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The challenges of ITIL implementations

Jason Gray
Edith Cowan University

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The challenges of ITIL Implementations

By

Jason Gray

A dissertation to be
submitted in partial fulfilment of the
requirements for the degree of

Bachelor or Science Honours
(Computer Science)

Faculty of Computing, Health and Science
School of Computer and Information Science
Edith Cowan University

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Supervisor : Donald McDermid

Abstract

Originating from the UK, the IT Infrastructure Library (ITIL) is an IT Service Management framework whose adoption is rapidly spreading throughout Canada, Netherlands, South Africa, India, USA, and Australia. Promoted as a collection of “Best Practices” in IT service management, ITIL is gaining a reputation as a “silver bullet” to IT Service Management woes and is now gaining popularity amongst IT vendors and leaders of best practices worldwide. Increased IT productivity, IT accountability, increased compliance and reduced IT costs, are just some of the promised list of benefits. More and more organisations are planning to embark on ITIL implementations as organisations and research groups begin to document ITIL’s benefits.

As with any large IT project implementation or continuous improvement program undertaking, organisations may find that unexpected challenges arise and changes are required. This research will focus on the challenges organisations face during implementation, and will provide some insight into the continuous process of implementing ITIL. As the demand and awareness for ITIL increases, so too does the need for better understanding of organisation culture, catalysts and other changes that are needed to support the ITIL implementation process.

USE OF THESIS

The Use of Thesis statement is not included in this version of the thesis.

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1.0 Introduction

1.1 Background - What is ITIL?

The IT Infrastructure Library is an IT management framework for providing quality IT Service Management. The first ITIL elements were published in 1989 by the United Kingdom's Office of Government Commerce (OGC), then known as the Government's Central Computer and Telecommunications Agency (CCTA). With great foresight, ITIL was created to manage the UK Government's growing dependence on Information Technology. Currently, OGC claims that ITIL "... is the most widely accepted approach to IT Service Management in the World" (OGC, 2001, p. xi).

ITIL was contributed to by international experts from the public and private sectors, and was initially written by twelve authors working in the area of IT Service Management (OGC, 2001, p. xiii). ITIL has since progressed, with more than seventy others credited for their contributions from a variety of credible powerhouse IT, accounting and finance companies including Fox IT, Hewlett Packard, Microsoft, Royal & Sun Alliance, DMR Consulting, UNICOM, Pink Elephant, Shell Oil, British Airways and IBM. (OGC, 2001, p. xiv). The experience and expertise collected was combined into a compilation of IT "best practices" and a framework which has instant appeal to all IT departments, large and small.

In 2000, the OGC published two books expanding a core of eleven disciplines: *Service Delivery* and *Service Support* (Figure 1.0). ITIL has since released further publications titled *Security Management*, *The Business Perspective Set*, *ICT Infrastructure Management*, *Applications Management* and *Planning to Implement Service Management*. This research will concern itself with the two fundamental areas covering the core eleven disciplines involved with *Service Delivery* and *Service Support*. These two publications make up the foundations of ITIL.

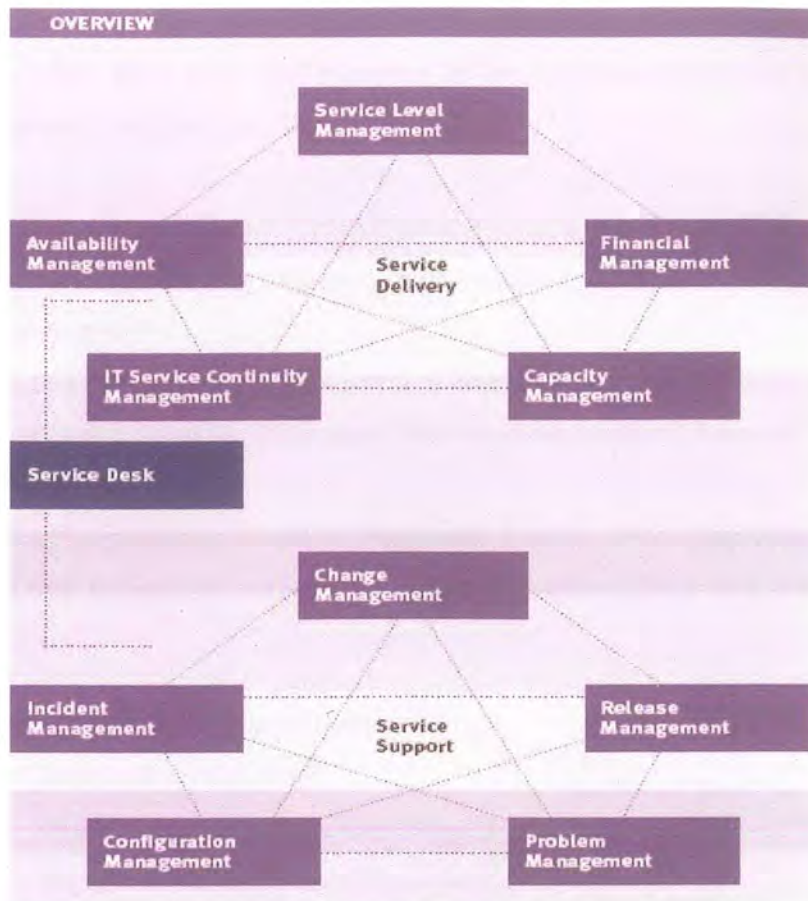


Figure 1-0: The two core areas of ITIL – Service Delivery and Service Support (Pink Elephant, 2006a)

ITIL publications reside in the public domain and therefore have no vendor or country restrictions on access. A most appealing feature of ITIL is its heterogeneous, non-proprietary nature which enables ITIL to be used in almost any organisation. This also enables ITIL to spread, improve and evolve through contributions, debate and public scrutiny. After numerous revisions and contributions, ITIL has matured and gained enough credibility to satisfy even the most complex of organisations. Recently organisations that have begun to announce their use of ITIL with the following benefits are:

- “Procter & Gamble : Started three years ago and have seen a six to eight percent cut in operating costs. Another ITIL project has reduced help desk calls by 10%
- Ontario Justice Enterprise: embraced ITIL two and a half years ago and created a virtual help/service desk that cut support costs by 40%
- Caterpillar: Embarked on ITIL project 18 months ago. After applying ITIL principles, the rate of reaching the target response time for incident management on Web-related services jumped from 60% to more than 90%”

(Pink Elephant, 2006b)

A recent case study on a mid-sized European IS organisation reported by Mingay (2004) claimed the following tangible benefits:

- A saving of just under 3.5 million euros a year (approx 7% of IS operating costs);
- Improved productivity, in terms of the number of customers each member of staff can support;
- Increase of incidents recognised as a known problem from 5% to more than 30% reducing incident handling times. Half are solved within 1 hour and 80% within 24 hours;
- The IS organisation is now billing around 1 million euros (approximately 2 percent of total billings) for services that were being delivered but were not being charged for (sic).

Mingay also claimed the following intangible effects:

- Improved service levels;
- Higher customer satisfaction rating (up from 6.8 to 7.6 out of 10);
- Improved relationship with customers;
- Improved IS staff satisfaction;
- Much better control over infrastructure, resulting in better reliability, availability and predictability.

Brittain and Mingay (2002) summarise ITIL

“ITIL offers a public domain, non-proprietary framework for process and service management for heterogeneous environments. It brings with it a consistent, integrated approach and a vocabulary, which are valuable contributions to service management.”

1.2 The Significance of the study

ITIL is experiencing significant growth and there is an increase in awareness of it worldwide (Curtis et al., 2005). This awareness is expected to create interest in organisations who consider themselves leaders of quality IT services, organisations who use IT to maintain a competitive advantage, and organisations who use IT to add value to the business. All indications are that ITIL is not a fad and is here to stay.

“A survey of over 100 FSTE 500 organisations found that where ITIL had been adopted, 97% of the organisations had experienced increased business benefits (70% of which stated these were tangible) when their service delivery model was based on ITIL”

(Presswire, 2003)

ITIL implementations can be complex and may span a number of years. As ITIL adoptions become more prevalent, information is emerging to suggest ITIL implementations are more challenging and more demanding than initially thought. While organisations are reporting the benefits of using ITIL, relatively little literature is available on the ITIL implementation process itself.

Therefore, the significance of this study is to investigate what IT implementers find most challenging about implementing ITIL and why. With a focus on the catalysts, inhibitors, risks, pitfalls and potential threats that can be expected during implementation, this study will provide invaluable information for the ITIL community and those planning to implement ITIL. This study may then be used to benefit organisations implementing ITIL as it may help them to alter their organisational culture and/or philosophy to enhance or improve their chance of ITIL implementation success.

1.3 Statement of research questions

The main research question is

“What are the challenges of ITIL Implementations?”

Subsequently there is an expectation that the following supportive sub-questions will be investigated:

- i) What attracts organisations to ITIL?
This question will investigate what is motivating organisations to implement ITIL.
- ii) What are the biggest challenges for organisations when implementing ITIL?
This is to get a better understanding of what barriers and challenges are limiting or stopping ITIL implementations. Additionally, what ITIL modules are incompletely implemented, completed last or ignored in ITIL implementations.
- iii) What can assist or ease the process of implementing ITIL?
Conversely to the previous sub-question, what factors, organisational cultures and characteristics are conducive to ITIL implementations, and what ITIL modules are being completed first?
- iv) Are organisations satisfied with ITIL, and are ITIL expectations being met?
Finally, this study will investigate whether participants are satisfied with ITIL and whether or not their expectations were met.

1.4 Definition of Terms/Glossary

BS15000	British Standards (hence BS) is a standards organisation
COBIT	Control Objectives for Information and related Technology
CMM	Capability Maturity Model
ISO9000	a Total Quality Management certification process backed by the International Organisation for Standards (hence ISO)
ISO20000	International Standards Organisation standard for IT Service Management.
ITIL	IT Infrastructure Library
ITSM	IT Service Management
MOF	Microsoft Operations Framework
OCG	Office of Commerce and Government in the United Kingdom
SOX	Sarbanes Oxley Act
TQM	Total Quality Management

2.0 Review of Literature

2.1 General

2.1.1 Alternatives to ITIL

There are many quality process improvement methodologies for quality IT service management worldwide, classified by Bittinger (2004) in figure 2-1. Examples include Control Objectives for Information and related Technology (COBIT), the Capability Maturity Model (CMM), Microsoft Operations Framework (MOF), BS15000 (British Standards), Six Sigma, and ISO9000 (International Standards Organisation). Each of these process improvement methods have been developed by different interest groups, to meet different requirements, however all have a common goal of process improvement.

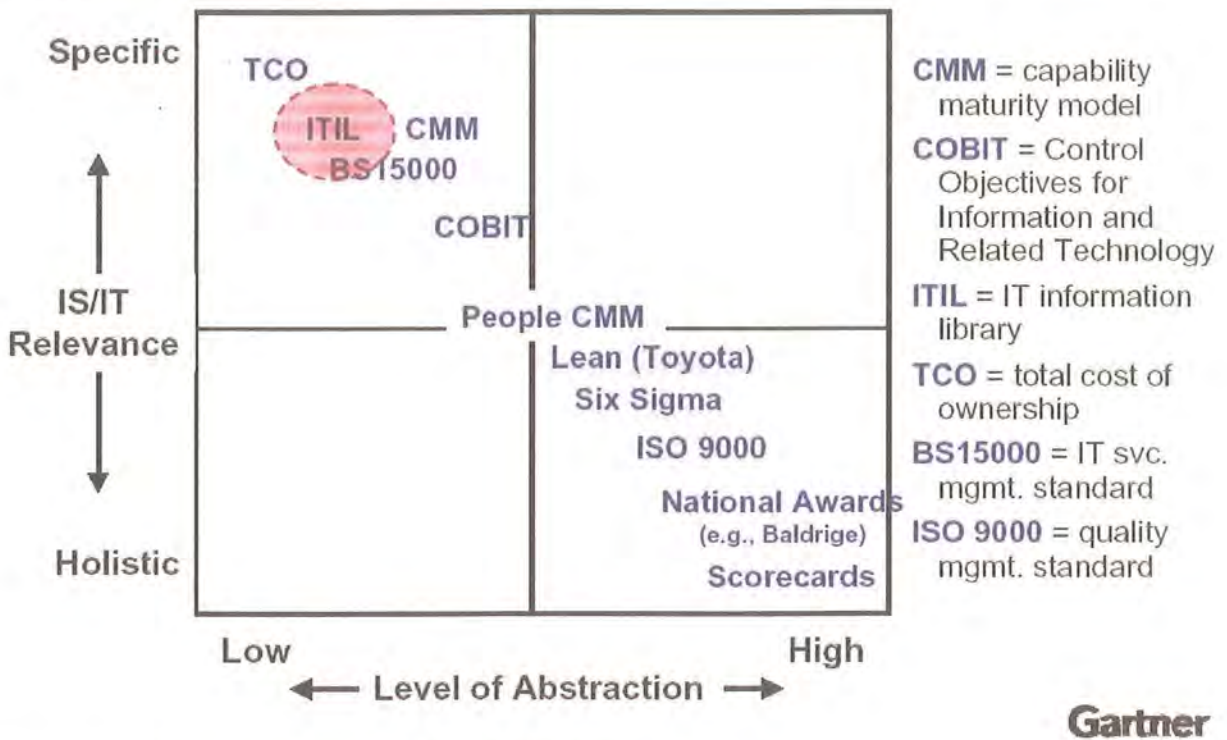


Figure 2-1: Process Improvement Methods (Bittinger, 2004)

Unrelated interest groups with differing histories provide insight into the characteristics of each method. COBIT has evolved from audit methodologies where high-level governance and control was required. Toyota's Lean Process has evolved from the manufacturing trade where continuous improvement and perfection was required and CMM has evolved from the Software Engineering Institute's search for improvement and process maturity in the software development process. Due to the differing histories of these interest groups they are understandably different in levels of abstraction and relevance for IS/IT.

It should be noted that ITIL is not mutually exclusive with other approaches, and other approaches can be used in conjunction with ITIL to complement one another. As Mingay and Brittain (2003, p. 2) conclude:

“IT Infrastructure Library is an excellent base for driving performance and quality improvements in the service management domain. It can be an integral part of a wider quality initiative by combining it with other frameworks such as Capability Maturity Model, Control Objectives for Information and Related Technology, or Six Sigma.”

Although Mingay and Brittain (2003) support combining or implementing methods concurrently, they also warn that “trying to implement ITIL as part of an ISO 9001:2000 certification program while also trying to launch Six Sigma would, for most enterprises, simply result in initiative overload.” They warn organisations against instigating too much concurrent change, and to have an objective assessment as to what it is that is to be achieved.

Mingay and Brittain (2003) also comment that ITIL is “more focused than other generic frameworks for performance and quality improvements, such as ISO9000 and Six Sigma, which require some level of adaptation.” Paquet (2002) adds “there are alternatives for process improvement, but we believe there is no better starting point for IT processes than ITIL.” ITIL is still recommended for quality IT Service Management and has a lot to offer regardless of a company’s size and process maturity.

2.1.2 ITIL as a Standard

International Standards bodies have only recently released standards based on ITIL. Paquet (2002) defines two types of standards:

1. De facto standards created through broad implementations
2. Those created by true standards bodies such as the ANSI, the ISO and the Comité Consultatif International Telegraphique et Telephonique.

(Paquet, 2002)

In figure 2.1, BS15000 and ISO9000 are examples of a standard overseen by a standards body and referred to in Paquet’s second definition. Conversely ITIL until recently was considered to be a de facto standard as defined by defined by Paquet (2002), who describes this as having a

force in numbers, but not with recognised authority. Paquet argued in 2002 that ITIL was still a de-facto standard and becoming an ISO standard would slow down the definition and development of future IT processes. Paquet also warned that “becoming an ISO standard could make full ITIL implementations a long and complex process that could take many years.”

In 2002 British Standards released BS15000 which became the first worldwide standard specifically aimed at IT Service Management and based on ITIL. At the end of July in 2004, Standards Australia followed suit with AS8018. AS8018 is an Australian version of BS15000 and is generally referred to as AS8018 / BS15000. In May 2004 there were just four BS15000 certified organisations: Axios Systems Ltd (UK), CSC Computer Sciences Ltd (UK), Digital Globalsoft Ltd (India), and Wipro Technologies Global Command Centre (India). Since then, 67 organisations have become certified to BS15000 with a current list available from British Standards (itSMF, 2006). In November 2005, Bittinger and Roberts (2005) reported on the first government agency in the world to achieve ITIL Certification. This landmark achievement by the State Revenue Office of Victoria, Australia has generated much interest in Australia amongst government and private organisations.

In November 2005, ISO released the ISO/IEC 20000 Service Management standard. ISO/IEC 20000 will be deprecating the 2002/2003 edition of the BS15000 standard. The impact of ISO releasing ISO/IEC20000 is as yet unknown however the expectation is raised interest and awareness in ITIL.

2.1.3 ITIL Training and Certification

For IT professionals interested or intending to implement ITIL, training and certification options exist through third party training and examination vendors. Courses offered by third party training vendors are usually mapped to the internationally recognised ITIL certifications accredited through EXIN (the Examination Institute for Information Science). The three certification options are offered by EXIN are;

- i) The Foundation Certificate in IT Service Management (ITIL Foundation)
- ii) The Practitioners Certificate in IT Service Management (ITIL Practitioners)
- iii) The Manager’s Certificate in ITIL Service Manager (ITIL Service Management)

The relationships between those who complete the training and those who pursue further certification may be a factor in the success of ITIL. Additionally the percentage of IT staff that are trained or undertake ITIL may be a factor into ITIL implementation success. Pemco

Corporation found that a \$150,000 investment in IT Infrastructure Library process methodology training resulted in improvements that saved the IT service Provider \$500,000 (Brittain, 2004). Pemco (PCCS) recommended leveraging ITIL training as a starting point for creating a common nomenclature and cross-silo management processes. PCCS initially trained 65% of staff in the first quarter of 2002 and by the end of the year 90% had completed ITIL essentials (ITIL foundations). Training budgets and management commitments to training as in the above case study are not always present in organisations and may be a factor in successful ITIL implementations. Datacom Director Steve Hobson (McBride, 2005, pp20-22) is quoted after putting 85% of its systems division employees through ITIL training.

“I think that most people don’t realise the level of training that goes into ITIL,” ...
“They assume that the ITIL fundamentals training will be sufficient, but really it doesn’t take you to the level you need to be to implement ITIL.”....

“... to show that you have real commitment to implementing ITIL, you have to have people involved who are certified.”

(McBride, 2005)

In Japan, Individual Certification appears to be increasing in awareness and popularity with EXIN (2006) claiming that as of the 27th of February 2006 that it has certified over 10,000 candidates in ITIL Foundations in Japan alone.

2.2 Motivation: Why are organisations choosing to implement ITIL?

The list of perceived ITIL benefits has been documented by many over recent years. A reputed contributor to ITIL since its inception is Pink Elephant (Pink Elephant, 2005) who offer the following comprehensive list of benefits to ITIL in “the benefits of ITIL Whitepaper” (Pink Elephant, 2006b)

- i) Improve resource utilisation
- ii) Be more competitive
- iii) Decrease rework
- iv) Eliminate redundant work
- v) Improve upon project deliverable and time
- vi) Improve availability, reliability and security of mission critical IT services
- vii) Justify the cost of service quality
- viii) Provide services that meet business, customer and user demands
- ix) Integrate central processes

- x) Document and communicate roles and responsibilities in service provision
- xi) Learn from previous experience
- xii) Provide demonstrable performance indicators

(Pink Elephant, 2006b)

With this attractive list of benefits credited to ITIL, it is no wonder awareness is increasing in ITIL (Scott & Colville, 2005). Scott and Colville also predict that 35 percent of large IT organisations will have transformed to IT service management by 2008, continuing to 50 percent by 2012. Another survey by CIO Magazine of 167 CIOs and other senior executives claimed that 95% said they had budgeted for or approved ITIL projects during 2005 (Lynch, 2006).

2.3 Drivers and market trends influencing ITIL adoption.

Gartner Research announced in "Predictions: 2006 and beyond" (Scott & Colville, 2005) that IT Organisations will continue to improve IT Management process maturity. The market trends placing pressure on IT Management process maturity were quoted as follows:

- 1) Regulatory compliance requirements driving documented, repeatable operational processes,
- 2) Increased awareness of Information Technology Infrastructure Library (ITIL) and process management frameworks,
- 3) Aligning IT with the business
- 4) Increased desire for business-centricity from IT staff
- 5) Creating IT accountability
- 6) Improving service quality
- 7) Lowering costs of service delivery

(Scott & Colville, 2005)

Other IT trends include those regarding IT Governance and Frameworks. Newcombe (2005) credits audit and regulatory compliance concerns in the United States created by the Sarbanes Oxley Act and September 11 as being responsible for a surge of interest in Frameworks and IT Governance. The Sarbanes Oxley Act has forced organisations to setup internal controls to ensure financial Accountability (Newcombe, 2005). Newcombe continues "In the United States,

private sector corporations are holding their IT organisations more accountable while reducing their budgets.” (Newcombe, 2005).

Newcombe (2005) also suggests that mergers and outsourcing has also placed pressure on IT organisations to ensure everybody is speaking the same language. This is an area where businesses will find frameworks such as ITIL, COBIT and ISO9001 can assist.

Trends including IT providing business benefit are also a hot topic. A management briefing from ITGI (IT Governance Institute) and OGC (Office of Government Commerce) titled “Aligning COBIT, ITIL and ISO 17799 for Business Benefit” cites the following comprehensive list of business drivers for the use of IT “Best Practices.”

- i) Business Managers and Boards demanding better returns from IT investments, i.e. that IT delivers what the business needs to enhance stakeholder value
- ii) Concern over the generally increasing level of IT expenditure
- iii) The need to meet regulatory requirements for IT controls in areas such as privacy and financial reporting. (eg Sarbanes-Oxley Act) and in specific sectors such as finance, pharmaceutical and healthcare.
- iv) The selection of service providers and the management of service outsourcing and acquisition
- v) Increasingly complex IT-related risks, such as network security
- vi) IT governance initiatives that include adoption of control frameworks and best practices to help monitor and improve critical IT activities to increase business value and reduce business risk
- vii) The need to optimise costs by following, where possible, standardised – rather than specifically developed – approaches
- viii) The growing maturity of consequent acceptance of well-regarded frameworks, such as ITIL, COBIT, ISO17799, ISO9002, Capability Maturity Model (CMM), Projects in Controlled Environments (PRINCE2), Management Successful Programmes (MSP), Management of Risk (M_o_R) and Project Management Body of Knowledge (PMBOK)
- ix) The need for organisations to assess how they are performing against generally accepted standards and against their peers (benchmarking)

(ITGI and OGC, 2005)

The key themes re-appearing from the above for IT departments in organisations is the focus around increasing audit and compliance requirements, improvement of the quality of service, increased IT scrutiny and accountability, and the alignment of IT with the Business. These drivers are expected to be the main influences for organisations to implement ITIL.

