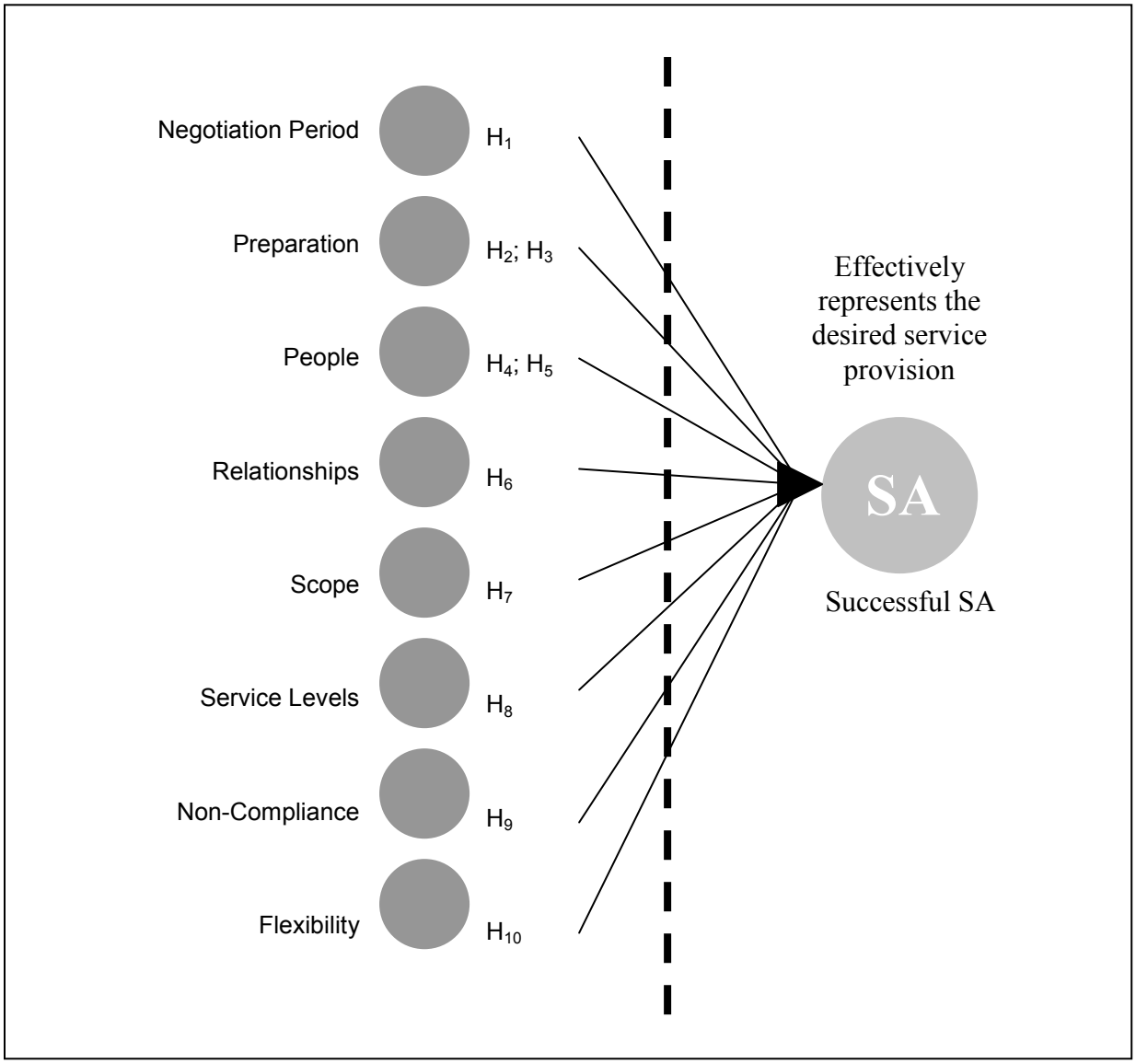


Figure 7.2.2. Hypothesis focuses.

Hypothesis 1 **Time Pressure**

The time required to develop a successful SA is of prime importance in this research. However, with the variance of service provision size, experience in SA development, and the degree of customisation of the service provision, it is difficult to specify a particular time limit. The research instead focuses on two aspects of time. The first is

the amount of activity during a specific time period. If no activity happens or no advances are made in the negotiations after a specific period of time, then the negotiations are taking too long. The second aspect of time that this research considers, is the amount of pressure the development team is under to complete the SA. This is what is empirically tested. The following hypothesis can thus be formulated:

> $H0_1$ = There is no relationship between time constraining pressure and the success of the SA.
> $H1_1$ = There is a relationship between time constraining pressure and the success of the SA.

Hypothesis 2 **Using Templates**

A corner stone of this research is that a template should be used in the negotiation of a SA. A template has been defined in the research as an outline or skeleton of a SA that is used as a starting point for negotiations. A template is not a standard contract. However, there is a contention that the use of any form of pre-developed document as the basis for negotiations is detrimental to the negotiations. The following hypothesis can thus be formulated:

> $H0_2$ = There is no relationship between the use of a template and the success of the SA.
> $H1_2$ = There is a relationship between the use of a template and the success of the SA.

Hypothesis 3 **Using Standard SAs**

The previous hypothesis is concerned with the use of a template as a basis for negotiations. A standard contract can be defined as a complete, generic SA used by a SP for all its clients. This hypothesis tests the notion that using a standard contract in SA negotiations is detrimental to the success of the eventual SA. The following hypothesis can thus be formulated:

$H0_3$ = There is no relationship between the use of a standard contract in SA negotiations and the success of the SA.

$H1_3$ = There is a relationship between the use of a standard contract in SA negotiations and the success of the SA.

Hypothesis 4 **Stakeholder Involvement**

According to Allen, Gabbard and May (2003), Caine (1997), Karten (1999) and TIFB (unknown) all the stakeholders in the eventual service provision should be involved in the negotiations in varying degrees. This hypothesis intends to confirm this and determine the degree of importance each identified stakeholder has in the negation of a successful SA. The following hypothesis can thus be formulated:

$H0_4$ = There is no relationship between the degree to which all stakeholders are involved in the development process and the success of the SA.

$H1_4$ = There is a relationship between the degree to which all stakeholders are involved in the development process and the success of the SA.

Hypothesis 5 **Review Board**

Involving all the stakeholders in the development process in a meaningful way is a challenge the DT must deal with throughout the negotiations. Earlier, the DT was discussed and defined as a small group comprised of representatives from the major stakeholder groups that is primarily responsible for the development of the SA. A review board on the other hand, is a group comprised of representatives from every stakeholder group and is tasked with appraising the SA during its development stages and ensuring that each stakeholder groups interests are accounted for in the SA. The following hypothesis can thus be formulated:

$H0_5$ = There is no relationship between the use of a review board as a tool to promote participation and the success of the SA

$H1_5$ = There is a relationship between the use of a review board as a tool to promote participation and the success of the SA.

Hypothesis 6 **Conciliatory Attitude**

Trust was defined earlier in the research to mean the degree to which stakeholders resolve disputes with a conciliatory attitude. It is the opinion of this research that this is essential if the SA is to be effective. As with any agreement, there will be disputes and there will be changes, but the manner in which these disputes and changes are handled has a large bearing on the success of an SA. The following hypothesis can thus be formulated:

> $H0_6$ = There is no relationship between the degree of a conciliatory attitude among the stakeholders and the success of the SA.
> $H1_6$ = There is a relationship between the degree of a conciliatory attitude among the stakeholders and the success of the SA.

Hypothesis 7 **Terminology**

SA failure has been attributed to the large amount of technical and legal terminology used in them. The use of simpler language would make it easier for non-legal and non-technical individuals to use the SA. The following hypothesis can thus be formulated:

> $H0_7$ = There is no relationship between the amount of technical and legal terminology used in the specification of SLAs and the success of the SA.
> $H1_7$ = There is a relationship between the amount of technical and legal terminology used in the specification of SLAs and the success of the SA.

Hypothesis 8 **Service Metrics**

A large proportion of an SA is concerned with measuring service levels, the reporting of these service levels, and what happens when levels are not maintained. However, this is futile as the identified measures are not meaningful. A large amount of effort is usually required to develop metric measures that are a true representation of the services they are supposed to represent. The following hypothesis tests the amount of

effort practicing organisations expend in identifying, quantifying and documenting meaningful levels.

> $H0_8$ = There is no relationship between the specification of service level metrics that are representative of the service provision in an SA and the success of the SA.
> $H1_8$ = There is a relationship between the specification of service level metrics that are representative of the service provision in an SA and the success of the SA.

Hypothesis 9 **Service Level Reporting**

Caine (1997), Walker (1999), Lacity and Herschheim (1995), ITIL (2004), and Bryant (2002) contest that frequent, descriptive reporting should be used to track and monitor SP compliance with the SA specified service levels. The following hypothesis can thus be formulated:

> $H0_9$ = There is no relationship between the periodic reporting of SP performance and the success of the SA.
> $H1_9$ = There is a relationship between the periodic reporting of SP performance and the success of the SA.

Hypothesis 10 **Change Procedures**

Central to this research is that an SA is a living document that changes continuously from the point of inception until it is replaced. In order for this to happen, stakeholders need to understand that change is a process that they need to plan for and embrace. The inclusion of procedures for implementing change in the SA shows an essential mindset needed for the success of an SA. The following hypothesis can thus be formulated:

> $H0_{10}$ = There is no relationship between the inclusion of procedures for implementing changes to the SA into the SA and the success of the SA.

$H1_{10}$ = There is a relationship between the inclusion of procedures for implementing changes to the SA into the SA and the success of the SA.

7.3 Methodology

The empirical study will be constituted of both an online questionnaire and a series of interviews. The interviews will be used to further explore the questions asked in the survey.

This research forms part of a larger research project in the area of Service Level Management. This research and a project investigating the implementation of SLM conducted a joint survey and interview series to avoid overloading the target audience and risk reducing the response rate. The joint survey consisted of questions that were common to both pieces of research as well as questions specific to each of the authors. The table below shows the distribution of questions between the pieces of research.

Common	Collaborator	Robert Johnston
Questions 1 - 5 *(Demographics)*	Question 6 - 11 *(Respondent Experience)*	Questions 25 – 26 *(Respondent Experience)*
	Questions 12 – 17 *(Service Management Implementation)*	Questions 27 – 30 *(The Development Principles)*
	Question 6 – 24 *(Service Management Skills)*	Questions 31 - 33 *(SA Success)*

Table 7.3.1 Collaboration

7.3.1 Online Questionnaire

An online questionnaire was developed and loaded onto an online survey system. The survey instrument discussed in section 6.3.1.4. The questions relevant to this research have been removed from the combined survey and can be found in Appendix B.

7.3.1.1 Pilot Study

An anonymous electronic based pilot study consisting of 35 questions was conducted in the Rhodes University Departments of Computer Science and Information Systems and in the Information Technology Division. The pilot study was intended to assess and evaluate the design of the questionnaire. Ten responses were received, three of which raised issues. The issues and actions taken are depicted in the following table:

Issue	Action Taken
Demographic regions are South Africa specific	Additional choice "Outside of South Africa" was added to Question 1
The survey is too long.	No action taken
The response ranges in Question 30 were thought to be to small.	The range was increased.

Table 7.3.1.1.1 Pilot Study Issues

7.3.1.2 Respondents and Channels

Respondents were employees of Service Management-focused enterprises in South Africa and members of the South African chapter of the IT Service Management Forum (ITSmF). These two groups were selected as:

- They represented a wide variety of organisations and positions
- They are actively employed or associated with the IT field
- They have specific interest and experience in Service Level Management and Service Agreements

The employees of the Service Management focused enterprises were contacted either by email or by using advertisements on corporate intranets. The members of the ITSmf were emailed details regarding the research and the location of the electronic online questionnaire. The email and the advertisements indicated that respondents were to visit the site and complete the questionnaire or alternatively request the questionnaire via email. The questionnaire was available online for a period of 3½ months.

7.3.1.3 The Questionnaire Instrument

The survey instrument was hosted on an IS Departmental server at Rhodes University. It was designed and implemented using the online questionnaire system *Perception* which catered for various versions of Internet Explorer. The questionnaire was entitled "Service Level Management and Service Agreement Development in South Africa." An introduction to the questionnaire briefly explained the research, suggested an estimated time to complete it, and ensured the respondents of confidentiality. Preceding each set of questions were instructions clearly informing the respondents how to answer the various types of questions. The exact layout of the questionnaire can be seen in Appendix B.

7.3.1.3.1. Demographic Questions

The descriptive questions gathered the respondents' background data:

1. Region of Employment
2. Industry of Employment
3. Job Title
4. Years Spent in SLM
5. Number of Employees in Organisation

7.3.1.3.2. The Respondents Experience with SAs

The first set of questions (25-26) explored the respondents experience with the development of SAs in the SLM process. The questions were either based on a Likert five point scale or on a specific number series. From the questions listed in Figure 6.3.1.3.2.1 below, it was possible to determine the respondents experience in the development of SAs.

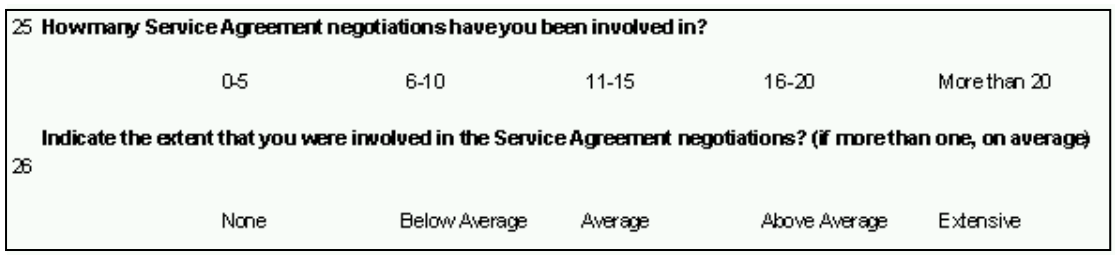
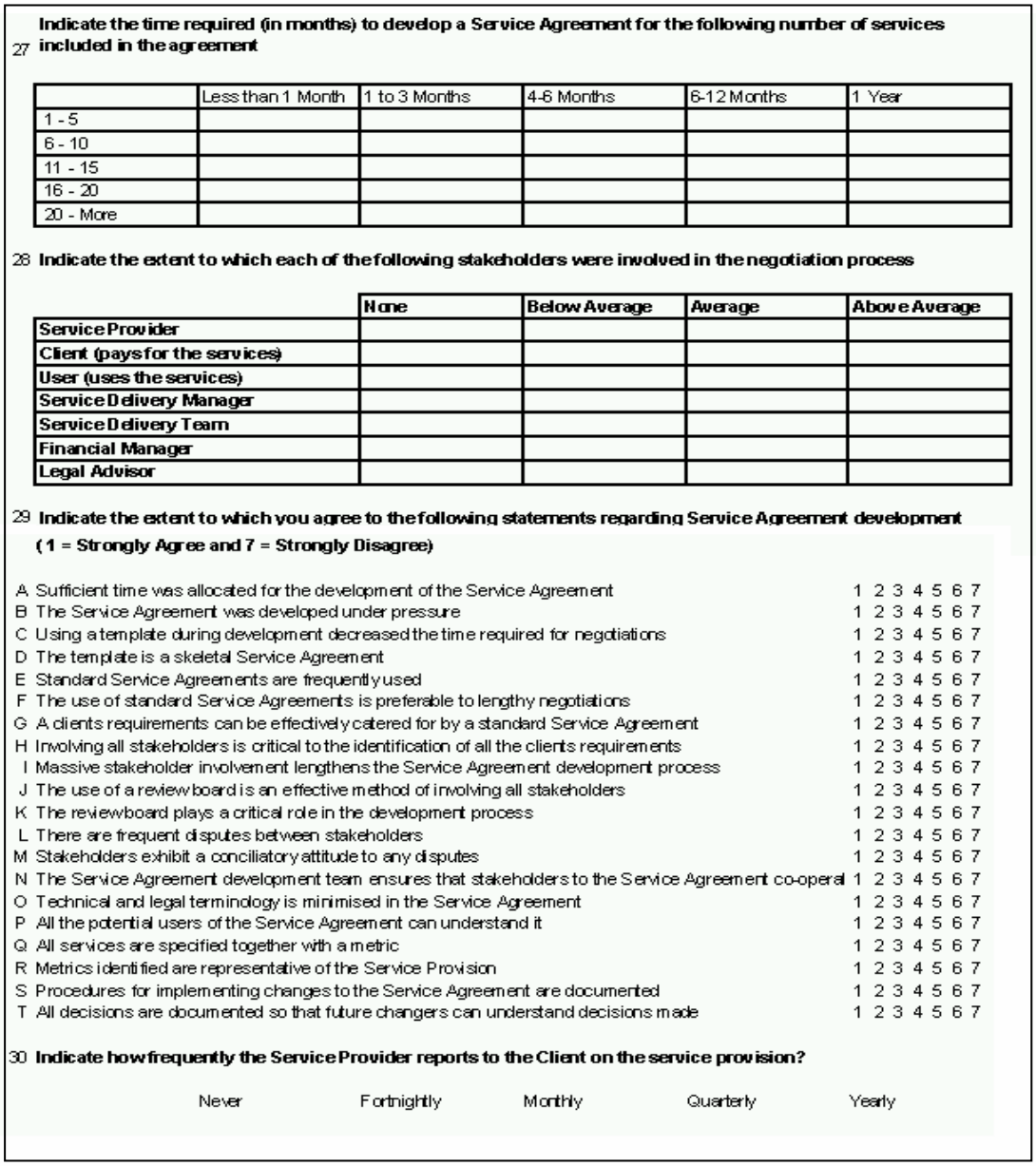


Figure 6.3.1.3.2.1 Experience with SAs

7.3.1.3.3. **The Development Principles**

The next set of questions (27-30) explored the respondents view of the relative importance of development principles and test the hypotheses. The questions were either based on a Likert five point scale or on a specific number series. From the questions listed in figure 7.3.1.3.3.1 below, it was possible to determine the respondents views on the importance of the development principles.



27 **Indicate the time required (in months) to develop a Service Agreement for the following number of services included in the agreement**

	Less than 1 Month	1 to 3 Months	4-6 Months	6-12 Months	1 Year
1 - 5					
6 - 10					
11 - 15					
16 - 20					
20 - More					

28 **Indicate the extent to which each of the following stakeholders were involved in the negotiation process**

	None	Below Average	Average	Above Average
Service Provider				
Client (pays for the services)				
User (uses the services)				
Service Delivery Manager				
Service Delivery Team				
Financial Manager				
Legal Advisor				

29 **Indicate the extent to which you agree to the following statements regarding Service Agreement development (1 = Strongly Agree and 7 = Strongly Disagree)**

A	Sufficient time was allocated for the development of the Service Agreement	1 2 3 4 5 6 7
B	The Service Agreement was developed under pressure	1 2 3 4 5 6 7
C	Using a template during development decreased the time required for negotiations	1 2 3 4 5 6 7
D	The template is a skeletal Service Agreement	1 2 3 4 5 6 7
E	Standard Service Agreements are frequently used	1 2 3 4 5 6 7
F	The use of standard Service Agreements is preferable to lengthy negotiations	1 2 3 4 5 6 7
G	A clients requirements can be effectively catered for by a standard Service Agreement	1 2 3 4 5 6 7
H	Involving all stakeholders is critical to the identification of all the clients requirements	1 2 3 4 5 6 7
I	Massive stakeholder involvement lengthens the Service Agreement development process	1 2 3 4 5 6 7
J	The use of a review board is an effective method of involving all stakeholders	1 2 3 4 5 6 7
K	The review board plays a critical role in the development process	1 2 3 4 5 6 7
L	There are frequent disputes between stakeholders	1 2 3 4 5 6 7
M	Stakeholders exhibit a conciliatory attitude to any disputes	1 2 3 4 5 6 7
N	The Service Agreement development team ensures that stakeholders to the Service Agreement co-operal	1 2 3 4 5 6 7
O	Technical and legal terminology is minimised in the Service Agreement	1 2 3 4 5 6 7
P	All the potential users of the Service Agreement can understand it	1 2 3 4 5 6 7
Q	All services are specified together with a metric	1 2 3 4 5 6 7
R	Metrics identified are representative of the Service Provision	1 2 3 4 5 6 7
S	Procedures for implementing changes to the Service Agreement are documented	1 2 3 4 5 6 7
T	All decisions are documented so that future changers can understand decisions made	1 2 3 4 5 6 7

30 **Indicate how frequently the Service Provider reports to the Client on the service provision?**

Never Fortnightly Monthly Quarterly Yearly

Figure 7.3.1.3.3.1 The Development Principles

7.3.1.3.4. **SA Success**

The final set of questions (31-33) explored the relative success of the respondents SAs. The questions were either based on a five point Likert scale or on a specific number series. From the questions listed in figure 7.3.1.3.4.1 below, it was possible to determine the respondents views on SA termination.

31 **On average, indicate the number of changes made to your Service Agreements within six months them of becoming operational**

11-20 21-30 31-40 41 - 50 More

32 **Indicate the number of Service Agreements that you have negotiated that have ended before their expiry date**

0-5 6-10 11-15 16-20 More

33 **Indicate the which of these were the cause for the termination**

	Always	Very Often	Sometimes	Rarely	Never
Change of Business Requirements					
Inadequate Service Provision					
Failure in Communication					
Liquidation					

Figure 7.3.1.3.4.1 SA Success

7.3.2 **Interviews**

A series of interviews were conducted. These revolved around the questions used in the survey. This was done in an effort to gain further insight into the question areas.

7.3.2.1 **Respondents and Channel**

The researchers identified a number if IT service related organisations in Johannesburg, Grahamstown and Port Elizabeth. These firms were selected as:

- They represented a wide variety of organisations and positions.
- They are actively employed or associated with the IT field
- The respondents have specific interest and experience in Service Level Management and Service Agreements.

Using organisations that are associated with the department of Information Systems and the Center of Excellence at Rhodes University, Interviews were setup with executives in charge of Service Level Management and Service Agreements. Further interviews were then scheduled with individuals in charge of the day-to-day

management of SLM and the development of SAs. The organisations were assured of the anonymity of the interview process.

7.3.2.2 The Interview Instrument

The interviewees were engaged in informal discussions with the researchers. The discussions were steered by the researchers using the hypotheses as a guide. The interviewees were selected from different stakeholder groups in an effort to get responses from all sides of the problem area.

7.4 Conclusion

This chapter provided a detailed description of the empirical study to be undertaken. The empirical study is composed of both an online questionnaire and a series of interviews. The interviews are seen as an effective method of exploring the questions in the survey and thus the hypotheses.

Chapter 8

Results of the Empirical Study

This chapter presents the results of the empirical study. The chapter presents the results of the survey after which the hypothesis tests results are presented. Finally a summary of the interviews is presented. More detailed results of the empirical study can be found in Appendix C.

8.1 Introduction

In this chapter the results of the empirical study designed in Chapter 7 are presented. The empirical study involved both an online survey and a series of interviews aimed at further exploring the theoretical model proposed in Chapter 6.

8.2 Respondents

The online survey was open for a period of 3½ months. The survey was constructed and managed by the survey management program Perception. The survey was started 46 times and finished 24 times. It is felt that the reason for the high non-completion rate was due to the length of the survey.

8.3 Demographics

The following five charts illustrate the demographic data collected on the survey respondents.

Question 1

Indicate the region in which you are currently employed.

	Eastern Cape	Free State	Gauteng	KwaZulu Natal	Mpumalanga	Northern Cape	Limpopo	North West Province	Western Cape	Outside of South Africa
Count	1	0	12	2	0	0	0	0	8	1
Percentage	6.7	0.0	80.0	13.3	0.0	0.0	0.0	0.0	53.3	6.7

Table 8.3.1 Geographic location of Respondents

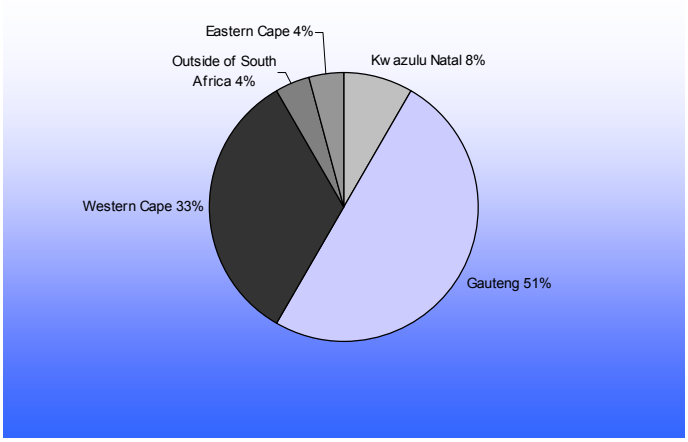


Figure 8.3.1 Geographic location of Respondents

Figure 8.3.1 shows the geographic location of the respondents of the survey. The majority of the respondents (51%) are employed in Gauteng, 33% work in the Western Cape, 8% in KwaZulu Natal, and 4% in both the Eastern Cape and Outside South Africa.