2.4 Literature on previous findings

Academic research regarding ITIL implementations is limited; however surveys and case studies are beginning to appear. Academic research papers are rare, with most ITIL publications being produced by training and consultancy firms with potentially biased agendas. These papers are usually marketed for IT managers with a focus on increased productivity, compliance and governance, training and certification and cost reduction solutions. As you would expect from ITIL consultancy firms, they are marketing the attractiveness and immediate benefits of ITIL and not necessarily the costs and change associated with ITIL implementations. This is not surprising, as it can be considered the consultants' "bread and butter" for which they happily charge a premium.

Why academic sources of ITIL research and in particular ITIL implementations are not common is unknown. It could be expected that academic papers regarding ITIL will grow proportionally to university offerings over the coming years, which may depend or be driven by market forces. ITIL has only begun to appear in University courses and can be considered in its infancy. Perhaps the theory behind ITIL, or the industry experience and background pre-requisite required to understand ITIL, may be too advanced for a university under-graduate student.

2.5 Specific studies similar to the current study

One of the few academic papers regarding ITIL was published by Potgieter, Botha and Lew (2005) and discusses ITIL's effectiveness. The paper titled "Evidence that use of the ITIL Framework is effective" was published with the aim of "to ascertain is a direct correlation exists between customer satisfaction and the use of ITIL." This paper is of interest terms of positive user experiences in ITIL. Unfortunately, it is focused on the perceived benefits from the customer's point-of-view, and not the IT departments, and therefore does not translate well to implementation experience. It therefore cannot be used to add validity to this research.

In August 2005, the University of Queensland conducted a paper-based survey at the National itSMF conference in Brisbane 2005. The survey results were compiled in September 2005 with similar results and findings to some parts of this study. The survey was limited to Australian participants who attended the conference; however some of the questions are closely related to this study and will therefore be used to validate the data collected in this study. Questions relating to ITIL success factors, ITIL effectiveness and benefits were collected. The survey structure and questions of the Cater-Steel and Tan survey were unknown to this author until the last stages of this thesis and after data collection. The data collected was extracted from 110 participants out of 506 people attending the itSMF conference who were implementing ITIL. This data and information collected from by Cater-Steel and Tan (2005) is significant and relevant and will be used to validate this study's outcomes.

A second similar survey has since been conducted by Evergreen Systems Incorporated. In this survey 167 attendees were surveyed from 108 companies, organisations and institutions at the 5th Annual IT Service Management Forum annual conference. Within this study, information was gathered similar to this study regarding training, motivation, and implementation progress which will be compared to this study for validity. Once again this sample was limited to those who attended the conference and was heavily biased toward North America.

Gartner Research has shown a significant interest in ITIL, with half a dozen papers released in and around June 2002. Gartner Research director Steve Bittinger was quoted in ComputerWorld in May 2005 regarding ITIL's growth in Australia (McBride, 2005, p. 20).

“Gartner is undertaking primary research, it's only small to start off with, because the experience I have is that there is fairly rapid growth going on, but it's still in its early stages.”

(McBride, 2005, p. 20)

A Gartner case study on an ITIL implementation by Mingay (2004) titled “How Managing Services Using ITIL profited an IT department” documented a case study on a company's ITIL implementation experience. It covered the approach, the benefit and some of the critical success factors and lessons learned. It also presented a breakdown of investment in the implementation which will be discussed in the next section; its only limitation is that it captures the experiences of a single company. Nevertheless, the information is important, and will be discussed and drawn upon in this study.

For ITIL enthusiasts, Pink Elephant is a reputed ITIL founding organisation committed to the ITIL framework. Pink Elephant also provide ITIL articles, whitepapers, case studies, and presentations. It also provides an ITIL process maturity tool that can be used to assess levels of process maturity prior to implementation (Pink Elephant, 2006). It may also be used during implementation as a guide to what needs improvement and focus. This does not record the challenges of the implementation, but it does provide a benchmark or metric of maturity for each module of ITIL implementation.

The main source of ITIL information, updates and news is available from the UK OGC government website (OGC, 2006) with the publications available from third party bookshops. Other various sources of information and literature can be found at unofficial blogs, usergroups and forums. Unfortunately, most ITIL publications and literature available today is in the form of magazines articles and consultancy vendors.

To date, academic studies regarding ITIL are rare. Academic activity regarding ITIL may increase as implementations become more widespread.

2.6 Other studies related to the current study

In the official ITIL v2.0 Service Support documentation (OGC, 2002), a section is dedicated to “Why implementations fail”. Some common reasons for implementation difficulties are listed below:

- lack of commitment and understanding
- lack of training
- the staff given the responsibility for implementation are not given sufficient authority to make the decisions
- loss of the Service Management ‘champion’ (the person driving the implementation)
- loss of impetus after the initial hype
- lack of initial funding and lack of quantifiable long term benefits
- over-focus on tactical, isolated ‘solutions’

(OGC, 2002)

The above is provided as a guide from the OGC for awareness on implementation issues. If these reasons sound familiar, it could be that they are general reasons for not accomplishing any large or complex IT project. This report will try to further uncover common implementation

catalysts and barriers currently being experienced by IT workers undertaking ITIL implementations.

Scattered research regarding implementations is beginning to appear. Mingay (2004) recently revealed some implementation costs and data with a case study of an ITIL implementation. Figure 2-2 (Mingay, 2004) shows the implementation costs broken down into Tools (Hardware and Software), Consultants and Trainers, and Internal People expenses.

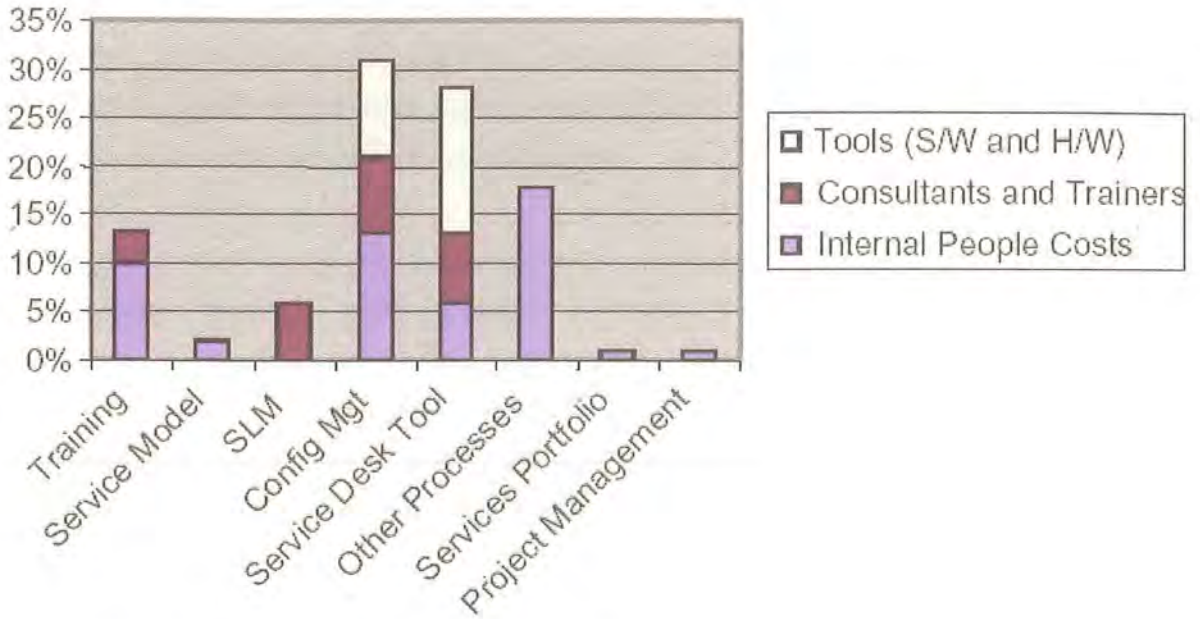


Figure 2-2: ITIL implementation Costs (Mingay, 2004).

Although this gives an insight into ITIL implementation expenses, and potentially what areas are the most expensive to implement, it does not give any indication of what IT departments found difficult. This does, however, reveal that staff implementing ITIL may require or rely on the help of tools, as well as consultants and trainers. Service desk tools may play an important role in ITIL implementation as they can often be used to implement three or more ITIL modules. Service Desk suites can often assist to implement incident management, problem management, and release management. Some service desk suites go further to integrate change management, configuration management and release management. This study will also investigate what, if any, role tools play in ITIL implementations.

3.0 Theoretical Framework

3.1 Research Method

As outlined in section 2.1, the research question and subsequent questions being investigated for this study are predominantly focusing on ITIL implementation challenges within different organisations, raised by participants as they implement ITIL. Ideally, for a broad understanding of these challenges, information would need to be gathered from a variety of different participants implementing ITIL worldwide. Geographical boundaries, specific knowledge and the inquisitive nature of this study will be a strong influence in choosing the most effective research method and its undertaking for this research.

Collecting the concerns and issues from people as they implement ITIL, confirms that this study is based on an interpretive research tradition as opposed to a positivist research tradition. Williamson summarises the research approach of interpretivists: “(being) concerned with meanings constructed by individuals and groups, use principal inductive reasoning and collect qualitative data’ and positivists which attempt to “apply scientific methods to social sciences, ...” (Williamson, 2002, p. 37).

There are a number of interpretivistic research methods that would allow ITIL participant experiences to be collected: examples include case studies, surveys and action research. However, as the researcher in this study will be unknown to the participants, will have no direct effect on the participants, and the participants will be located worldwide, the most appropriate method would be to conduct a survey, and more specifically the research technique of an online questionnaire. Mail, email, telephone, face-to-face interviews and other forms of surveys cannot be considered due to geographic considerations and limitations (Williamson, 2002. p92), and the non-existent relationship between the researcher and any participants. Using an online questionnaire the researcher will focus on the worldwide ITIL community (Williamson, 2002. p92) which can be described as a purposive sample. Williamson describes the use of purposive sampling as “(where) the researcher, on the basis of personal knowledge, hand-pick subjects with the required expertise or background for the study” (Williamson 2002, p91). Purposive sampling is a type of non-probability sampling (De Vaus, 2000. p68; Williamson, 2002) common to interpretivist study where a random sample is not possible or necessary. The purposive sample (Williamson, 2002; de Vaus, 1985, p. 68) for this survey is made up of people that are implementing, have implemented or are planning to implement ITIL.

In summary, the primary research method that will provide the most appropriate information for this study is an online questionnaire based on an international non-probability purposive sample. The exact research method procedure will be elaborated on in the following sections.

3.2 Research Method Limitations

As will all research methods, there are limitations and weaknesses that should be mitigated. Williamson (2002) describes the following disadvantages with regards to questionnaires.

- 1) Difficulty in securing an adequate response.
- 2) Difficulty in obtaining responses from a representative cross-section of the target population.
- 3) Lack of opportunity for respondents to qualify answers or for researchers to probe for further information
- 4) Lack of opportunity to control how and when the questionnaire is answered
- 5) Lack of opportunity to acquire supplementary observation data
- 6) Complex data cannot be collected.

(Williamson, 2002, p. 239)

The disadvantages highlighted by Williamson (2002) will be addressed and mitigated where possible.

- (1) Difficulty in securing an adequate response: Response rates mentioned above may be improved with recruitment and careful questionnaire design. Recruitment will be discussed in more detail in section 3.3
- (3) Respondent opportunity to qualify answers can be mitigated through careful questionnaire design and question selection. Probing for further information can be done with the use of open ended questions which will be discussed in section 4.1 although it is understood by the researcher that in-depth or root-causes to responses may not be extracted.
- (6) Complex data cannot be collected: Open questions will be asked, however questions will be kept relatively simple to avoid incorrect responses. The chances of misinterpretation of questions by participants can be lessened through pilot and pre-testing methods discussed further in section 3.3.

The remaining questionnaire limitations may be harder to mitigate and may be restricted by the design, recruitment method and procedure.

- (2) Difficulty in obtaining responses from a representative cross-section of the target population: Responses representing a cross-section of the target population unfortunately cannot be avoided as a non-probability purposive sample has been selected which will tell us nothing about those who do not respond.
- (4) Lack of opportunity how and when the questionnaire is answered: Although participants will be choosing to opt-in to the online questionnaire (see recruitment section 3.3), we cannot be sure the respondents were enthusiastic when completing the questionnaire.
- (5) Lack of opportunity to acquire supplementary observation data: as stated in 3.1, by design, the relationship between the researcher and the participant will be non-existent, so no further observation other than what the participant offers can be obtained.

Where possible the researcher will attempt to reduce the effect of any deficiencies within the research method through careful design and the procedure that will be undertaken which will be discussed in section 4.0.

3.3 Recruiting the Target Sample

As stated previously, using an online method of questionnaire will allow the researcher to access an international sample of the ITIL society (Williamson, 2002, p. 92). Recruitment will be done through popular ITIL implementation websites and forums. Forums and Newgroups have the advantage of locating those who share a common interest or a particular topic (Williamson, 2002). In this case ITIL forums will be targeted, with participant's opting-in. Williamson (2002, p. 106) quotes Emery:

“The more closely your survey fits your audience, the less likely you are to receive bogus answers and angry replies” (Emery, 1997, p. 601 in Williamson, 2002, p. 106)

An introduction post will be announced on selected forums giving details of the study and its cause. A link will also be provided to an introduction page for the online questionnaire. This will be discussed in the next section. Prior to posting, caution was taken to ensure forum rules and regulations were adhered to. Williamson (2002, p. 106) again cites Emery (2002) stressing the importance of cautiously picking target newsgroups, as each one runs by different rules. Emery (2002) is also cited “mistakes here can generate hate mail... not to mention ruining your survey.”

The key targets of the questionnaire will be those who have attempted to or are currently implementing ITIL. They may be ITIL stakeholders, ITIL drivers, passengers or participants. Although measuring ITIL's completeness will be attempted, this study will not be limited only to those who have necessarily successfully implemented ITIL, as data from ITIL failures will be invaluable, if not more important.

3.4 Biases, Validity and Response Rates

As the recruitment method is via forums and newsgroups, self-selection bias (due to purposive sampling) will be a major issue (Williamson, 2002, p. 105). It will be biased towards people who are attracted to the forum and who participate and contribute to the forums. Williamson warns about the accuracy of self-report data that would be gathered in an online questionnaire:

“Generally surveys involve respondents answering questions about their own situation or behaviour. Some question the accuracy of such “self-report data”, given factors such as the natural human tendency to present oneself to others in the most positive light”

(Williamson, 2002, p. 94)

Biases are inevitable in purposive sampling (Williamson, 2002), and will need to be taken into consideration when reporting on results and/or making generalisations. Williamson states “A high response rate is essential if results are to be generalised accurately from a sample to the broader population” (Williamson, 2002, p94). Williamson then suggests “that researchers taking issue seriously will take every possible step to maximize response rate” (Williamson, 2002, p. 94). Dillman (2002) adds that the risk of biased responses and validity of data can be reduced through maximising response rates through careful questionnaire design. The following guidelines provided by De Vaus (1985) will be taken into account when wording and designing the questionnaire.

Guidelines to avoid wording problems provided by De Vaus (1985):

- 1) Is the language simple?
- 2) Can the question be shortened?
- 3) Is the question double-barrelled?
- 4) Is the question leading?
- 5) Is the question negative?
- 6) Is the respondent likely to have the necessary knowledge?
- 7) Will the words have the same meaning for everyone?

- 8) Is there a prestige bias in the question?
 - 9) Is the question ambiguous?
 - 10) Do you need a direct or indirect question?
 - 11) Is the frame of reference for the question sufficiently clear?
 - 12) Does the question artificially create opinions?
 - 13) Is personal or impersonal wording preferable?
 - 14) Is the question wording unnecessarily detailed or objectionable?
- (De Vaus, 1985, pp71-74)

As poor questionnaire design can lead to poor response rates, Dillman (2000) and Williamson (2002), suggest pre-testing and further testing. Initially a pre-test questionnaire will be used prior to the final release as suggested by Williamson (2002, p92). The questionnaire was pre-tested to ensure that there is no ambiguity, it is fair and balanced, not too aggressive or forced, the vocabulary and language were not too difficult, check for biased questions, and the questions and survey were not too long. All of these issues contribute to data corruption problems of poor samples, biased samples, small sample sizes and/or poor completion rates.

After the questionnaire was pre-tested it was then trialled online to ensure that the interface was not too complex, and the webpage worked on a variety of browsers (Archer, 2003) and operating systems. Feedback was gathered during the trial to correct any further issues raised. The sample set of participants for the pre-test and trial contained a mix of people with experience in ITIL, as well as experience in research and questionnaire design. The initial, pre-test, trial and ethics clearance questionnaire were all reviewed by the researcher and others. Different reviewers were used as those that have worked on one version after another soon lose their ability to detect obvious problems (Dillman 2000).

The paper based trial questionnaire is attached in Appendix A.

After correcting the final comments and feedback, the questionnaire was submitted for Ethics clearance together with a "Survey Disclosure Information" document which disclosed a summary of information regarding the study and the Questionnaire. The questionnaire was then placed on a web server pending Ethics clearance. Dillman (2000) suggests even an experienced questionnaire designer may need eight to ten revisions to get close to a suitable version.

3.5 Anonymity and Confidentiality

The data gathered during research will be kept anonymous and confidential to encourage honest thought and information. Participation was voluntary and there was no benefit in knowing the participants or their place of work. Anonymity and confidentiality was observed in the strictest sense. Although Dillman advises personalised contact through email and the use of a multiple contact strategy to increase response rates (Dillman, 2000), it was decided not to contact participants to maintain the participants' anonymity. As the questionnaire is opt-in, it was hoped that there may be more authentic and honest data.

3.6 Objectivity of the researcher

A final note on biases is regarding the researcher. The following was disclosed regarding the researcher:

1. the researcher is an IT Manager for the School of Computer and Information Science
2. has been implementing ITIL for 18 months, and
3. is certified to foundations level of ITIL.

The author's reason for choosing this topic has been due to a keen interest in ITIL and in particular the implementation of ITIL. The above disclosure should assist in a reduction in bias.

4.0 Instruments, Methods and Procedure

4.1 Questionnaire Structure

This study will deliver an exploratory report based on the information gathered by the online questionnaire. The questionnaire was made up of questions using a combination of different response techniques to extract quantitative data for demographic and other variables, and qualitative data for deeper analysis and understanding. The questionnaire was made up from the following to reduce error and to get the most suitable responses from participants:

- i) predominantly nominal questions for quick coding of demographics and variables, with the flexibility to list other options (if required),
- ii) checklists with “other” options (if required)
- iii) likert and rating scales for indicating progress and rating opinion
- iv) open ended questions for more qualitative in-depth information.

(de Vaus, 1985)

For more detailed qualitative data to be extracted, a series of open questions was used, as well as the “other” option for nominal questions. This allowed the participant to express themselves and their experiences in a richer sense and in their own words.

The structure of the questionnaire and a breakdown is as follows:

Section	Purpose	Related Questions
Part 1	Demographic information about the organisation	Q1-7
Part 2	Demographic participant information	Q8-10
Part 3	Organisational culture, drivers, motivation and budget	Q11-19
Part 4	ITIL progress	Q20-27
Part 5	ITIL experiences, perceptions and expectations	Q28-34
optional	Validation data	Q35-36

Table 4-1: Questionnaire structure and breakdown

Demographic information was positioned as the beginning of the questionnaire as Bosnjak (2002) cites a Frick, Beachtinger and Reips (1999) study that drop-outs were significantly lower when such information was at the beginning of a survey.

Part 1 asked the participants about basic and demographic information regarding their country, age, role, organisation type, organisation size, IT department size. This helped determine important information about the participant and the organisation and was used to determine patterns or provide variables to information gathered in later parts. These questions were generally nominal questions to allow for data comparisons of information gathered in the later sections of the questionnaire. Country, role, and organisation type have an “other” option for participants to choose outside the list of offered selections.

Part 2 contained questions regarding ITIL experience, personal certification and ITIL exposure. As above, these questions are nominal which allows quick and easy answering of the questions and removes the chance of misinterpreting the question.

Part 3 investigated the organisational culture. Specifically it probed into whether the organisation is attempting to implement other quality initiatives, drivers and motivation, whether ITIL tools were used, ITIL budget information, and whether it is difficult to implement best practices in the organisation. This section used a combination of nominal answers with other option, and some open-ended questions regarding best practices.

Part 4 was used to determine the ITIL implementation progress and success. Likert scales were used to gauge the level of progress in each ITIL module of implementation.

Part 5 of the questionnaire then probed into the organisation ITIL experiences, perceptions and expectations. Open ended questions were used for participants to formulate their own responses (De Vaus, 1985)

The final part of the questionnaire was optional, where participants recorded the time they took for the survey for validation, and as an incentive, they could leave their email address to obtain a copy of this thesis on completion.

Finally, due to the nature, survey instrument and timelines of this study, complex in-depth questions other than open questions were avoided as root causes of an organisation’s issues would be case study in itself and outside the scope of this research. Instead, the aim was to

focus on the day-to-day problems faced by the IT departments and organisations during implementation with a focus the challenges of implementing ITIL.

4.2 Description of instruments to be employed and security arrangements

As discussed, the key instrument being used in this research was an online questionnaire. To facilitate this online questionnaire required a permanent web server for the duration of this investigation, and a suitable secure programming language and database. The researcher chose Microsoft's SharePoint portal system as one of the features is a survey administration tool. The SharePoint portal system ensured that the interface was consistent and that the questionnaire was compatible with all past and current browsers (Archer, 2003) and operating systems. The use of the permanent web server was approved and made available by the School of Computer and Information Science. The data was stored and encrypted on a secure database for the duration of data collection for nine months. The responsibility of the survey security was undertaken by the IT manager. The data is now stored on an encrypted disk on a separate volume. As a final requirement, the research data gathered will be physically destroyed after five years has elapsed.

4.3 Data collection process

An important strategy in the recruitment of the online questionnaire was to gain participants co-operation. Initially, recruitment was undertaken at the following:

- 1) ITIL Forums (primary source)
- 2) Other ITIL interest groups and bloggs

Targeting forums was initially done through posting of a news item on two of the more popular ITIL online forums. Permission was granted from each site before the posts to the questionnaire link were announced. The current forums chosen were below in table 4-2.

URL / Link	Website / Organisation
http://www.itilpeople.com/	ITIL People Forum
http://www.itilcommunity.com/	The ITIL community forum

Table 4-2: Recruitment from Forums

The following is a sample of a post that was used to recruit from an ITIL Forum.

Hi All

I am an IT manager for a computer science dept. in a University in Perth, Australia and I am in the progress of completing my honours research on the challenges of implementing ITIL. If anyone has begun ITIL implementation, is considering ITIL, or has completed ITIL implementation, it would be appreciated if you could fill out my online questionnaire.

<http://staffhome.scis.ecu.edu.au/~jngray>

It is completely anonymous (no names or organisations used) so gripe and grown all you want. I have had my own challenges hence the interest in this area.

All feedback good and bad welcome.

Thanks in advance

Jason Gray

Figure 4-1: Sample post on an ITIL forum

The web location provided in the post linked to a webpage with additional information about the questionnaire and the researcher. It also had contact information, a statement of anonymity, questionnaire assumptions, and a timeframe for data collection. It can be seen in full in Appendix B and is shown below in figure 4-1.

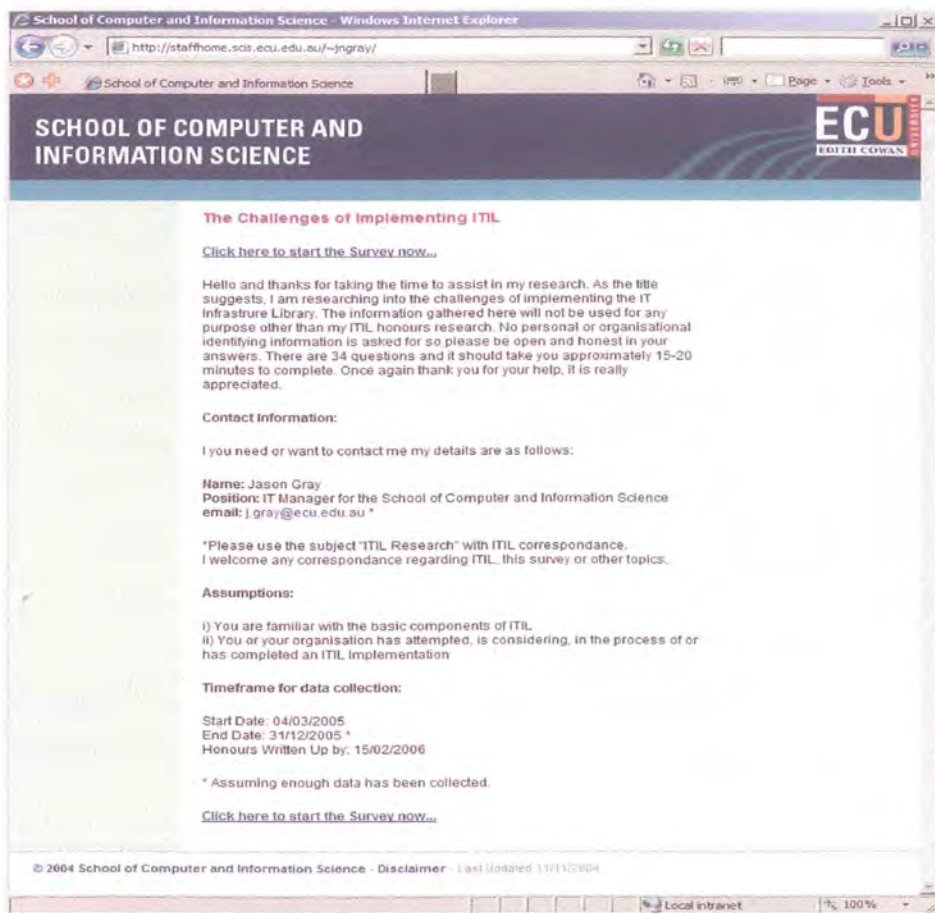


Figure 4-2: Survey welcome and introduction webpage

Forums was not expected to have impact on the validity of the information gathered, however there was concern for potential bias created by:

- i) A bias toward people who are enthusiastic towards online forums
- ii) A bias toward ITIL stakeholders or those driving the ITIL implementation

Survey response numbers were monitored closely during the first few months to ensure that a suitable number of participants was achieved. If the response rate was determined as poor, a decision might have been made to solicit responses. There was use of industry contacts which would skew the results with a bias on Perth, Western Australian or Australian organisations. If the result rates were poor, considered would need to be taken before making generalisations. Obviously a larger sample would generate more confidence in the accuracy of the results obtained.

4.4 Limitations and potential biases of this study

This study was limited by the number of people willing to respond to the questionnaire. It was important to gather a significant sample to reduce bias and improve the credibility of the results. A sample of greater than twenty was expected.

It was important that generalisations were made with consideration of the following potential bias such as:

- iii) A bias toward people who contribute or are enthusiastic towards questionnaires.
- iv) As the web address of the survey was <http://staffhome.scis.ecu.edu.au/~jnggray>, participants from Australia may have been sympathetic to my cause.
- v) A bias toward ITIL stakeholders or those driving the ITIL implementation
- vi) A bias toward people who are enthusiastic towards online forums

Although the forums were all non-commercial, primarily English speaking, easy to access, and ITIL related, it was assumed the questionnaire has the following limitations:

- i.) An assumption of my own limitations and dependence on English, that the questionnaire was limited to English speaking participants.
- ii.) It was limited to those who visited the online forums between March 2005 and December 2005.
- iii.) The language used in the survey limited the participants to those who understand ITIL,
- iv.) As with all online questionnaires, it was limited to participants with access to the Internet and a web browser.

5.0 Data Collection Results

The online questionnaire was available from online from 4th March 2005 until the 31st of December 2005 which resulted in 33 respondents from 11 countries. After the data was collected, it was cleaned to enable classification of any ambiguous data and unintended errors. Of the 33 participants, no two demographical data were identical so it is assumed there were no duplicates. The average time recorded was for the survey was 12.3 minutes which was acceptable considering the length of the survey.

6.0 Analysis of Results

6.1 Participants Organisation Demographics

Figure 6-1 shows the participant location of the 33 respondents from eleven different countries. Australian participants were the most prolific with 10 (30%), followed by the UK with 8 (24%), and USA with 6 (18%). The remaining 9 (28%) participants were made up from eight countries from Belgium, Canada, Ireland, Jordan, New Zealand, South Africa, and Turkey. There was no representation from Asian and South American nations which may be attributed to language barriers. The high number of respondents from Australia may be attributed to sympathy to the researcher's home location. The low response rate from most countries will mean that generalisations and relationships between organisations, ITIL and country unfortunately cannot be made. Although the sample response rate was low, all responses appeared authentic with no duplication of data.

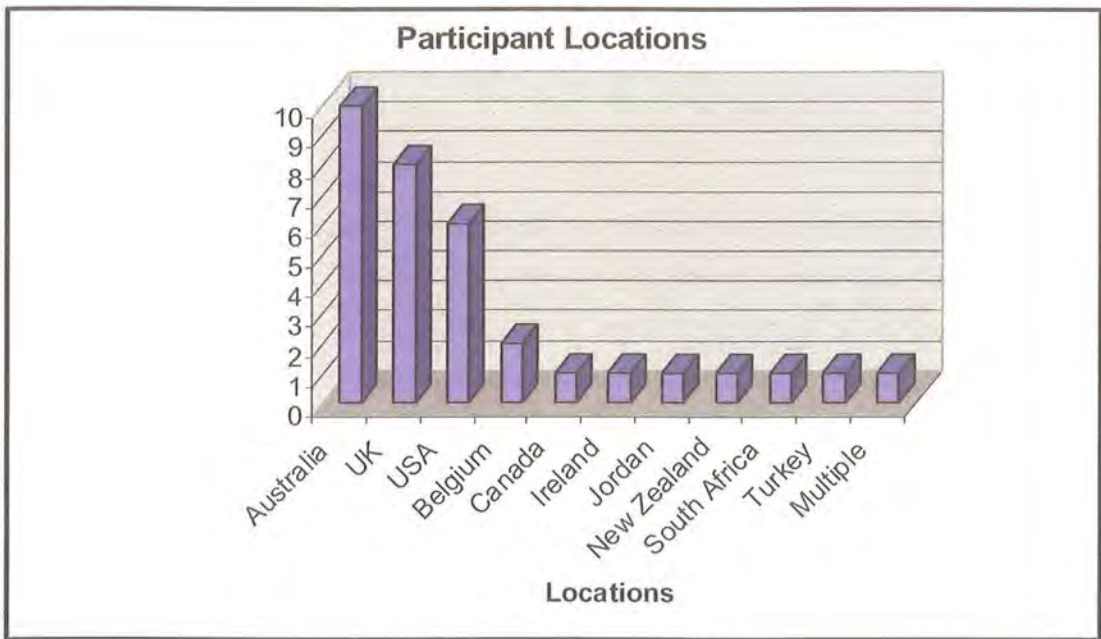


Figure 6-1 Locations of participants

Figure 6-2 shows representation from 11 different organisation types. The main areas undertaking ITIL implementations from this group were Education/College/University, Telecommunications, ITIL Consulting and Training, Finance/Banking and Computing in General. The dominating group of participants is the Education/College/University group with 8 (24%). Five of the eight were Australian. Computing in General, Telecommunications, and Finance/Banking make up 7 (21%), 5 (15%), and 4 (12%) respectively.

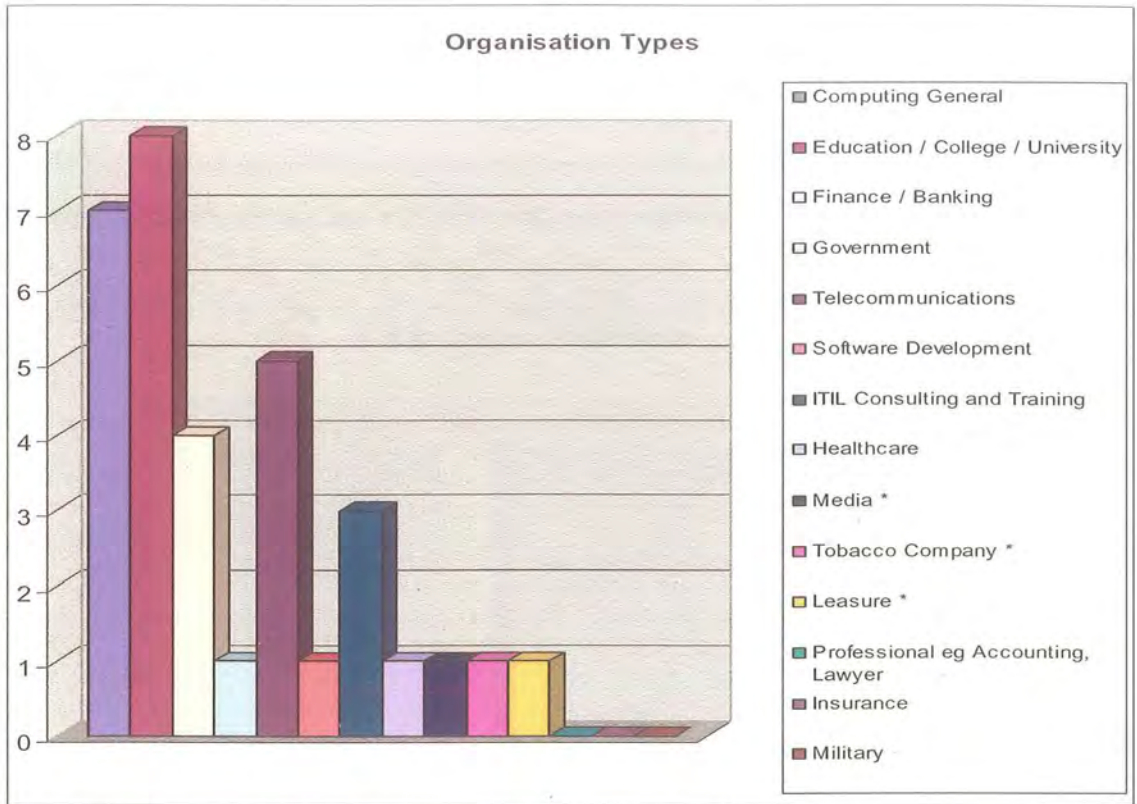


Figure 6-2: Organisation types of participants undertaking ITIL

(* denotes user supplied values)

Organisations of different sizes were represented in figure 6-3, however participants tended to work for medium-to-large organisations with 27 (82%) having more than 100 employees. 11 (33%) of the organisations would be considered medium sized with more than 1000 and less than 4999 employees, and 7 (21%) of the organisations would be considered large having more than 5000 employees. 6 (18%) of the participants worked in an organisation with less than 99 employees.

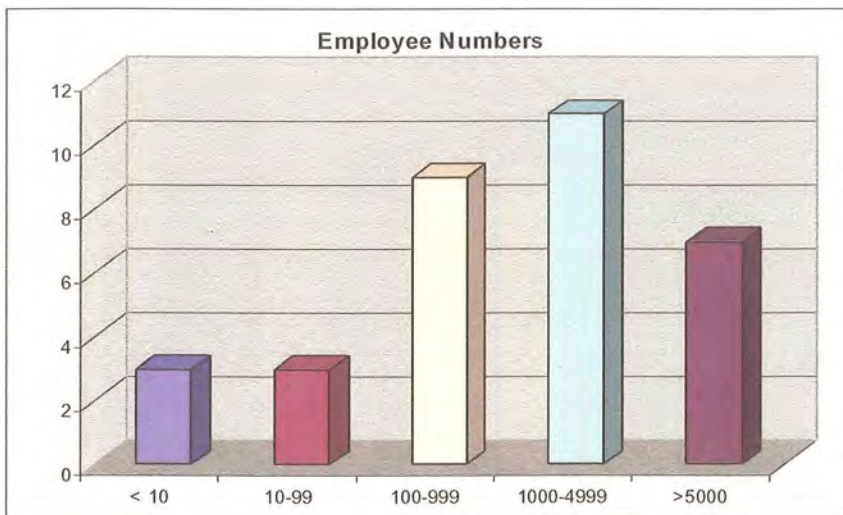


Figure 6-3: Employee size of the organisation

Figure 6-4 refers to IT employee numbers within the organisation. All IT employee sizes were represented with most organisations having 10-99 IT employees with 11 (33%) or 100-999 with 13 (39%). The remaining 28% was made up from < 10 IT employees with 4 (12%), 1000-4999 IT employees with 3 (9%), and > 5000 IT employees with 2 (6%).

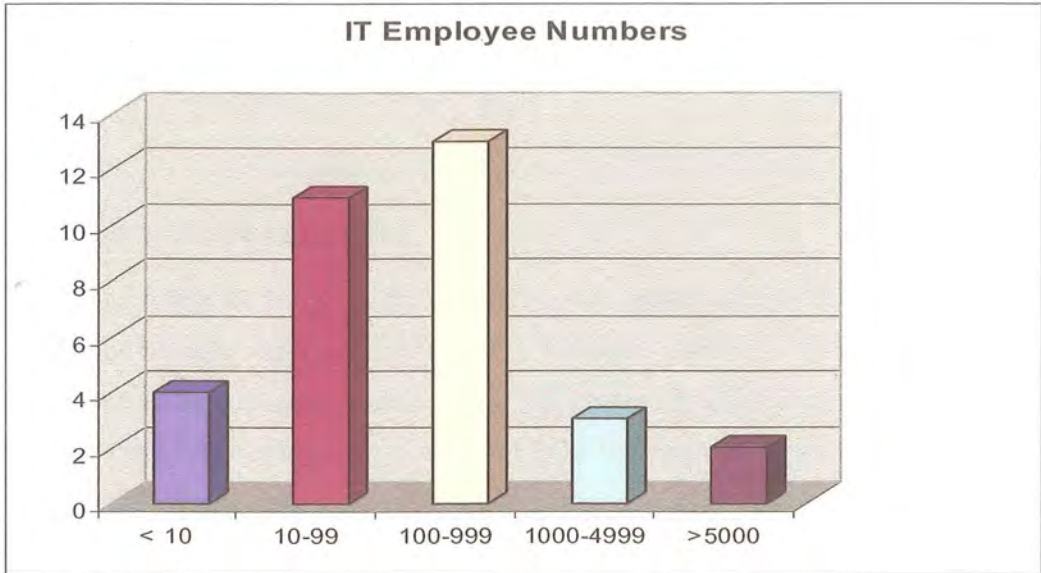


Figure 6-4: IT employee size of the organisation

Figure 6-5 refers to the percentage of staff who will be implementing ITIL. 8 (24%) of the participants had 20% or less of their IT employees implementing ITIL, 6 (18%) had approximately 40%, 6 (18%) had approximately 60%, 5 (15%) had approximately 80% and finally 8 (24%) had 100% of their IT employees involved implementing ITIL.

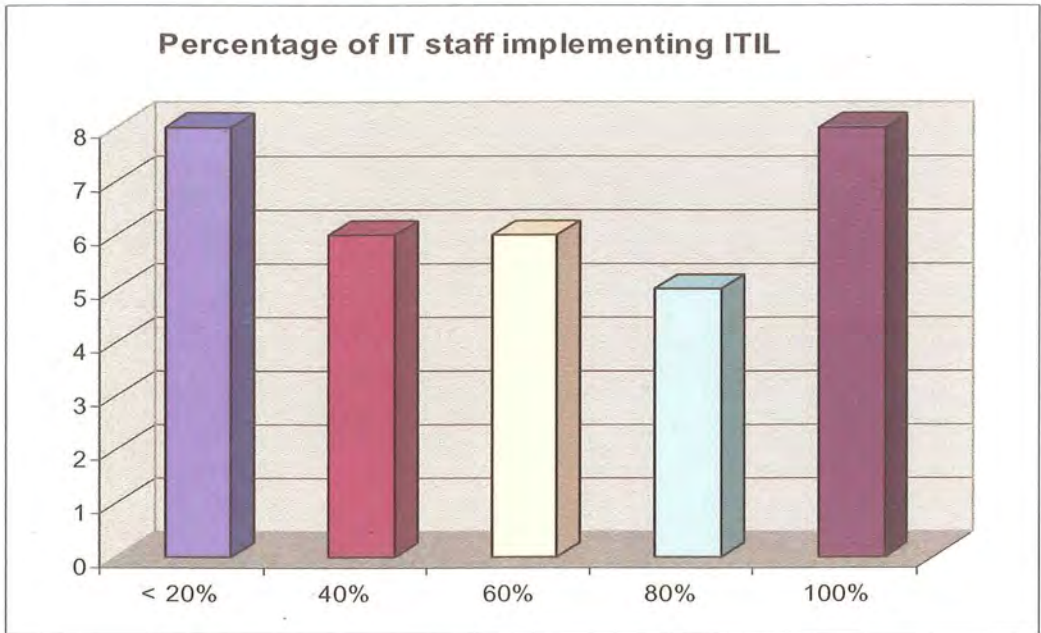


Figure 6-5: Percentage of IT staff implementing ITIL

An ideal organisation would expect 100% of the IT employees in the organisation to commit to ITIL. The differing commitment between IT staff towards ITIL may be due to funding, other resource issues, decentralised IT departments or a lack of co-operation between IT departments within the organisation. It was interesting to find that the only participant to say they had completely implemented ITIL reported that only 40% of their IT staff would be implementing ITIL. The percentage of IT staff implementing ITIL may impact the ability of the IT organisation to completely implement ITIL.

6.2 Analysis of Participants

Figure 6-6 refers to the participant's role in the organisation. The main participants were Consultant/Trainers with 12 (33%), IT Managers with 7 (21%), followed by Line Managers/Middle Managers with 3 (9%). The remaining areas were from a variety of areas however there was no representation from CEO/CIO/Directors, Systems/Server Administrators or Developer/Programmers. Perhaps these groups relied on implementation from their line-managers, however it was most disturbing to find that there was no senior management participants in the form of CEO, CIO, or Directors.

There is evidence to support that senior management buy-in is important for ITIL implementations and participants have rated this high in importance. The absence of system/network administrators and developers/programmers may suggest apathy from these departments. A further study may be needed to discover ITIL apathy amongst different IT departments.

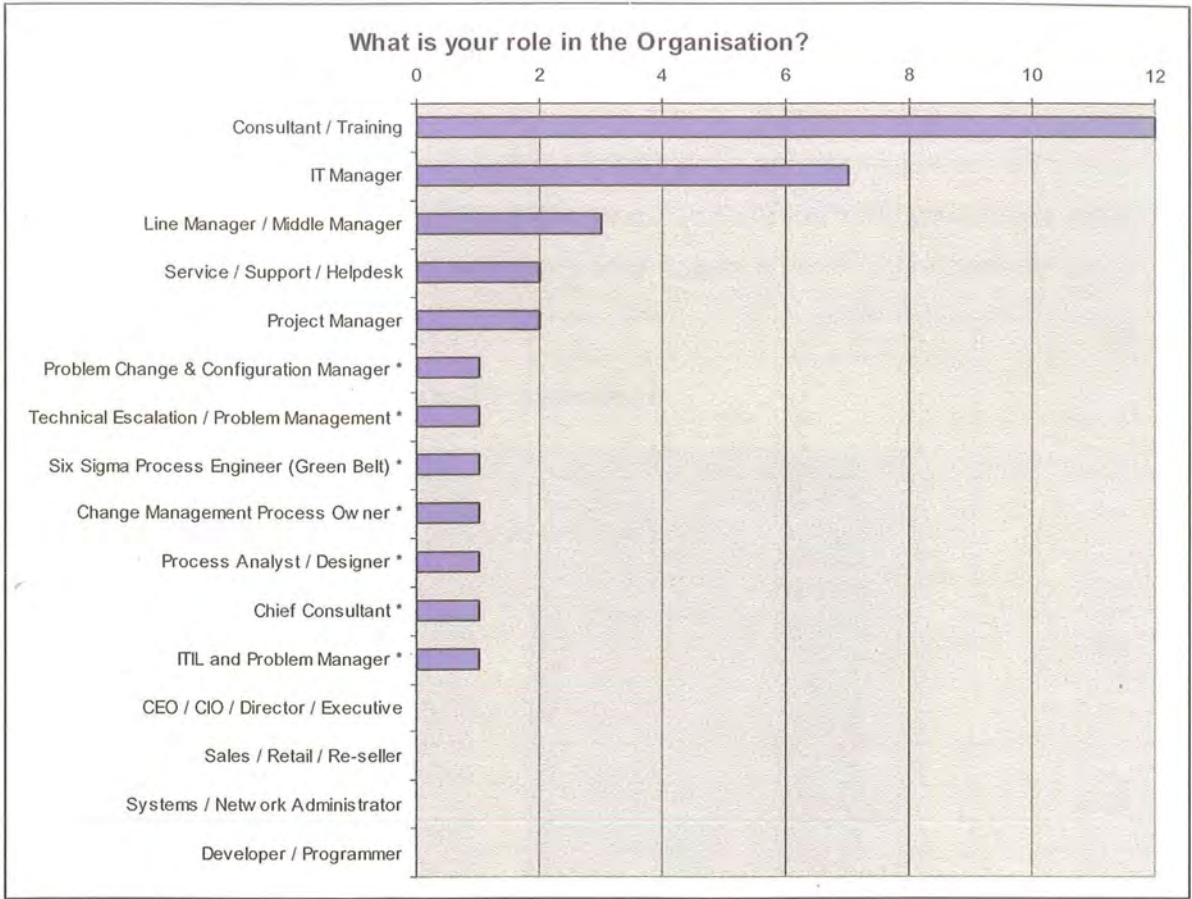


Figure 6-6: Participants role in the organisation

The age of participants as referred to in figure 6-7 was distributed with 30 (91%) over the age of 30 with just 3 participants under the age of 30. This would be expected due to the roles of project managers, ITIL drivers and managers requiring a certain amount of IT expertise and ability before undertaking an ITIL implementation. More than half the participants were in the 30-39 age bracket with 17 (51%).