Question 2

Indicate the industry sector in which you are currently employed

	Manufacturing or Pharmaceuticals	ICT Service Provider	Financial Services, Insurance or Legal	Retail or Wholesale	Telecommunications Provider	Computer Manufacturer	Other
Count	1	13	4	1	2	1	2
Percentage	4.2%	54.2%	16.7%	4.2%	8.3%	4.2%	8.3%

Table 8.3.2 Industry of Employment of Respondents

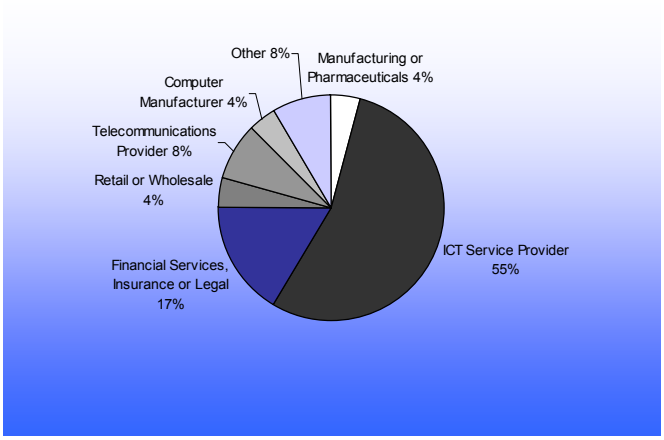


Figure 8.3.2 Industry of Employment of Respondents

Figure 8.3.2 shows that the majority of the respondents (54.2%) are employed by ICT Service Provider firms. 17% work at Financial, Insurance or Legal organisations, 4.2% work in Retail or Wholesale companies, 8% work at Telecommunications providers, 4.2% work at a Computer Manufacturer, 4.2% work in Retail or Wholesale companies, and 10.3% listed their industry as other.

Question 3

Indicate which of these most closely represents your job title

	ICT Consultant	ICT Executive	ICT Manager	ICT Director	Other technical staff	Other	Network Administrator
Count	4	1	10	1	4	3	1
Percentage	16.7%	4.2%	41.7%	4.2%	16.7%	12.5%	4.2%

Table 8.3.3 Job Title

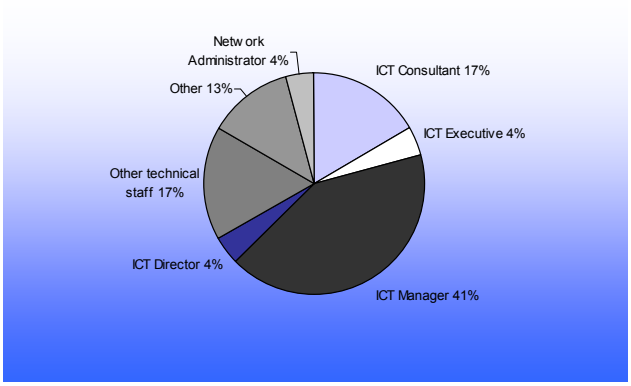


Figure 8.3.3 Job Title

Figure 8.3.3 shows that the majority of respondents (41.7%) identified themselves as ICT Managers. 16.7% listed ICT Consultant, 4.2% listed ICT Executives, 4.2% listed ICT Directors, 16.7% listed Other Technical Staff, 4.2% listed Network Administrator, and 12.5% listed Other.

Question 4

Indicate the number of years you have been involved in Service Level Management

	Less than 1 year	Between 1 and 4 years	Between 5 and 9 years	More than 10 years
Count	2	9	6	7
Percentage	8.3	37.5	25.0	29.2

Table 8.3.4 Years involved in Service Management

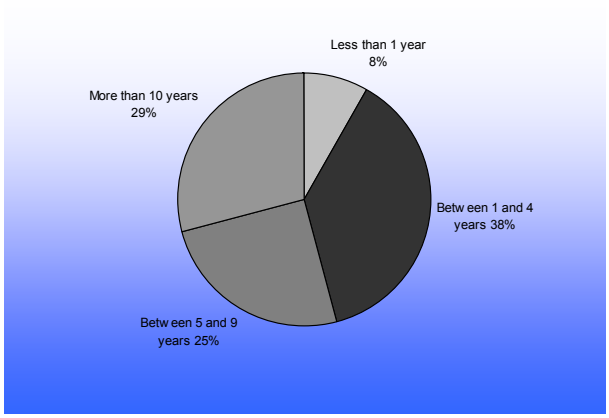


Figure 8.3.4 Years involved in Service Management

Figure 8.3.4 shows that 37.5% of the respondents have been involved with Service Management for between 1 and 4 years. 8.3% have been involved for less than one year, 25% have been involved for between 5 and 9 years, and 29.2% for more than 10 years.

Question 5

Indicate the number of people employed by your organisation

	Less than 100	Between 100 and 499	Between 500 and 999	Between 1000 and 1999	More than 2000
Count	4	2	2	1	15
Percentage	16.7	8.3	8.3	4.2	62.5

Table 8.3.5 Organisation Size

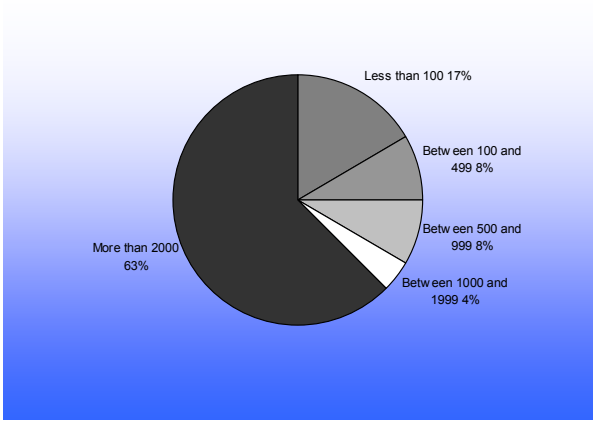


Figure 8.3.5 Organisation Size

Figure 8.3.5 shows that the majority of respondents (62.5%) are employed by organisations with more than 2000 employees. 16.7% by organisations with less than 100 employees, 8.3% by organisations with between 100 and 499, 8.3% by organisations with between 5000 and 999, and 4.2% by organisations with between 1000 and 1999.

The majority of respondents indicated that they are employed by service provider organisations, which are the most likely organisations to have SAs. The majority of respondents indicated that they were in either a managerial or consultancy position. This research focuses on managerial aspects of SAs rather than technical aspects. It is viewed that these are the appropriate responders to question on issues of SAs.

8.4 Questionnaire Results

8.4.1 Respondent Experience with Service Agreements

The first set of Service Agreement questions (25-26) explored the respondents' experience with the development of SAs in the SLM process. The questions were based either on a five point Likert scale or on a specific number series.

Question 25

How many Service Agreement negotiations have you been involved in?

	0 - 5	6 - 10	11 – 15	16 - 20	21+
Count	4	6	3	2	8
Percentage	17.4	26.1	13.0	8.7	34.8

Table 8.4.1.1 SA development experience

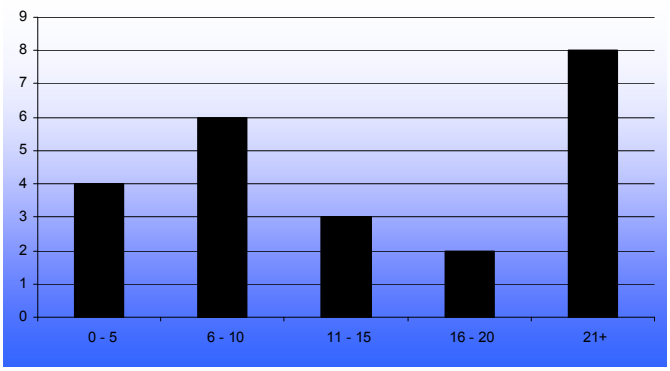


Figure 8.4.1.1 SA development experience

Figure 8.4.1.1 shows that the majority of respondents (34.8%) have been involved in more than 21 SA developments. 17.4% have been involved in less than five, 26.1% between six and ten, 13% between eleven and fifteen and 8.7% have been involved in between sixteen and twenty developments.

Question 26

Indicate the extent to which you were involved in the Service Agreement negotiations? (if more than one, on average)

	None	Below Average	Average	Above Average	Extensive
Count	0	2	3	12	7
Percentage	0.0	8.3	12.5	50.0	29.2

Table 8.4.1.2 Development Involvement

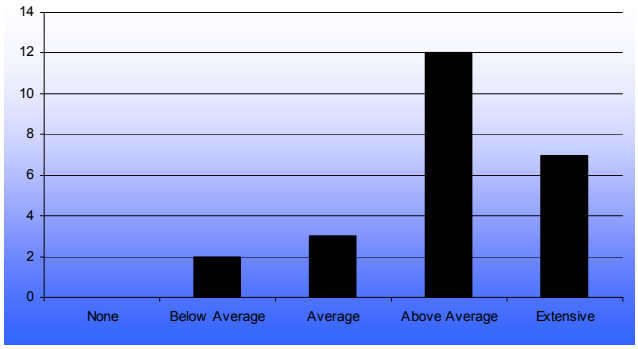


Figure 8.4.1.2 Development Involvement

Figure 8.4.1.2 shows that of the respondents, the majority (50%) claim to have been involved in an above average capacity. 8.3% claim a below average capacity, 12.5% an average capacity and 29.2% claim to have been heavily involved in the SA development process.

8.4.2 The Development Principles

The next set of questions (27-30) explored the respondents' view of the relative importance of the development principles. The responses are also used to test the

hypotheses. The questions were based either on a five point Likert scale or on a specific number series.

Question 27

Indicate the time required (in months) to develop a Service Agreement for the following number of services included in the agreement.

Count		Months				
		0 - 1	1 - 3	4 - 6	6 - 12	12+
Services	1 - 5	10	11	0	2	1
	6 - 10	4	13	4	2	1
	11 - 15	2	7	10	4	1
	16 - 20	1	6	7	7	3
	20 - More	1	3	4	10	6
Percentage		Months				
		0 - 1	1 - 3	4 - 6	6 - 12	12+
Services	1 - 5	41.7	45.8	0.0	8.3	4.2
	6 - 10	16.7	54.2	16.7	8.3	4.2
	11 - 15	8.3	29.2	41.7	16.7	4.2
	16 - 20	4.2	25.0	29.2	29.2	12.5
	20 - More	4.2	12.5	16.7	41.7	25.0

Table 8.4.2.1 SA Development Time

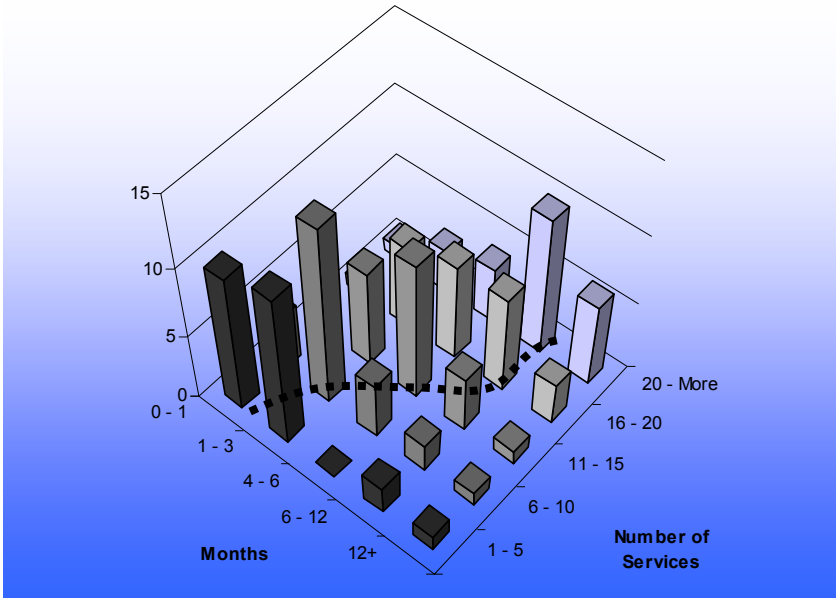


Figure 8.4.2.1 SA Development Time

Figure 8.4.2.1 shows the responses to the grid question that explored the length of time required for the development of SA's of varying size. The responses suggest that

there is support for the contention that the more services included in an SA, the longer it takes to develop. This is indicated by the dotted line.

Question 28

Indicate the extent to which each of the following stakeholders were involved in the SA development

Count	None	Limited	Sufficient	Moderate	Extensive
Service Provider	0	1	0	10	13
Client (pays for the services)	0	2	0	7	15
User (uses the services)	1	6	5	5	7
Service Delivery Manager	0	2	1	4	17
Service Delivery Team	1	1	6	8	8
Financial Manager	1	7	5	9	2
Legal Advisor	2	6	5	7	4
Percentage	**None**	**Limited**	**Sufficient**	**Moderate**	**Extensive**
Service Provider	0.0	4.2	0.0	41.7	54.2
Client (pays for the services)	0.0	8.3	0.0	29.2	62.5
User (uses the services)	4.2	25.0	20.8	20.8	29.2
Service Delivery Manager	0.0	8.3	4.2	16.7	70.8
Service Delivery Team	4.2	4.2	25.0	33.3	33.3
Financial Manager	4.2	29.2	20.8	37.5	8.3
Legal Advisor	8.3	25.0	20.8	29.2	16.7

Table 8.4.2.2 Stakeholder Involvement

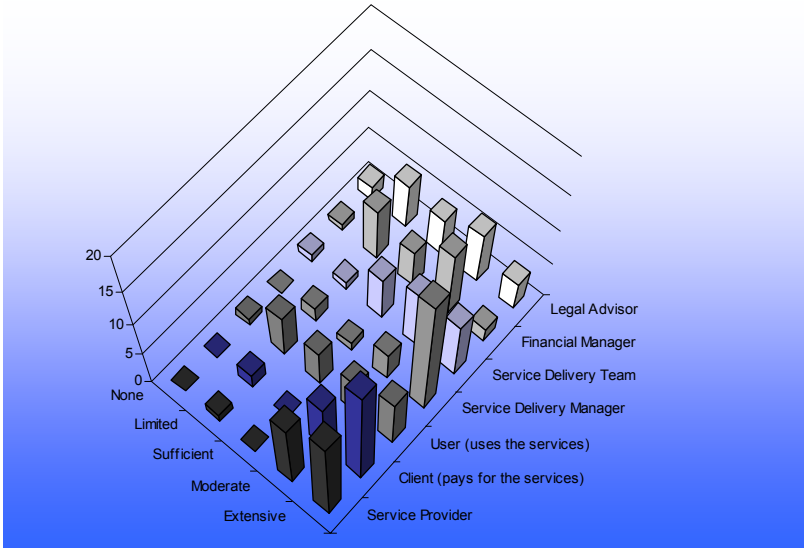
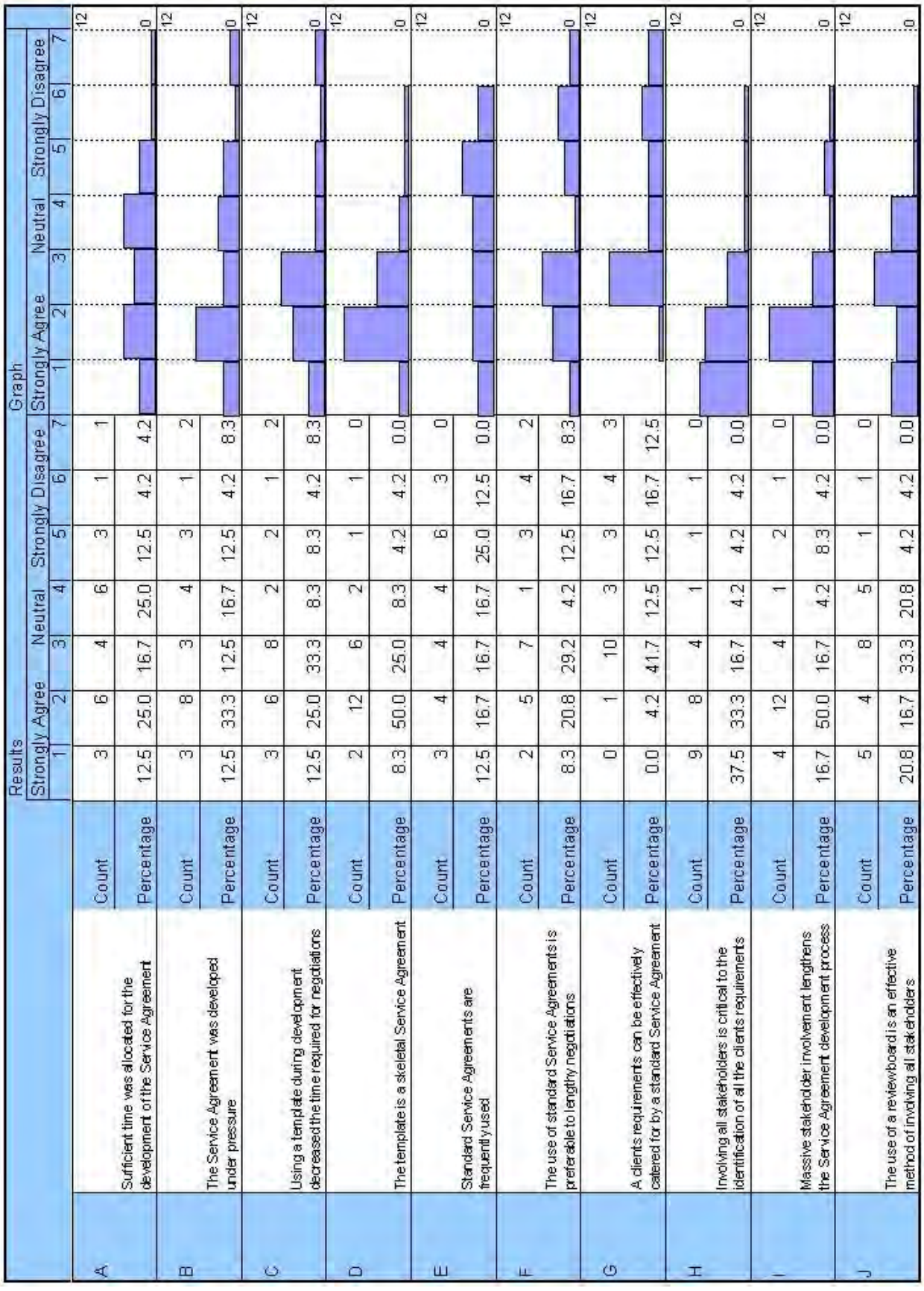


Figure 8.4.2.2 Stakeholder Involvement

Figure 8.4.3.2 shows the responses to a question that explored the relative importance of various stakeholders in the SA development process. The majority of the stakeholders have been regarded as having extensive involvement in the process. However, the responses suggest that the user, the financial manager and the legal advisor have less pronounced degrees of involvement in the development process.

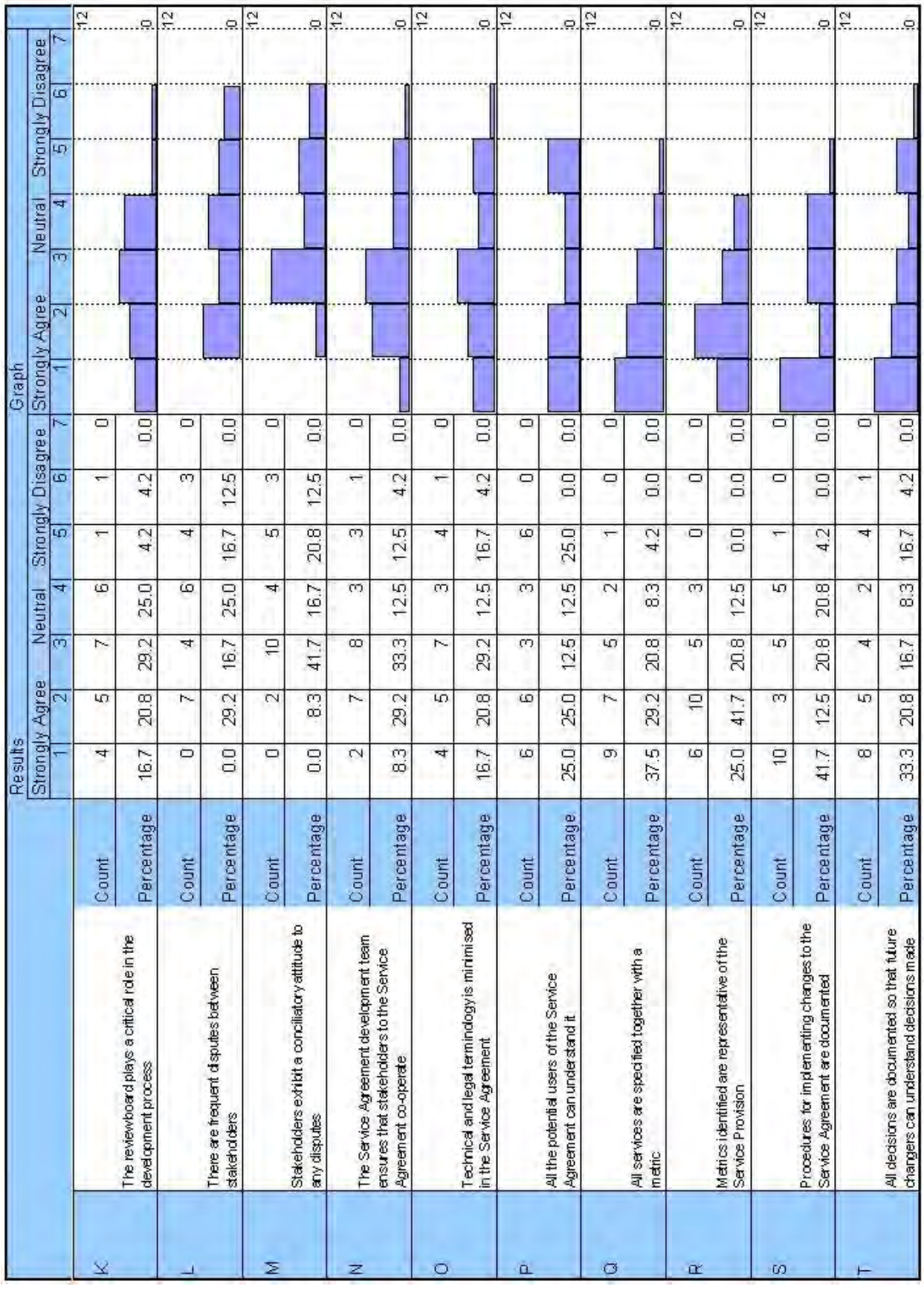
Question 29

Indicate the extent to which you agree with the following statements regarding Service Agreement development (1 = Strongly Disagree and 7 = Strongly Agree)



		Results							
		Strongly Agree			Neutral			Strongly Disagree	Graph
		1	2	3	4	5	6	7	
A	Count	3	6	4	6	3	1	1	
Sufficient time was allocated for the development of the Service Agreement	Percentage	12.5	25.0	16.7	25.0	12.5	4.2	4.2	
B	Count	3	8	3	4	3	1	2	
The Service Agreement was developed under pressure	Percentage	12.5	33.3	12.5	16.7	12.5	4.2	8.3	
C	Count	3	6	8	2	2	1	2	
Using a template during development decreased the time required for negotiations	Percentage	12.5	25.0	33.3	8.3	8.3	4.2	8.3	
D	Count	2	12	6	2	1	1	0	
The template is a skeletal Service Agreement	Percentage	8.3	50.0	25.0	8.3	4.2	4.2	0.0	
E	Count	3	4	4	4	6	3	0	
Standard Service Agreements are frequently used	Percentage	12.5	16.7	16.7	16.7	25.0	12.5	0.0	
F	Count	2	5	7	1	3	4	2	
The use of standard Service Agreements is preferable to lengthy negotiations	Percentage	8.3	20.8	29.2	4.2	12.5	16.7	8.3	
G	Count	0	1	10	3	3	4	3	
A clients requirements can be effectively catered for by a standard Service Agreement	Percentage	0.0	4.2	41.7	12.5	12.5	16.7	12.5	
H	Count	9	8	4	1	1	1	0	
Involving all stakeholders is critical to the identification of all the clients requirements	Percentage	37.5	33.3	16.7	4.2	4.2	4.2	0.0	
I	Count	4	12	4	1	2	1	0	
Massive stakeholder involvement lengthens the Service Agreement development process	Percentage	16.7	50.0	16.7	4.2	8.3	4.2	0.0	
J	Count	5	4	8	5	1	1	0	
The use of a reviewboard is an effective method of involving all stakeholders	Percentage	20.8	16.7	33.3	20.8	4.2	4.2	0.0	

Table 8.4.2.3 Question 29 Results Part I



			Results								Graph
			Strongly Agree 1	2	3	Neutral 4	5	Strongly Disagree 6	7		Strongly Agree 1 2 3 Neutral 4 5 Strongly Disagree 6 7
K	The reviewboard plays a critical role in the development process	Count	4	5	7	6	1	1	0		12 0
		Percentage	16.7	20.8	29.2	25.0	4.2	4.2	0.0		
L	There are frequent disputes between stakeholders	Count	0	7	4	6	4	3	0		12 0
		Percentage	0.0	29.2	16.7	25.0	16.7	12.5	0.0		
M	Stakeholders exhibit a conciliatory attitude to any disputes	Count	0	2	10	4	5	3	0		12 0
		Percentage	0.0	8.3	41.7	16.7	20.8	12.5	0.0		
N	The Service Agreement development team ensures that stakeholders to the Service Agreement co-operate	Count	2	7	8	3	3	1	0		12 0
		Percentage	8.3	29.2	33.3	12.5	12.5	4.2	0.0		
O	Technical and legal terminology is minimised in the Service Agreement	Count	4	5	7	3	4	1	0		12 0
		Percentage	16.7	20.8	29.2	12.5	16.7	4.2	0.0		
P	All the potential users of the Service Agreement can understand it	Count	6	6	3	3	6	0	0		12 0
		Percentage	25.0	25.0	12.5	12.5	25.0	0.0	0.0		
Q	All services are specified together with a metric	Count	9	7	5	2	1	0	0		12 0
		Percentage	37.5	29.2	20.8	8.3	4.2	0.0	0.0		
R	Metrics identified are representative of the Service Provision	Count	6	10	5	3	0	0	0		12 0
		Percentage	25.0	41.7	20.8	12.5	0.0	0.0	0.0		
S	Procedures for implementing changes to the Service Agreement are documented	Count	10	3	5	5	1	0	0		12 0
		Percentage	41.7	12.5	20.8	20.8	4.2	0.0	0.0		
T	All decisions are documented so that future changers can understand decisions made	Count	8	5	4	2	4	1	0		12 0
		Percentage	33.3	20.8	16.7	8.3	16.7	4.2	0.0		

Table 8.4.2.4 Question 29 Results Part II

The results shown in the table 8.4.2.3 and table 7.4.2.8 represent the most significant questions of the survey. They are statement questions that explore the level of agreement with various key ideas in this research. A seven point Likert scale was used, in which one represented Strongly Disagree and seven represented Strongly Agree. The graphs are on a scale of 0 to 12 as 12 is the largest number of responses any one option received.