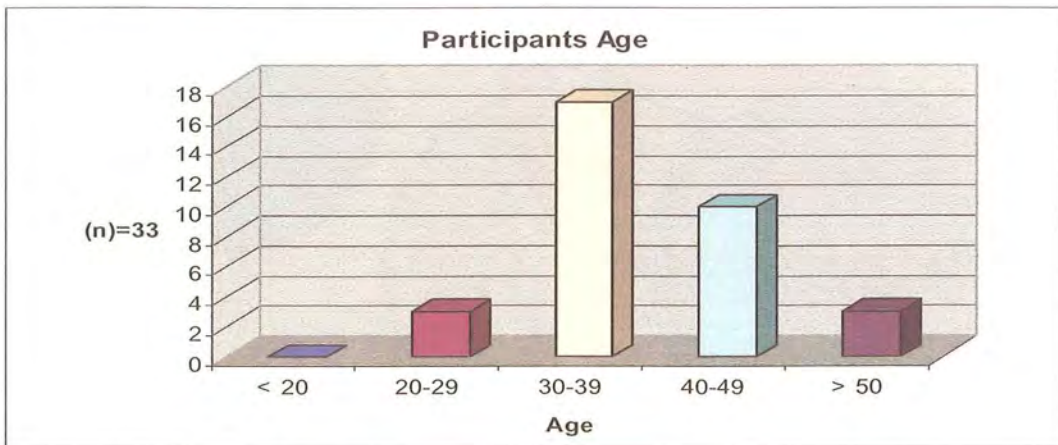


Figure 6-7: Participants Age Group

The participants ITIL experience varied with the main group having greater than 5 years ITIL experience (refer to figure 6-8). The results could be said to have a mix of participant experiences from novices and beginners, through to experts. Figure 6-9 displays the various ITIL certifications undertaken by participants. 7 (21%) of the participants had no certification whilst 23 (69%) of participants had ITIL Foundations, 7 (21%) had ITIL Practitioners and 8 (24%) had passed ITIL Masters. All participants with 5 years or more ITIL experience had at least one certification.

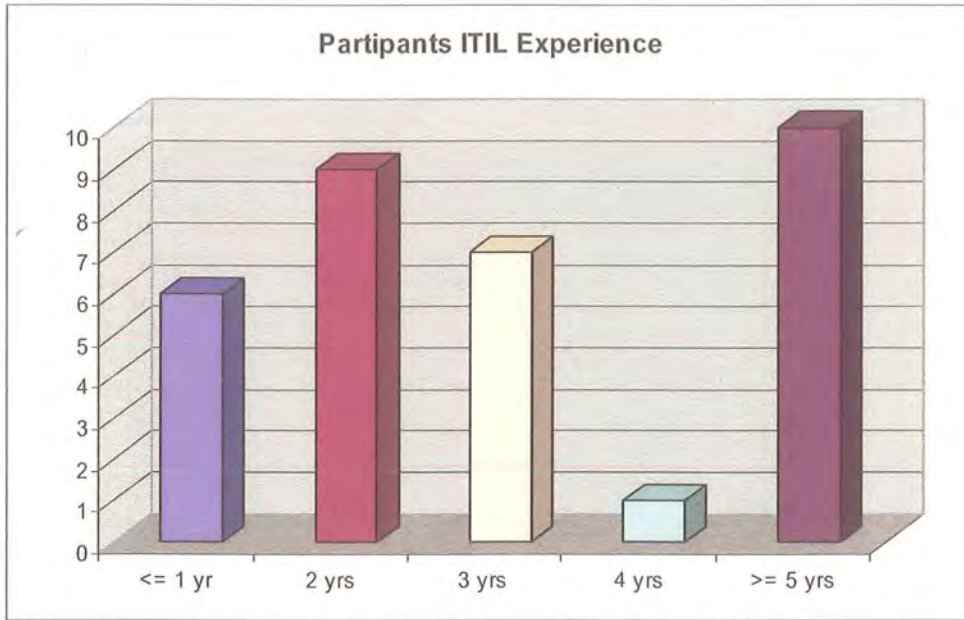


Figure 6-8: Partipants ITIL experience

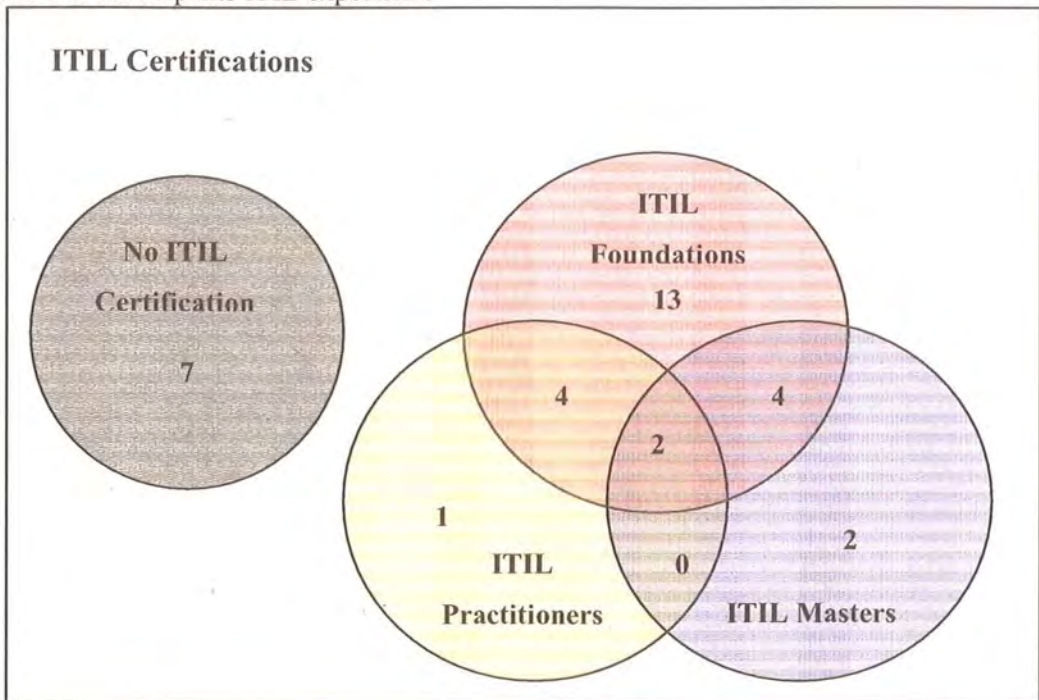


Figure 6-9: ITIL Certification amongst participants

Amongst those with certification, only two had been certified by all three exams. As expected, the foundations of ITIL which is an introduction to ITIL was popular amongst those with 23 (88%) out of 26 with certification opting to sit and pass the exam.

Figure 6-10 refers to the role of each participant with regards to the ITIL implementation. 20 (61%) of the participants responded saying they saw themselves as a main driver in the implementation. The remaining 13 (33%) were made up of trainers/consultants 6 (18%), stakeholders, participants and others with 2 (6%).

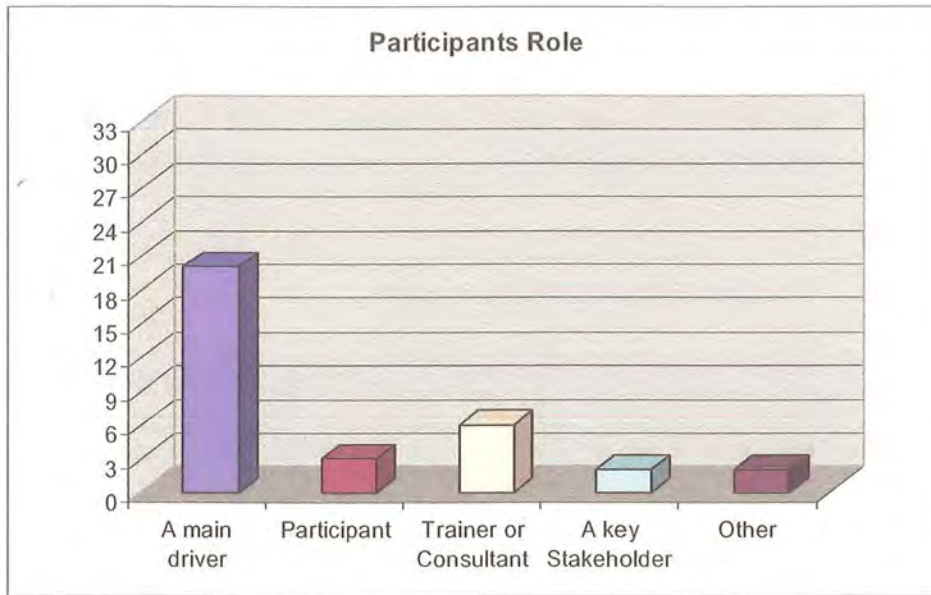


Figure 6-10: Role of participant with regards to the ITIL Implementation

6.3 Analysis of the organisation and organisational culture

The motivation for implementing ITIL were focused around four of the six nominal options given and are shown in figure 6-11. 32 (97%) of participant organisations chose to implement ITIL to improve the quality of service. 16 (48%) of organisations will be using ITIL to reduce costs, while 13 (39%) and 11 (33%) respectively will be using ITIL for internal and external compliance. This result is consistent with the Carter-Steel (2006, p46) study.

Participant17 offered scalability (future growth without more hiring) as a reason. This is reflective of the current IT climate of quality improvements, reducing costs, IT accountability and increasing audit and regulatory compliance. All participants knew why they were implementing ITIL and were not implementing it because they were forced to.

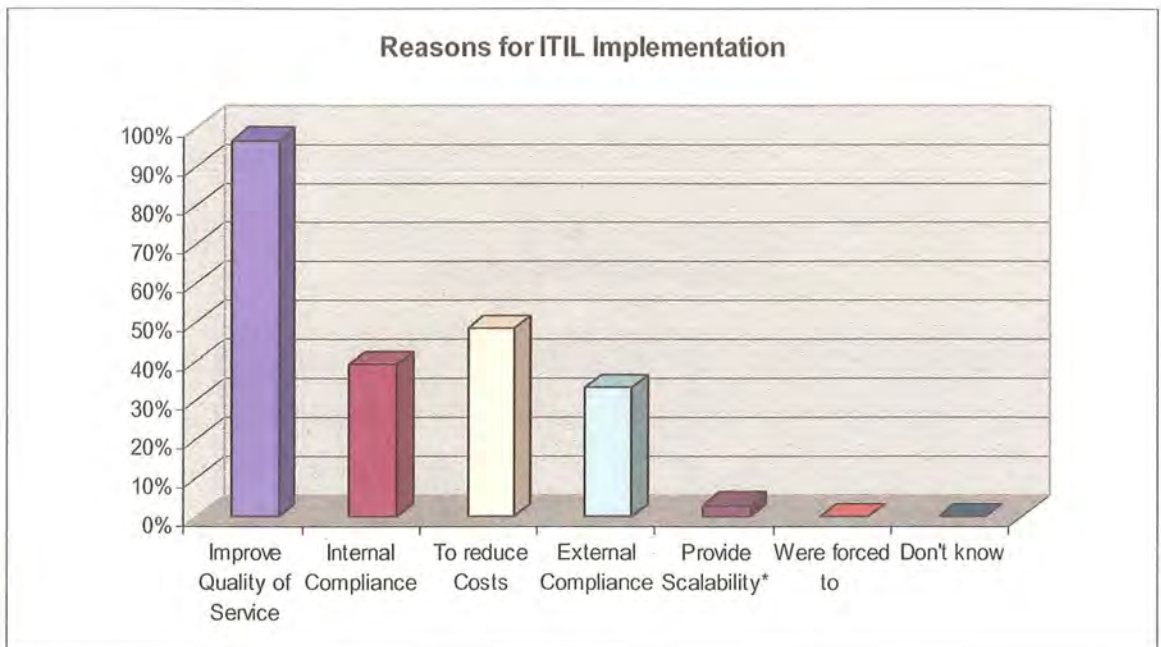


Figure 6-11: Reasons for ITIL Implementation

As shown in figure 6-12, Most organisations had some level of training with 25 (75%) of the participants having some form of training. 22 (66%) had external training, whilst 7 (21%) had in-house training and 5 (15%) had online training. An alarming 8 (24%) of participants received no training at all before ITIL implementation began.

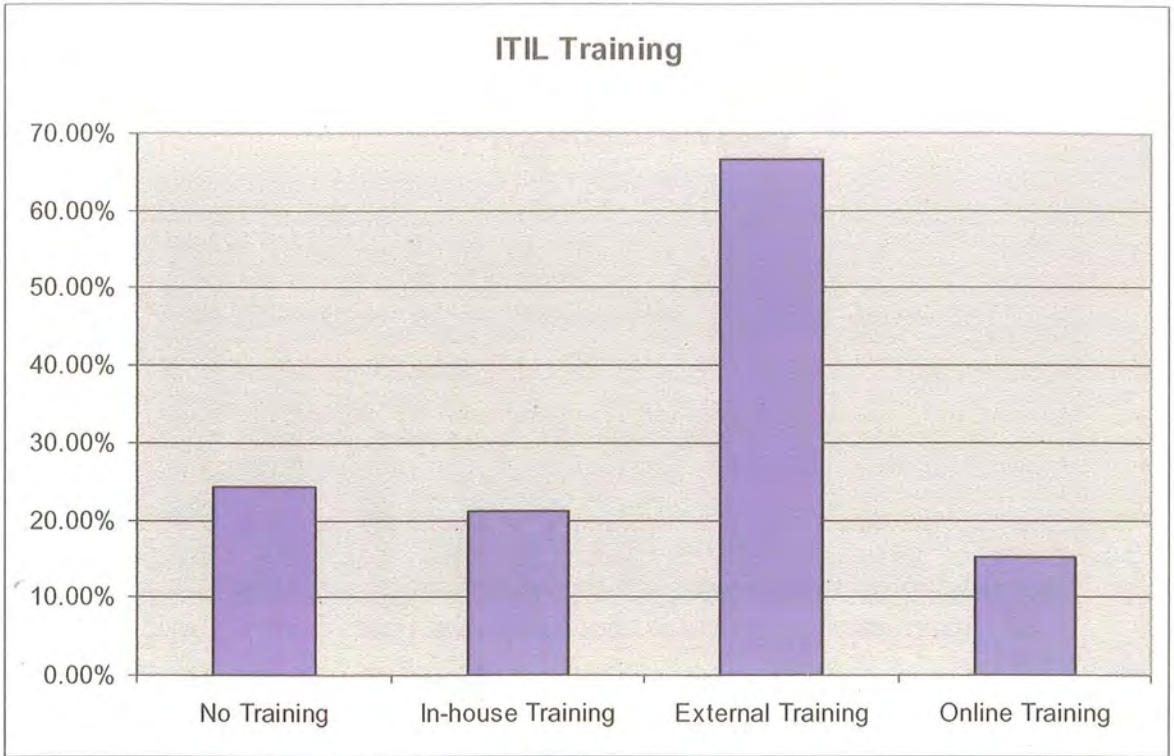


Figure 6-12: Organisational training prior to implementing ITIL

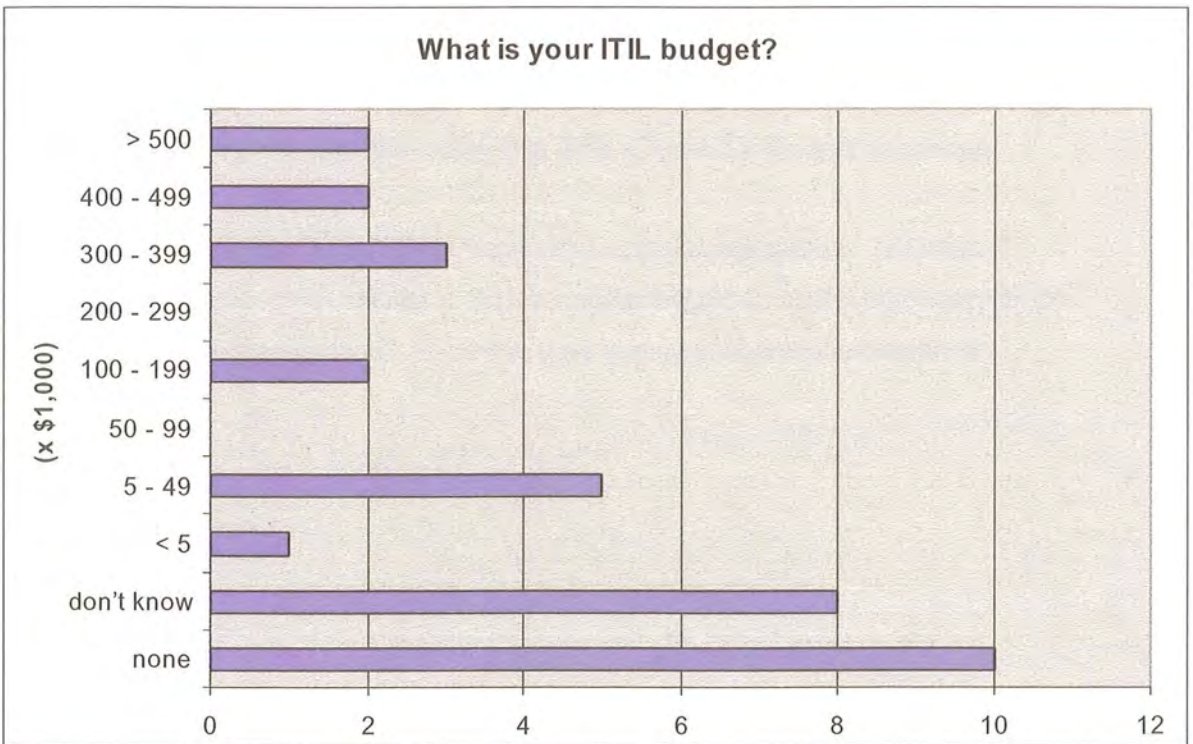


Figure 6-13: What is your ITIL budget (x \$1000 U\$)?

In figure 6-13, 10 (30%) of participants had no dedicated ITIL budget, whilst 8 (24%) of participants did not know if they had an ITIL budget. 7 (21%) had ITIL budgets greater than

\$300,000 which can be considered very high. Most participant's organisations had between \$5,000 and \$49,000 US\$.

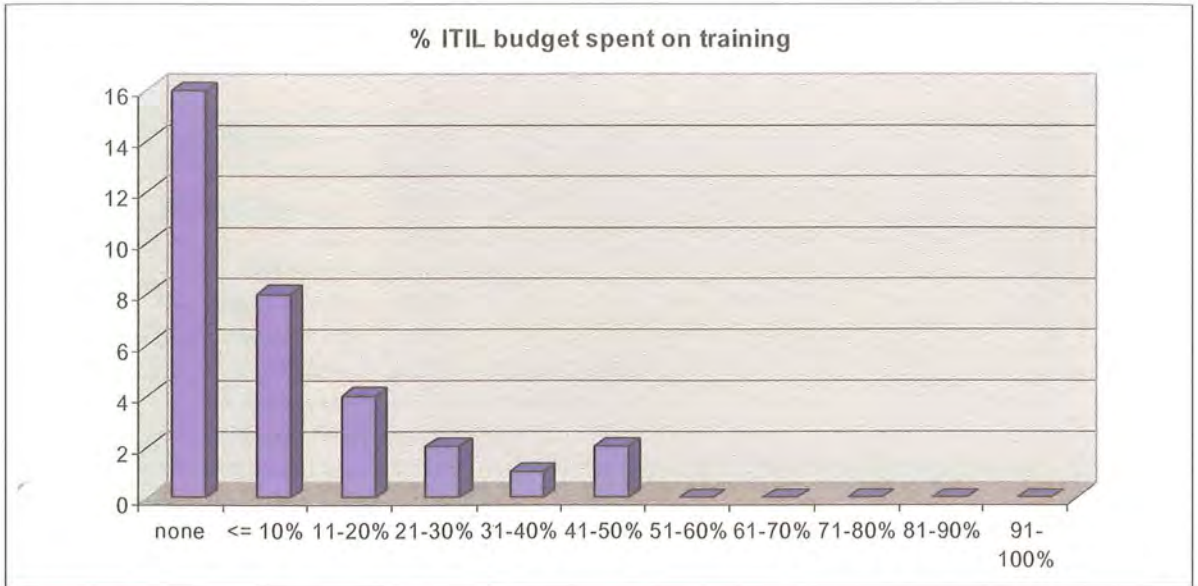


Figure 6-14: % ITIL budget spent on training?

Figure 6-14 shows the percentage of ITIL budget that is spent on training. 16 (48%) of participants organisations spent none of their ITIL budget on training this includes 10 participants reported no ITIL budget in figure 6-13. Therefore six participants who had an ITIL budget spent none on training. Most spent less than 10% of their total ITIL budget on training with 8 (24%). No organisation spent more than 50% of their ITIL budget on training.