Statements A and B explored the relationship between time constraining pressure and SA development, more specifically whether or not DTs are allowed sufficient time to develop the SA. Although some respondents indicated that time for development was limited, there is indication that sufficient time was allocated.

Statement C explored the perceived effectiveness of using a template for SA development. There was strong agreement with this statement. Statement D explored the extent to which respondents view a template SA and a standard SA as different. A standard SA is almost complete before negotiations even begin, whereas a template SA contains far less detail and is more of a guide to the negotiations. There is strong indication that respondents know the difference between the two.

Statements E, F and G explored the use of standard SAs. There was a mixed response to the use of standard SAs and the respondents were divided as to whether or not the use of a standard SA was preferable to lengthy negotiations. Almost 30% held strong views that standard SAs do not cater for clients' requirements.

Statements H, I, J and K explored the interaction of stakeholders and the use of a review board. The respondents indicated strongly that it was critical to involve all stakeholders in the negotiations, and that this will lengthen the negotiation period. The respondents indicated strongly that a review board is an effective method of involving all the stakeholders in the development process. However, they were not as decisive about whether or not a review board was critical to the development process.

Statements L, M and N explored the relationship between stakeholders and the DT. No strong indication was given by the respondents as to whether stakeholders have disputes and work to get around them or not. However, the response to statement N

was far more clear, indicating that it is the responsibility of the DT to ensure that the stakeholders work together amicably.

Statements O and P explored the use of technical and legal terminology and understandability of the SA. The respondents indicated that some effort is made to minimise technical and legal terminology in SAs. However, judging by the response to statement P, it is not possible to completely remove all terminology resulting in some of the users of SA not understanding everything that they need to from the SA.

Statements Q and R explored the use of Metrics in SAs. There is strong indication that all services be specified with metrics and that these metrics be meaningful.

Statements S and T explored the respondents' knowledge of the need for flexibility in an SA. The response to statement S is strong, whilst, the response to statement T is not so definite, indicating that although some effort is made to ensure the document is flexible, it is not considered critical.

Question 30

Indicate how frequently the Service Provider reports to the Client on the service provision?

	Real-time	Fortnightly	Monthly	Quarterly	Yearly	Never
Count	4	5	14	0	0	1
Percentage	16.7	20.8	58.3	0.0	0.0	4.2

Table 8.4.2.5 Reporting Frequency

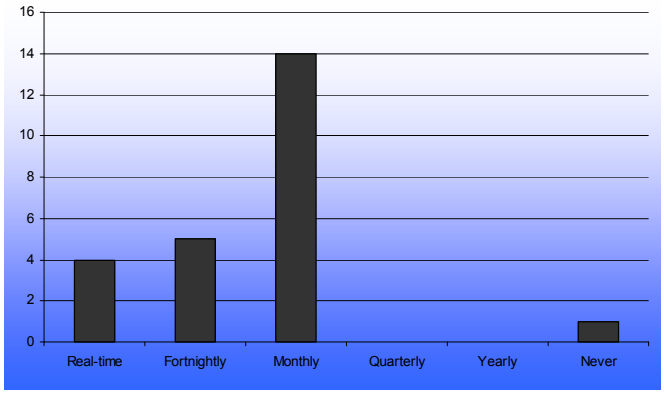


Figure 8.4.2.3 Reporting Frequency

Figure 8.4.3.3 shows that the majority of the respondents (58.3%) indicated that they report on their service provision to their clients on a monthly basis. 16.7% said they have real-time reporting and 20.8% indicated they report every fortnight. 4.2% indicated that they never report to their client on their service provision.

8.4.3 Service Agreement Success

The final set of questions (31-33) explored the relative success of the respondents SAs. The questions were based either on a five point Likert scale or on a specific number series.

Question 31

On average, indicate the number of changes made to your Service Agreements within six months of them becoming operational

	0 - 10	10 - 20	21 - 30	31 - 40	41 +
Count	18	4	2	0	0
Percentage	75.0	16.7	8.3	0.0	0.0

Table 8.4.3.1 Changes to Service Agreements

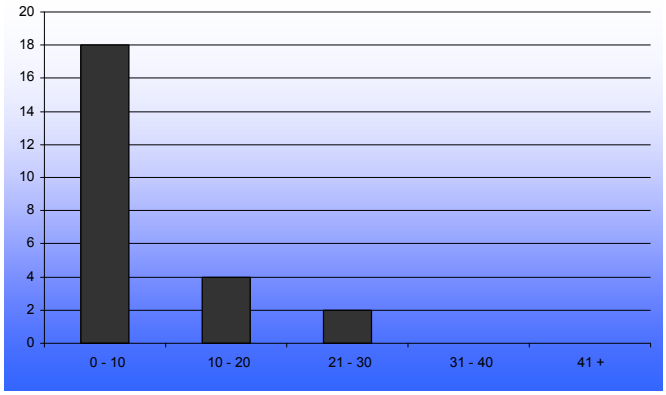


Figure 8.4.3.1 Changes to SAs after implementation

Figure 8.4.3.1 shows that the majority of respondents (75%) indicated that they have fewer than ten changes to their SA's after implementation. 16.7% indicated that they had between ten and twenty and 8.3% indicated they had between 21 and 30.

Question 32

Indicate the number of Service Agreements that you have negotiated that have ended before their expiry date

	0 – 5	6 – 10	11-15	16-20	21+
Count	18	4	0	0	2
Percentage	75.0	16.7	0.0	0.0	8.3

Table 8.4.3.2 SA's Ending Prematurely

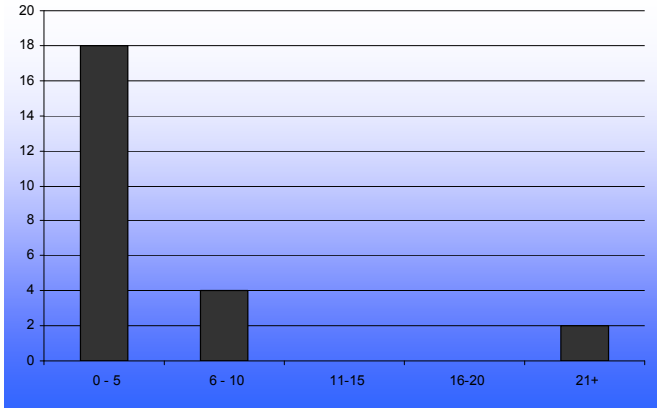


Figure 8.4.3.2 SA's Ending Prematurely

Figure 8.4.3.2 shows that the majority of the respondents (75%) indicated that less than five of their SAs ended prematurely. 16.7% indicated that they have had between six and ten SAs end prematurely and 8.3% indicated that they have had more than 21 SAs end prematurely.

Question 33

Indicate which of these were the cause for the termination

COUNT	Never	Rarely	Sometimes	Always	Very Often
Change of Business Requirements	2	9	8	1	4
Inadequate Service Provision	3	8	8	1	3
Failure in Communication	2	5	8	1	6
Liquidation	3	10	4	3	1
PERCENTAGE	Never	Rarely	Sometimes	Always	Very Often
Change of Business Requirements	8.3	37.5	33.3	4.2	16.7
Inadequate Service Provision	13.0	34.8	34.8	4.3	13.0
Failure in Communication	9.1	22.7	36.4	4.5	27.3
Liquidation	14.3	47.6	19.0	14.3	4.8

Table 8.4.3.3 Reason for SA Failure

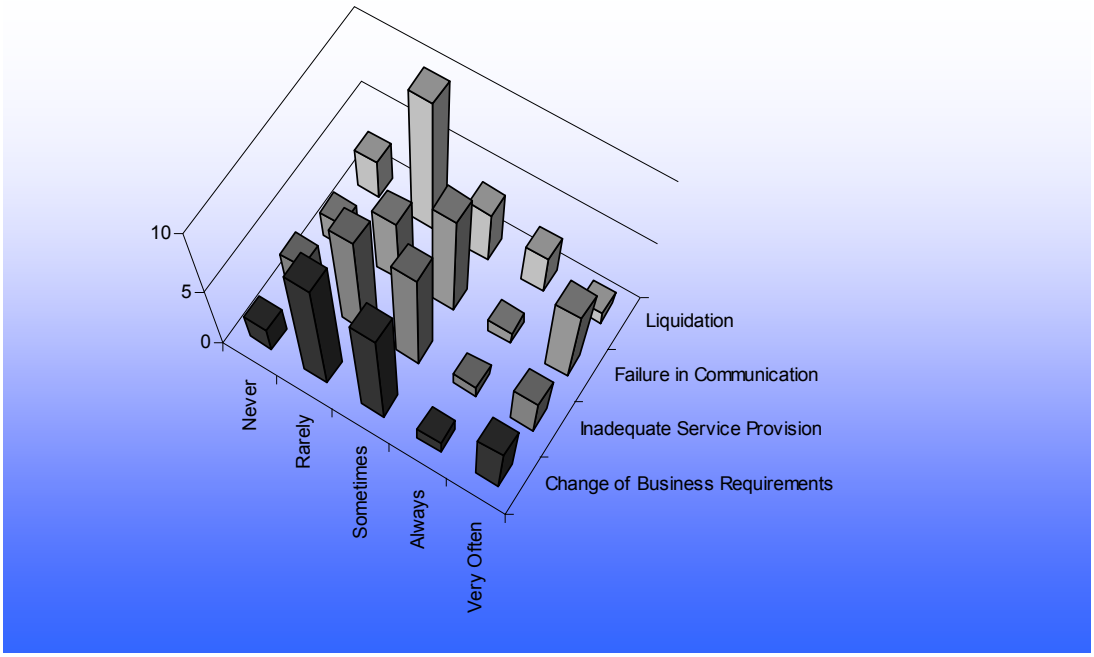


Figure 8.4.3.3 Reason for SA Failure

Figure 8.4.3.3 shows the frequency with which the respondents believed the given reasons were responsible for the SA failure. No clear trend is observable, save to say that if the SA is terminated, it is more likely to be as a result of failure in communication than liquidation.

8.5 Hypothesis Tests

The research formulated a number of hypotheses. Each hypothesis is now subject to statistical analysis using appropriate test statistics including the Chi-Square test, Fishers Exact test and the Spearman Rank-order correlation.

The low response rate to the survey, however, made statistical analysis problematic. When faced with sparseness, some researchers collapse categories to conform to statistical rules, and apply an asymptotic test, such as a Pearson Chi-square. However, collapsing categories cannot always be recommended because it can seriously distort what the data convey about associations (Babinec and Mehta, 1998).

A Fisher Exact test can be used on data with small sample sizes. There is no restriction on the sample sizes. Generating a Fisher Exact p-value is computationally

intensive. Fortunately, advances in statistical computing, coupled with advances in computing power, have made it possible to calculate Fisher Exact p-values quickly for common statistical situations.

Both the Pearson Chi-square and the Fisher Exact tests indicate whether or not a relationship exists between two variables. A Spearman Rank-Order Correlation test can be conducted on the same data to determine the strength of the relationship. The Spearman Rank-Order Correlation Coefficient ranges from +1 to -1 and can be interpreted in the following way:

0.0 to 0.2	Very weak to negligible correlation
0.2 to 0.4	Weak, low correlation (not very significant)
0.4 to 0.7	Moderate correlation
0.7 to 0.9	Strong, high correlation
0.9 to 1.0	Very strong correlation

If the coefficient is negative, then a negative relationship exists between the two variables. Conversely, if the coefficient is positive, a positive relationship exists between the two variables.

Three separate statistical tests were conducted on the data.

1. Due to the restriction of cell count in the Chi-Square test and the poor grouping of data in the results, the data was regrouped by collapsing categories. A Chi-Square test was conducted on the regrouped data. The regroupings can be seen in Appendix C.
2. A Fisher Exact test was conducted on the original data.
3. A Spearman Rank-Order Correlation was conducted on the original data.

Hypothesis testing attempts to demonstrate a relationship between the development principles and SA success. For both the Chi-Square and the Fisher Exact tests, a confidence level of 95% was set.

The hypothesis test results are as follows:

Hypothesis 1

$H0_1$ = There is no relationship between time constraining pressure and the success of the SA.

$H1_1$ = There is a relationship between time constraining pressure and the success of the SA.

	Chi-Square	Df	P
Chi Square Adjusted Data	0.543	2	0.762
Fisher Exact Original Data	10.597	12	0.725

Table 8.5.1 Hypothesis 1 Test Results

Table 8.5.1 shows the significance of the relationship, between Question 29 Statement B and Question 31, to be at p=0.56734. For there to be a significant relationship, a level of $p<0.05$ is required. Thus the author fails to reject the null hypothesis. This means there is no significant relationship between time pressure and the success of an SA.

	Value	Standard Error
Spearman Rank-Order Correlation	0.221	0.189

Table 8.5.2 Hypothesis 1 Spearman Results

The Spearman Rank-Order Correlation Coefficient is 0.221, which indicates that there is a weak, low correlation (not very significant) between the variables.

Hypothesis 2

$H0_2$ = There is no relationship between the use of a template and the success of the SA.

$H1_2$ = There is a relationship between the use of a template and the success of the SA.

	Chi-Square	Df	P
Chi Square Adjusted Data	6.400	2	0.041
Fisher Exact Original Data	21.080	12	0.002

Table 8.5.3 Hypothesis 2 Test Results

Table 8.5.3 shows the significance of the relationship, between Question 29 Statement C and Question 31, to be at p=0.00113. For there to be a significant relationship, a level of p<0.05 is required. Thus the author rejects the null hypothesis. This indicates support for the alternative hypothesis, that is, there is a relationship between the use of a template and the success of an SA.

	Value	Standard Error
Spearman Rank-Order Correlation	0.562	0.139

Table 8.5.4 Hypothesis 2 Spearman Results

The Spearman Rank-Order Correlation Coefficient is 0.562, which indicates that there is a moderate correlation between the variables.

Hypothesis 3

$H0_3$ = There is no relationship between the use of a standard contract in SA negotiations and the success of the SA.
$H1_3$ = There is a relationship between the use of a standard contract in SA negotiations and the success of the SA.

	Chi-Square	Df	P
Chi Square Adjusted Data	0.610	2	0.737
Fisher Exact Original Data	10.207	12	0.795

Table 8.5.5 Hypothesis 3 Test Results

Table 8.5.5 shows the significance of the relationship, between Question 29 Statement F and Question 31, to be at p=0.71991. For there to be a significant relationship, a level of p<0.05 is required. Thus the author fails to reject the null hypothesis. This means there is no significant relationship between the use of a standard SA and the success of an SA.

	Value	Standard Error
Spearman Rank-Order Correlation	0.197	0.186

Table 8.5.6 Hypothesis 3 Spearman Results

The Spearman Rank-Order Correlation Coefficient is 0.197, which indicates that there is a very weak to negligible correlation between the variables.

Hypothesis 4

$H0_4$ = There is no relationship between the degree to which all stakeholders are involved in the development process and the success of the SA.
$H1_4$ = There is a relationship between the degree to which all stakeholders are involved in the development process and the success of the SA.

	Chi-Square	Df	P
Chi Square Adjusted Data	6.857	2	0.032
Fisher Exact Original Data	19.072	10	0.002

Table 8.5.7 Hypothesis 4 Test Results

Table 8.5.7 shows the significance of the relationship, between Question 29 Statement H and Question 31, to be at p=0.00261. For there to be a significant relationship, a level of $p<0.05$ is required. Thus the author rejects the null hypothesis. This indicates support for the alternative hypothesis, that is, there is a relationship between the degree to which all stakeholders are involved in the development process and the success of an SA.

	Value	Standard Error
Spearman Rank-Order Correlation	0.604	0.125

Table 8.5.8 Hypothesis 4 Spearman Results

The Spearman Rank-Order Correlation Coefficient is 0.604, which indicates that there is a moderate correlation between the variables.

Hypothesis 5

$H0_5$ = There is no relationship between the use of a review board as a tool to promote participation and the success of the SA
$H1_5$ = There is a relationship between the use of a review board as a tool to promote participation and the success of the SA.

	Chi-Square	Df	P
Chi Square Adjusted Data	5.031	2	0.081
Fisher Exact Original Data	8.394	10	0.814

Table 8.5.9 Hypothesis 5 Test Results

Table 8.5.9 shows the significance of the relationship, between Question 29 Statement J and Question 31, to be at p=0.72859. For there to be a significant relationship, a level of $p<0.05$ is required. Thus the author fails to reject the null hypothesis. This means there is no significant relationship between the use of a review board and the success of an SA.

	Value	Standard Error
Spearman Rank-Order Correlation	-0.130	0.163

Table 8.5.10 Hypothesis 5 Spearman Results

The Spearman Rank-Order Correlation Coefficient is -0.130, which indicates that there is a very weak to negligible correlation between the variables.

Hypothesis 6

$H0_6$ = There is no relationship between the degree of a conciliatory attitude among the stakeholders and the success of the SA.
$H1_6$ = There is a relationship between the degree of a conciliatory attitude among the stakeholders and the success of the SA.

	Chi-Square	Df	P
Chi Square Adjusted Data	1.111	2	0.574
Fisher Exact Original Data	5.308	8	0.889

Table 8.5.11 Hypothesis 6 Test Results

Table 8.5.11 shows the significance of the relationship, between Question 29 Statement M and Question 31, to be at p=0.69934. For there to be a significant relationship, a level of $p<0.05$ is required. Thus the author fails to reject the null

hypothesis. This means there is no significant relationship between the degree of a conciliatory attitude among the stakeholders and the success of an SA.

	Value	Standard Error
Spearman Rank-Order Correlation	0.163	0.165

Table 8.5.12 Hypothesis 6 Spearman Results

The Spearman Rank-Order Correlation Coefficient is 0.163, which indicates that there is a very weak to negligible correlation between the variables.

Hypothesis 7

$H0_7$ = There is no relationship between the amount of technical and legal terminology used in the specification of SLAs and the success of the SA.
$H1_7$ = There is a relationship between the amount of technical and legal terminology used in the specification of SLAs and the success of the SA.

	Chi-Square	Df	P
Chi Square Adjusted Data	5.714	2	0.057
Fisher Exact Original Data	10.340	10	0.333

Table 8.5.13 Hypothesis 7 Test Results

Table 8.5.13 shows the significance of the relationship, between Question 29 Statement O and Question 31, to be at p=0.40241. For there to be a significant relationship, a level of $p<0.05$ is required. Thus the author fails to reject the null hypothesis. This means there is no significant relationship between the amount of technical and legal terminology used in the specification of SAs and the success of an SA.

	Value	Standard Error
Spearman Rank-Order Correlation	0.408	0.139

Table 8.5.14 Hypothesis 7 Spearman Results

The Spearman Rank-Order Correlation Coefficient is 0.408, which indicates that there is a moderate correlation between the variables.

Hypothesis 8

$H0_8$ = There is no relationship between the specification of service level metrics that are representative of the service provision in an SA and the success of the SA.
$H1_8$ = There is a relationship between the specification of service level metrics that are representative of the service provision in an SA and the success of the SA.

	Chi-Square	Df	P
Chi Square Adjusted Data	0.296	2	0.352
Fisher Exact Original Data	8.194	8	0.473

Table 8.5.15 Hypothesis 8 Test Results

Table 8.5.15 shows the significance of the relationship, between Question 29 Statement Q and Question 31, to be at p=0.25697. For there to be a significant relationship, a level of $p<0.05$ is required. Thus the author fails to reject the null hypothesis. This means there is no significant relationship between the specification of meaningful service level metrics in an SA and the success of an SA.

	Value	Standard Error
Spearman Rank-Order Correlation	0.034	0.195

Table 8.5.16 Hypothesis 8 Spearman Results

The Spearman Rank-Order Correlation Coefficient is 0.034, which indicates that there is a very weak to negligible correlation between the variables.

Hypothesis 9

$H0_9$ = There is no relationship between the periodic reporting of SP performance and the success of the SA.
$H1_9$ = There is a relationship between the periodic reporting of SP performance and the success of the SA.

	Chi-Square	Df	P
Chi Square Adjusted Data	0.296	1	0.586
Fisher Exact Original Data	4.207	6	0.848

Table 8.5.17 Hypothesis 9 Test Results

Table 8.5.9 shows the significance of the relationship, between Question 30 and Question 31, to be at p=0.80405. For there to be a significant relationship, a level of p<0.05 is required. Thus the author fails to reject the null hypothesis. This means there is no significant relationship between the specification of periodic reporting in the SA and the success of an SA.

	Value	Standard Error
Spearman Rank-Order Correlation	0.016	0.207

Table 8.5.18 Hypothesis 9 Spearman Results

The Spearman Rank-Order Correlation Coefficient is 0.016, which indicates that there is a very weak to negligible correlation between the variables.

Hypothesis 10

$H0_{10}$ = There is no relationship between the inclusion of procedures for implementing changes to the SA into the SA and the success of the SA.
$H1_{10}$ = There is a relationship between the inclusion of procedures for implementing changes to the SA into the SA and the success of the SA.

	Chi-Square	Df	P
Chi Square Adjusted Data	2.089	2	0.352
Fisher Exact Original Data	8.307	8	0.406

Table 8.5.19 Hypothesis 10 Test Results

Table 8.5.19 shows the significance of the relationship, between Question 29 Statement S and Question 31, to be at p=0.61243. For there to be a significant relationship, a level of p<0.05 is required. Thus the author fails to reject the null hypothesis. This means there is no significant relationship between the inclusion of procedures for implementing changes to the SA into the SA and the success of an SA.

	Value	Standard Error
Spearman Rank-Order Correlation	0.206	0.189

Table 8.5.20 Hypothesis 8 Spearman Results

The Spearman Rank-Order Correlation Coefficient is 0.034, which indicates that there is weak, low correlation (not very significant) between the variables.

8.6 Interviews

8.6.1 Demographics

The following table and graph show geographic locations of the interviewees.

	Johannesburg	Grahamstown	Port Elizabeth
Count	10	1	3
Percentage	71.43	7.14	21.43

Table 8.6.1.1 Interviewee Location

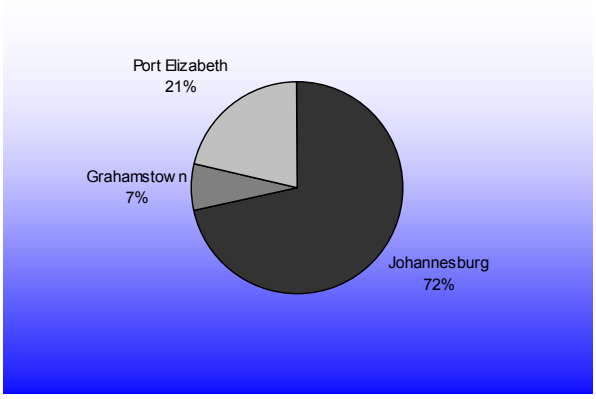


Figure 8.6.1.1 Interviewee Location

In total, fourteen interviews were conducted, with the majority (71.4%) in Johannesburg, with 7.1% in Grahamstown and with 21.4% in Port Elizabeth.

The following table and graph show the type of employer that employs the interviewees.

	Courier Company	External ICT Service Provider	Internal ICT Provider
Count	4	6	4

Percentage	28.57	42.86	28.57

Table 8.6.1.2 Interviewee Employer Type

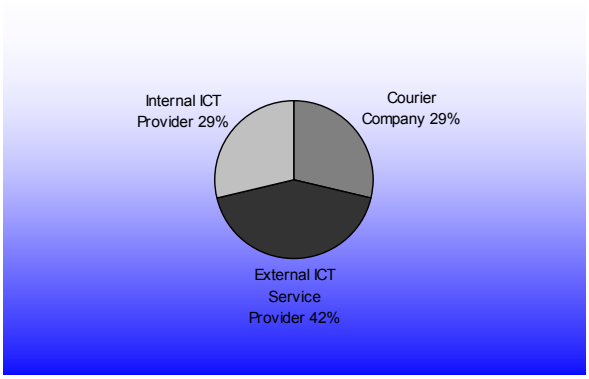


Figure 8.6.1.2 Interviewee Employer Type

The majority of the interviewees (42.9%) were from External ICT Service Provider organisations. 28.6 percent of the interviewees were from both Internal ICT Service Provider companies and Courier companies. It was thought that courier companies are very similar in nature to service providers in that they provide a service that can be quantified to clients in a competitive industry. However, courier companies have had more time for their service delivery to mature.

The following table and graph shows job titles of the interviewees

	ICT Consultant	ICT Executive	ICT Manager	ICT Director	Other
Count	1	5	1	2	5
Percentage	7.14	35.71	7.14	14.30	35.71

Table 8.6.1.3 Interviewee Position

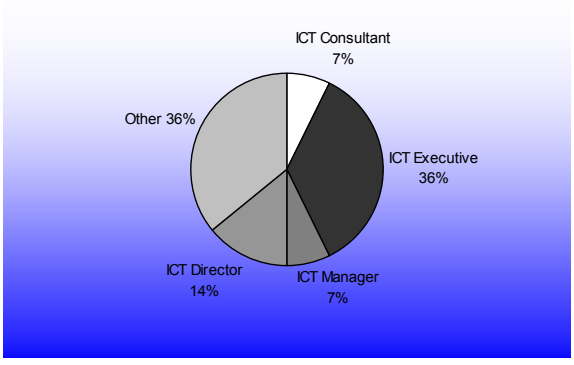


Figure 8.6.1.3 Interviewee Position

Of the interviewees, 7.1% listed their position as ICT Consultant, 35.7% % listed their position as ICT Executive, 7.1% listed their position as ICT Manager, 14.3% listed their position as ICT Director and 35.7% listed their position as Other.

8.6.2 Interview Summaries

The following are reports on the interviews:

Interviewee 1

The first interviewee is employed as a lawyer for a multinational service provider. The interviewee headed up the legal department tasked with formalising the SAs that organisation developed. The organisation is a multination ASP and ISP provider. Because of this, he has been heavily involved in the development of many SAs, especially in the Master Service Agreement.

He believes that an SA is an integral part of an SLM strategy. He suggested that the SA document is constructed of two separate sections. The first section is the Service Level Agreements, and these are developed by the sales team. The sales team receives a Request For Proposal (RFP) and develops a proposal for the client. If the original proposal is accepted, the sales team then negotiates the SLAs using the Service Catalogue as a reference. Once the sales team and the client have come to an agreement as to the services, the agreement is handed over to the lawyers. The lawyers then develop the second section, the Master Service Agreement, in conjunction with the client's legal advisors. The Interviewee acknowledged that in the majority of cases, the clients Master Service Agreement is used as a basis for the agreement. It was also mentioned that the Master Service Agreement contains documented procedures for making changes to the SA, as with all legal documents.

Once the SA had been developed and signed, the interviewee indicated that it was then used as a daily reference guide by the organisations Account Managers. He added that account managers are not lawyers or technical experts, although they do have some understanding of both. Thus, the organisation developed SAs that were as jargon free as possible.

Interviewee 2

The second interviewee is employed as the Chief Information Officer for a domestic courier company. The courier company forms part of a multinational organisation that concentrates it efforts in North America and Africa.

He believes that poor preparation will lead to failure. This preparation can be either in the development of a service catalogue, as in the identification of good business processes, or in the acquisition of knowledge about SLM and SAs. The interviewees company has adopted the Six Sigma approach to SLM. They have a semi-functional SLM program. A few of their SAs have failed. This was due to the fact that the development team did not know what the company could offer and did not refer to the service catalogue.

Interviewee 3

The third interviewee is employed as the Manager of Infrastructure at a domestic courier company. He has been intimately involved in the development of several SAs. He believed that preparation was key to the successful development of an SA. He stated the need to identify core competencies and integrate these into SAs. The company had been presented a number of Standard SAs from clients. They rejected these in favour of a complete development cycle. He also stated the importance of managing expectations in all stakeholders during the development process.

Interviewee 4

The fourth Interviewee was the Chief Technology Officer of a multinational service provider. The organisation is a major supplier of telecommunications and government systems across the African continent.

This organisation is experiencing a large financial drain due to SA penalty clauses. This firm has developed a Service Catalogue, and maintains it. However, the sales force is not selling off the Service Catalogue, but "promising anything to make a sale." It is thought that this is the case because the sales teams are rewarded on a commission basis and are not involved in the initial service delivery. The interviewee indicated that he believed if the sales person was heavily involved in the first year of

the service delivery and was only paid their commission after a successful service rollout, then the service catalogue would be far more strictly adhered to.

He stated that SAs are a key to the development of a business relationship between the stakeholders. It was also stated that SAs are only really used when systems fail and thus it is essential to measure everything.

Interviewee 5

The fifth interviewee is employed as the Chief Executive Officer of a domestic courier company that specialises in the banking sector. This organisation has developed a Service Catalogue for every single function in their organisation. The interviewee was insistent that an organisation must first manage their Service Catalogue, and only then enter into SAs. He emphasised the need for an organisation to learn to refuse business that falls outside of their Service Catalogue. However, he did admit that a Service Catalogue does serve as a base from which new services or customisation of existing services can begin. The interviewee stated that the only time that his organisation had had to refer to an SA was when there had been a problem.

Interviewee 6

The sixth interviewee is employed as the Marketing Director at a domestic courier company that specialises in the banking sector. He served as the Account Manager for the organisations major clients. He believed that a Service Catalogue must be dynamic and hence it is critical to know what is happening in your business and what you can or cannot do in real-time. The organisation must be flexible in its service delivery, open to the creation of new services using the service catalogue as a base. He did stress that stakeholders to an SA must make periodic amendments to the SA to document changes in the relationship because if one of the stakeholders changes then anything not documented is likely to be ruled out. He had been exposed to a situation where a long-term contact in an organisation changed and no amendments had been made to the SA, thus negating all advances that had been made in the relationship.

Interviewee 7

The seventh interviewee is employed as Divisional Director of Information Systems at a domestic courier company specialising in drug transportation. This organisation

had developed a complete range of internal SAs based on the priority of the service in regard to the organisations core operations. He stated the importance of developing a functional and efficient help system, and that it should be priority driven. In terms of the measurements, he said that all incidents are measured against a number of variables, to determine the incidents priority. The organisation reviewed its SAs twice a year to ensure that they still accurately represented the desired service provision. Change had presented a problem for the organisation and they were in the process of developing procedures for making changes to SAs.

Interviewee 8

The eighth interviewee is employed as Chief Information Officer at an international courier company focused on the African continent. The interviewee stated that the key to successful SLM is to offer a good service and ensure the client is content. To ensure that a good service was offered, the organisation identified and allocated specific skills for specific roles and offered incentives for staff to improve standards of service. To ensure the client was content, the interviewee interfaced with clients frequently and used surveys to gauge client perceptions. He did state that it is important to manage client perceptions throughout the SLM lifecycle. He also performs tests on his SAs, to ensure that if an incident does occur, the service guaranteed does occur.

Interviewee 9

The ninth interviewee is employed as Divisional Managing Director of a small, client focused courier company. This organisation had also developed a Service Catalogue and the interviewee was very particular about the need for a business to refuse business that was not contained in its Service Catalogue. He stated that an organisation needs to map its clients to its Service Catalogue and only ever revise the Service Catalogue if it is financially viable. He also said that an organisation must do the basics well before offering anything stretches their knowledge and abilities.

Interviewee 10

The tenth interviewee is employed as the General Manager of a small, client focused courier company. He believed that an organisation needs to know their own business and that of your clients well before a successful long-term relationship can exist. He

also stated that SLAs are a simplified snapshot of the applicable Service Catalogue entries at the time of signing the SA. The Service Catalogue will continue to evolve, and these evolutions need to be included in the added to the SA as amendments periodically.

Interviewee 11

The eleventh interviewee is employed as the Director of the IT Division at a tertiary institution. He had been involved in developing an SA for a province wide library network. As the person tasked with the implementation of the intended system, he was uniquely placed to ensure the SA was representative of the intended service provision. However, the SA was developed to cover a system that had never been built before, thus there was little historical data on which to base decisions. He believed that in the development of an SA, the process of development is far more important than the final product. He also said that SAs are only useful in a handful of situations but they are necessary. He had been frustrated in that stakeholders had tried to rush the development of the SA, and that this was counter productive.

Interviewee 12

The twelfth interviewee is employed as an Account Manager at a multinational service provider. He was the Account Manager for more that 4 key regional clients and was intimately involved in the provision of the service after the development of the SA. He had, on one occasion, been involved in a service provision that was exactly as the SA documented, but did not resemble what the client wanted.

He stated that his firm had a Service Catalogue but that it was constantly changing. The given reason for this was the rapid advancement of technology. This organisation had a philosophy of using a standard SA. However, they stressed that for any client, they are more than willing to customise their SA. To this end, the interviewee stressed that an SP should always embrace change in its service provision. It was emphasised that a single point of contact for the client in the SP organisation, and that person being specified in the SA, is of vital importance in developing and maintaining a successful business relationship.

Interviewee 13

The thirteenth interviewee is employed as the divisional director of the Port Elizabeth branch of a multinational service provider. The interviewee believed that the two parts of an SA, being the Master Service Agreement and the SLAs, are used in entirely different situations and frequencies. A Master Service Agreement is only ever referred to in times if litigation. The SLAs are referred to on a monthly basis. He also stated that client perceptions need to be managed especially if the SP delivers more than is stipulated in the SA on a regular basis. This is because when service levels fall to SA stipulated levels, clients become disillusioned. In this interviewee's SAs, along with standard hardware uptime metrics, several business process metrics were specified. Business process metrics are for example, the user cannot access his/her email. This type of metric includes every piece of hardware and software between the client and the service, including the pc, network cables, switches, routers, firewalls, domain servers, and email servers. This is a far more useful type of measurement for the client than server uptime. Standard metrics, along with business process metrics, need to have clearly defined and specified escalation procedures. Although the relationship building aspect of the SA development process is important, it is the SPs' employees in place at the clients organisation and the manner in which the service is delivered that maintains the relationship and guarantees SA renewal.

Interviewee 14

The final interviewee is employed as the Chief Information Officer at a multinational car manufacturing facility. The organisation had recently been purchased by another and his department was going to be outsourced. This interviewee emphasised the need to define procedures and services very carefully to avoid any confusion and misrepresentation. To this end, the interviewee believed that any IT provider should measure as much as possible. This should be done to satisfy management and enable the provider to measure their performance against something. The interviewee believed that a delicate balance needs to be found between client personal and SP personal in order to maximise industry specific knowledge.

8.7 Conclusion

Questionnaire and interviews are useful mechanisms with which to gain opinion from respondents in a complimentary manner. The low response rates, although problematic, can be handled by the use of alternative test statistics. The results of the hypothesis tests are a cause for concern and this requires further analysis.

Chapter 9

Analysis of the Empirical Study

This chapter analyses the results of the empirical study and discusses the impact that they have on the research and the theoretical model. Each development principle is discussed in turn and a summary of the results is then provided. Finally, the author discusses further issues related to the analysis of the results of the empirical study.

9.1 Introduction

During the literature survey, and continued in the current model analysis, eight development principles were identified. The empirical study was designed to further explore the importance of these development principles. The results of the empirical study are now analysed in terms of each development principle.

9.2 Analysis of the Development Principle Tests

9.2.1 The Negotiation Period

The Negotiation Period development principle, as identified in the literature survey, is focused on the amount of time it takes to develop an SA and the major influencing factors. A number of factors determine the length of SA negotiations. If the SA is complex, in terms of the number of documented services, a longer time is required for a successful SA to be developed. The proximity of stakeholders can influence the negotiation period - the greater the distance between the stakeholders of an SA the longer it takes to develop the said SA. Additionally, if the stakeholders had a business relationship prior to the SA development, less time is required for the negotiations. The final factor is prior SA experience. Previous experience in developing SAs rapidly reduces the time required for the negotiations.

A series of questions probed the Negotiation Period development principle. Question 27 explored the relationship between the number of services included in an SA and the time required to develop the SA. As expected, there is a general trend between the two, in that the more services that are included in the SA, the longer it takes to develop the SA. This is clearly subject to many other influencing factors, but the underlying relationship is evident none the less.

In Question 29, Statements A and B explored the relationship between time constraining pressure and SA development. There was a strong indication that sufficient time was allocated and that although some respondents indicated significant time pressure, many did not. Two observations can be made. Firstly, that business recognises the importance of having properly developed SAs, and is allowing the process to run its course. This is contrary to sources in the literature survey that

suggested that upper management was rushing SA development as they did not see the value in the process. Secondly, that successful SAs are being developed under some time pressure. This indicates that time pressure is a problem for some, but not all DTs.

Hypothesis 1 explored the relationship between SA development under time constraining pressure and the success of the SA. Given the variance of service provision size, experience in SA development, and the degree of customisation of the service provision, it is difficult to specify an absolute time limit for a specific SA development. The research instead focuses on two aspects of time. The first is the amount of activity during a specific time period. If no activity happens or no advances are made in the negotiations after a specific period of time, then the negotiations are taking too long. The second is the amount of pressure the development team is under to complete the SA. The Fisher Exact test, with a p-value of 0.725, showed there to be no relationship between SA development under time constraining pressure and the success of the SA.

During the interviews, Interviewee 1 stated that if the development of the SA is rushed, client requirements are not always captured accurately, which tends to result in frustration by all the stakeholders and possibly the breakdown of the business relationship. Interviewee 11 concurs with this and also suggested that the time should be taken to develop the SA properly, as it develops a strong relationship among the stakeholders.

The literature survey indicated that the negotiation period is important and that sufficient time should be allocated to the development of an SA. Time is important and this is confirmed. Time pressure has been observed by some respondents, but not all. No relationship, however, was observed between time pressure and the success of the SA. Time pressure is important, but it is not a determinant of success of SAs as shown by the respondents.

9.2.2 **Preparation**

The Preparation development principle is the initial groundwork that needs to be completed before the project can commence. However, stakeholders frequently rush the preparation step because they are eager to begin the negotiations. A number of factors can be identified under this principle.

A DT needs to be identified to develop the SA. This is seen as an indication of top management's support of SA negotiation. The DT then needs to establish ground rules for working together. The SA development team then should review prior SA experiences. The development team should try to collate a list of procedures and processes that worked and that did not work from these past experiences so they can leverage these in the negotiations. The negotiation team needs to develop an SA template, using these formatting styles. A template serves as a base from which to start negotiations and is not a standard contract.

A series of questions focused on Preparation were asked in the empirical study. Statement C explored the perceived effectiveness of using a template for SA development. 58% of the respondents agreed with this statement. Statement D explored the extent to which respondents view a template SA and a standard SA as different. A standard SA is almost complete before negotiations even begin, whereas a template SA contains far less detail and is more of a guide to the negotiations. There is a strong indication that respondents know the difference between the two.

A corner-stone of this research is that a template should be used in the negotiation of an SA. A template has been defined in the research as an outline or skeleton of an SA that is used as a starting point for negotiations. A template is not a standard contract. However, it is contented that the use of any form of pre-developed document as the basis for negotiations is detrimental to the negotiations. Hypothesis 2 explored the relationship between the use of a template SA in negotiations and the success of SAs. The Fisher Exact test, with a p-value of 0.002, shows that there is a relationship between the variables. The Spearman Rank-Order Correlation Co-efficient, with a value of 0.562, indicated that there is a moderate correlation between the variables.

Statements E, F and G explored the use of standard SAs. There was a mixed response to the use of standard SAs and the respondents were divided as to whether or not the use of a standard SA was preferable to lengthy negotiations. Over 40% held strong views that standard SAs do not cater for clients' requirements.

The previous hypothesis is concerned with the use of a template as a basis for negotiations. A standard contract can be defined as a complete, generic SA used by a SP for all its clients. Hypothesis 3 explores the relationship between using a standard contract in SA negotiations and the success of the SA. The Fisher Exact test, with a p-value of 0.795 shows that there is no significant relationship between the variables.

During the interviews, it was identified that Interviewee 12's organisation had a philosophy of using a standard SA. However, they stressed that for any client, they are more than willing to customise their SA. To this end, the interviewee stressed that an SP should always embrace change in its service provision. Alternatively, interviewee 10 suggested that although an SA should always be constructed using service catalogues as a basis, in order to capture all clients' requirements effectively, standard SAs should not be used. Interviewee 3 confirmed that his organisation had been presented with standard SAs and that these had been rejected in favour of a complete development cycle using a template.

The literature survey indicated that the Preparation development principle is important. The current model analysis further strengthens the identification. The results of the empirical study show some congruence. The use of a template SA during development is strongly supported. However, respondents' views about the use of standard SAs were less decisive. There does not appear to be a relationship between the use of a standard SA and the success of an SA. The use of a template in SA development, and its relation to SA success, is evident. However, the results of the empirical study run contrary to the indication in the literature that the use of a standard SA in SA negotiations is detrimental.

9.2.3 **People Involved**

The People development principle refers to the people that need to be involved in the development process and how best to involve them. It is contended that all stakeholders in the SA must be involved in the negotiations. It details a number of different stakeholders and why their involvement is important. With this large number of people involved in negotiations, team work must be heavily promoted. If the stakeholders are not experienced in the development of SAs, they should hire external expertise.

Question 28 explored the relative importance of various stakeholders in the SA development process. The majority of the stakeholders have been regarded as having extensive involvement in the process. However, the responses suggest that the user, the financial manager and the legal advisor have less pronounced degrees of involvement in the development process.

The literature suggested that all the stakeholders in the eventual service provision should be involved in the negotiations to varying degrees. Statements H and I explored the interaction of stakeholders during SA development. The respondents indicated strongly that it was critical to involve all stakeholders in the negotiations, and that this will lengthen the negotiation period.

Hypothesis 4 explored the relationship between the inclusion of all stakeholders in the development process and the success of the SA. The Fisher Exact test, with a p-value of 0.002, indicates that there is a relationship between the variables. The Spearman Rank-Order Correlation Coefficient, with a values of 0.604, showed that there is a moderate relationship between the variables.

Involving all the stakeholders in the development process in a meaningful way is a challenge the DT must deal with throughout the negotiations. Earlier, the DT was discussed and defined as a small group comprised of representatives from the major stakeholder groups that is primarily responsible for the development of the SA. A review board on the other hand, is a group comprised of representatives from every

stakeholder group and is tasked with appraising the SA during its development stages and ensuring that each stakeholder groups interests are accounted for in the SA.

Statements J and K explored the use of a review board during SA development. The respondents indicated that a review board is an effective method of involving all the stakeholders to the development process. However, they were not as decisive about whether or not a review board was critical to the development process. Hypothesis 5 explored the relationship between the use of a review board and the success of an SA. The Fisher Exact test, with a p-value of 0.814, showed there to be no relationship between the variables.

During the interviews, Interviewee 4 strongly agreed with the idea of a review board. His organisation had been plagued by SAs that were completely unrealistic in there documented services. This was because all of the stakeholders to the SA had not been included in the negotiations. Interviewee 2 had had similar problems which had resulted in the complete renegotiation of the troubled SAs. Many of the interviewees were unsure about the use of a review board.

The literature survey indicated that the People development principle is important. The current model analysis supported this identification. The results of the empirical study show that the inclusion of all stakeholders in the development process is moderately related to the success of the SA. However, the respondents were less sure about the use of a review board. However, in the interviews it is apparent that the use of a review board was not widespread and possibly not well understood, which could explain the results of the hypothesis test.

9.2.4 **Relationships in the Partnership**

The Relationships in the Partnership development principle refers to the interaction that occurs between the stakeholders during the negotiations and what should result from them. The SA development process is as important as the final document. It is about developing trust. Trust is not something that can be forcibly developed, or something that can be documented. It grows naturally during interactions between the stakeholders. So, logically, the more these parties interact, the more trust is cultivated

among the stakeholders. This trust evolves into a conciliatory attitude that is necessary for the SA to be successful once it is implemented.

Constant communication must occur between all stakeholders, with a strong emphasis on consensus building. Stakeholders must agree on levels of, provision of, and monitoring of services. This is more easily attainable, if there is a clear understanding of the supplier's capacity and the clients'/users' expectations.

Statements L, M and N explored the relationship between stakeholders and the DT. No strong indication was given by the respondents as to whether stakeholders have disputes and work to get around them or not. However, the response to statement N was far more clear, indicating that it is the responsibility of the DT to ensure that the stakeholders work together amicably.

Trust was defined earlier in the research to mean the degree to which stakeholders resolve disputes with a conciliatory attitude. It is the opinion of this research that this is essential if the SA is to be effective. As with any agreement, there will be disputes and there will be changes, but the manner in which these disputes and changes are handled has a large bearing on the success of an SA. Hypothesis 6 explored the relationship between the degree of a conciliatory attitude among the stakeholders and the success of the SA. The Fisher Exact test, with a p-value of 0.889, indicates that there is no relationship between the variables.

During the interviews, Interviewee 6 had been faced with a situation where a major stakeholder to an existing SA that had not been amended as changes in the relationship occurred, changed. This resulted in the complete failure of the SA relationship. However, the conciliatory attitude of all the stakeholders resulted in a new SA being developed that accurately represented the desired service provision. Interviewee 11 admitted to being involved in an SA development that was characterised by conflict. He was of the opinion that the only reason the relationship continued and still remains is by the extensive work by the DT to promote communication and conflict resolution among the stakeholders.

The literature survey indicated that the Relationships in the Partnership development principle is important. The current model analysis supported this identification, especially from the Karten model. The empirical data supports the importance of this development principle, with 50% of the respondents to the survey indicating that stakeholders exhibit a conciliatory attitude. A conciliatory attitude is important, but is not a determinant of success, as shown by the respondents. However, the interviewees stated that the conciliatory behaviour of stakeholders was important to the successful development of an SA.

9.2.5 **Scope of Services**

The Scope of Services development principle refers to the identification and definition of services. The SP (either in-house or external) needs to develop a Service Catalogue. This should be done prior to the SA development process and should detail the services that the SP can provide and at what service levels. If services are being outsourced, the major decision is which services ought to be outsourced and which ought to remain in-house.

It is important that discussion of new or additional services not be discouraged during the initial SA development process as this is frequently the initial reason for beginning the SA development process. Once the services to be outsourced have been identified, they need to be defined in the SA. Unfortunately, SAs are not easily understood by the individuals who need to use them. The stakeholders should expend a large amount of energy trying to reduce the amount of technical and legal terminology used in the SA to make them more readable and understandable.

Statements O and P explored the use of technical and legal terminology and understandability of the SA. 66.7% of the respondents indicated that some effort is made to minimise technical and legal terminology in SAs. However, judging by the response to statement P, some of the users of the SA do not understand everything that they need to in the SA.

Hypothesis 7 explored the relationship between the amount of technical and legal terminology in an SA and the success of the SA. The Fisher Exact test, with a p-value

of 0.333, showed there to be no relationship between the amount of technical and legal terminology in an SA and the success of the SA.

During the interviews, the majority of the interviewees indicated that their SAs were comprised of two parts, the Master Service Agreement and the SLAs. The Master Service Agreement is used most infrequently whereas the SLAs are referred to regularly. The Master Service Agreement contains all the legal clauses and utilises much legal terminology. Interviewees were of the opinion that SLAs should be documented in easy-to-understand language, enabling all stakeholders to understand it.

The literature survey indicated that the Scope of Services development principle is important and that all stakeholders to an agreement should be able to understand the agreement. A significant number of the respondents attempt to remove all technical and legal terminology from the SA. However, and as expected, some of the stakeholders still do not understand the entire SA. Understandability is important, but it is not a determinant of success of the SA, as shown by the respondents.

9.2.6 **Defining Service Levels**

The Service Level development principle, although small, has great importance in the development process and refers to the identification and specification of initial, intended and desired levels of service. It is these levels that govern and ultimately maintain the relationship between the stakeholders.

Statements Q and R explored the use of Metrics in SAs. There is strong indication (87% of respondents) that all services be specified with metrics. Furthermore, whilst the literature suggested that metrics are identified that are not fully representative of the desired service provision, 87.5% of respondents indicated that metrics are representative of the desired service provision.

A large proportion of an SA is concerned with measuring service levels, the reporting of these service levels, and what happens when levels are not maintained. However, this is futile if the identified measures are not meaningful. A large amount of effort is

usually required to develop valid and reliable service metrics. Hypothesis 8 explored the relationship between the amount of effort practicing organisations expend in identifying, quantifying and documenting meaningful levels and the success of the SA. The Fisher Exact test, with a p-value of 0.473, showed there to be no relationship between the specification of meaningful service level metrics in an SA and the success of the SA.

During the interviews, Interviewee 3 stated that his firm had been provided a service by an SP with a SA in which the metrics were not completely representative of the service provision. This had lead to difficulties in reporting on the service provision and dissatisfaction in the relationship. The other interviewees indicated that their SA metrics had been representative of the desired service provision.

The literature survey and the current model analysis indicated that the Service Level development principle is important and that documenting metrics that represent the desired service provision is important. The results from the empirical study support this. A significant majority of the interviewees reported that metrics had been appropriate. Specifying meaningful metrics in SAs is important, but it is not a determinant of a successful SA, as shown by the respondents.

9.2.7 **Remedies for Non-Performance**

The Remedies for Non-Performance development principle refers to procedures for situations when service levels are not maintained. Using the metrics and their measurement, the SP should submit detailed reports to the client at regular intervals detailing the service provision and the SPs performance in terms of meeting the SLAs. This should be coupled with regular surveys of users to ensure the SP is performing effectively. Contractual remedies for the SP not meeting the agreed upon SLAs need to be specified. The SA must also include a termination clause. Early termination of an agreement usually results in financial penalties for the terminating party.

Question 30 explored the frequency with which SPs report to their clients. The results show that the majority of the respondents (58.3%) indicated that they report on their service provision to their clients on a monthly basis. 16.7% said they have real-time

reporting and 20.8% indicated they report every fortnight. 4.2%(only one) indicated that they never report to their client on their service provision. Hypothesis 9 explored the relationship between the reporting frequency and the success of the SA. The Fisher Exact test, with a p-value of 0.848, failed to show a relationship between the variables.

During the interviews, the majority of the interviewees indicated that their SA required them to report to the client on a monthly basis. However, interviewees 12 and 13 indicated that they had real-time reporting. This was accessed by the client and user via a website. However, even though real-time reporting was available, both interviewees indicated that their firms generated monthly paper-based reports of various degrees of detail for presentation to different stakeholders.

The literature survey indicated that the Remedies for Non-Performance development principle is important. Only 1 of the survey respondents indicated that they did not have any kind of reporting. However, no relationship was demonstrated between reporting frequency and the success of an SA. The interviewees found reporting invaluable in their businesses, but not a determinant of success of the SA.

9.2.8 **Maintaining Flexibility**

This development principle requires a particular mindset in the stakeholders. It must be recognized that the SA, once implemented, will need to be changed. Recognition of this results in the inclusion of various mechanisms for implementing changes in the SA. It should also result in the documentation of decisions taken during the negotiations so that change implementers can understand the reasoning behind important decisions.