Figure 6-15 displays what compliant helpdesk is used in the organisation. 11 (33%) of participants organisations do not use an ITIL compliant helpdesk. 2 (6%) of the participants queried "what is ITIL compliant?" There was no dominant ITIL compliant helpdesk.

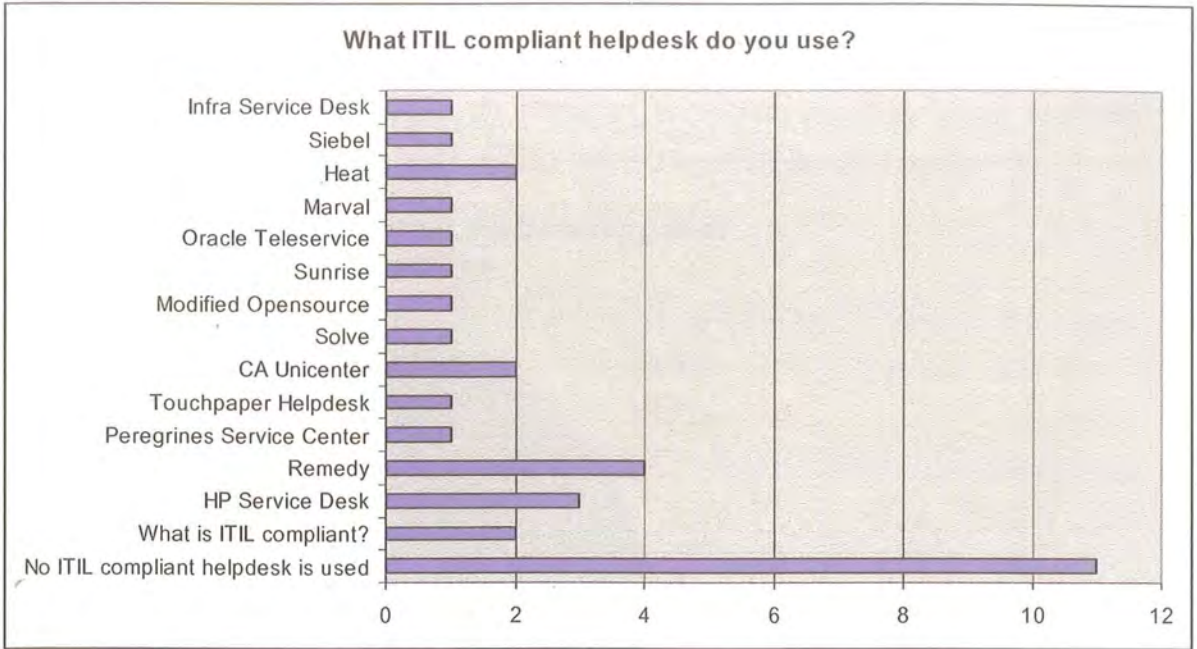


Figure 6-15: What ITIL compliant helpdesk do you use?

Figure 6-16 shows other quality initiatives being implemented that are being implemented by the participants organisations. 12 (36%) of participants were only implementing ITIL. 8 (18%) of participants organisations are implementing CMM (capability Maturity Model) concurrently with ITIL, whilst 7 (21%) are implementing COBIT, 6 (18%) are implementing ISO, 6 (18%) are implementing BS15000, 4 (9%) are implementing MOF, 4 (9%) are implementing six sigma.



Figure 6-16: Is your organisation implementing any other quality initiatives?

Figure 6-17 refers asks participants whether or not they found difficulties implementing “best practices” within their organisation. 26 (79%) of participants reported having problems implementing best practices as opposed to only 7 (21%) reporting they had no problems.

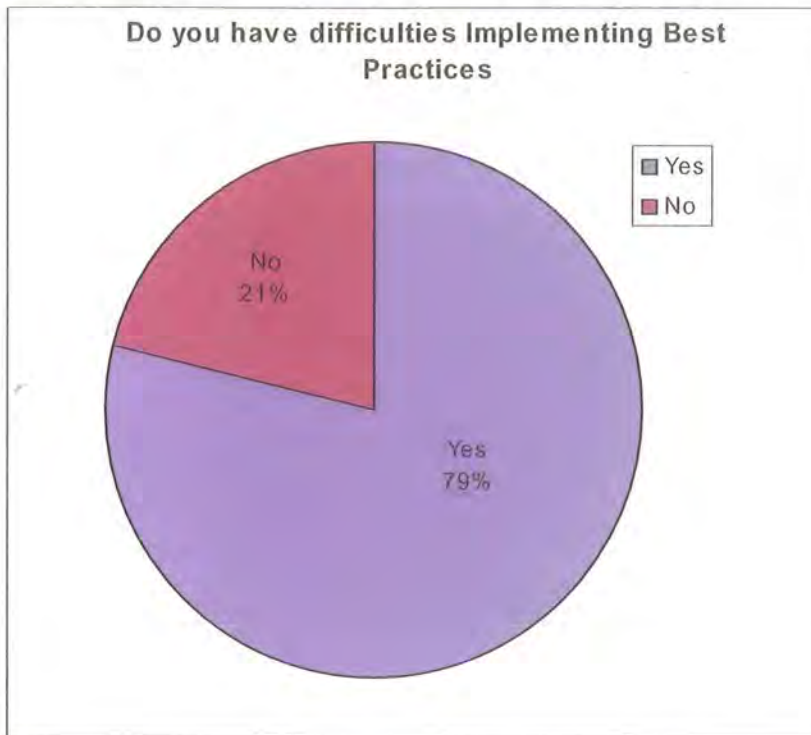


Figure 6-17: Is it difficult to implement best practices in your organisation?

From the 26 participants that had reported that they do have problems implementing “best practices” the main reasons appeared to be lack of leadership and support from management (4), poor perception or misunderstanding of what was being implemented (4), peoples reluctance and resistance to change (3), and getting all staff buy-in (3).

From the remaining 7 participants, the four comments recorded positive were completely opposite of the concerns summarised by participants who have difficulties.

“Good Management backing for best practice approach”

“We have buy-in from senior management both morally and financially. The main difficulty we experience is in applying change to the current culture. Training and regular communications has helped ease this though. “

“the organisation is small enough to absorb the changes”

“It is been accepted by everyone and the Director is supporting it”

6.5 ITIL Implementation Progress

Figure 6-18 refers to how long participants had been implementing ITIL. There is a large percentage in the early stages of implementation particularly within the first 6 months with 13 (39%). Figure 6-19 refers to ITIL completeness which closely resembles figure 6-18 with 12 (36%) of participants reporting their organisations has completed approximately less than or equal to 10%.

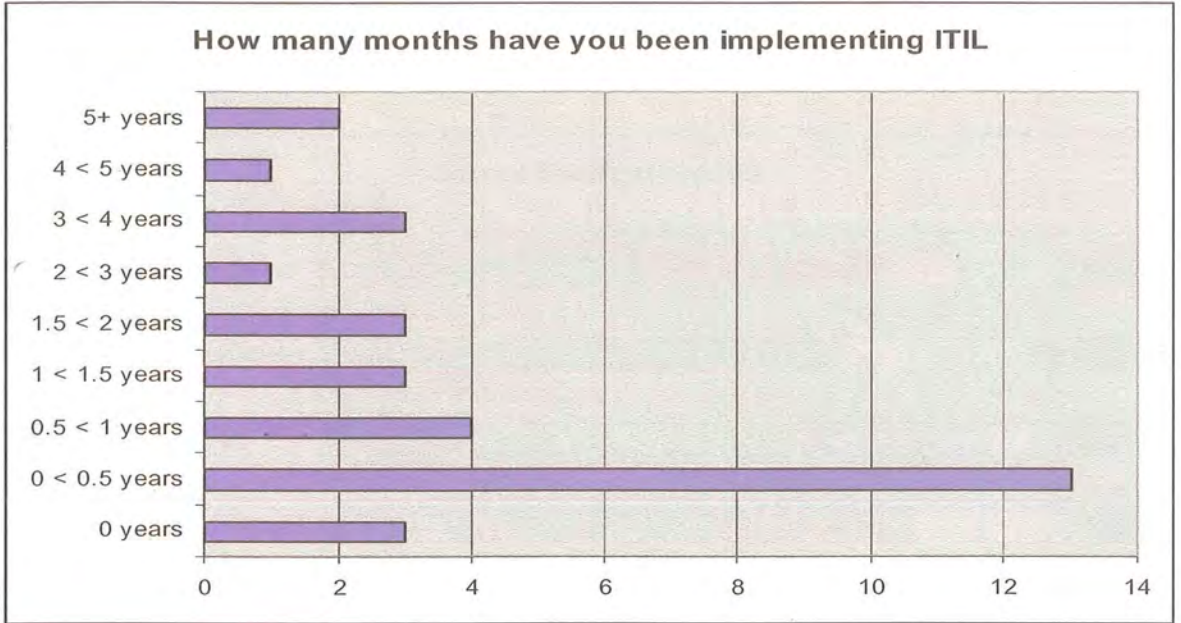


Figure 6-18: How many months have you been implementing ITIL

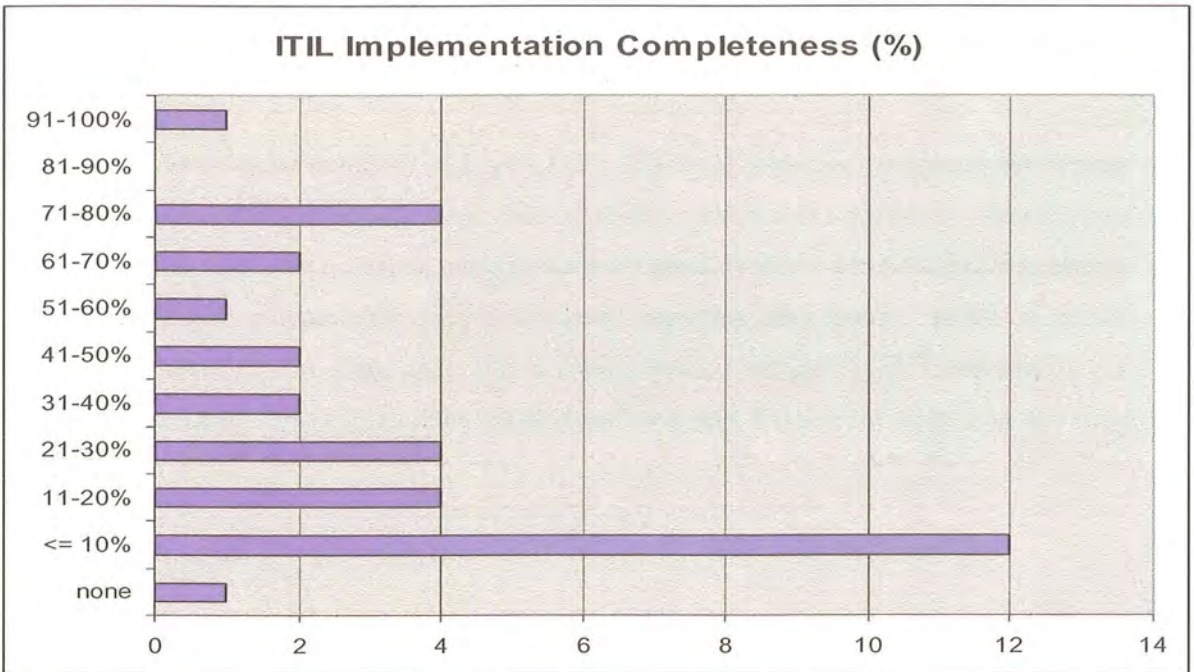


Figure 6-19: In percent, how complete is your ITIL implementation

Service Delivery progress is indicated in Figure 6-20. The most attractive module was Service Level Management with 5 (15%) implementing the module and only 9 (27%) choosing not to implement the module so far. Both of these findings are consistent with the Carter-Steel (2006, p46) study. Figure 6-20 also indicates that Financial Management for IT Services is either very unpopular or more difficult to implement with 18 (54%) of participant's organisations not implementing the module. This finding is also consistent with the Cater-Steel (2006, p46) findings. Financial Management of IT Services also rated the lowest implemented in the Evergreen Systems (2005) study of 167 North Americans at the 5th annual IT service management forum.

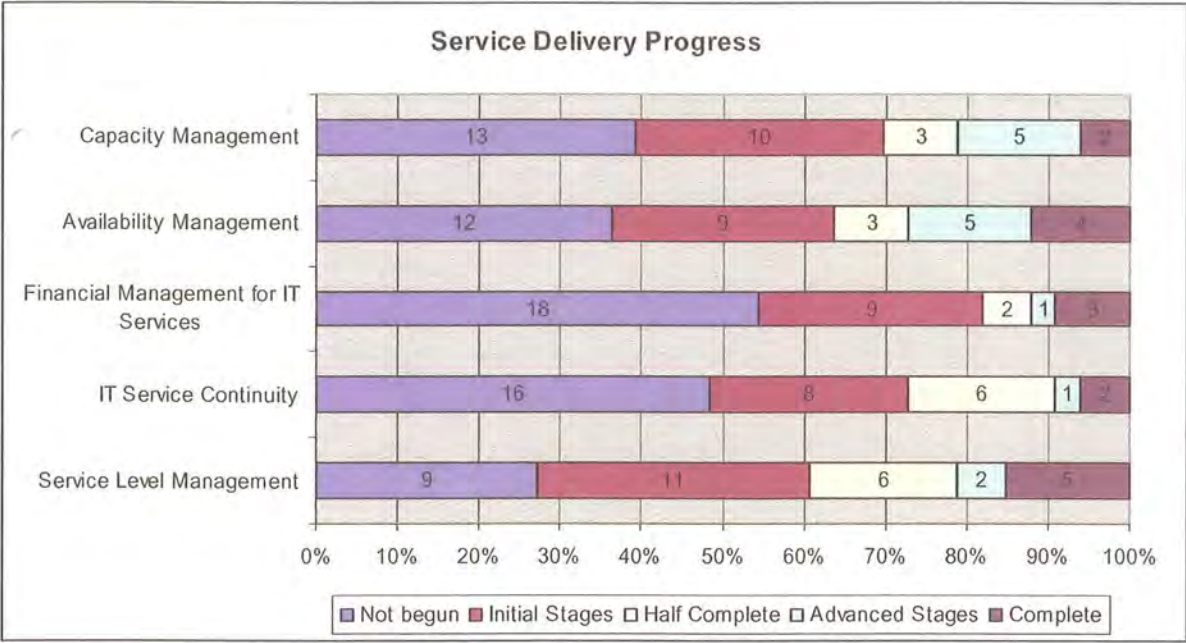


Figure 6-20: Service Delivery Progress

Service Support progress is shown in Figure 6-21. The most attractive module in the Service Support discipline was the Service Desk with 10 (30%) participants completely implementing the module. The next most complete modules were Incident, Problem and Change Management with 7 (21%). The module with most participants reporting they haven't begun is release management with 9 (27%). Once again this is similar to the Cater-Steel (2006, p46) study that found Service Level Management the most completed and Release Management the least attempted.

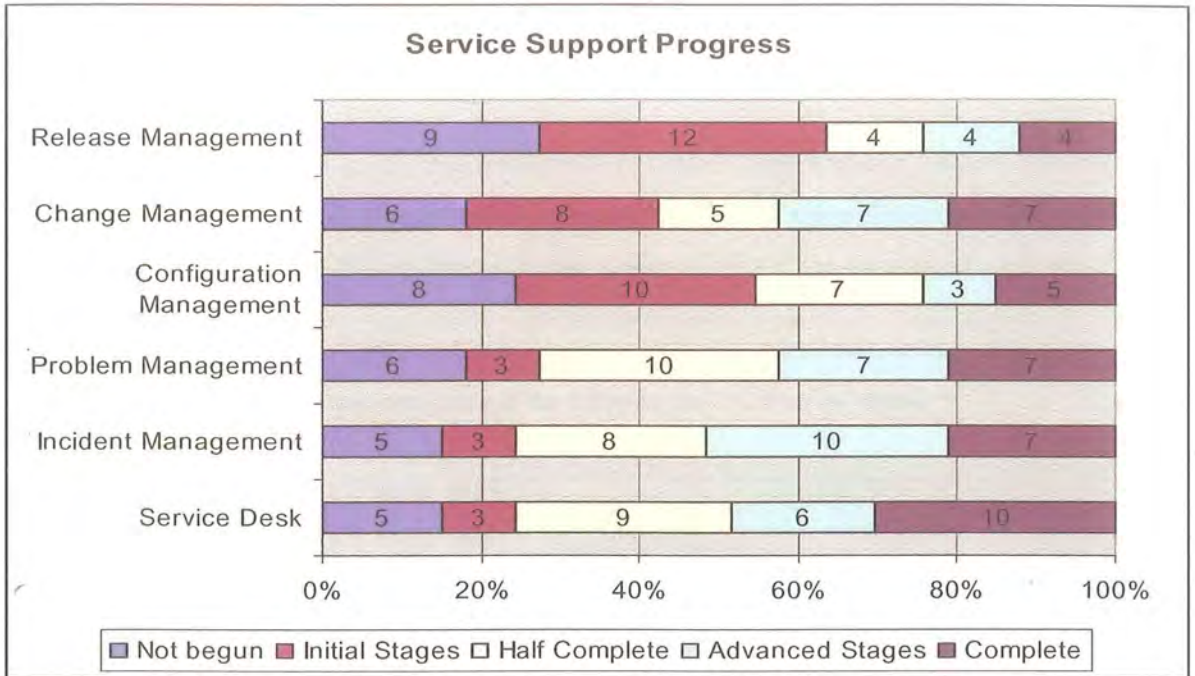


Figure 6-21: Service Support Progress

Key ITIL component implementation within the organisation is indicated in Figure 6-22. The most complete component was a Request for Change Process with 9 (27%). The Definitive Hardware Store (DHS) was not only the least complete with 5 (15%), it was also the least started ITIL component with 16 (48%).

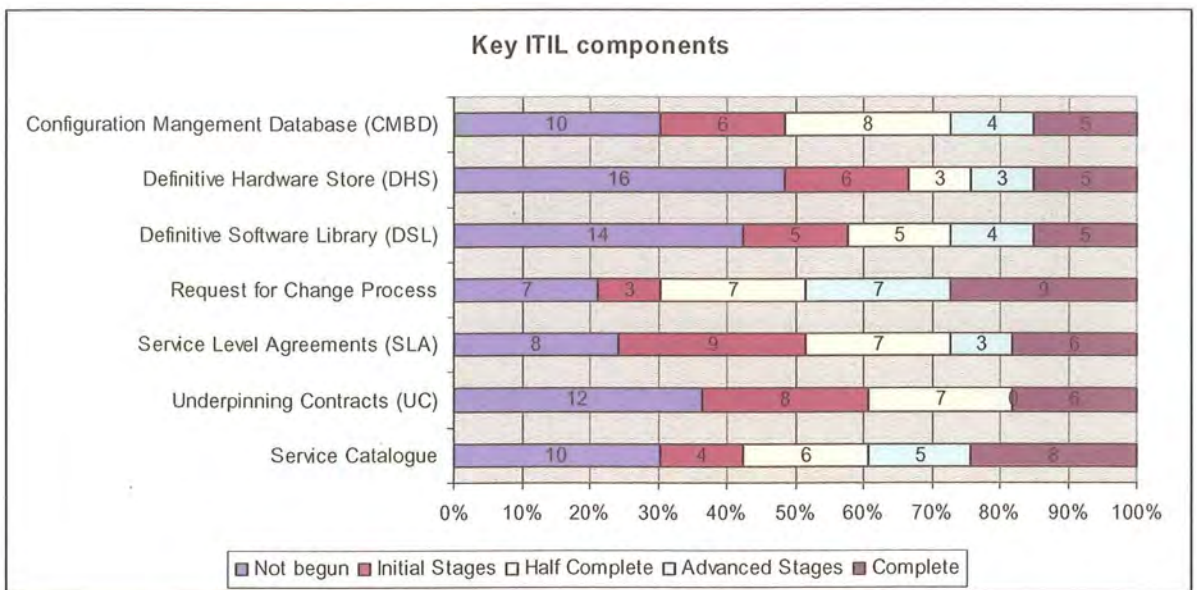


Figure 6-22: How complete are the following key areas of ITIL

6.6 ITIL Experiences

The participant's was asked to rate the importance of various organisational culture traits with regards to implementing ITIL (Figure 6-23). Support from senior management had the highest importance rating with 26 (78%) followed by the ability of IT staff to adapt to change with 21 (63%).

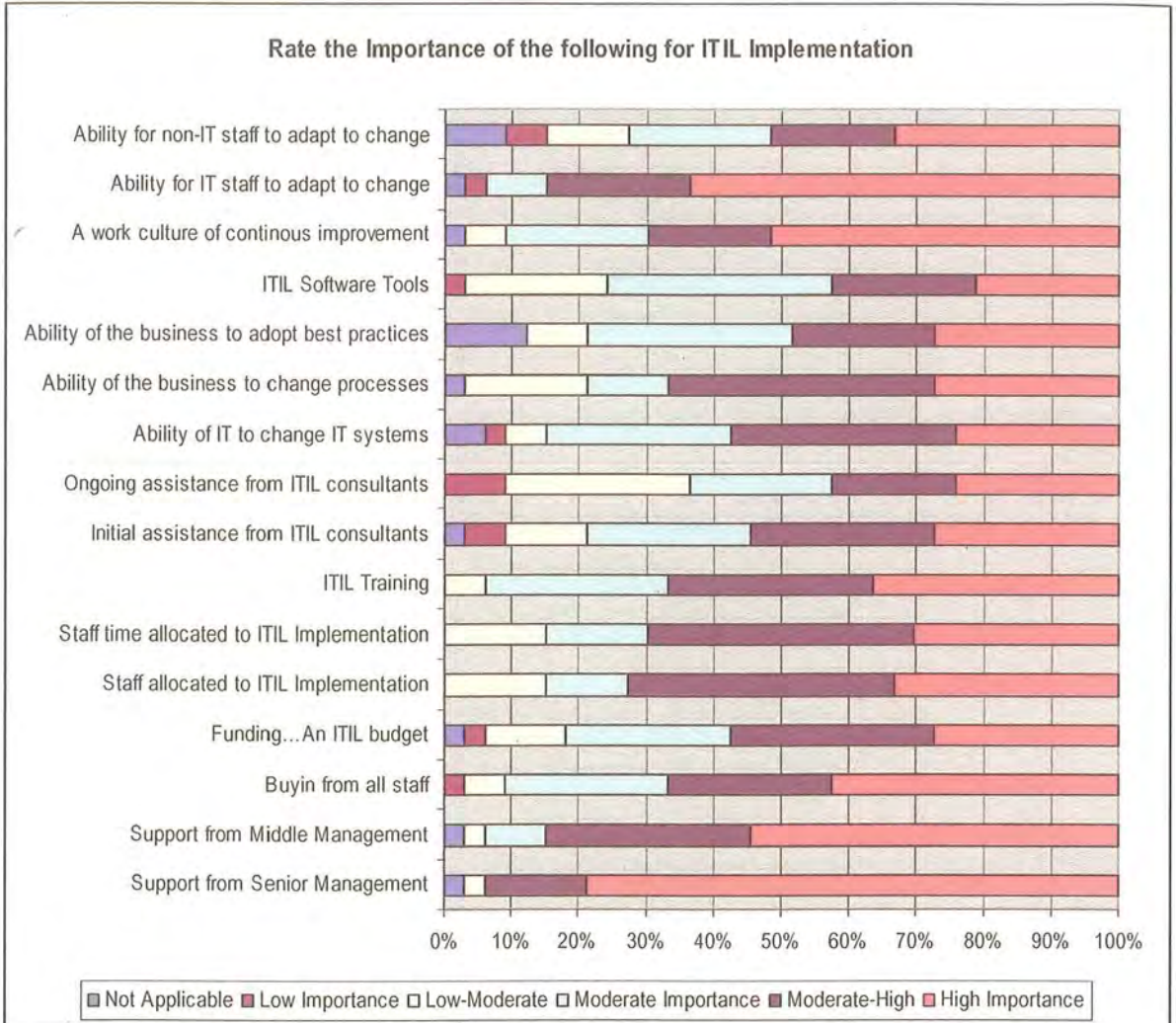


Figure 6-23: How would you rate the importance of the following with regards to implementing ITIL?