Statements S and T explored the respondents' knowledge of the need for flexibility in an SA. The response to statement S is strong, however, the response to statement T is not so definite, indicating that although some effort is made to ensure the document is flexible, it is not considered critical.

Central to this research is that an SA is a living document that changes continuously from the point of inception until it is replaced. An SA needs to be flexible in order for it to be successful. Hypothesis 10 explored the relationship between the inclusion of procedures for implementing changes to the SA and the success of the SA. The Fisher Exact test, with a p-value of 0.406, showed there to be no relationship between the inclusion of procedures for implementing changes to the SA and the success of the SA.

During the interviews, Interviewee 1 informed the author that procedures for enacting changes to an SA are always included in the Master Service Agreement. The other interviewees confirmed this.

The literature survey and the current model analysis indicated that the Maintaining Flexibility development principle is important. 75% of the respondents indicated that procedures for implementing changes into SAs are included in the agreements. However, no relationship was demonstrated between the inclusion of these change procedures and SA success. The documentation of procedures in the SA for making changes to the SA is important, but not a determinant of success of the SA.

9.3 Summary of the Results of the Analysis

The analysis of the results of the empirical study have been summarised into two sections, namely the development principles and the hypotheses.

9.3.1 The Development Principles

The results of the empirical study indicated the following for the supporting conditions:

1. *Time Pressure:* There was a strong indication that sufficient time was allocated and that although some respondents indicated significant time pressure, many did not. This indicates that time pressure is a problem for some, but not all DTs.
2. *SA Template:* 58% of the respondents agreed that the use of a template for SA development is effective. Some interviewees had been presented with standard

SAs and had rejected them in favour of a complete development cycle using a template.

3. *Standard SAs:* There was a mixed response to the use of standard SAs, and the respondents were divided as to whether or not the use of a standard SA was preferable to lengthy negotiations. Over 40% held strong views that standard SAs do not cater for clients' requirements. Several of the interviewees concurred that, in order to capture all clients' requirements effectively, standard SAs should not be used.
4. *Stakeholder Involvement:* The respondents indicated strongly that it was critical to involve all stakeholders in the negotiations, and that this lengthens the negotiation period.
5. *Review Board:* The respondents indicated that a review board is an effective method of involving all the stakeholders to the development process. However, they were not as decisive about whether or not a review board was critical to the development process.
6. *Consensus Building:* No strong indication was given by the respondents as to whether or not stakeholders have disputes and work to get around them. However, it was indicated that it is the responsibility of the DT to ensure that the stakeholders work together amicably. Some of the interviewees had been involved in SA developments that were characterised by conflict. Only a constant effort and consensus building by the DT had enabled the development to continue.
7. *Understandability:* 66.7% of the respondents indicated that some effort is made to minimise technical and legal terminology in SAs. However, and as expected, some of the stakeholders still do not understand the entire SA
8. *Metrics:* There is strong indication (87% of respondents) that all services should be specified with metrics. Furthermore, whilst the literature suggested that metrics are identified that are not fully representative of the desired service provision, 87.5% of respondents indicated that metrics are representative of the desired service provision. Some of the interviewees had been provided a service by an SP with a SA in which the metrics were not completely representative of the service provision. This had led to difficulties in reporting on the service provision and dissatisfaction in the relationship.

9. *Reporting Frequency:* The majority of the respondents (58.3%) indicated that they report on their service provision to their clients on a monthly basis. 16.7% said they have real-time reporting and 20.8% indicated they report every fortnight. 4.2% indicated that they never report to their client on their service provision.
10. *Flexibility:* The respondents indicated that although some effort is made to ensure the document is flexible, it is not considered critical.

9.3.2 The Hypotheses

The hypothesis tests explored the relationship between the development principles and the success of the SA. The hypotheses explored relationships between the following variables:

1. Time constraining pressure and success of the SA
2. The use of a template and success of the SA
3. The use of a standard contract and success of the SA
4. The degree to which all stakeholders are involved in the development process and success of the SA
5. The use of a review board and success of the SA
6. The degree of a conciliatory attitude among the stakeholders and success of the SA
7. The amount of technical and legal terminology used in the specification of SLAs and success of the SA
8. The specification of meaningful service level metrics in an SA and success of the SA
9. The specification of periodic reporting in the SA and success of the SA
10. The inclusion of procedures for implementing changes to the SA into the SA and success of the SA

Only two of the hypothesis tests (2 and 4) rejected the null hypothesis, showing a relationship between the specific supporting condition and SA success. The other eight hypothesis tests did not find evidence of a relationship between the variables.

9.4 Further Issues in the Analysis

The results of the empirical study are disappointing and warrant further attention.

9.4.1 Sample Size

The small sample size (24) is cause for concern and should be noted when considering the results of the statistical analyses. The effects of the small sample size were improved by the interview data.

9.4.2 Success of the SA

The success of an SA has proved to be an elusive metric. This research elected to use the number of changes made to an SA as a measure of success of the SA. This measure is considered to be closely related to the accuracy with which the SA originally documented the desired service provision. If the SA accurately documented the desired service provision at the time of sign-off, there should be minimal changes to the SA.

However, other metrics could have been used. If an SA is terminated before its designated expiry date, it could be said to be un-successful. However, it could be terminated prematurely because the client's requirements changed drastically or the client went into liquidation. If the relationship is marred by distrust and unhappiness, it could be because the SA did not accurately represent the desired service provision. It could also be because the SP and client are from different cultures or have different organisational ethics. Further work needs to be done in this area.

9.4.3 Variance

Question 31 of the survey required respondents to indicate the number of changes made to the SA following its completion. The possible responses were a number series starting at ten and increasing in groups of ten. The final option was forty or more. Responses to this question varied minimally, with most respondents indicating zero to ten changes. The results to the successful SA question were not as expected.

They were clustered and might not have sufficient variance to allow the use of statistical tests.

The results might have been different if the scale of the success question had been different. 75% of the respondents indicated that they had less than 10 changes to their SAs. If the same question had been asked with a scale of 1 to 5 instead of 1 to 40, a more meaningful result might have been obtained.

9.5 Conclusion

The results of the empirical study reveal two contrasting results. The naive analysis of the results indicates support for the development principles, in some cases, strongly. However, very few relationships were found between the development principles and the success of an SA. This is believed to be the result of the lack of variance in the response to the SA success question and the metric used to measure SA success. However, the support of the development principles is evident, further strengthened by the interviews.

Chapter 10 Revisions to the Model

Chapter 10

Revisions to the Model

The previous chapter analysed the results of the empirical study and their impact on the theoretical model. In this chapter, the revisions to the model based on the analysis of the previous chapter are detailed.

10.1 Introduction

In chapter 6, a model for the development of SAs was proposed, which can now be revised in the light of the empirical study. The revisions include the addition of a new section, and a reduction in emphasis in areas not supported by the empirical study results. This section is not intended to provide a complete model. A summary of the model is provided with areas revised specifically highlighted

10.2 Impact of the Empirical Study

The literature survey identified eight core service agreement development principles, namely, the negotiation period, preparation, people involved, relationships in the partnership, scope of services, defining service levels, remedies for non-performance and maintaining flexibility. These development principles formed the basis of a framework with which the current models of SA development were analysed.

The empirical study was designed to explore the eight development principles, the results of which showed support for the development principles. However, the empirical study failed to show more than two relationships between the development principles and the success of the SA. The following section details the revisions made to the model based on the results of the empirical study.

10.3 Model Revisions

The model for the development of an SA comprises a set of development principles that impact the development process, and a process for individual SLA specification.

1. The development principles are a set of factors that have a bearing on some part of the second part of the model. The Development Team (DT) must continuously take these factors into account during the development process.
2. The individual SLA specification process is represented as a set of steps that the negotiation team must physically perform. The steps are: Define; Monitor and Agree; Document; and Review and Optimise. The four-step process is repeated for each Service Level Agreement (SLA).

10.3.1 Factors Acting on the Development

This part of the model is comprised of the eight development principles.

10.3.1.1 Negotiation Period

The Negotiation Period development principle, as identified in the literature survey, is focused on the amount of time it takes to develop an SA and the major influencing factors.

Revision: The inclusion of the results of the question regarding the amount of time required for the development of an SA. An SA should take between three and nine months to develop depending on the number of service included in the agreement.

10.3.1.2 Preparation

The Preparation development principle refers to the initial groundwork that needs to be completed before the project can commence.

Revision: The use of a template is clarified. The majority of new SA developments are the result of a client putting out a request for proposal (RFP). The SP then compares the RFP to its Service Catalogue and composes a first draft SA to send back to the client. This first draft can also be used as the template.

10.3.1.3 People Involved

The People development principle refers to the people that need to be involved in the development process and how best to involve them.

Revision: A reduction in emphasis on the use of the review board. This is due to the minimal support shown for the use of the review board in the survey. Many of the interviewees were also unsure of the nature of the review board and had not used such a practice in previous SA developments.

10.3.1.4 **Relationships in the Partnership**

The Relationships in the Partnership development principle refers to the interaction that occurs between the stakeholders during the negotiations and what should result from them. This development principle was supported in both the survey and the interviews.

Revision: No revisions were made.

10.3.1.5 **Scope of Services**

The Scope of Services development principle refers to the identification and definition of services.

Revision: Increased emphasis in the use of a Service Catalogue. The prior development of a Service Catalogue and its use in the development of an SA.

10.3.1.6 **Defining Service Levels**

The Service Level development principle, although small, has great importance in the development process and refers to the identification and specification of initial, intended and desired levels of service.

Revision: Inclusion of business process metrics in SAs. An SA should include two types of metrics. Firstly, business process metrics should be developed. Business process metrics are for example, the user cannot access his/her email. This type of metric includes every piece of hardware and software between the client and the service, including the pc, network cables, switches, routers, firewalls, domain servers, and email servers. The second type of metric that should be included in an SA are standard system metrics. These should be specified, such as server uptime. This is the most common type of metric included in SAs.

10.3.1.7 **Remedies for Non-Performance**

The Remedies for Non-Performance development principle refers to procedures for situations when service levels are not maintained.

Revision: Changes are made based on the frequency at which respondents to the survey indicated that they reported to their clients on the service provision. Although offering real-time reporting is highly beneficial, monthly summary reports reviewed by the client and the SP are essential.

10.3.1.8 **Maintaining Flexibility**

This development principle requires a particular mindset in the stakeholders. It must be recognized that the SA, once implemented, will need to be changed. This development principle was supported by the survey and the interviews.

Revision: No revisions were made.

10.3.2 **The Service Level Agreement Specification**

The second phase is represented as a set of steps in the hexagon in the centre of the diagram. These are steps that the DT must physically perform.

Revision: No revisions were made to this phase.

10.3.3 **Master Service Agreement**

The theoretical model failed to mention the Master Service Agreement. The model is revised to include a section on the Master Service Agreement. An SA is comprised of two separate sections, known as the Master Service Agreement and the Service Level Agreements or as the Agreement Clauses and the Schedules. The Master Service Agreement contains all the legal clauses and specifications that in reality are only used when the relationship is failing and either party is terminating or in breech. This is a fundamental part of the agreement and should not be disregarded. However, it is

usually a section that the legal advisors for all stakeholders will construct and therefore does not require as significant an amount of time to develop as the SLAs do.

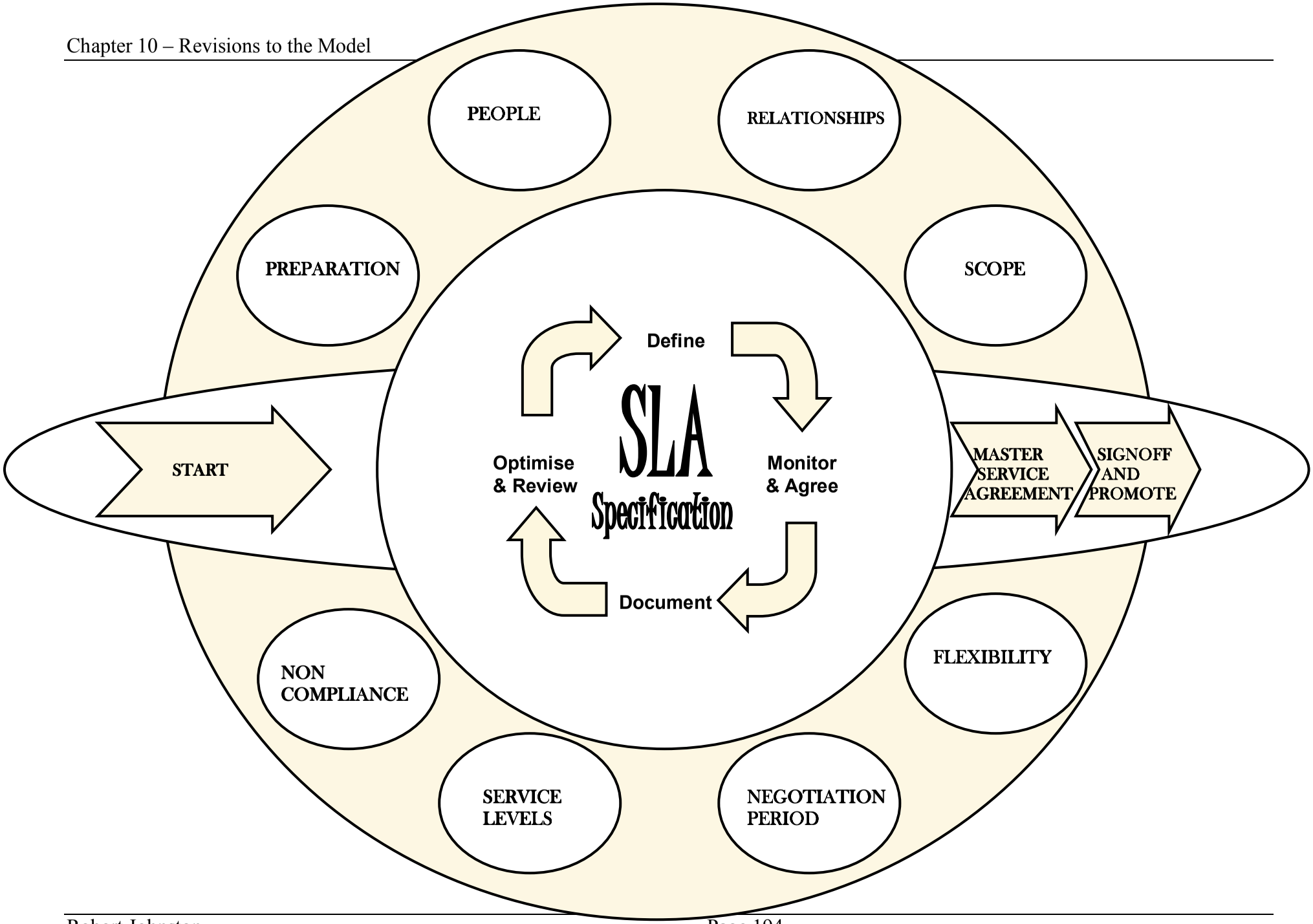
10.3.4 **Sign-off and Promotion**

This section marks the end of the SA development and its inclusion into the greater SLM program.

Revisions: No revisions were made to this section.

10.3.5 **The Graphical Model**

The revised model is depicted by the graphic in Figure 10.3.5.1.


PEOPLE
RELATIONSHIPS
PREPARATION
SCOPE
Define
SLA
Specification
Optimise
& Review
Monitor
& Agree
START
MASTER
SERVICE
AGREEMENT
SIGNOFF
AND
PROMOTE
Document
NON
COMPLIANCE
FLEXIBILITY
SERVICE
LEVELS
NEGOTIATION
PERIOD

10.4 Conclusion

A model for the development of SAs was proposed that was based on a theoretical study of the literature. The results of the empirical study show support for the development principles enshrined in the model, but limited relationship between key aspects of the model and the success of the SA. Despite this, the results are sufficient to warrant revisions to the model in the following areas: Negotiation Period, People Involved, Scope of Services, Defining Service Levels and Remedies for Non-Performance.

Chapter 11

Conclusion

This chapter concludes the research by identifying the most significant contributions of the research and by suggesting areas of future work.

11.1 Introduction

SAs are documents that specify the business relationship between stakeholders to an outsourcing agreement. SAs specify this relationship in a legally binding manner that assists in managing expectations of the stakeholders about the service provision. However, SAs are characterised by failure and stakeholder frustration. This research investigated SAs and their development, during which 58 supporting conditions were identified that were grouped into eight development principles. Stakeholders developing an SA that pay closer attention to these development principles are likely to have a more rewarding SA development process. To enable easy use of these development principles, this research proposed a model for the development of an SA. During the identification of the development principles and construction of the model, further areas of uncertainty have become apparent. The most significant of which is the criteria for judging an SA as successful.

11.2 Contributions of the Research

This research makes the following contributions:

- Service Agreements in Service Level Management
  SAs form a vital part of SLM. They specify the business relationship between the SP and the client in a legally binding manner. They also help to manage expectations of the client regarding what services the SP will be providing and at what price.

- The Service Agreement Life Cycle
  An SA has three stages in its life cycle: creation, operation and removal. The creation phase involves developing the SA. The operational phase entails the actual provision of the services to the client by the SP. The removal phase ends the SA for any number of reasons.

- The importance of proper SA development
  The effective development of an SA is essential for a successful relationship between the SP and the client. Many of the reasons for SA failure identified, for example, poor service delivery, understandability of the SA, distrustful relationships, can be traced back to ineffective SA development

- The Development Team
  An SA is best constructed by a development team. The development team comprises individuals representative of the major stakeholder groups and should be publicised to all stakeholders in the SA.

- The Development Principles
  SA development is guided by eight development principles (the negotiation period, preparation, people involved, relationships in the partnership, scope of services, defining service levels, non-performance, flexibility) and their 58 supporting conditions. The empirical study indicated that in the development process, people involved, scope of services, defining service levels and non-performance are the most important, preparation and relationships in the partnership are moderately important, and the negotiation period and flexibility are of limited importance.

- Success of an SA
  Success of an SA is defined in this thesis as the degree to which the SA represents the desired service provision and measured as the number of changes made to an SA within the first six months of operation. The following results of relationship tests between various variables and the success of an SA are disappointing. A positive relationship exists between the use of a template and the level of stakeholder involvement and the success of an SA. No relationships were found between time constraining pressure, the use of a standard contract in SA negotiations, the use of a review board, the degree of a conciliatory attitude among the stakeholders, the amount of technical and legal terminology used in the specification of SLAs, the specification of meaningful service level metrics in an SA, the specification of periodic reporting in the

SA, the inclusion of procedures for implementing changes to the SA into the SA and the success of the SA.

- A model for the development of an SA in the ICT sector
  A model for the development of an SA was presented that incorporated all of the development principles. This model can be used by the stakeholders to an SA development to enrich their development process.

11.3 Future Research

Future research includes the following:

- Service Catalogues
  The service catalogue is fundamental to the development of a successful SA and a successful SLM strategy. The content of the service catalogue, the source of the content and the process for keeping the service catalogue up to date and consistent with the service provision of an SP needs to be explored.

- SA Success
  This research used the number of changes to an SA within the first six months of operation as a measure of success of the SA. Numerous other metrics need to be considered, including early termination of the SA, the strength of the relationship and the number of non-performance complaints.

- Application of the model
  The model for the development of SAs needs to be applied in numerous outsourcing ventures and tested for effectivity and success

- Review Board
  This research identified limited, if any, use of a review board during the empirical study. Given that the literature suggest that it is a novel method by which to involve the significant number of stakeholders in the development of

an SA, such a board's structure, level and area of involvement and impact needs to be investigated.

- Failed Outsourcing Relationships
  A detailed investigation of the causes of failed outsourcing relationships could provide added support for aspects of the model for the development of SAs and/or grounds for the extension of the model.

11.4 Concluding Remarks

Service Agreements are a vital link between the service provider and the client. Their competent development is critical to the success of the ensuing relationship. The development principles identified and the model proposed make a contribution to the SA development process. Hopefully this will better enable stakeholders to SA developments to produce improved documents that more accurately represent the desired service provision.

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Appendixes

The first appendix provides a list of further readings on the subject of Service Agreements and Service Level Management. The second appendix is a complete copy of the survey presented in this research. The third appendix is an in depth presentation of the results of the empirical study. The fourth and final appendix is a guide to the development of a Service Catalogue by the TechRepublic.

Appendix A References

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Appendix B Online Questionnaire Printout

6 Indicate the extent of your understanding of the processes, procedures, goals and objectives of Service Level Management.

Extensive	Moderate	Sufficient	Limited	None

7 Indicate the length of time that your organisation has had a Service Level Management strategy in place.

Less than 1 year	1 to 4 years	5 to 9 years	10 to 14 years	More than 15 years

8 On what standard, if any, is your organisation's Service Level Management policy based?

ITIL	
Six Sigma	
TMF	
Developed in-house	
Not sure	
Other (please specify)	

9 Indicate how satisfied you are with your organisation's Service Level Management capabilities.

Very Satisfied	Mostly satisfied	Somewhat satisfied	Somewhat dissatisfied	Very dissatisfied

10 Indicate how important you regard the need to improve your organisation's Service Level Management capabilities.

Very Important	Rather Important	Somewhat Important	Not so Important	Not Important at all

11 Indicate the frequency that Service Level Management initiatives are unsuccessful in your organisation.

Always	Very Often	Sometimes	Rarely	Never

12 Indicate the extent to which each of the following contributes to unsuccessful Service Level Management initiatives.

A) Poorly developed Service Level Management strategy

Extensive	Moderate	Sufficient	Limited	None

B) Inadequate preparation

Extensive	Moderate	Sufficient	Limited	None

C) Lack of planning

Extensive	Moderate	Sufficient	Limited	None

D) Poor understanding of client requirements

Extensive	Moderate	Sufficient	Limited	None

E) Poorly developed Service Level Agreements

Extensive	Moderate	Sufficient	Limited	None

F) Lack of supporting processes

Extensive	Moderate	Sufficient	Limited	None

G) Poor customer relationship management

Extensive	Moderate	Sufficient	Limited	None

H) Poor communication

Extensive	Moderate	Sufficient	Limited	None

I) Problems with reporting

Extensive	Moderate	Sufficient	Limited	None

13 Indicate the most significant barrier to implementing or improving Service Level Management.

Difficulty with Service Level Agreements	
Lack of experienced staff	
Lack of Service Level Management understanding	
Difficulty with products and tools	
Cost and time justification	
Executive support	
Customer relationship management	

14 Indicate what you understand to be the most important part of a good Service Level Management program.

Good customer relationship management	
Flexibility in the organisation and proactive change management	
Proactive change management	

Detailed understanding of client requirements	
Continued delivery on services	
Good communication	

15 Indicate, as a service provider, how important you regard the appointment of a Service Level Manager for the success of a Service Level Management strategy.

Very Important	Rather important	Somewhat important	Not so important	Not important at all

16 Indicate, as a service provider, how important you regard the development of a catalogue of services for the success of a Service Level Management strategy.

Very Important	Rather important	Somewhat important	Not so important	Not important at all

17 Indicate how important, for individual Service Level Management projects, it is to identify a Service Level Management.

Very Important	Rather important	Somewhat important	Not so important	Not important at all

18 Indicate how important it is to understand and document a client's requirements before initiating a Service Level Management project.

Very Important	Rather important	Somewhat important	Not so important	Not important at all

19 Indicate how important it is for Service Level Management Staff to have the following skills:
A) Project Management

Very Important	Rather important	Somewhat important	Not so important	Not important at all

B) Communication Skills

Very Important	Rather important	Somewhat important	Not so important	Not important at all

C) Customer Relationship Skills

Very Important	Rather important	Somewhat important	Not so important	Not important at all

D) Time Management Skills

Very Important	Rather important	Somewhat important	Not so important	Not important at all

20 Indicate the extent of the project management skills of the staff involved in Service Level Management in your organisation.

Extensive	Moderate	Sufficient	Limited	None

21 Indicate the extent of the communication skills of the staff involved in Service Level Management in your organisation.

Extensive	Moderate	Sufficient	Limited	None

22 Indicate the extent of the customer relationship skills of the staff involved in Service Level Management in your organisation.

Extensive	Moderate	Sufficient	Limited	None

23 Indicate the extent of the time management skills of the staff involved in Service Level Management in your organisation.

Extensive	Moderate	Sufficient	Limited	None

24 Indicate how often has the presence of effective communication between Service Level Management stakeholders contributes to the success of a Service Level Management initiative.

Extensive	Moderate	Sufficient	Limited	None

25 How many Service Agreement negotiations have you been involved in?

0-5 6-10 11-15 16-20 More (please approximate)

26 Indicate the extent that you were involved in the Service Agreement negotiations? (if more than one, on average)

None Below Average Average Above Average Extensive

27 Indicate the time required (in months) to develop a Service Agreement for the following number of services included in the agreement

	Less than 1 Month	1 to 3 Months	4-6 Months	6-12 Months	1 Year
1 - 5					
6 - 10					
11 - 15					
16 - 20					
20 - More					

28 Indicate the extent to which each of the following stakeholders were involved in the SA development

	None	Below Average	Average	Above Average	Extensive
Service Provider					
Client (pays for the services)					
User (uses the services)					
Service Delivery Manager					
Service Delivery Team					
Financial Manager					
Legal Advisor					

29 Indicate the extent to which you agree to the following statements regarding Service Agreement development

(1 = Strongly Agree and 7 = Strongly Disagree)

A Sufficient time was allocated for the development of the Service Agreement 1 2 3 4 5 6 7
B The Service Agreement was developed under pressure 1 2 3 4 5 6 7
C Using a template during development decreased the time required for negotiations 1 2 3 4 5 6 7

D	The template is a skeletal Service Agreement	1 2 3 4 5 6 7
E	Standard Service Agreements are frequently used	1 2 3 4 5 6 7
F	The use of standard Service Agreements is preferable to lengthy negotiations	1 2 3 4 5 6 7
G	A clients requirements can be effectively catered for by a standard Service Agreement	1 2 3 4 5 6 7
H	Involving all stakeholders is critical to the identification of all the clients requirements	1 2 3 4 5 6 7
I	Massive stakeholder involvement lengthens the Service Agreement development process	1 2 3 4 5 6 7
J	The use of a review board is an effective method of involving all stakeholders	1 2 3 4 5 6 7
K	The review board plays a critical role in the development process	1 2 3 4 5 6 7
L	There are frequent disputes between stakeholders	1 2 3 4 5 6 7
M	Stakeholders exhibit a conciliatory attitude to any disputes	1 2 3 4 5 6 7
N	The Service Agreement development team ensures that stakeholders to the Service Agreement co-operate	1 2 3 4 5 6 7
O	Technical and legal terminology is minimised in the Service Agreement	1 2 3 4 5 6 7
P	All the potential users of the Service Agreement can understand it	1 2 3 4 5 6 7
Q	All services are specified together with a metric	1 2 3 4 5 6 7
R	Metrics identified are representative of the Service Provision	1 2 3 4 5 6 7
S	Procedures for implementing changes to the Service Agreement are documented	1 2 3 4 5 6 7
T	All decisions are documented so that future changers can understand decisions made	1 2 3 4 5 6 7

30 Indicate how frequently the Service Provider reports to the Client on the service provision?

Never Fortnightly Monthly Quarterly Yearly

31 On average, indicate the number of changes made to your Service Agreements within six months them of becoming operational

11-20 21-30 31-40 41 - 50 More (please approximate)

32 Indicate the number of Service Agreements that you have negotiated that have ended before their expiry date

0-5 6-10 11-15 16-20 More (please approximate)

33 Indicate the which of these were the cause for the termination

	Always	Very Often	Sometimes	Rarely	Never
Change of Business Requirements					
Inadequate Service Provision					
Failure in Communication					
Liquidation					

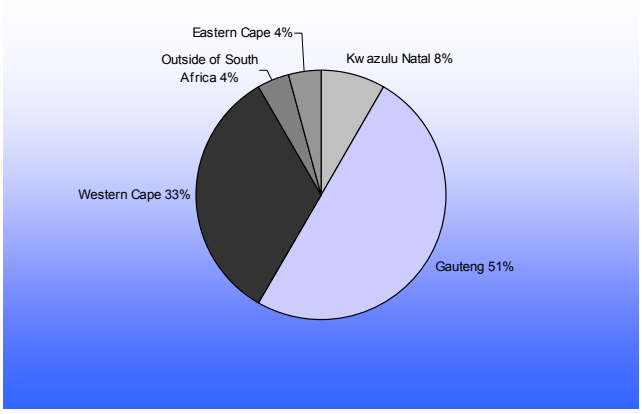
Appendix C Results of the Empirical Study

C1 Original Results

Question 1

Indicate the region in which you are currently employed

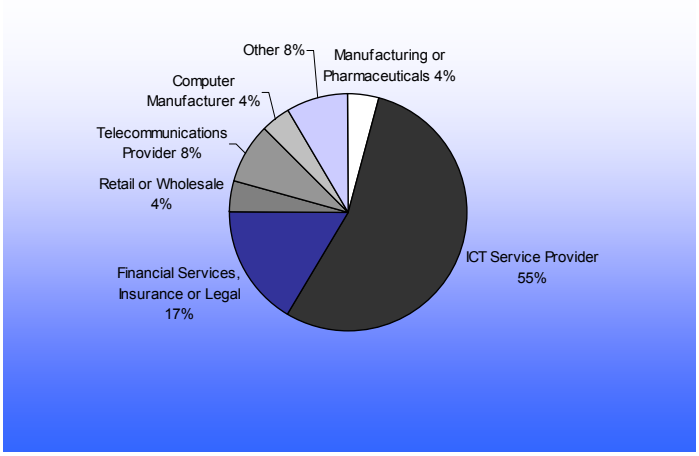
	Eastern Cape	Free State	Gauteng	KwaZulu Natal	Mpumalanga	Northern Cape	Limpopo	North West Province	Western Cape	Outside of South Africa
Count	1	0	12	2	0	0	0	0	8	1
Percentage	6.7	0.0	80.0	13.3	0.0	0.0	0.0	0.0	53.3	6.7



Question 2

Indicate the industry sector in which you are currently employed

	Manufacturing or Pharmaceuticals	ICT Service Provider	Financial Services, Insurance or Legal	Retail or Wholesale	Telecommunications Provider	Computer Manufacturer	Other
Count	1	13	4	1	2	1	2
Percentage	4.2	54.2	16.7	4.2	8.3	4.2	8.3

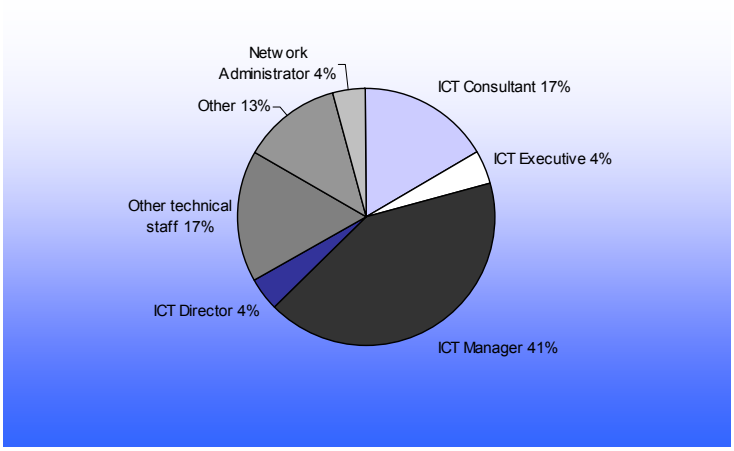


Question 3

Indicate which of these most closely represents your job title

	ICT	ICT	ICT	ICT	Other	Other	Network

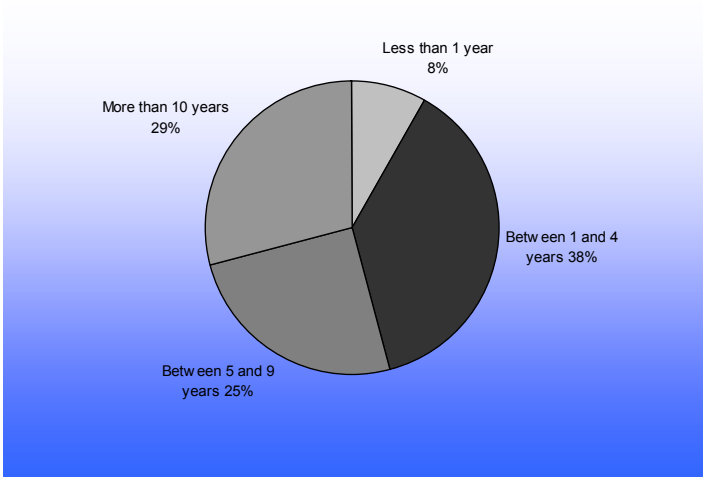
	Consultant	Executive	Manager	Director	technical staff		Administrator
Count	4	1	10	1	4	3	1
Percentage	16.7	4.2	41.7	4.2	16.7	12.5	4.2



Question 4

Indicate the number of years you have been involved in Service Level Management

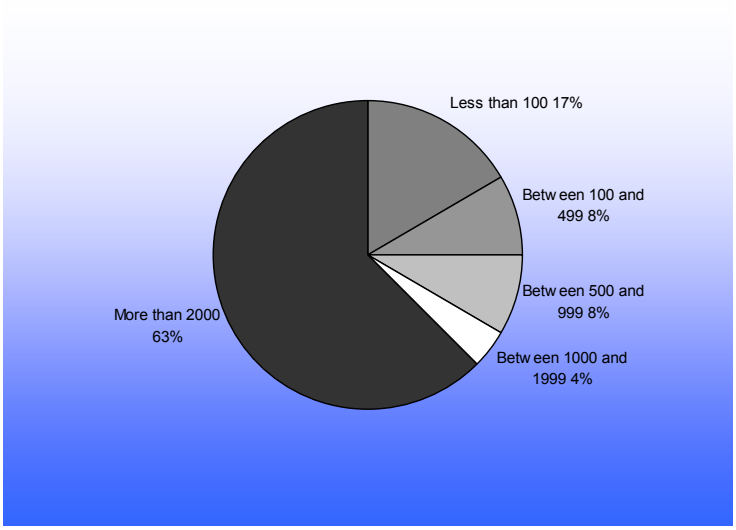
	Less than 1 year	Between 1 and 4 years	Between 5 and 9 years	More than 10 years
Count	2	9	6	7
Percentage	8.3	37.5	25.0	29.2



Question 5

Indicate the number of people employed by your organisation

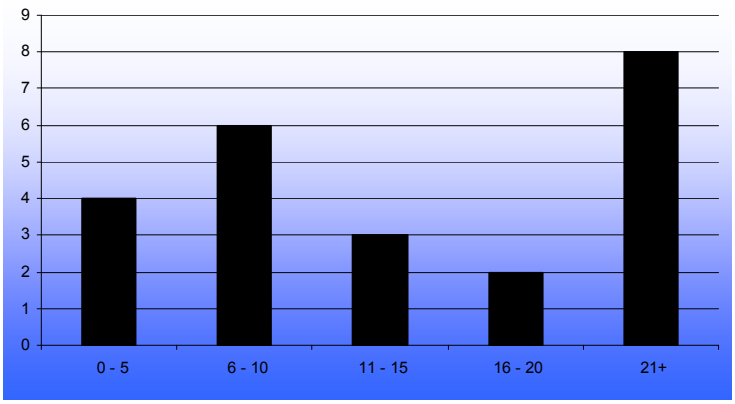
	Less than 100	Between 100 and 499	Between 500 and 999	Between 1000 and 1999	More than 2000
Count	4	2	2	1	15
Percentage	16.7	8.3	8.3	4.2	62.5



Question 25

How many Service Agreement negotiations have you been involved in?

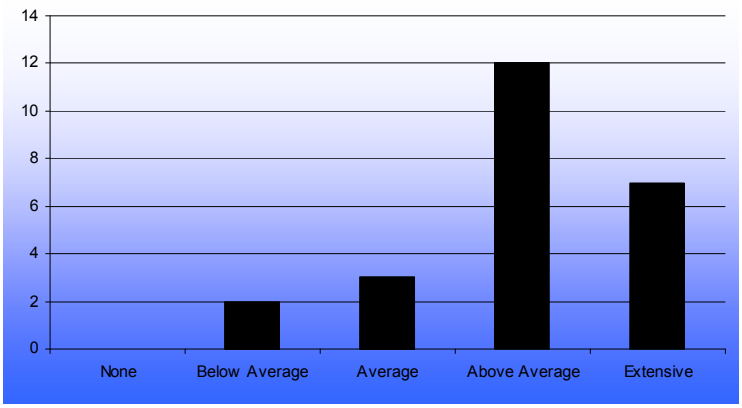
	0 - 5	6 - 10	11 - 15	16 - 20	21+
Count	4	6	3	2	8
Percentage	17.4	26.1	13.0	8.7	34.8



Question 26

Indicate the extent that you were involved in the Service Agreement negotiations? (if more than one, on average)

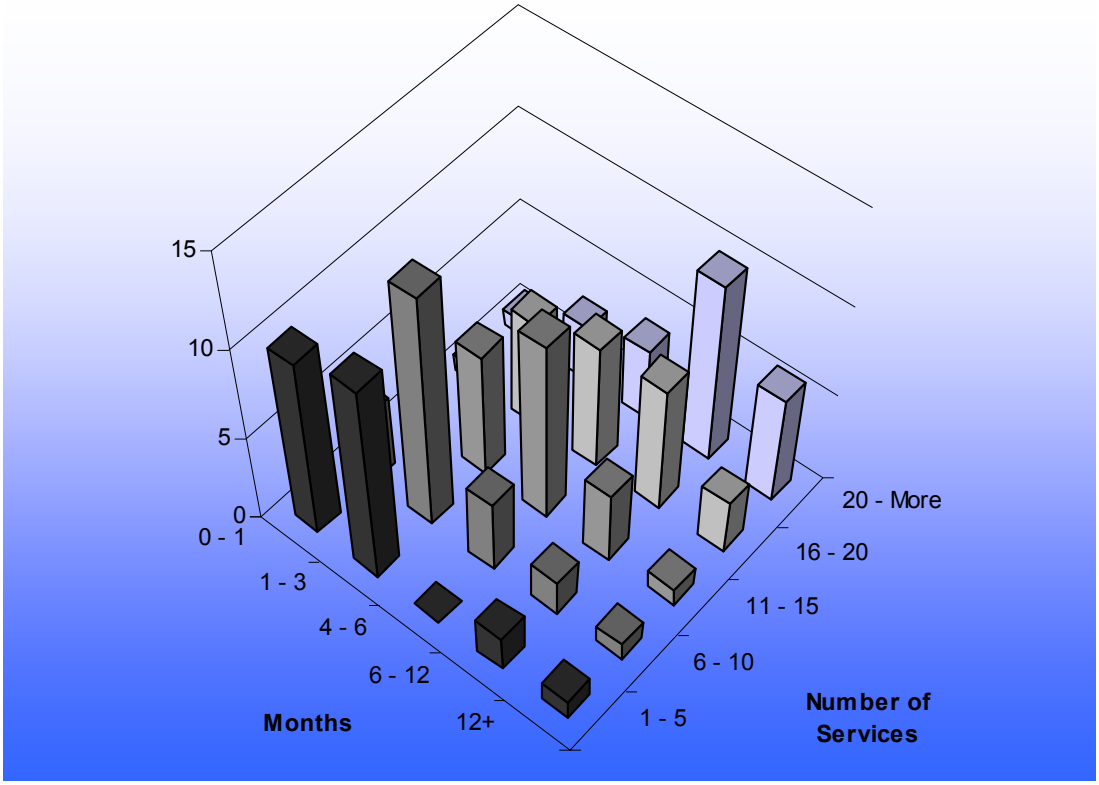
	None	Below Average	Average	Above Average	Extensive
Count	0	2	3	12	7
Percentage	0.0	8.3	12.5	50.0	29.2



Question 27

Indicate the time required (in months) to develop a Service Agreement for the following number of services included in the agreement

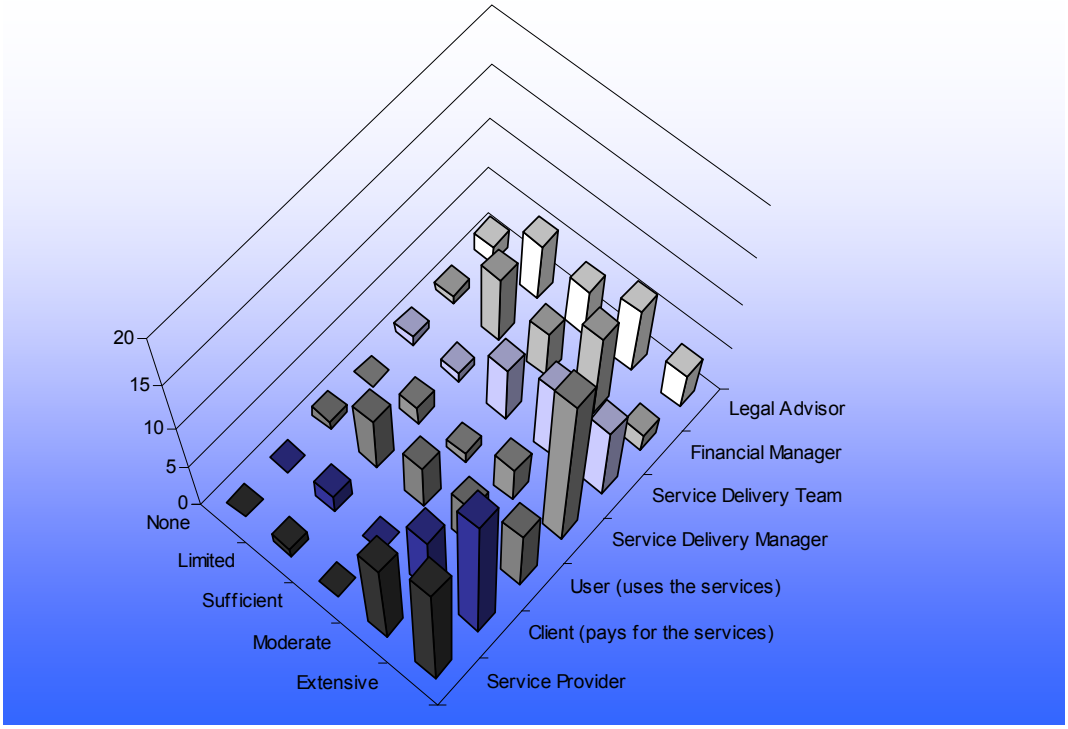
COUNT		0 - 1	1 - 3	4 - 6	6 - 12	12+
	1 - 5	10	11	0	2	1
	6 - 10	4	13	4	2	1
	11 - 15	2	7	10	4	1
	16 - 20	1	6	7	7	3
	20 - More	1	3	4	10	6
PERCENTAGE		0 - 1	1 - 3	4 - 6	6 - 12	12+
	1 - 5	41.7	45.8	0.0	8.3	4.2
	6 - 10	16.7	54.2	16.7	8.3	4.2
	11 - 15	8.3	29.2	41.7	16.7	4.2
	16 - 20	4.2	25.0	29.2	29.2	12.5
	20 - More	4.2	12.5	16.7	41.7	25.0



Question 28

Indicate the extent to which each of the following stakeholders were involved in the SA development

COUNT		None	Limited	Sufficient	Moderate	Extensive
	Service Provider	0	1	0	10	13
	Client (pays for the services)	0	2	0	7	15
	User (uses the services)	1	6	5	5	7
	Service Delivery Manager	0	2	1	4	17
	Service Delivery Team	1	1	6	8	8
	Financial Manager	1	7	5	9	2
	Legal Advisor	2	6	5	7	4
PERCENTAGE		**None**	**Limited**	**Sufficient**	**Moderate**	**Extensive**
	Service Provider	0.0	4.2	0.0	41.7	54.2
	Client (pays for the services)	0.0	8.3	0.0	29.2	62.5
	User (uses the services)	4.2	25.0	20.8	20.8	29.2
	Service Delivery Manager	0.0	8.3	4.2	16.7	70.8
	Service Delivery Team	4.2	4.2	25.0	33.3	33.3
	Financial Manager	4.2	29.2	20.8	37.5	8.3
	Legal Advisor	8.3	25.0	20.8	29.2	16.7

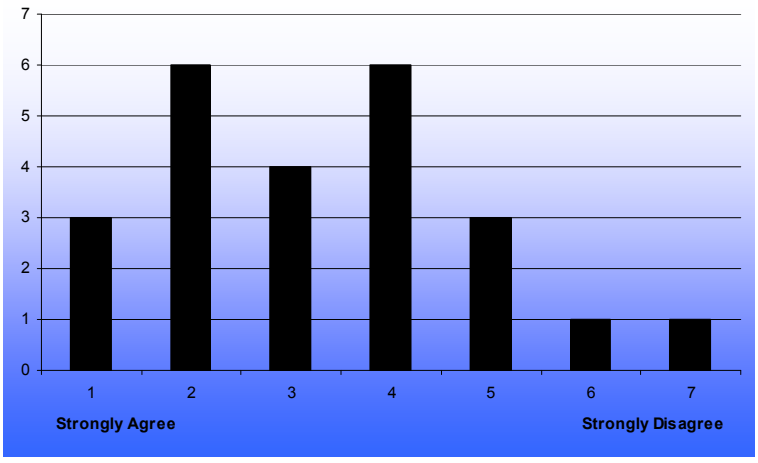


Question 29

Indicate the extent to which you agree to the following statements regarding Service Agreement development (1 = Strongly Agree and 7 = Strongly Disagree)

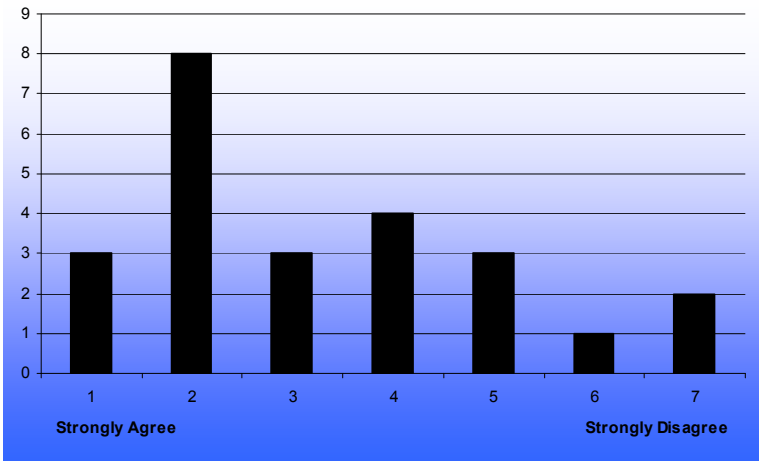
A *Sufficient time was allocated for the development of the Service Agreement*

	Strongly Agree 1	2	3	4	5	6	Strongly Disagree 7
Count	3	6	4	6	3	1	1
Percentage	12.5	25.0	16.7	25.0	12.5	4.2	4.2



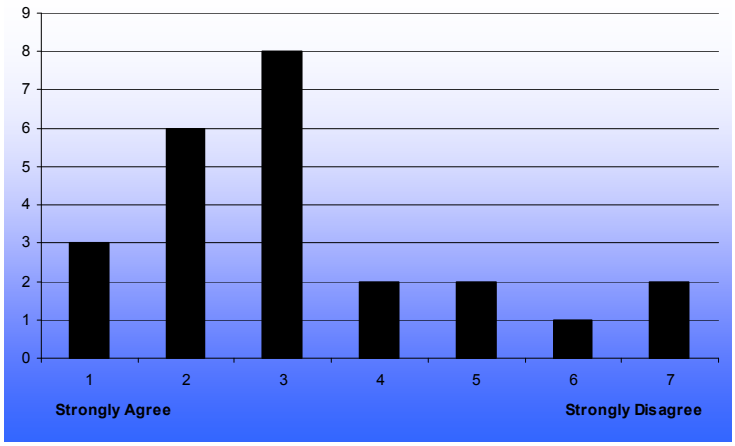
B *The Service Agreement was developed under pressure*

	Strongly Agree						Strongly Disagree
	1	2	3	4	5	6	7
Count	3	8	3	4	3	1	2
Percentage	12.5	33.3	12.5	16.7	12.5	4.2	8.3



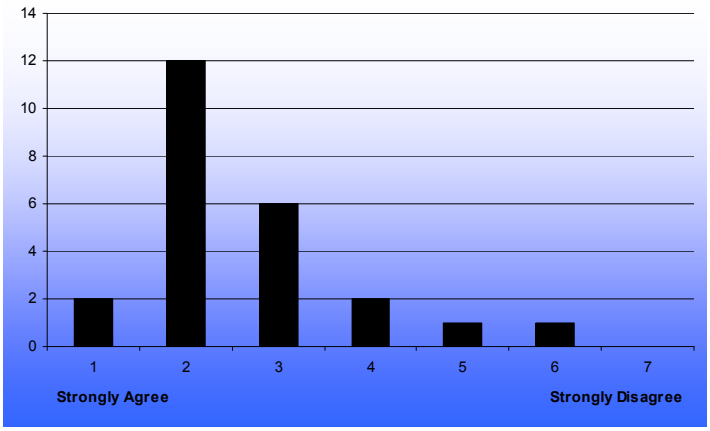
C *Using a template during development decreased the time required for negotiations*

	Strongly Agree						Strongly Disagree
	1	2	3	4	5	6	7
Count	3	6	8	2	2	1	2
Percentage	12.5	25.0	33.3	8.3	8.3	4.2	8.3



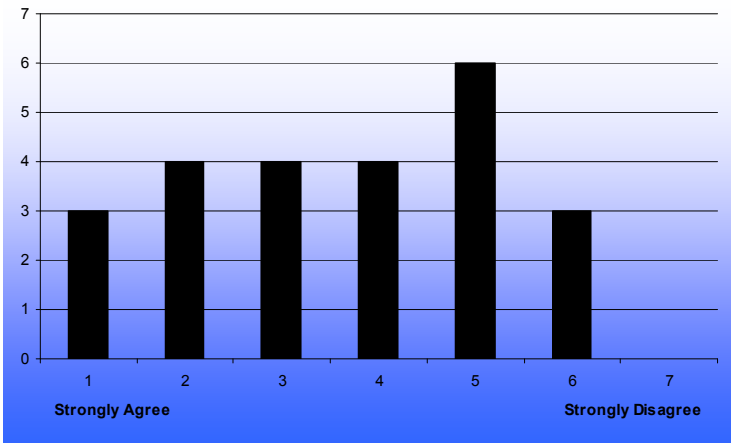
D *The template is a skeletal Service Agreement*

	Strongly Agree						Strongly Disagree
	1	2	3	4	5	6	7
Count	2	12	6	2	1	1	0
Percentage	8.3	50.0	25.0	8.3	4.2	4.2	0.0



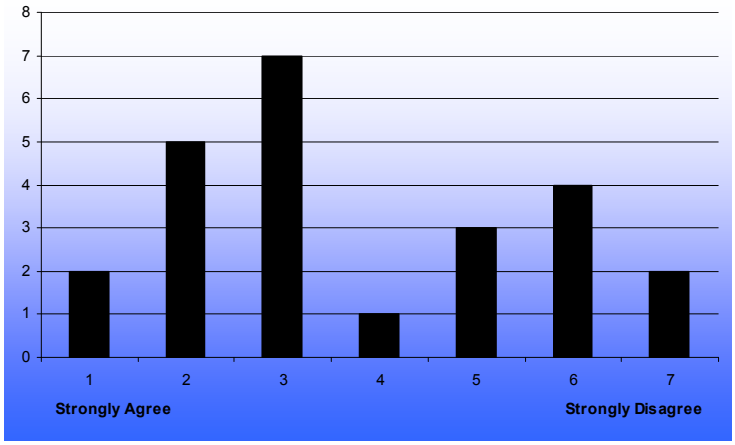
E *Standard Service Agreements are frequently used*