When asked what was considered to be the biggest challenge in implementing ITIL, participants answered with 25 (75%) open-ended responses. These responses were then categorised to come up with the following five main ITIL challenges.

- i) The most significant was managing organisational culture change with 10 (30%). Participants reporting that the organisation's ability to change, and ability to overcome resistance to change was the biggest challenge.
- ii) Obtaining staff buy-in was the second biggest challenge with 9 (27%) of participants finding commitment from staff and staff motivation through – out the implementation process was the biggest challenge.
- iii) The third biggest challenge was managing staff expectations with 5 (15%). Participants reported problems with ITIL expectations, IT perception, proving ITIL's worth, and getting staff commitment to the process.
- iv) The fourth biggest challenge was resources with 4 (12%). Examples given were tools, time and staff.
- v) Lastly, 3 (9%) of participants reported challenges with upper-management or executive buy-in. This was rated highly important as shown in figure 6-23, however it obviously wasn't as imperative as organisational culture.

Examples of some of the more interesting responses with regards to ITIL implementation challenges were:

“Overcoming current IT culture that manages by technology platform versus service”,

“Overcoming resistance to change that many people have....”,

“Management buy-in and willingness to change”,

“Cultural change and office politics”,

“Staff motivation – how best to motivate them to be part of the process....”, and

“Keeping staff buy-in going over time... it is a slow process to implement...”

When asked what could be done to ease ITIL implementations, participants answered with 23 (69%) open-ended responses. Participants suggested the three main areas that could make ITIL implementations easier were:

- i) Examples, Examples, Examples. 7 (21%) of participants said more or better examples of key components of ITIL such as the service catalogue and the configuration management database design. Generic templates, real life examples, masterplans, step-by-step implementation guides for each stage, reference sites, roadmaps, etc.
- ii) Resources(time/money) was equal second with 4 (12%) and
- iii) Full support of the organisation with 4 (12%)
- iv) Executive Management buy-in was again important to ease implementation with 3 (9%)

- v) Lastly, participants thought a sound project management methodology and implementation plan can be make ITIL implementation easier with 3 (12%). This included managing expectations, and managing change.

A participants warned there was no “magic bullet” when responding to what would ease ITIL implementations:

“Only the basics – sponsorship, training, good project methodologies, etc. There is no “magic bullet””,

Other participants were more demanding with these suggestions:

“More examples of Service Catalogues, CMDB...”

“a book on step-by-step items to complete (generic ones) for the implementation of each process”,

“A better more vibrant user community”

“a roadmap”

“Better front end high level documentation being available for project leaders/sponsors”

Participants were then asked whether or not ITIL met expectations. Figure 6-24 indicates that 16 (48%) of participants would agree that it met their expectations, 6 (18%) had their expectations exceeded whilst a rather high number of 11 (33%) are unsure. 8 of the unsure were 20% or less through their ITIL implementation which would explain their hesitancy in answering this question.

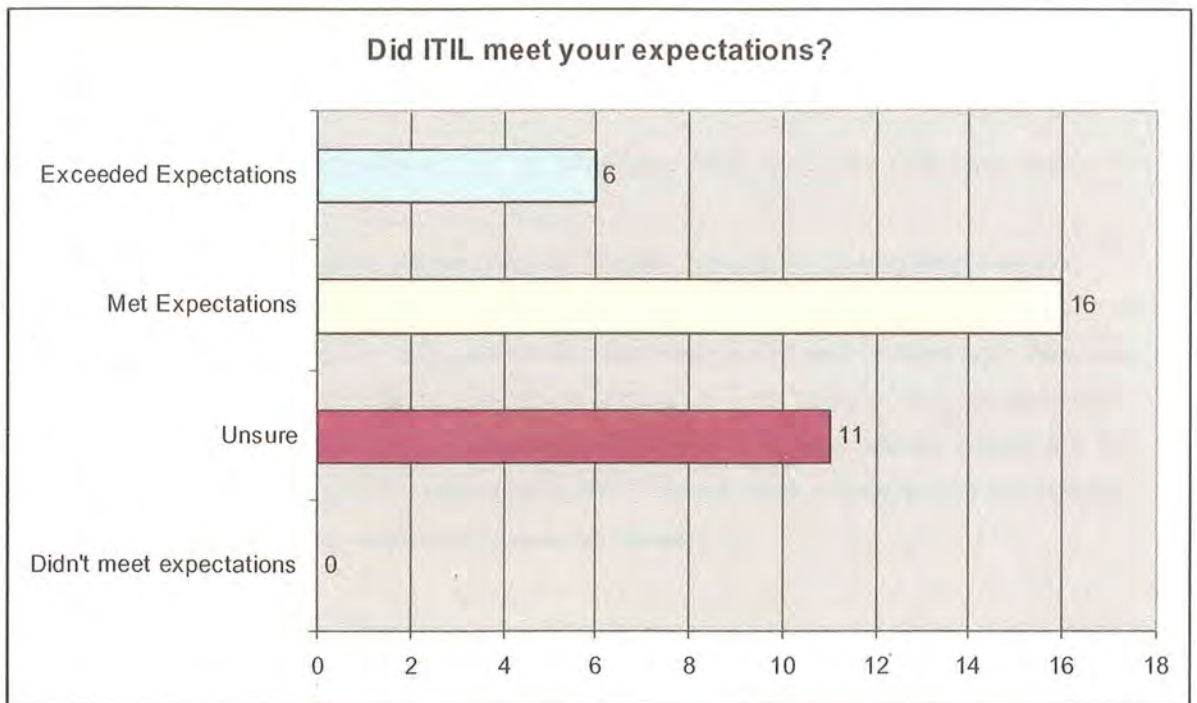


Figure 6-24: Did ITIL meet your expectations?

Overall, no participant reported that ITIL hadn't met expectations. Those who were unsure responded with following:

"too soon to tell" and *"not there yet"*.

Figure 6-25 indicates whether the participants had benefited from implementing ITIL. 30 (91%) of participant responded positively with yes, whilst 3 (9%) participants responded negatively.

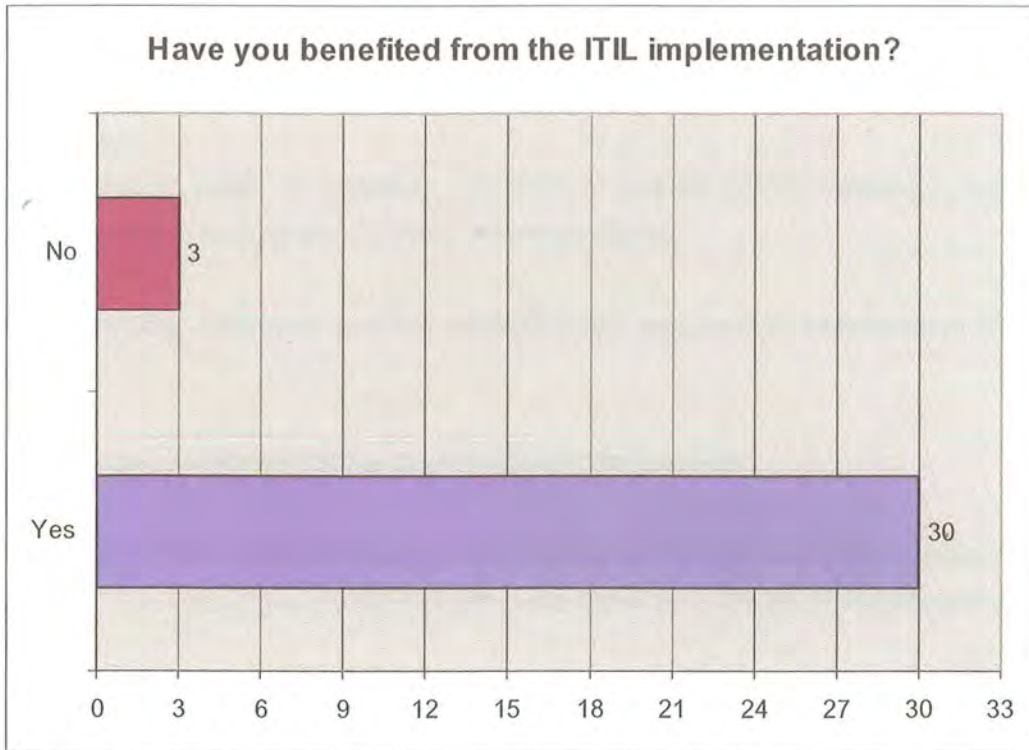


Figure 6-25: Overall, have you benefited from ITIL?

Of the participants who responded "No" to benefiting from ITIL, the following optimistic responses were offered:

"Not able to effectively gauge as yet, too early for reliable information on long term success"

and

"I can't say for sure although in some disciplines, like change mgt and incident mgt, there has been a tremendous focus on this and we are starting to see the benefits of the investment. I guess its too early to make such a judgement. The next 7 months will be crucial top the successful implementation of ITIL in the organisation. We will have a definite plan and strategy in place and will know exactly what direction we are heading in."

From the majority who benefited from ITIL, the following responses reflect their positive impression of ITIL.

"Lower costs, higher quality service, people are more aligned and work better using common practices and standards."

"Starting to see a change in the way people think. Moving from an environment where confusion reigned to an environment where structures and process are in place has been fantastic to see."

"Standardising processes and procedures makes it easier to track issues and problems. Also implementing new services are much easier"

"Reduced service interruptions, better productivity of support staff and business staff, proven cost savings."

"Prove the IT value to business, contribute to overall quality objectives, corporate (IT) governance and improve the TCO/ROI bottomline figures"

"Great learning experience and this perfectly aligns with process experience in other Non IT areas"

"more stable environment, better relationship with the business"

"It is making parts of the organisation work together which have previously operated in (almost) isolation. The lines of communication are much better as is the accountability built into an ITIL structure."

6.6 Data analysis concluding remarks

This chapter summarised and performed a basic analysis the data collected during the 9 months of data collection. In Section 7.0 a more in-depth analysis and comparison of the data will be undertaken to form generalisations on the challenges of ITIL. These generalisations will then be used to provide suggestions and theories to the research questions proposed in section 1.3.

For a full list of responses to open questions, please refer to Appendix D.

7.0 Findings and Conclusions

7.1 Summary of findings based on data analysis

7.1.1 Organisation Size and ITIL

The demographic information provided by participants about their organisations would suggest that medium and large organisations are most likely to be attracted to ITIL (refer to figure 6-2, figure 6-3 and figure 6-4). ITIL is by no means limited to medium to large organisations, however as with any quality management framework, a significant amount of time and resources need to be invested to gain the benefits that are on offer. The responses in this study, and therefore any generalisations, are biased towards medium to large organisations which made up for 54%. There was, however no evidence to suggest smaller organisations should not implement ITIL or could not implement ITIL. All organisations regardless of size reported benefits from ITIL.

7.1.2 Percentage of IT Staff Implementing ITIL

A surprising outcome of the study was the disparate results of the percentage of IT staff implementing ITIL (figure 6-5). There was no definitive pattern as to why organisations chose some or all of their IT staff to implement ITIL. There is a small correlation between large organisations, large numbers of IT staff and implementation by less than 20% of IT staff, however there is still representation from smaller organisations. The expectation from the researcher was that the majority of organisations would want most of their IT staff to implement ITIL.

The researcher admits being caught off guard with the results from this question and would have liked to have known why. Are there certain areas of IT within organisations that feel they wouldn't benefit from implementing ITIL? Are certain areas of IT reluctant to implement ITIL? As there was no representation from developers/coders and systems/network administrators, could these areas suffer from ITIL apathy? Do other IT areas get more benefit implementing other methodologies and frameworks that are more suited to them, and would forcing them to implement ITIL as well cause initiative overload? Eg CMM for software development. Organisations are implementing other quality initiatives along side ITIL, so are organisations implementing Quality Initiative hybrids? These questions were beyond the scope of this study, but may be used to drive further research.

7.1.3 ITIL and other Quality Initiatives

Aligning IT with the business, outsourcing, reducing costs, increasing IT productivity, increasing quality of service, and increasing audit and compliance requirements, are some reasons organisations are implementing standards and framework. Figure 6-16 showed that most participants' organisations were implementing other quality initiatives in conjunction with ITIL. There was no correlation between ITIL completeness and implementation of other quality initiatives. In most cases the same level of ITIL completeness was found in organisations implementing other quality initiatives as well as organisations that were not implementing any.

7.1.4 ITIL Progress (Service Delivery/Service Support)

There are eleven modules within the two ITIL disciplines of Service Delivery and Service Support, and despite their integration with each other, they are not required to be implemented in any particular order or sequence. Each module is made up of numerous best practices and can be implemented when needed. Figure 6-20 and figure 6-21 indicate and confirm that ITIL modules are being implemented and completed at different rates. There are numerous reasons why organisations may select and implement some modules more than others and implement them at different rates. Organisations may implement modules/sections that:

- 1) appear to obtain the most benefit,
- 2) are the quickest to implement and will create "quick wins"
- 3) are the cheapest to implement,
- 4) are the easiest to implement,
- 5) are less complex than others,
- 6) will immediately fix up an existing problem,
- 7) require the least amount of organisational change,
- 8) are more dependant on other sections,
- 9) are less dependant on other sections.

Although the reasons behind implementing each module, and each module's implementation rate was beyond the scope of this study, there is no doubt that some modules are easier to implement and have less "challenges" than others. There are also modules that are easier to complete.

This study revealed that the Service Delivery discipline not only appears more difficult to start, but it was also more difficult to complete than Service Support. It also revealed that amongst our participants, there was a lot of hesitancy in implementing Service Delivery modules, especially in the areas of Financial Management for IT services. Service Level Management was the most complete which is probably because most IT departments need some level of Service Level Management in place to function.

The least completed out of all ITIL modules is IT Service Continuity. Although this is a challenging module, it is very necessary and important part of any business. IT Service Continuity ensures the business can function or continue in the event of a catastrophe or emergency. All businesses require some sort of IT Service Continuity plan, so it is unsettling that this module is the least complete from these participants. Banks, Accountants, Insurance companies and any organisations who depend on industry reputation and integrity should have a sound IT Service Continuity strategy plan in place.

Some Service Support modules are very closely integrated which may explain why they have similar implementation and completion rates. Incident Management, Problem Management and Service Desk are rated highly in terms of implementation and completion. Service Desk was reported as the most complete as in most organisations, a functioning service desk is already present. Integrating some of the best practices from the ITIL service desk module would probably be an easy and quick starting point for organisation to begin the ITIL process, and this is reflected in the information collected (figure 6-21).

7.1.5 What is important for implementing ITIL?

Participants were asked to rate fixed organisation culture traits that are important for implementing ITIL. The top five were as follows:

- i) Support from Senior Management
- ii) Ability for IT staff to adapt to change
- iii) Support from Middle Management
- iv) A work culture of continuous improvement
- v) Buy-in from all staff

It was interesting the note that whilst training, tools, funding, etc. were very important; support from senior management and the others listed above was rated as more important. It could then be argued that senior management buy-in could be considered essential for implementation success.

7.1.6 ITIL Training

A majority of 22 (66%) organisations in this study using external training. There is no correct answer to this question, however if all IT staff are asked to “buy-in” to a framework that will affect their day to day work, then you would expect some sort of training should be present. The impact of ITIL training on the ITIL implementation was outside the scope of this study, however the researcher was contacted by a participant querying this relationship. Evidence would suggest that organisations serious with ITIL implementations would benefit from an ITIL training strategy. At the very least, it would increase awareness and assist in the challenge of staff buy-in.

7.2 Conclusions pertaining to the research questions

The objective of this study was to investigate the challenges of implementing ITIL. Below is a brief summary of the conclusions to the research question and sub-questions:

1) What attracted organisations to ITIL?

The main reason organisations were attracted to ITIL was shown in figure 6-7 and summarised as follows:

- i. to improve the quality of service
- ii. to reduce costs
- iii. internal compliance
- iv. external compliance

2) What were the biggest challenges for organisations when implementing ITIL?

The main biggest challenges for organisations were

- i. the ability to change, and overcome resistance to change
- ii. staff buy-in and commitment to the process including motivation
- iii. managing expectations and perception of IT
- iv. resources / time and money
- v. executive and senior management buy-in

3) What could assist or ease ITIL implementations?

What could assist or make ITIL implementations easier is summarised below

- i. If more examples, case studies, etc were made available
- ii. resources / time and money

- iii. full support of the organisation
- iv. executive management support
- v. strong project management

4) Are organisations satisfied with ITIL and are ITIL expectations being met?

There was overwhelming evidence to suggest that the organisations who were undertaking ITIL were satisfied and their expectations were being met.

7.3 Final Comments

ITIL implementations are long and may be one of the largest projects that an IT department will ever undertake. This is because ITIL is not only a collection of best practices, but a continuous improvement process.

Undertaking ITIL is undertaking an endless commitment to best practice and improvement. All reports confirm ITIL implementations will be challenging, however benefits are rewarded to organisations that persist. For those considering undertaking ITIL, the underlying themes from this study are:

- 1) IT Managers and Leaders will need to be creative to maintain staff buy-in and staff commitment. They will also have the challenge of motivating and re-motivating staff throughout the continuous improvement process.
- 2) Your organisation's culture will show any disapproval with resistance. Managing the changes will be as important as the changes themselves.
- 3) Your organisation will only allow you to implement what ITIL processes and practices it can absorb. It is acceptable to implement cheap, quick and easy processes first. Achieving "quick wins" can then be used for motivation and momentum, which in turn can be used to solve the important issue of organisational buy-in.
- 4) Start with what you know. Integrate ITIL's service desk best practices into your organisation and then implement incident and problem management. Identify other areas that ITIL can quickly compliment and implement for "quick wins" and momentum. (Refer to "quick wins" in point 3.)

- 5) Piecemeal implementation is the norm. Don't be ashamed to implement digestible pieces of ITIL. The bigger picture will come with time.
- 6) ITIL can be used in combination with other initiatives. They are not mutually exclusive and can only increase service maturity.
- 7) Successful or failed ITIL implementations are hard to define. Organisations should implement what ITIL modules they perceive as best practices for their business, their customers and business partners.

A final recommendation regarding ITIL is that it cannot be completed in one sitting or project. It will take time, patience and perseverance. As Tao says, "the journey of 1,000 miles starts with a single step."

The next version of ITIL is due in late 2006 which may address some issues that could make implementations easier. Although some of these suggestions may be outside the scope of ITIL, the three major themes that could assist organisations in ITIL implementations are:

- 1) ITIL blueprints: more examples, generic templates, real life examples, master plans, step-by-step implementation guides for each stage, reference sites, roadmaps
- 2) An Organisational Culture prescription guide or best practices for managing and absorbing change.
- 3) Strategies for IT managers for organisational and executive commitment and buy-in.

Finally, I leave you with a comment from an enthusiastic participant

"Good luck and never give up. It may sound cliché but ITIL is a journey, not a destination"

8.0 Further Research

Organisational cultures play a large part in any organisations ability to adopt new frameworks and effect change on its employees. Organisational cultures and characteristics that support the ITIL process would be a study that would generate considerable interest.

Additionally, ITIL version 3.0 is scheduled for release in late 2006 (OGC, 2006). Early documents have been released that have indicated that the two core disciplines of ITIL may be expanded to five. This may address some of the outcomes of this study, and will no doubt raise new questions and challenges.

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APPENDIX A: PRE-TEST ONLINE QUESTIONNAIRE

The Challenges of Implementing IT Infrastructure Library (ITIL)

The purpose of this Study

The purpose of this questionnaire is to identify challenges IT departments and management face when implementing the ITIL Library framework. It is envisaged that this research will identify problem areas of ITIL implementations.

Please take the time to complete this survey. Contributing your implementation experience will be valuable to the researcher in further understanding the issues in this area.

Anonymity

This is an anonymous questionnaire. Please ensure that you do not write your name, or any other identifying details or comments that will make you identifiable. By completing the questionnaire you are consenting to take part in this research. No identifiable information regarding participants will be published in this research.

Confidentiality

Data gathered in this study will only be used for this research purpose and for no other study or research.

Timelines for Completing Questionnaires

This survey will be available for approximately 9 months. The last date for completion will be 30th March 2005.

Contact Information

Name: Jason Gray
Email: j.gray@ecu.edu.au
Mail: B13 R207
2 Bradford Street
Mt Lawley
WA, 6050
Australia

Questionnaire Information

This questionnaire has 33 questions and it should only take approximately 12-25 minutes.

Participants require the following as pre-requisites:

- 1) You must have an understanding of ITIL, and
- 2) You (or your organisation) must have attempted or have considered implementing ITIL

The Challenges of Implementing IT Infrastructure Library (ITIL)

Q1. In which Country does your organisation reside? :

Q2. What is your Age?