	Strongly Agree						Strongly Disagree
	1	2	3	4	5	6	7
Count	3	4	4	4	6	3	0
Percentage	12.5	16.7	16.7	16.7	25.0	12.5	0.0



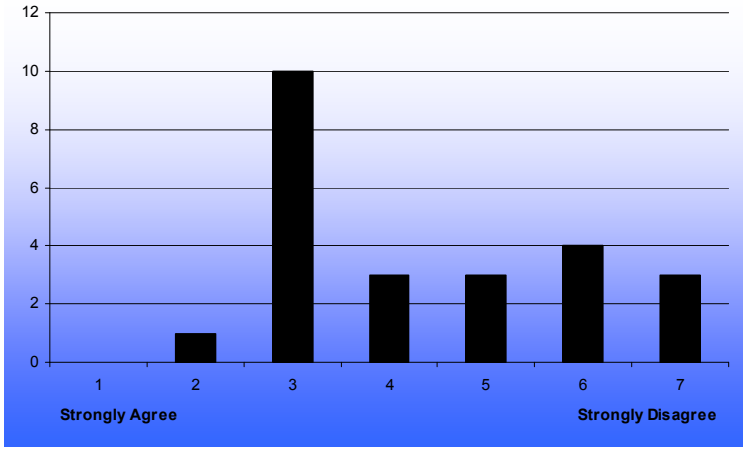
F *The use of standard Service Agreements is preferable to lengthy negotiations*

	Strongly Agree						Strongly Disagree
	1	2	3	4	5	6	7
Count	2	5	7	1	3	4	2
Percentage	8.3	20.8	29.2	4.2	12.5	16.7	8.3



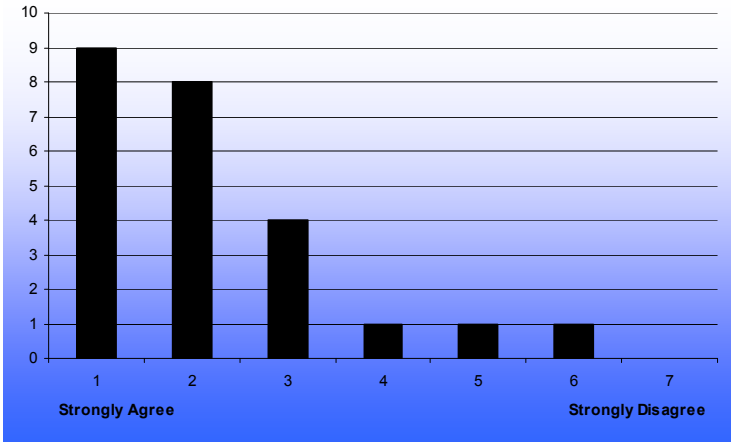
G *A clients requirements can be effectively catered for by a standard Service Agreement*

	Strongly Agree						Strongly Disagree
	1	2	3	4	5	6	7
Count	0	1	10	3	3	4	3
Percentage	0.0	4.2	41.7	12.5	12.5	16.7	12.5



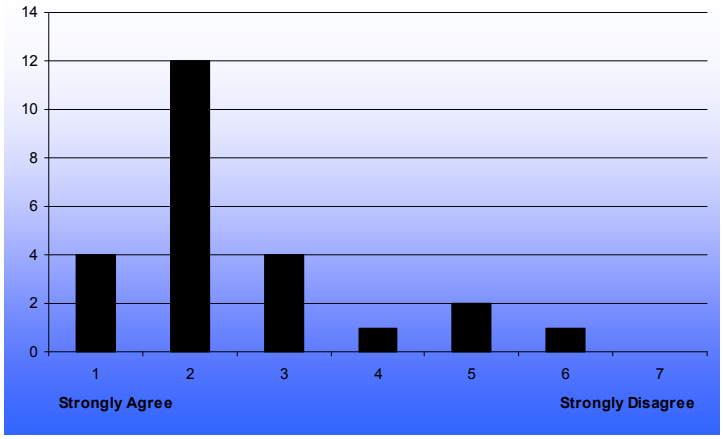
H *Involving all stakeholders is critical to the identification of all the clients requirements*

	Strongly Agree 1	2	3	4	5	6	Strongly Disagree 7
Count	9	8	4	1	1	1	0
Percentage	37.5	33.3	16.7	4.2	4.2	4.2	0.0



I *Massive stakeholder involvement lengthens the Service Agreement development process*

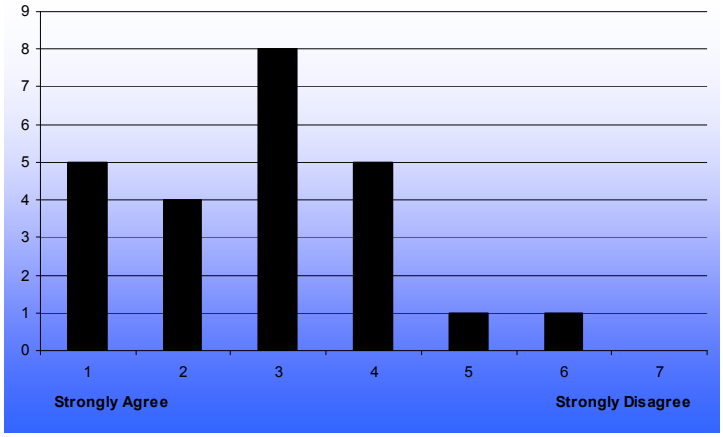
	Strongly Agree 1	2	3	4	5	6	Strongly Disagree 7
Count	4	12	4	1	2	1	0
Percentage	16.7	50.0	16.7	4.2	8.3	4.2	0.0



J *The use of a review board is an effective method of involving all stakeholders*

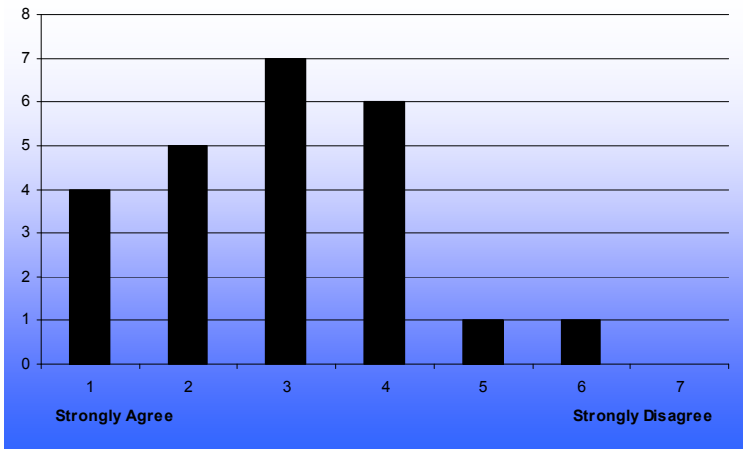
	Strongly Agree						Strongly Disagree

	1	2	3	4	5	6	7
Count	5	4	8	5	1	1	0
Percentage	20.8	16.7	33.3	20.8	4.2	4.2	0.0



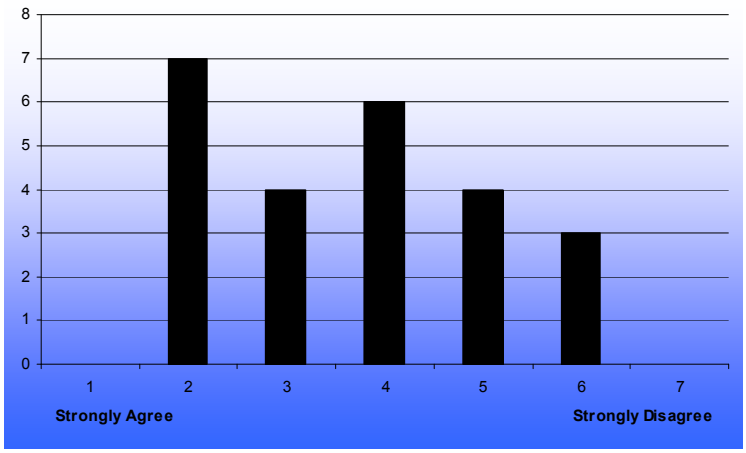
K *The review board plays a critical role in the development process*

	Strongly Agree 1	2	3	4	5	6	Strongly Disagree 7
Count	4	5	7	6	1	1	0
Percentage	16.7	20.8	29.2	25.0	4.2	4.2	0.0



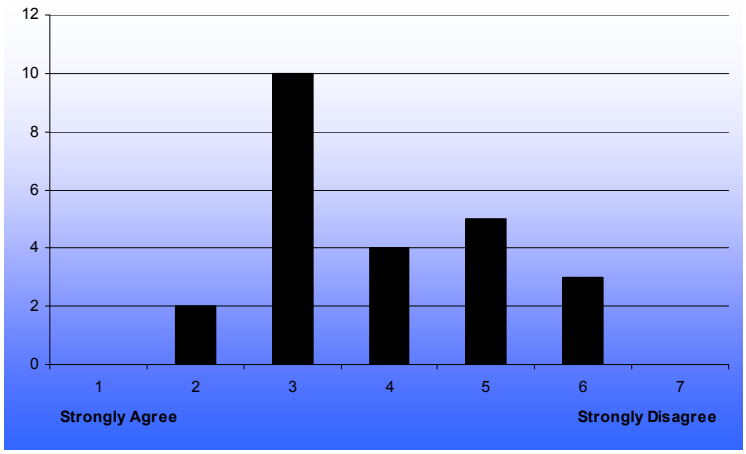
L *There are frequent disputes between stakeholders*

	Strongly Agree 1	2	3	4	5	6	Strongly Disagree 7
Count	0	7	4	6	4	3	0
Percentage	0.0	29.2	16.7	25.0	16.7	12.5	0.0



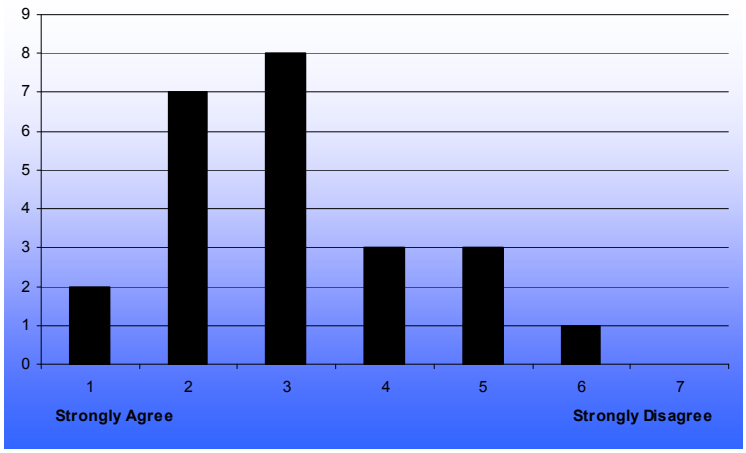
M *Stakeholders exhibit a conciliatory attitude to any disputes*

	Strongly Agree						Strongly Disagree
	1	2	3	4	5	6	7
Count	0	2	10	4	5	3	0
Percentage	0.0	8.3	41.7	16.7	20.8	12.5	0.0



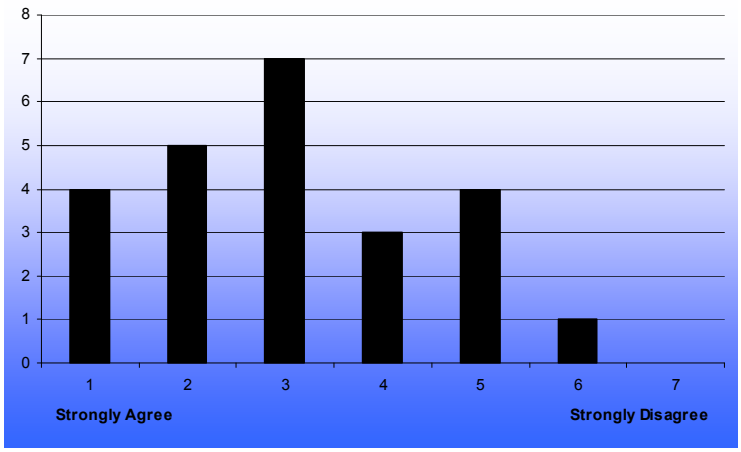
N *The Service Agreement development team ensures that stakeholders to the Service Agreement co-operate*

	Strongly Agree						Strongly Disagree
	1	2	3	4	5	6	7
Count	2	7	8	3	3	1	0
Percentage	8.3	29.2	33.3	12.5	12.5	4.2	0.0



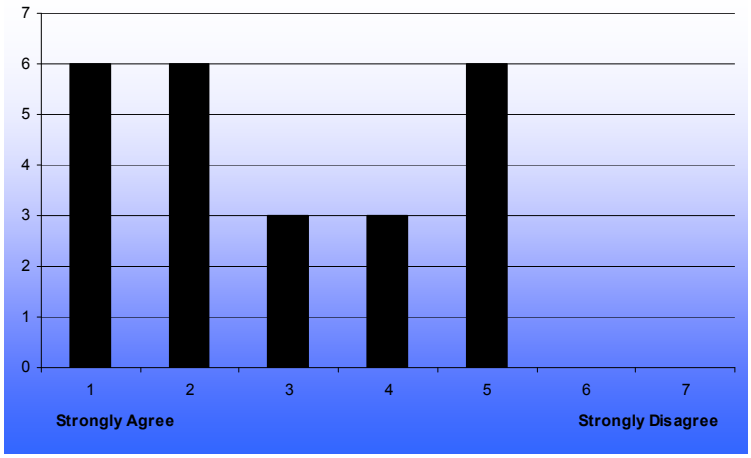
O *Technical and legal terminology is minimised in the Service Agreement*

	Strongly Agree						Strongly Disagree
	1	2	3	4	5	6	7
Count	4	5	7	3	4	1	0
Percentage	16.7	20.8	29.2	12.5	16.7	4.2	0.0



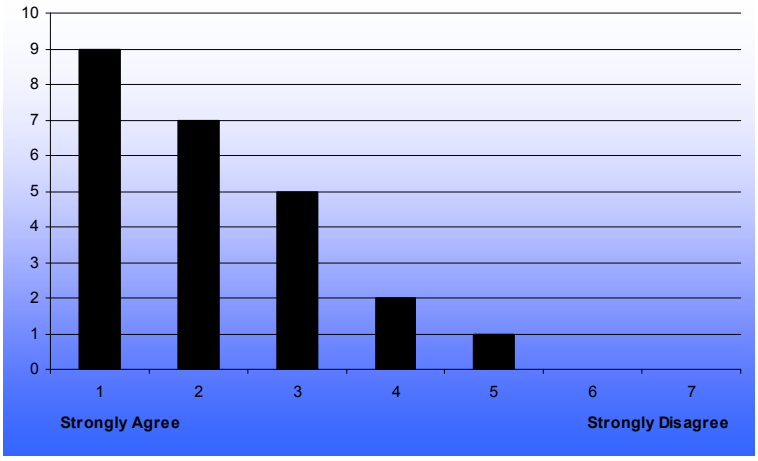
P *All the potential users of the Service Agreement can understand it*

	Strongly Agree						Strongly Disagree
	1	2	3	4	5	6	7
Count	6	6	3	3	6	0	0
Percentage	25.0	25.0	12.5	12.5	25.0	0.0	0.0



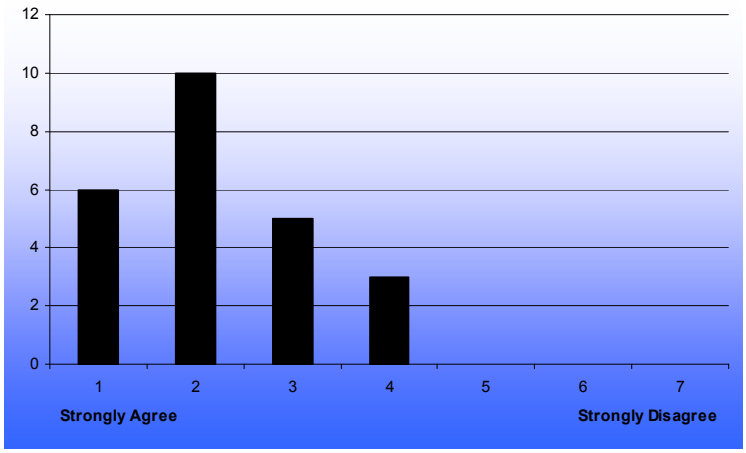
Q *All services are specified together with a metric*

	Strongly Agree 1	2	3	4	5	6	Strongly Disagree 7
Count	9	7	5	2	1	0	0
Percentage	37.5	29.2	20.8	8.3	4.2	0.0	0.0



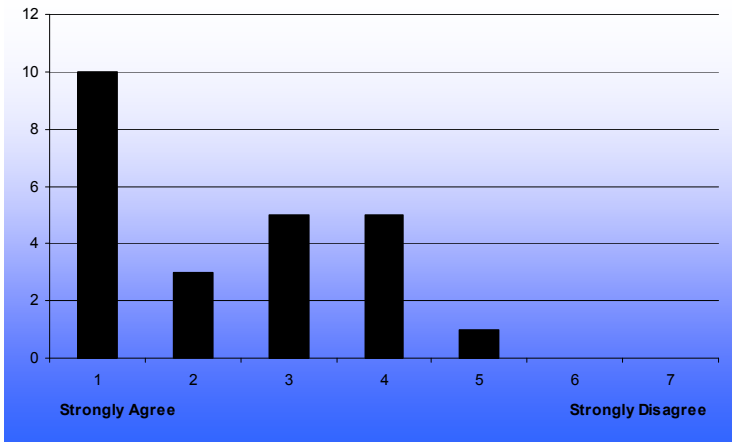
R *Metrics identified are representative of the Service Provision*

	Strongly Agree 1	2	3	4	5	6	Strongly Disagree 7
Count	6	10	5	3	0	0	0
Percentage	25.0	41.7	20.8	12.5	0.0	0.0	0.0



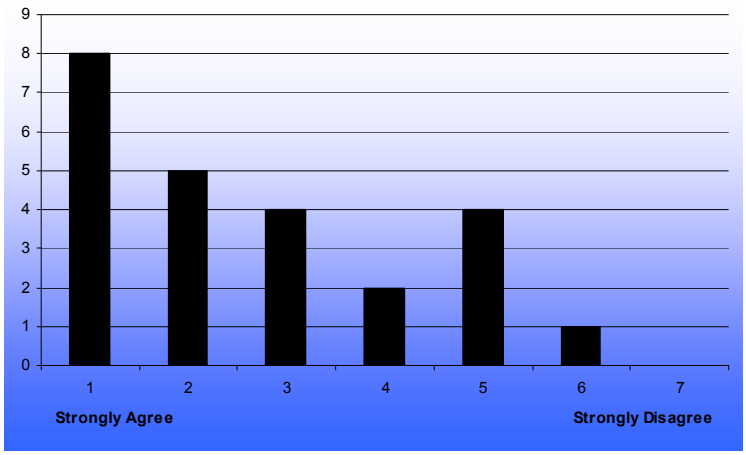
S *Procedures for implementing changes to the Service Agreement are documented*

	Strongly Agree						Strongly Disagree
	1	2	3	4	5	6	7
Count	10	3	5	5	1	0	0
Percentage	41.7	12.5	20.8	20.8	4.2	0.0	0.0



T *All decisions are documented so that future changers can understand decisions made*

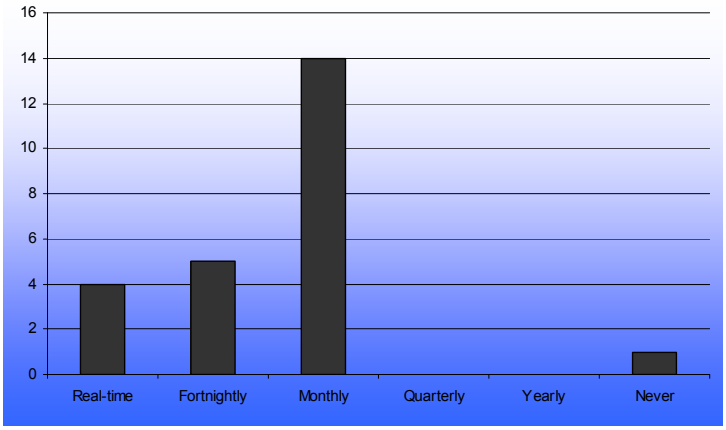
	Strongly Agree						Strongly Disagree
	1	2	3	4	5	6	7
Count	8	5	4	2	4	1	0
Percentage	33.3	20.8	16.7	8.3	16.7	4.2	0.0



Question 30

Indicate how frequently the Service Provider reports to the Client on the service provision?

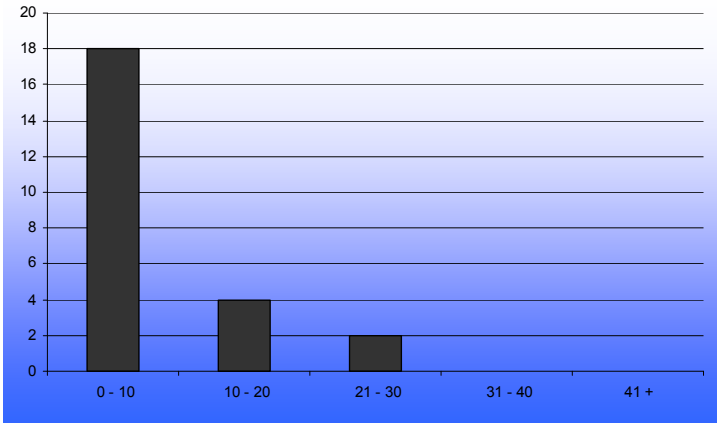
	Real-time	Fortnightly	Monthly	Quarterly	Yearly	Never
Count	4	5	14	0	0	1
Percentage	20.0	25.0	70.0	0.0	0.0	5.0



Question 31

On average, indicate the number of changes made to your Service Agreements within six months them of becoming operational

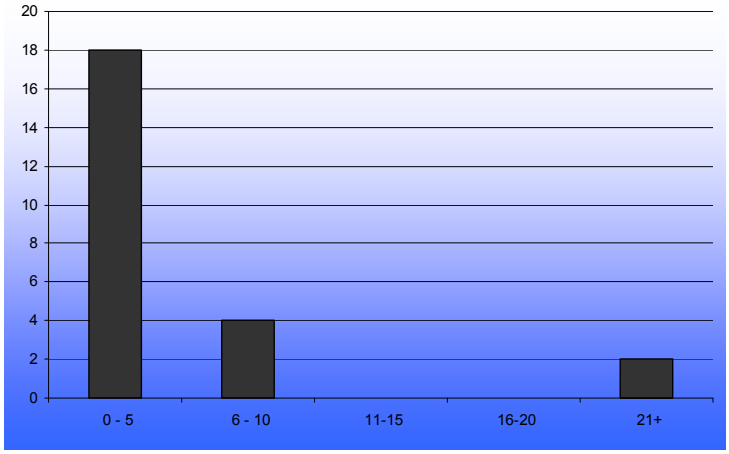
	0 - 10	10 - 20	21 - 30	31 - 40	41 +
Count	18	4	2	0	0
Percentage	75.0	16.7	8.3	0.0	0.0



Question 32

Indicate the number of Service Agreements that you have negotiated that have ended before their expiry date

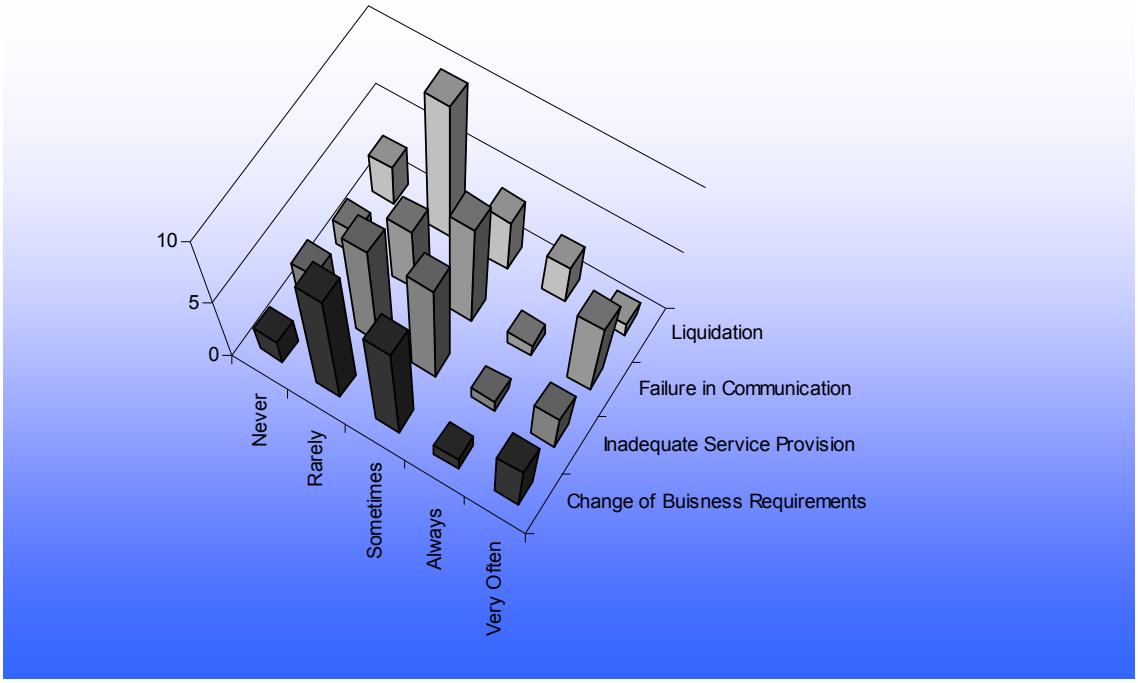
	0 - 5	6 - 10	11-15	16-20	21+
Count	18	4	0	0	2
Percentage	75.0	16.7	0.0	0.0	8.3