(select (✓) the appropriate box)

<input type="checkbox"/>	< 20
<input type="checkbox"/>	21 – 29
<input type="checkbox"/>	30 – 39
<input type="checkbox"/>	40 – 49
<input type="checkbox"/>	> 50

Q3. What is your role in your organisation? { please circle your answer }

(select (✓) the appropriate box)

<input type="checkbox"/>	Consultant / Trainer
<input type="checkbox"/>	IT Manager / line-manager or other manager
<input type="checkbox"/>	Service Desk / Help Desk staff
<input type="checkbox"/>	CEO / CIO / Director / Executive
<input type="checkbox"/>	Sales / retail
<input type="checkbox"/>	Systems administrator
<input type="checkbox"/>	Developer / programmer
<input type="checkbox"/>	Project Manager
<input type="checkbox"/>	Other (please specify) _____

Q4. What area best describes the key Business for your organisation? :

(select (✓) the appropriate box)

<input type="checkbox"/>	Education/Colleges/University
<input type="checkbox"/>	Sales / Retail / Reseller
<input type="checkbox"/>	Government
<input type="checkbox"/>	(please specify) _____

Q5. How many Employees in your organisation employ?:

(select (✓) the appropriate box)

<input type="checkbox"/>	< 10
<input type="checkbox"/>	11 – 99
<input type="checkbox"/>	100 – 999
<input type="checkbox"/>	1000 – 4999
<input type="checkbox"/>	> 5000

Q6. How many IT Employees do you have in your IT Department?:

(select (✓) the appropriate box)

<input type="checkbox"/>	< 10
<input type="checkbox"/>	11 – 99
<input type="checkbox"/>	100 – 999
<input type="checkbox"/>	1000 – 4999
<input type="checkbox"/>	> 5000

Q7. How many years experience do you have in ITIL?
(select (✓) the appropriate box)

<input type="checkbox"/>	Less than 1 year
<input type="checkbox"/>	2 years
<input type="checkbox"/>	3 years
<input type="checkbox"/>	4 years
<input type="checkbox"/>	5 or more years

Q8. Do you have any, or are you considering ITIL certification?
(select (✓) the appropriate box)

<input type="checkbox"/>	No
<input type="checkbox"/>	No, but I am planning on certification
<input type="checkbox"/>	Yes, I have passed foundations certification in ITIL
<input type="checkbox"/>	Yes, I have passed foundations certification in ITIL, and I am planning to do masters
<input type="checkbox"/>	Yes, I have passed masters certification in ITIL

Q9. How did you find out about ITIL? { check all that apply }
(select (✓) the appropriate box)

<input type="checkbox"/>	Friend / Work Colleague
<input type="checkbox"/>	Consultant / External Trainer
<input type="checkbox"/>	Seminar
<input type="checkbox"/>	Webpage / Article / magazine
<input type="checkbox"/>	Web search / Browsing
<input type="checkbox"/>	Internal (Executive decision, management, or other dept.)
<input type="checkbox"/>	Web search / Browsing
<input type="checkbox"/>	Other (please specify) _____

Q10. What were the main reason(s) why you chosen to implement ITIL
(select (✓) as many as appropriate)

<input type="checkbox"/>	Internal Compliance (management or business Insists)
<input type="checkbox"/>	External Compliance (to be competitive)
<input type="checkbox"/>	To improve the Quality of Service
<input type="checkbox"/>	To reduce costs
<input type="checkbox"/>	Because you were forced to
<input type="checkbox"/>	Don't really know
<input type="checkbox"/>	Other (please specify) _____

Q11 With regards to ITIL implementation, what role do you playing?
(select (✓) the appropriate box)

<input type="checkbox"/>	A main driver
<input type="checkbox"/>	A Participant
<input type="checkbox"/>	Trainer or Consultant
<input type="checkbox"/>	A key stakeholder
<input type="checkbox"/>	Along for the ride

Other (please specify) _____

Q12. What training did you receive before implementing ITIL?
(select (✓) as many as appropriate)

- | | |
|--------------------------|------------------------------|
| <input type="checkbox"/> | None |
| <input type="checkbox"/> | A presentation |
| <input type="checkbox"/> | in-house training |
| <input type="checkbox"/> | Online training |
| <input type="checkbox"/> | Basic External training |
| <input type="checkbox"/> | Advanced External Training |
| <input type="checkbox"/> | Other (please specify) _____ |

Q13. Is your organisation trying to implement any other quality initiatives?
(select (✓) as many as appropriate)

- | | |
|--------------------------|--------------------------------------|
| <input type="checkbox"/> | None |
| <input type="checkbox"/> | ISO9000 or other ISO |
| <input type="checkbox"/> | COBIT |
| <input type="checkbox"/> | BS15000 |
| <input type="checkbox"/> | MOF (Microsoft Operations Framework) |
| <input type="checkbox"/> | Other (please specify) _____ |

Q14. Do you find it difficult implementing Best Practice in your organisation?
(select (✓) the appropriate box)

- | | |
|--------------------------|-----|
| <input type="checkbox"/> | No |
| <input type="checkbox"/> | Yes |

Q15. If yes, why?

Q16. Do you use ITIL compliant tools?
(select (✓) the appropriate box)

- | | |
|--------------------------|--|
| <input type="checkbox"/> | No |
| <input type="checkbox"/> | Yes, inhouse tools |
| <input type="checkbox"/> | Yes, free/purchased tools |
| <input type="checkbox"/> | Yes, both inhouse and free/purchased tools |

Q17. If Yes, please specify?

Q18. In percent, what is your progress you through your organisations ITIL implementation?
(select (✓) the appropriate box)

<input type="checkbox"/>	0% – haven't started
<input type="checkbox"/>	20% – planning to implement
<input type="checkbox"/>	40%
<input type="checkbox"/>	60%
<input type="checkbox"/>	80% - almost complete
<input type="checkbox"/>	100% - completed

Q19. How much planning was done before implementation
(select (✓) the appropriate box)

<input type="checkbox"/>	0 months – yet to begin planning
<input type="checkbox"/>	0 months – no planning ... just began implementation
<input type="checkbox"/>	Less than 3 months planning
<input type="checkbox"/>	3- 6 months planning
<input type="checkbox"/>	7-12 months planning
<input type="checkbox"/>	13-24 months planning
<input type="checkbox"/>	More than 24 months

Q20. Please rate in percent your ITIL Implementation progress in the following areas?
(select (✓) the appropriate box once per area/process)

Area/Process of ITIL	0%	25%	50%	75%	100%
Service Catalogue					
Underpinning Contracts (UC)					
Service Level Agreements (SLAs)					
Operational Level Agreements					
Configuration Management Database					
Incident Management					
Problem Management					
Release Management					
Request for Change Process					
Forward Schedule of Change					
Change advisory Board					
Definitive Software Library					
Definitive Hardware Store					
Availability Database					
Public Response Times					

Q21. How would you rate your progress now?
(select (✓) the appropriate box)

<input type="checkbox"/>	0% – haven't started planning
<input type="checkbox"/>	0% – planning to implement
<input type="checkbox"/>	20%
<input type="checkbox"/>	40%
<input type="checkbox"/>	60%
<input type="checkbox"/>	80%
<input type="checkbox"/>	100% - completed

Q22. How would you rate the importance of the following for implementing ITIL?
 (select (✓) the appropriate box once per area/process)

	Not important	Somewhat Important		Moderately Important	Extremely Important	
	0	1	2	3	4	5
Supported by senior management						
Supported by middle management						
Supported by all staff						
Funding / budget allocation						
Staff resources dedicated to implementation						
Staff time dedicated to the implementation						
Staff training						
Initial assistance from External Consultants						
Ongoing assistance from External Consultants						
Ability for business to change IT systems						
Ability for business to change processes						
ITIL software tools						
Support for adopting best practices						
The business invests in its own staff						
A work culture of continuous improvement						
Ability of IT staff to adapt to change						
Ability for non-IT staff to adapt to change						
Staff feeling secure in their jobs						
Staff empowered to improve						

Q23. What would you consider the biggest challenges during ITIL Implementation?

Q24. How has ITIL met your expectations? Please explain why or why not.

Q25. What could make ITIL implementation easier and why?

Q26. Is ITIL living up to your expectations and why?

Q27. Overall, did you benefit from implementing or trying to implement ITIL and why?

Thankyou for your time

Estimated time to complete survey ____

APPENDIX B: Official Welcome Page

The screenshot shows a Windows Internet Explorer browser window. The address bar contains the URL <http://staffhome.scis.ecu.edu.au/~jngray/>. The page title is "School of Computer and Information Science". The main content area has a dark blue header with the text "SCHOOL OF COMPUTER AND INFORMATION SCIENCE" and the ECU Edith Cowan University logo. Below the header, the page title is "The Challenges of Implementing ITIL". A link "Click here to start the Survey now..." is provided. The main text reads: "Hello and thanks for taking the time to assist in my research. As the title suggests, I am researching into the challenges of implementing the IT Infrastructure Library. The information gathered here will not be used for any purpose other than my ITIL honours research. No personal or organisational identifying information is asked for so please be open and honest in your answers. There are 34 questions and it should take you approximately 15-20 minutes to complete. Once again thank you for your help, it is really appreciated." Below this is the "Contact Information:" section, which states: "If you need or want to contact me my details are as follows: Name: Jason Gray, Position: IT Manager for the School of Computer and Information Science, email: j.gray@ecu.edu.au *". A note follows: "*Please use the subject 'ITIL Research' with ITIL correspondence. I welcome any correspondence regarding ITIL, this survey or other topics." The "Assumptions:" section lists two points: "i) You are familiar with the basic components of ITIL" and "ii) You or your organisation has attempted, is considering, in the process of or has completed an ITIL Implementation". The "Timeframe for data collection:" section lists: "Start Date: 04/03/2005", "End Date: 31/12/2005 *", and "Honours Written Up by: 15/02/2006". A final note states: "* Assuming enough data has been collected." A second link "Click here to start the Survey now..." is provided at the bottom of the main content area. The footer of the page contains the text: "© 2004 School of Computer and Information Science - Disclaimer - Last Updated 11/11/2004". The browser's status bar at the bottom shows "Local intranet" and "100%".

School of Computer and Information Science - Windows Internet Explorer

<http://staffhome.scis.ecu.edu.au/~jngray/>

School of Computer and Information Science

SCHOOL OF COMPUTER AND INFORMATION SCIENCE

ECU
EDITH COWAN UNIVERSITY

The Challenges of Implementing ITIL

[Click here to start the Survey now...](#)

Hello and thanks for taking the time to assist in my research. As the title suggests, I am researching into the challenges of implementing the IT Infrastructure Library. The information gathered here will not be used for any purpose other than my ITIL honours research. No personal or organisational identifying information is asked for so please be open and honest in your answers. There are 34 questions and it should take you approximately 15-20 minutes to complete. Once again thank you for your help, it is really appreciated.

Contact Information:

If you need or want to contact me my details are as follows:

Name: Jason Gray
Position: IT Manager for the School of Computer and Information Science
email: j.gray@ecu.edu.au *

*Please use the subject "ITIL Research" with ITIL correspondence. I welcome any correspondence regarding ITIL, this survey or other topics.

Assumptions:

- You are familiar with the basic components of ITIL
- You or your organisation has attempted, is considering, in the process of or has completed an ITIL Implementation

Timeframe for data collection:

Start Date: 04/03/2005
End Date: 31/12/2005 *
Honours Written Up by: 15/02/2006

* Assuming enough data has been collected.

[Click here to start the Survey now...](#)

© 2004 School of Computer and Information Science - Disclaimer - Last Updated 11/11/2004

Local intranet 100%

APPENDIX C: Final Survey

The screenshot shows a web browser window with the address bar displaying 'C:\Documents and Settings\ingray\Desktop\ITIL Results 33\New Survey Response.htm'. The browser's address bar also shows 'New Survey Response'. The page has a dark blue header with navigation links: 'Home', 'Documents and Lists', 'Create', 'Site Settings', and 'Help'. The main content area is titled 'SCIS Surveys' and 'ITIL Survey: New Item'. Below the title is a purple bar with 'Save and Close' and 'Go Back to Survey' buttons. The survey consists of four questions:

Q1. In which Country are you implementing ITIL? *

Q2. What is your age? *

- < 20
- 20 - 29
- 30 - 39
- 40 - 49
- > 50

Q3. What is your role in your organisation? *

- Consultant / Trainer
- IT Manager
- Line-manager / middle-manager
- Service / Support / Helpdesk
- CEO / CIO / Director / Executive
- Sales / Retail / Re-seller
- Systems / Network Administrator
- Developer / Programmer
- Project Manager
- Specify your own value:

Q4. What business best describes your organisation? *

- Computing General
- Construction
- Education / College / University
- Entertainment
- Finance/Banking
- Government fed/state/local
- Insurance
- Manufacturing
- Military
- Professional - accountant/lawyer/doctor
- Non-Profit

The browser's status bar at the bottom shows 'Done', 'Local intranet', and '100%' zoom level.

C:\Documents and Settings\jgray\Desktop\ITIL Results 33\New Survey Response.htm

New Survey Response

Q5. How many Employees work in your Organisation? *

< 10

10 - 99

100 - 999

1000 - 4999

> 5000

Q6. How many IT Employees work in your organisation? *

< 10

10 - 99

100 - 999

1000 - 4999

> 5000

Q7. What percentage of your organisations IT staff will be implementing ITIL? *

< 20%

40%

60%

80%

100%

Q8. How many years ITIL experience do you have? *

less than 1 year

2 years

3 years

4 years

5 or more years

Q9. Have you passed any ITIL exams? *

No

ITIL Foundations Exam

ITIL Practitioners Exam

ITIL Masters Exam

Q10. How did you find out about ITIL? *

Friend

Work Colleague

Consultant / External Trainer

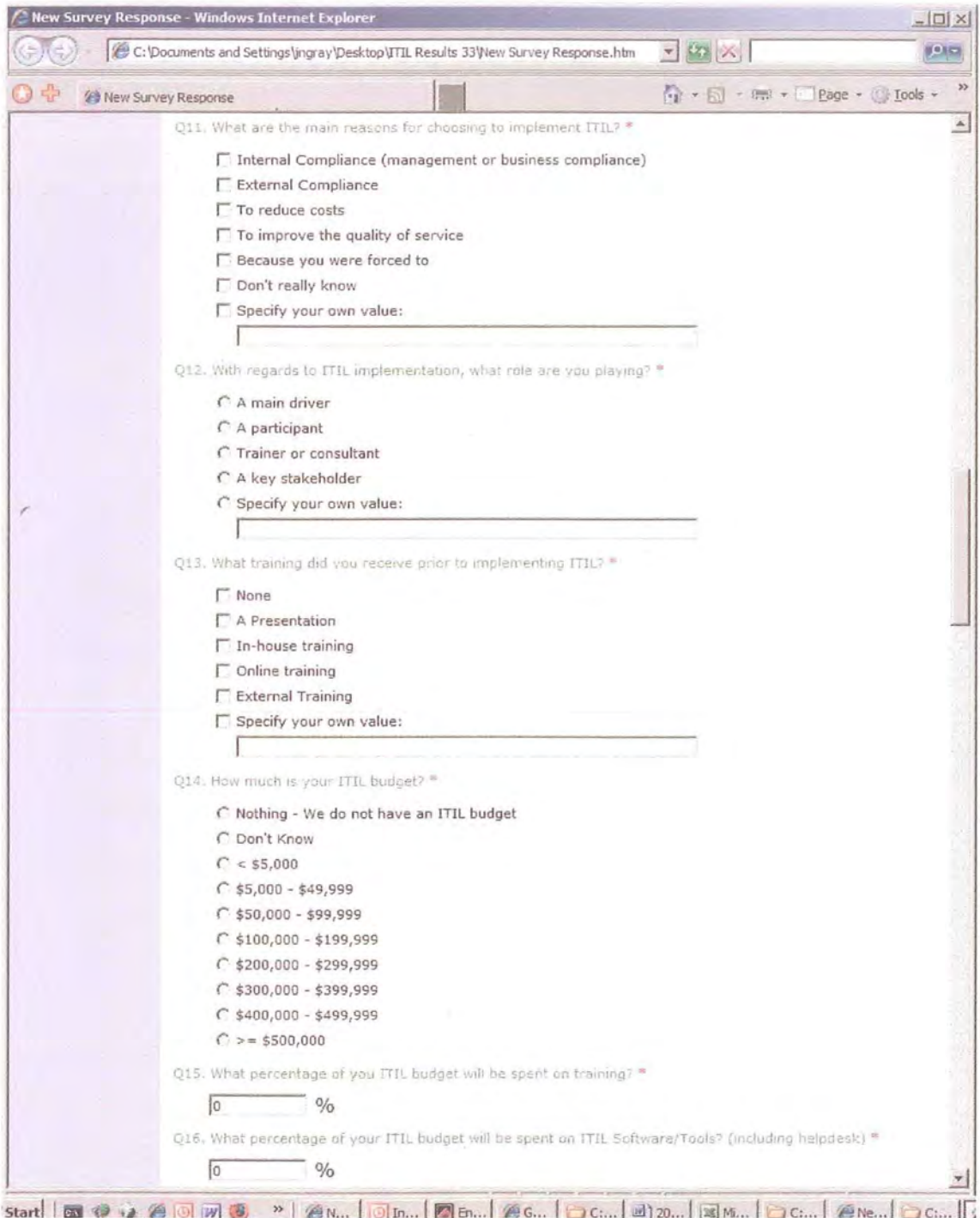
Seminar

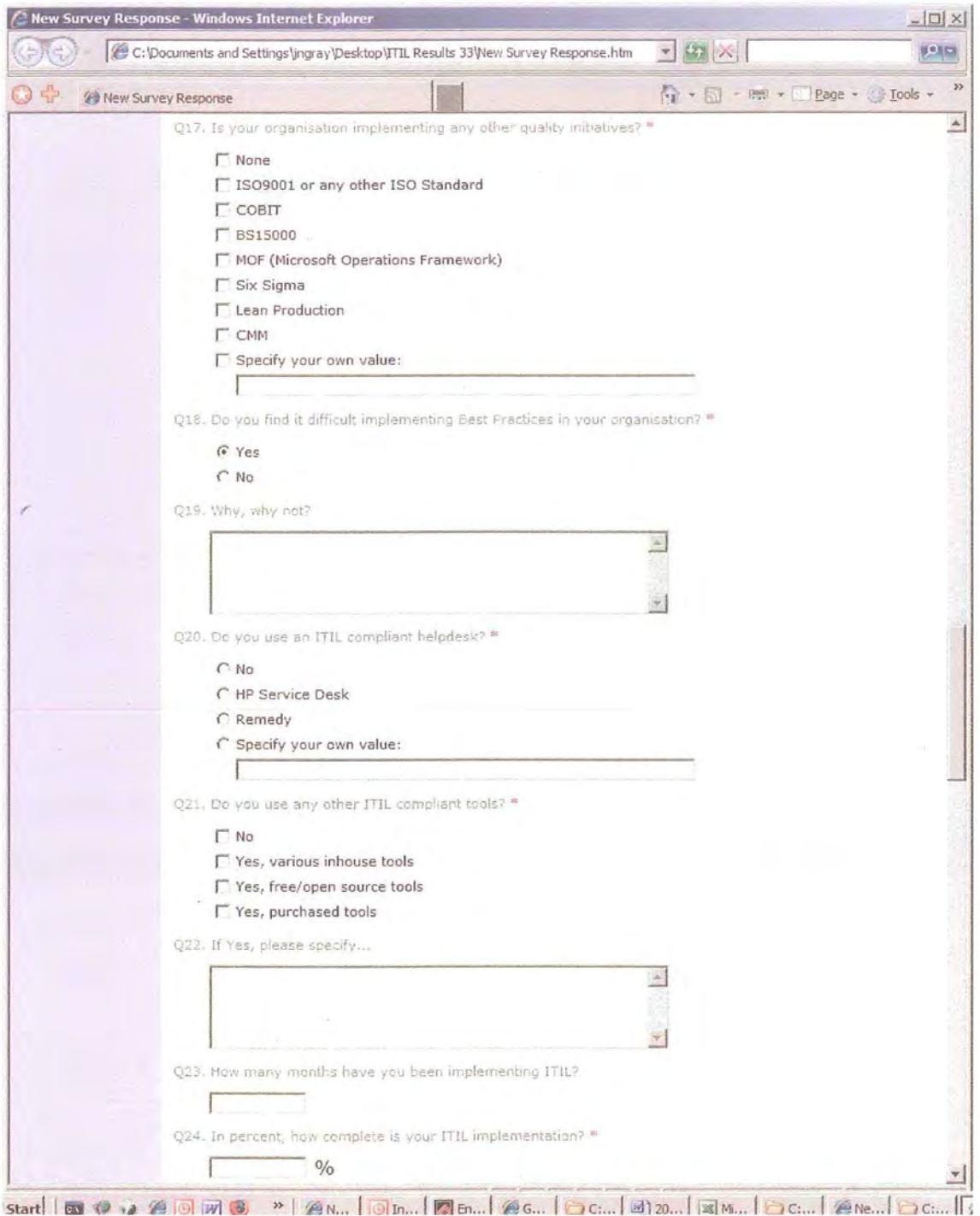
Web Article or Magazine

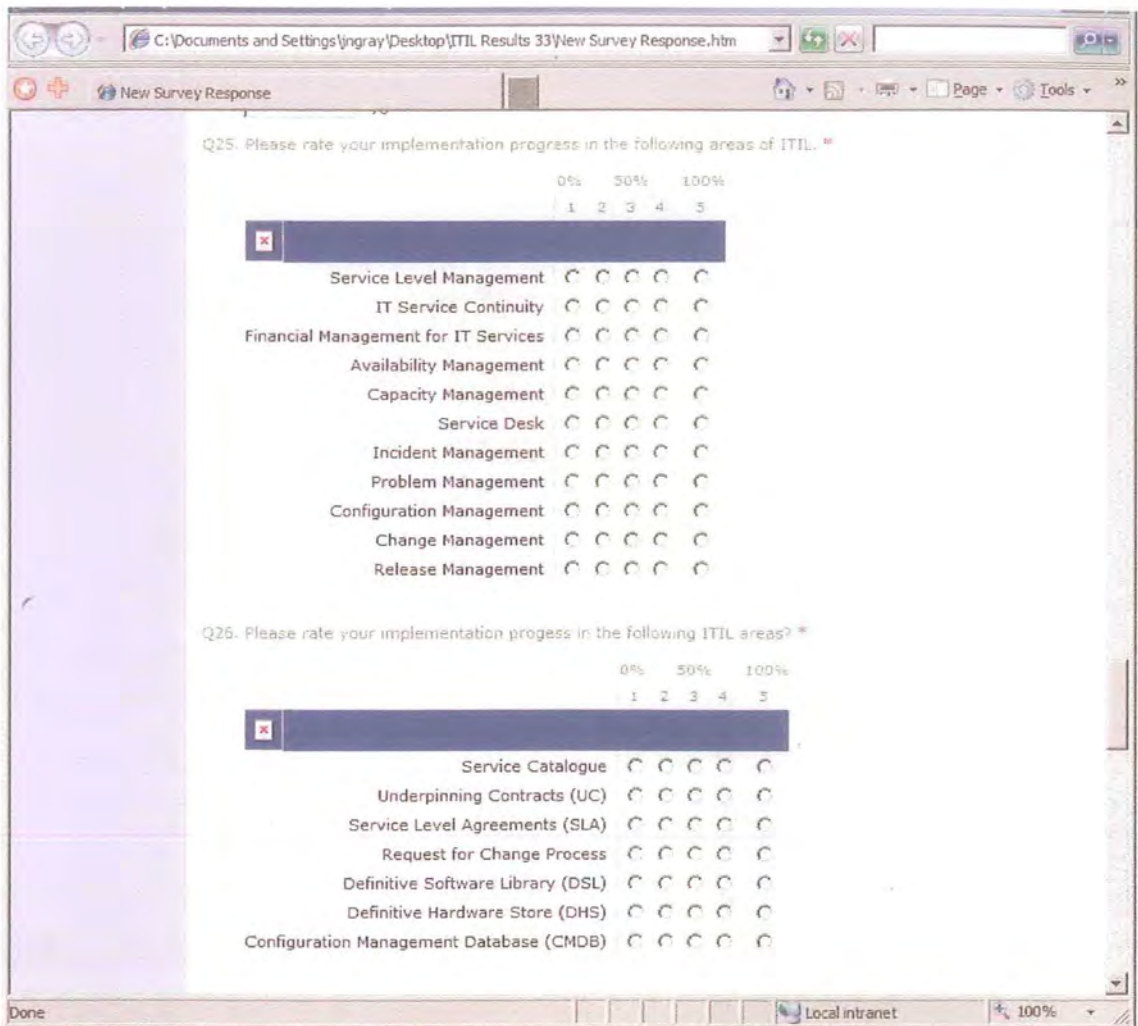
Internal Direction (Executive, management, or other dept)