Question 33

COUNT		Never	Rarely	Sometimes	Always	Very Often
	Change of Buisness Requirements	2	9	8	1	4
	Inadequate Service Provision	3	8	8	1	3
	Failure in Communication	2	5	8	1	6
	Liquidation	3	10	4	3	1
PERCENTAGE		Never	Rarely	Sometimes	Always	Very Often
	Change of Buisness Requirements	8.3	37.5	33.3	4.2	16.7

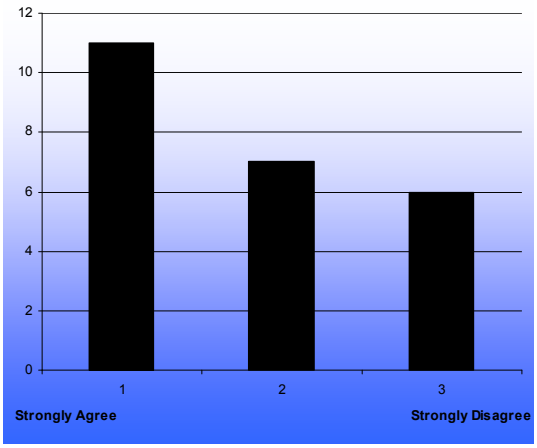
	Inadequate Service Provision	13.0	34.8	34.8	4.3	13.0
	Failure in Communication	9.1	22.7	36.4	4.5	27.3
	Liquidation	14.3	47.6	19.0	14.3	4.8



C2 Resized Results for Hypothesis Testing

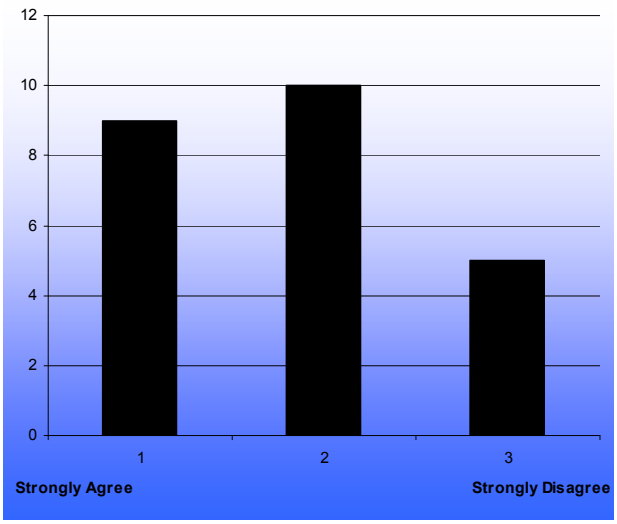
B *The Service Agreement was developed under pressure*

	Strongly Disagree		Strongly Agree
	1	2	3
Count	11	7	6
Percentage	45.8	29.2	25.0



C *Using a template during development decreased the time required for negotiations*

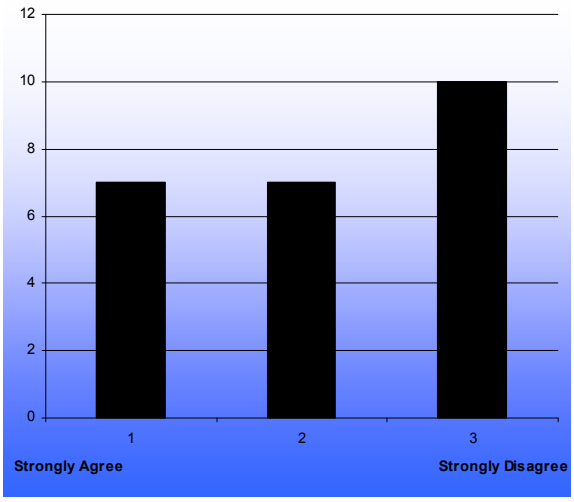
	Strongly Disagree		Strongly Agree
	1	2	3
Count	9	10	5
Percentage	37.5	41.7	20.8



F *The use of standard Service Agreements is preferable to lengthy negotiations*

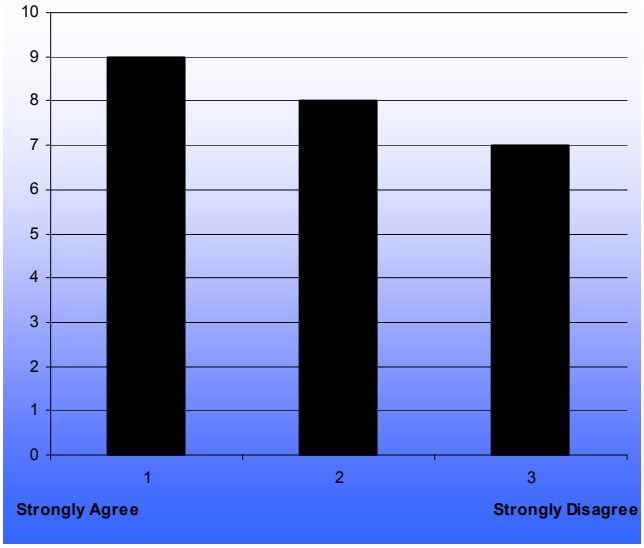
	Strongly Disagree		Strongly Agree

	1	2	3
Count	7	7	10
Percentage	29.2	29.2	41.7



H *Involving all stakeholders is critical to the identification of all the clients requirements*

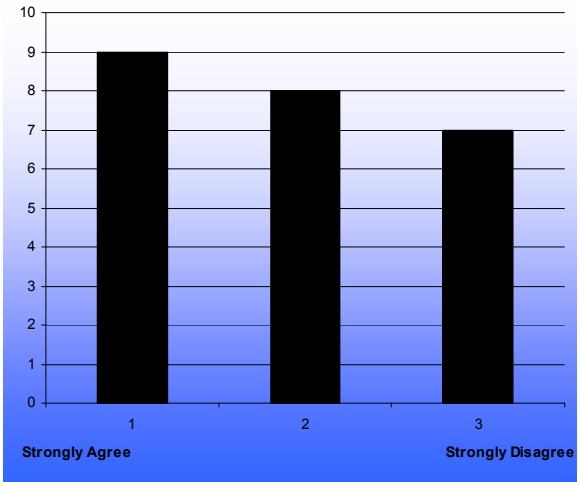
	Strongly Disagree		Strongly Agree
	1	2	3
Count	9	8	7
Percentage	37.5	33.3	29.2



J *The use of a review board is an effective method of involving all stakeholders*

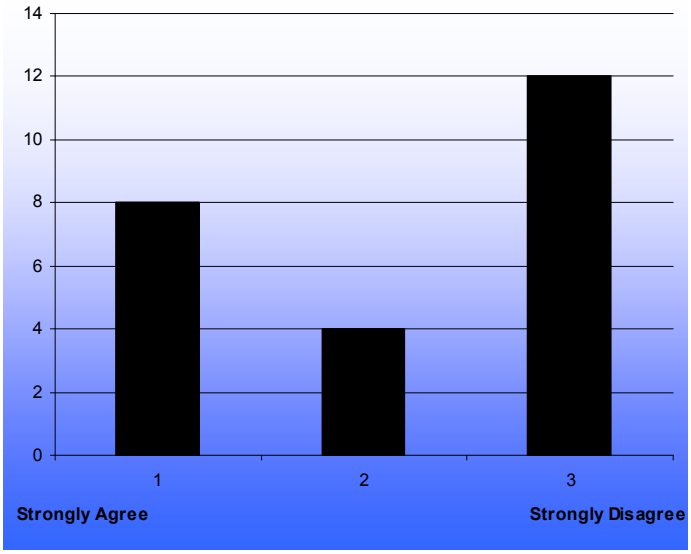
	Strongly Disagree		Strongly Agree
	1	2	3
Count	9	8	7

Percentage	37.5	33.3	29.2



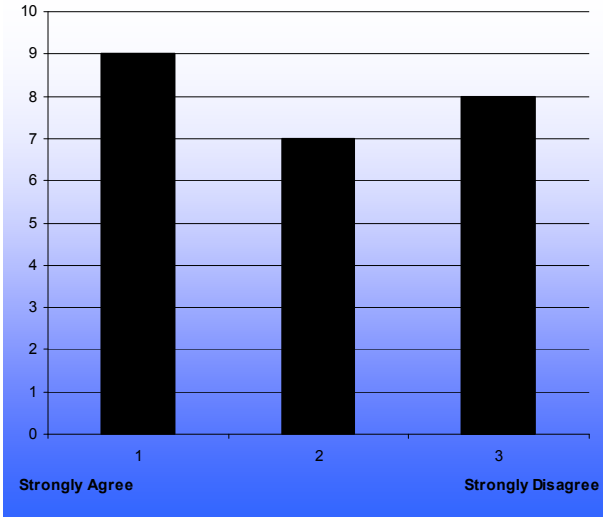
M *Stakeholders exhibit a conciliatory attitude to any disputes*

	Strongly Disagree		Strongly Agree
	1	2	3
Count	8	4	12
Percentage	33.3	16.7	50.0



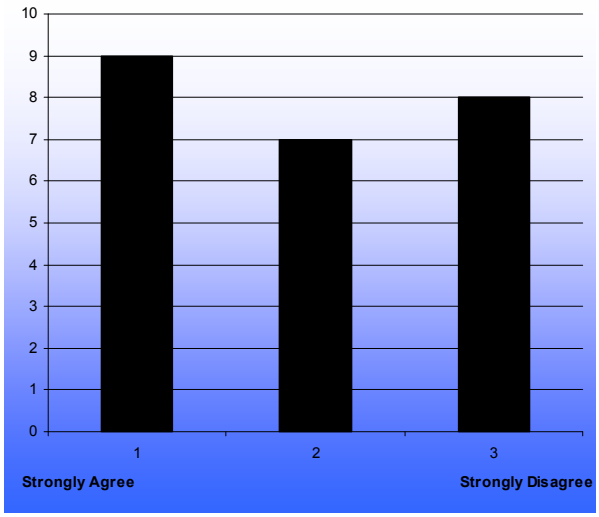
O *Technical and legal terminology is minimised in the Service Agreement*

	Strongly Disagree		Strongly Agree
	1	2	3
Count	9	7	8
Percentage	37.5	29.2	33.3



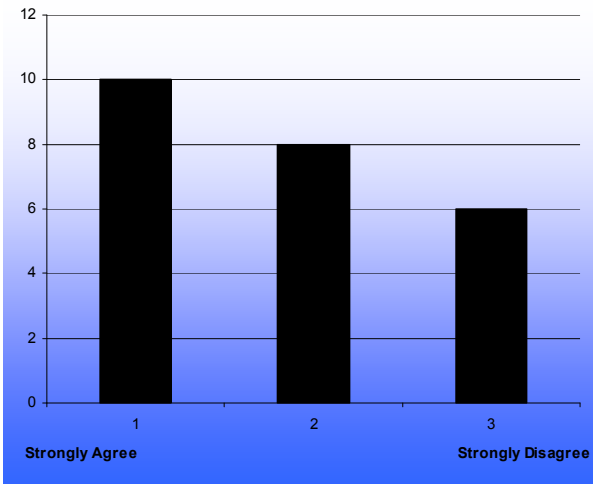
Q *All services are specified together with a metric*

	Strongly Disagree		Strongly Agree
	1	2	3
Count	9	7	8
Percentage	37.5	29.2	33.3



S *Procedures for implementing changes to the Service Agreement are documented*

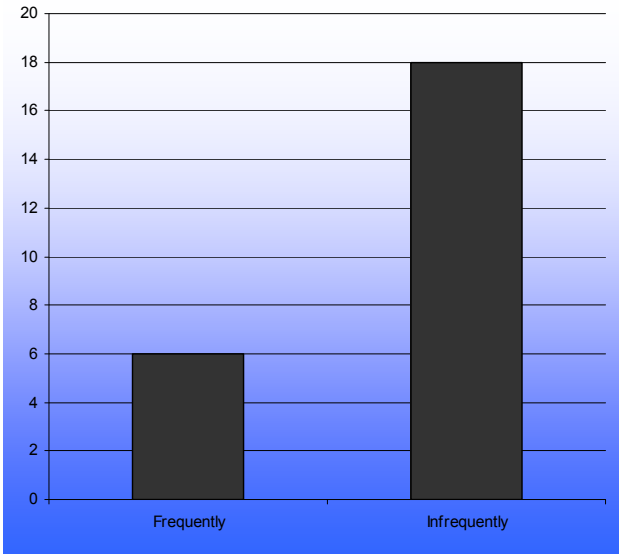
	Strongly Disagree		Strongly Agree
	1	2	3
Count	10	8	6
Percentage	71.4	57.1	42.9



Question 30

Indicate how frequently the Service Provider reports to the Client on the service provision?

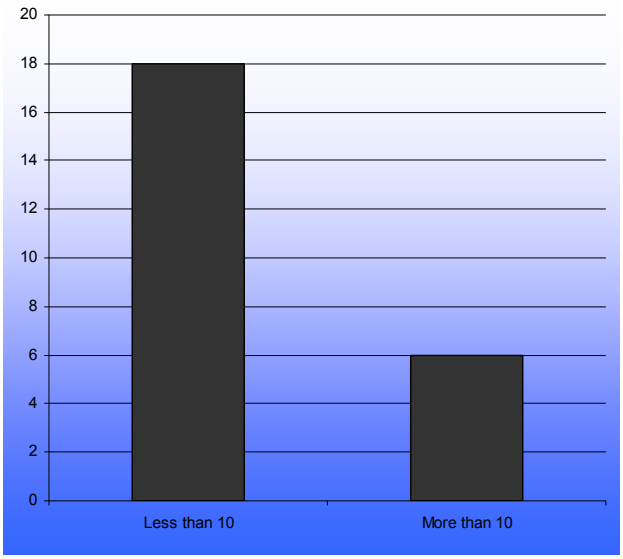
	Frequently	Infrequently
Count	6	18
Percentage	25.0	75.0



Question 31

On average, indicate the number of changes made to your Service Agreements within six months them of becoming operational

	Less than 10	More than 10
Count	18	6
Percentage	75.0	25.0


20
18
16
14
12
10
8
6
4
2
0
Less than 10
More than 10

Appendix D TechRepublics *How to Create a Service Catalogue*

How to build a service catalog

By Janice Ward

TechRepublic
Real World. Real Time. Real IT.

Introduction

The main purpose of a service catalog is to document IT services and establish the basis for other service management components. In essence, it clearly defines what services are available from the IT organization and aligns those services with the business goals and needs. It can be a baseline for a Service Level Agreement, or even replace it in some cases. It also becomes the basis for documenting procedures and processes in your IT organization.

In this download, I'll provide information about the basics of a service catalog. For a more complete, formalized procedure on service catalogs, the Help Desk Institute has recently published *The Service Catalog*, a focus series book by Rick Leopoldi and Vicky Howells.

ITSM/ITIL and service catalogs

IT Service Management (ITSM) is the framework laid out by the IT Infrastructure Library (ITIL). ITSM/ITIL originally started in the United Kingdom but has spread rapidly in recent years through many IT organizations around the world. The service catalog is a primary tool in building your ITSM framework. However, even if you are not fully implementing ITSM, the benefits of a service catalog are quickly apparent.

Developing the service catalog

The IT organization is going to have to put on its thinking caps to develop its service catalog. Depending on the purpose the organization hopes to achieve, the service catalog may be rich in detail or simply provide a top level explanation of services. For that matter, what is a service anyway? You may be surprised to find that some in IT don't know.

To first identify your services, work from the perspective of the core business purposes. Then, look at what IT offerings support those services. After the core purposes, move into those supporting areas that IT also serves, such as administrative or general organizational support. The entire service catalog should be viewed from the client's perspective. Some services can be further broken down into subservices as well. For example, see **Figure A**.

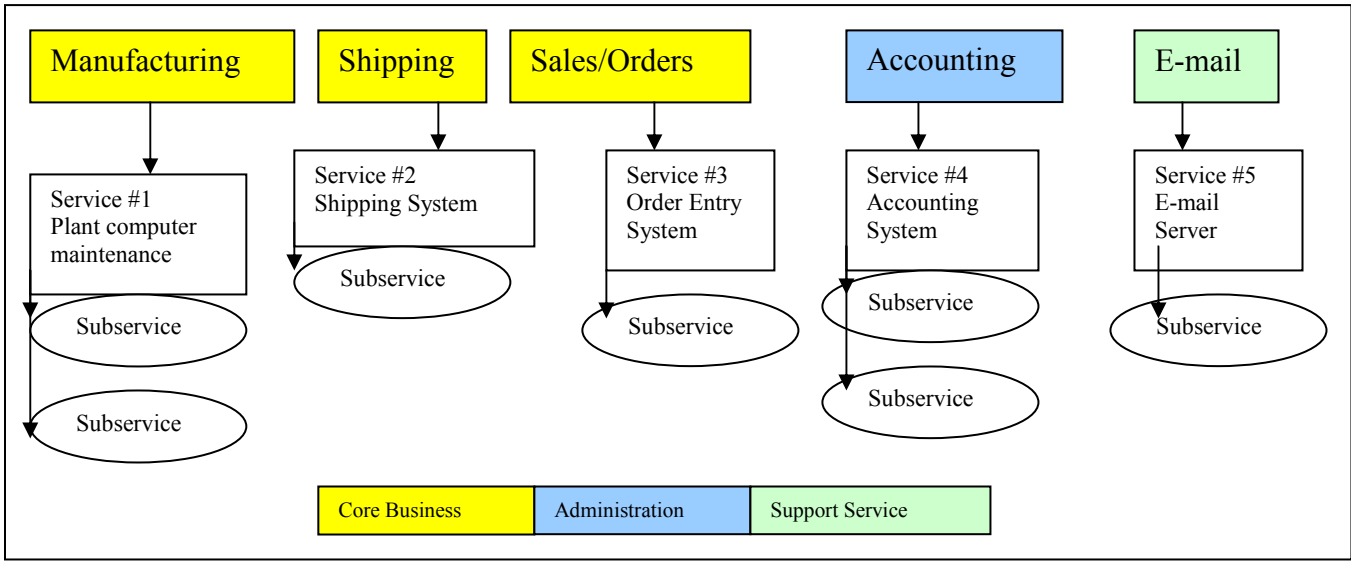


Figure A

After looking at services from the business perspective, start to define each service with the following information:

- Service Name – Provide a simple description, preferably the same name the client would use.
- Service Description – This is a high-level description of the service written in language clients can understand. Avoid jargon.
- Support Contact Point – Where should the client begin an inquiry or report problems regarding the service?
- Responsible Manager – List the contact person responsible for the service.
- Clients/Users – What set of clients (specific or general) utilizes this service?
- Detailed Specifications – Some items may not require all of these elements, but possible elements to include in specifications are:
    - Inputs – hardware, software, infrastructure, client inputs, etc.
    - Outputs – final products viewed from a client perspective
    - Default items always included
    - Optional items the client may request or pay extra for
    - Excluded items which are never included
    - Service hours of availability
    - Up-time and service availability goals
    - Support provided
    - Performance standards for the service
    - Client procedures for starting, changing or ending the service
    - Charges (if appropriate)

Form and structure of the service catalog

The service catalog can be presented in a variety of manners including print or a Web site. In addition to the detailed information for each service, the service catalog should include the following pieces:

- Title

- Version
- Last Revised Date
- Introduction and description of purpose
- Description of IT organization as a whole

The Service Catalog Template, which follows, provides some examples for developing a list of services and writing up each individual service.

Benefits of a service catalog

The benefits reaped by a service catalog depend somewhat on the purpose it's intended to fulfill in your organization. If the service catalog's design includes measures of success for the service, it can provide a baseline for performance metrics that help identify areas that need improvement.

A service catalog can also assist support desk managers in defining the scope of support in an organization, as it qualifies the incidents. It can even help identify priorities for incidents based on their impact to business functions. From a client perspective, a well-marked service catalog helps users identify what services are available to them and what the boundaries might be.

In organizations where a standard level of support is provided to all or most clients in the same way, the service catalog can become the de facto SLA for most users. Only those users requiring a different level of service will need to have an SLA and that SLA will only need to define what items differ from the standard service catalog. For some internal support organizations, a service catalog may be all that is ever needed.

Building procedures from the catalog

After developing the service catalog, the logical next step is to define procedures for each service. The service catalog itself will provide the support desk with contact information as well as performance standards to monitor. The service catalog is also a useful tool for looking at incident classifications.

After all the work in building the service catalog, procedures are the natural next step to documenting the work of the support desk. The procedure should first look at what questions will need to be gathered on input of an incident or request. Response time standards and escalation procedures will also flow naturally from the service catalog. If the incident or request cannot be solved at the support desk, procedures will use the contact information to initiate an escalation to second level technicians.

However, it is important to note that the work of the service catalog is never really complete. Ongoing maintenance, review, and revision will be necessary for the service catalog to continue to play a vital role in your IT service management. Even if your organization is not going to implement ITSM, a service catalog is a valuable baseline document.

Description of the templates

This section of the download includes two templates: The first should be used to create a list of the services you need to document in the service catalog. The second provides an outline of the introduction to the service catalog and a form to follow for each individual service.

List of Services Template

Identify each of your core business purposes. Then for each purpose, list the IT service and contact for that service. You'll also look at administrative roles and support-related services in the organization.

Core Business Purpose:	
Service	*Contact*
Service #1	Contact #1
Subservice #1a	
Core Business Purpose:	
Service	*Contact*
Service #1	Contact #1
Subservice #1a	
Administrative Role:	
Service	*Contact*
Service #1	Contact #1
Subservice #1a	
Support Role:	
Service	*Contact*
Service #1	Contact #1
Subservice #1a	

Services List Sample

Core Business Purpose: Manufacturing Plant	
Service	Contact
Computer operated machinery	Jim Jones
Inventory program	Jane Smith
Shop floor computer hardware support	Tom Thompson
Core Business Purpose: Shipping & Receiving	
Service	Contact
Order System	Jane Smith
Shipment Tracking	Jane Smith
Computer hardware support	Tom Thompson
Inventory System	Jane Smith
Administrative Role: Accounting Department	
Service	Contact
Desktop support	Greg Richards
Peachtree software	Greg Richards
Computer hardware support	Tom Thompson
Support Role: Company E-mail	
Service	Contact
E-mail Exchange Server	Jon Johnson
SAN	Jon Johnson
Network Infrastructure	Tom Thompson

Service Catalog Outline

I. Title of Document
   a. Version
   b. Last Revised Date
   c. Author(s)

II. Table of Contents

III. Introduction
   a. Purpose
   b. Uses

IV. IT Organization Overview
   a. IT units
   b. History of IT
   c. Main contact information
   d. Personnel directory (optional)

V. Services List

VI. Individual Services

Service Catalog Template

Service Name	
Description:	Here you will find a brief overview of the service offered by ITS. The description should include a client-friendly description of the service and its benefits.
Support Contact:	Provide the contact for more information or to request this service. Web links and other additional information may also be found here.
Responsible Manager:	Provide the name of the manager in charge of this service or area.
Users:	Identify the user groups which may most commonly use this service. Can be specific or general.
Detailed Specifications	
Inputs:	Hardware, software, client information needed
Outputs:	Final product details
Default, Optional & Excluded Items:	Support items/incidents or details that are always included, are optional or are excluded from the scope of this service
Service Hours:	Hours service is available
Performance Standards:	Up-time statistics, quality controls and final product specifications; useful basis for performance measures of the service
Client Procedures for starting, changing, or ending service:	How a client can request the service, change the service they are already receiving, or terminate the service
Charges (if applicable):	Any charge information or a simple statement as to whether or not charges may apply

Services Catalog Example

Administrative Desktop Support	
Description:	IT provides desktop support for company-supported software products such as Microsoft Office and Windows operating systems. Installation of software packages, computer setup, virus control, and coordination for network and hardware support is also provided. This support is available via telephone or on-site appointments.
Support Contact:	User should contact the IT Help Desk at 555-1222 to initiate a support request.
Responsible Manager:	Greg Richards
Users:	Administrative users include users in accounting and business services as well as reception and managerial support for manufacturing and shipping areas. Specialized desktop needs on the shop floor are handled by the applications team or hardware support.
Detailed Specifications	
Inputs:	Software and version, asset information, client contact information, thorough description of the problem including any error messages is required. For new installs or setups, details of asset and software required.
Outputs:	Problem will be resolved or escalated as needed. Resolution will be to the satisfaction of the client. A final report on the service rendered during an on-site visit is available to clients upon request.
Default, Optional & Excluded Items:	All campus supported software is included in desktop support. A current list of supported software is listed on our Web site. Software required for business purposes that is not standard is supported for individual units (such as Peachtree for Accounting). Software or other technology items not related to business purposes (personal or entertainment-related programs) are not supported and may be removed while resolving the problem.
Service Hours:	Desktop support is available from 8:00am to 5:00pm, Monday through Friday.
Performance Standards:	70% of calls are resolved on the first call. Of the 30% remaining, 60% of those are resolved on the first on-site visit. If a call cannot be resolved during the first 20 minutes of a phone call, the call will be escalated to on-site services. If on-site services determine there is a hardware problem or networking issue, the appropriate escalation is made immediately. Unsolved issues are escalated to either third tier support or vendors as appropriate.
Client Procedures for starting, changing or ending service:	Client can request service by simply calling the IT Help Desk.
Charges (if	No charges apply to the department for this service. Licensing

applicable): fees for software or hardware repair done out-of-warranty may have costs associated with it.