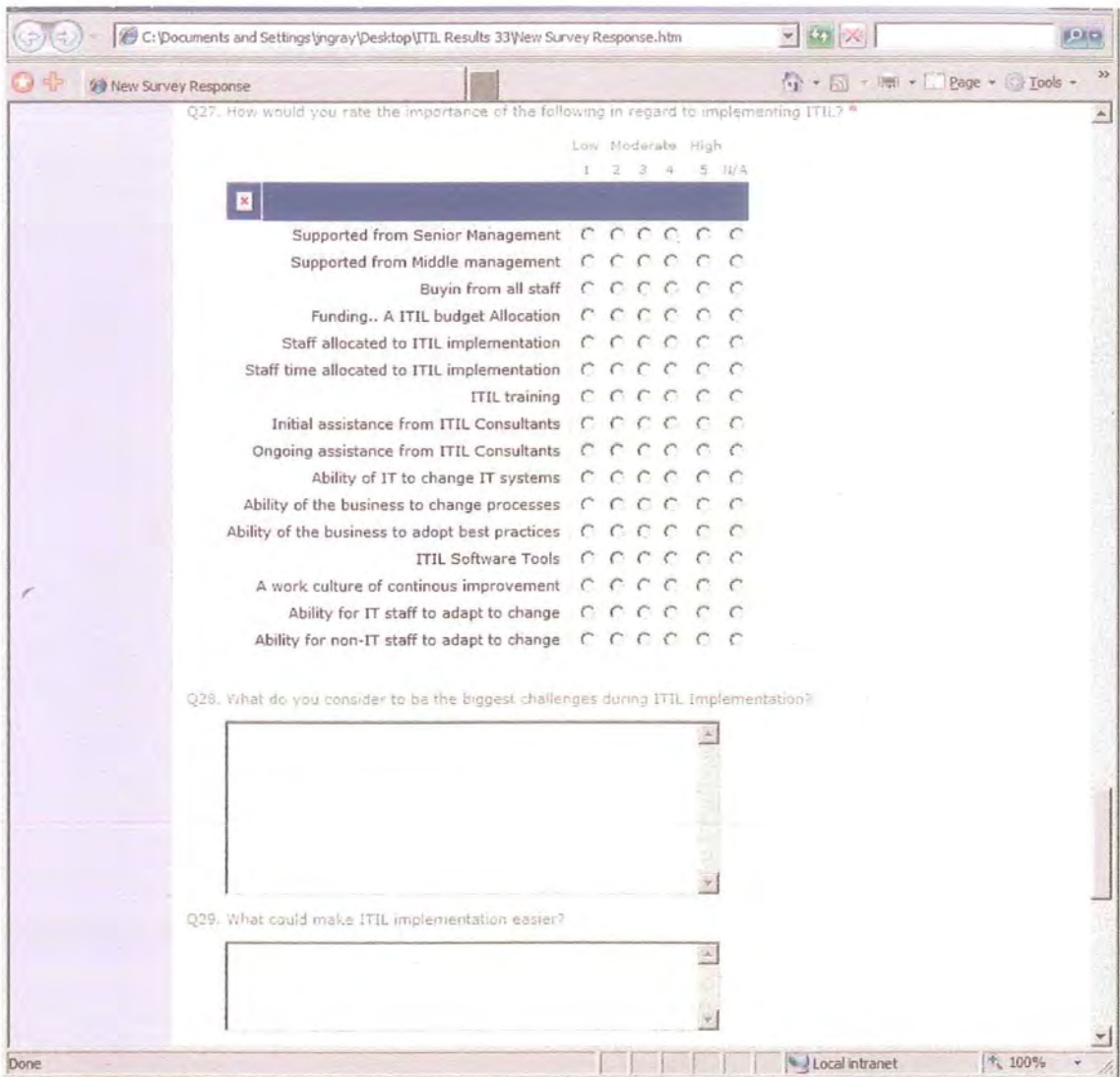
Specify your own value:

Done Local intranet 100%









New Survey Response - Windows Internet Explorer

C:\Documents and Settings\ingray\Desktop\ITIL Results 33\New Survey Response.htm

New Survey Response

Q30. How has ITIL met your expectations? *

Not sure

Disappointed - less than expected

It met my expectations

Exceeded expectations

Q31. Why, or why not?

Q32. Overall, have you benefited from implementing ITIL? *

Yes

No

Q33. Why, or why not?

Q34. Any other comments?

To complete this survey, please go to the top of this page and click on save and close. Thanks you

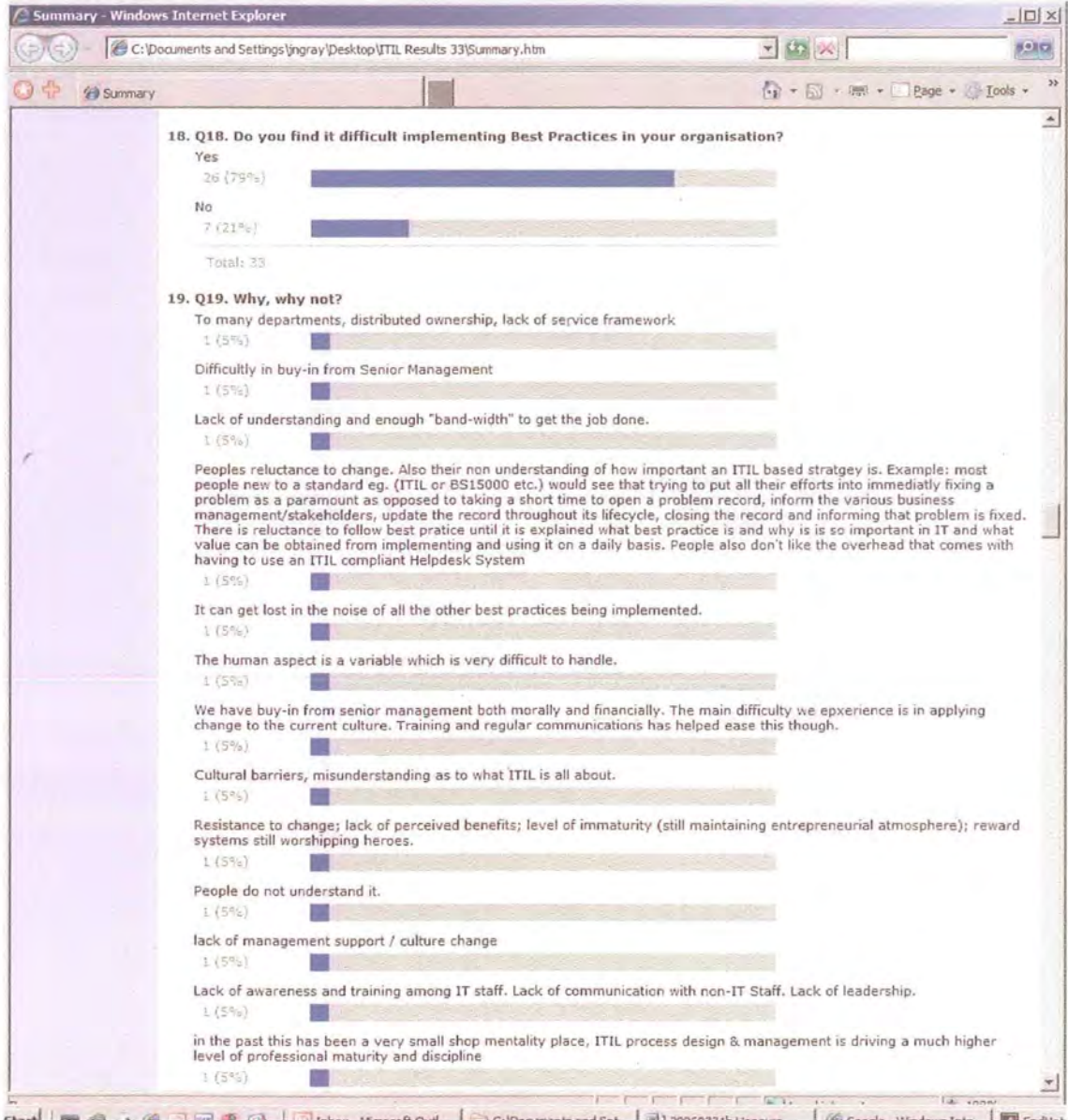
Time (in minutes) taken to complete this survey?

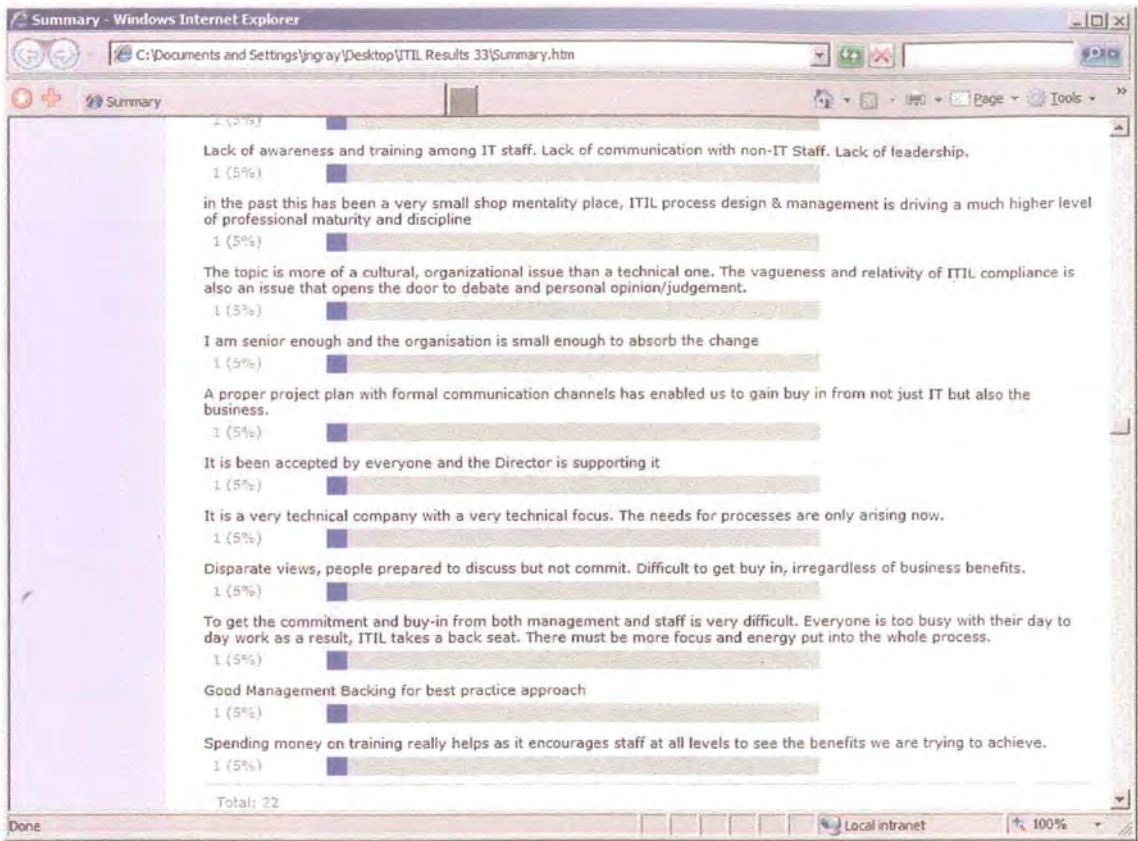
(Optional) Enter your email address if you would like to be sent a copy of this thesis on completion?

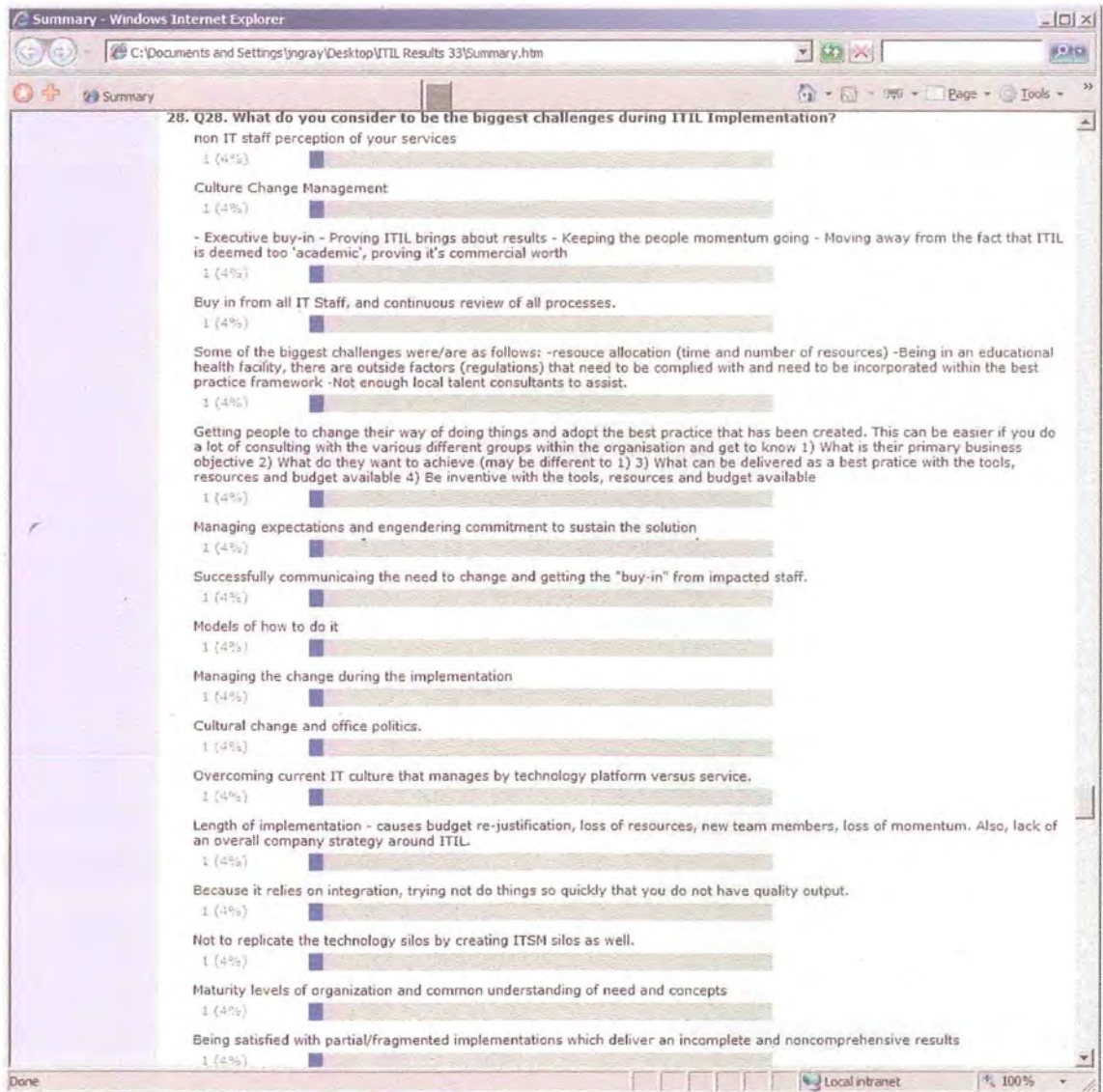
* indicates a required field

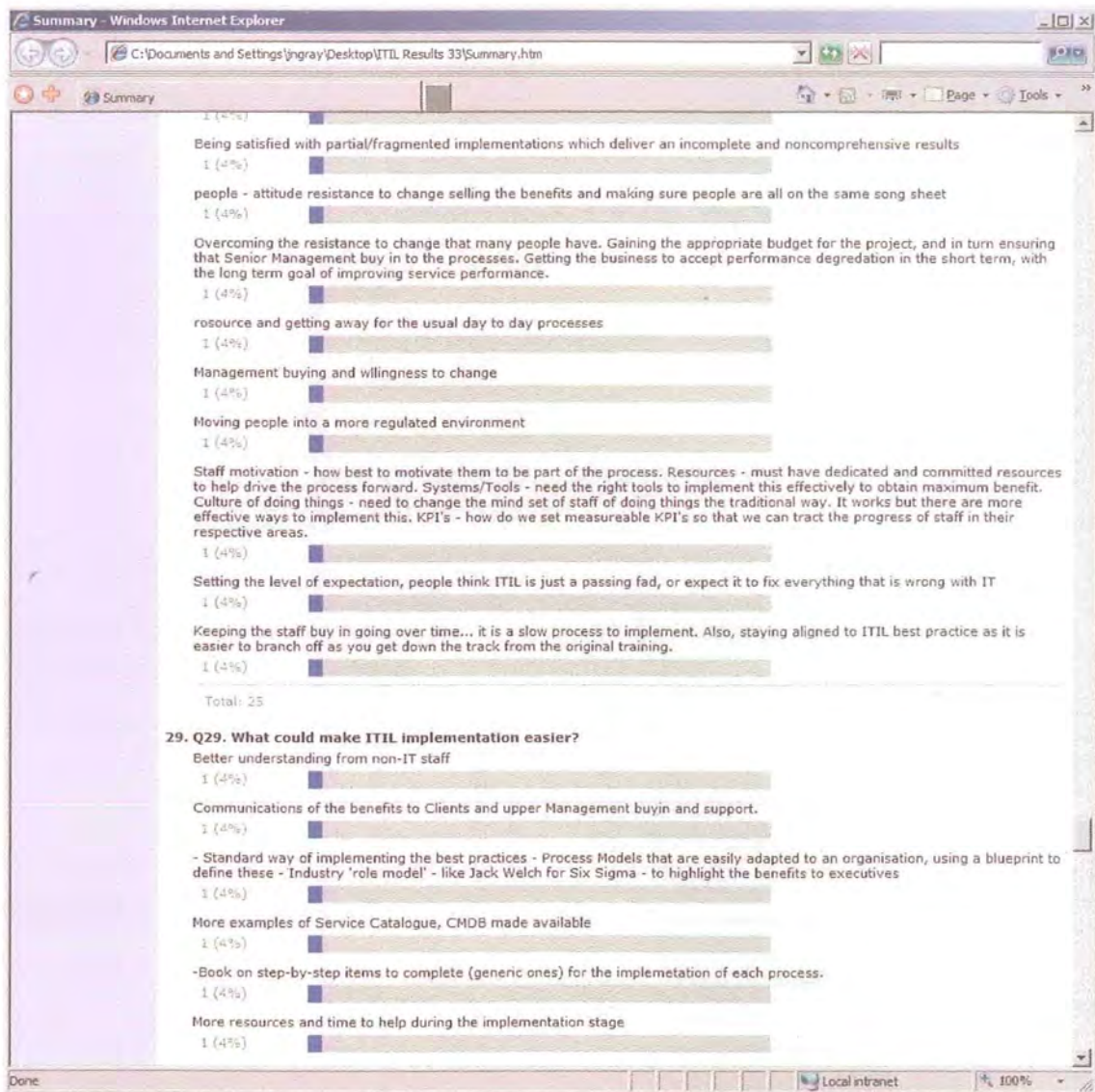
Done Local intranet 100%

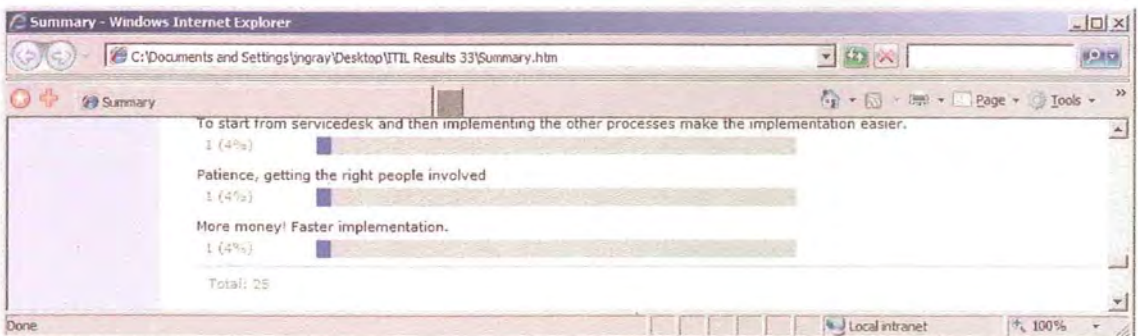
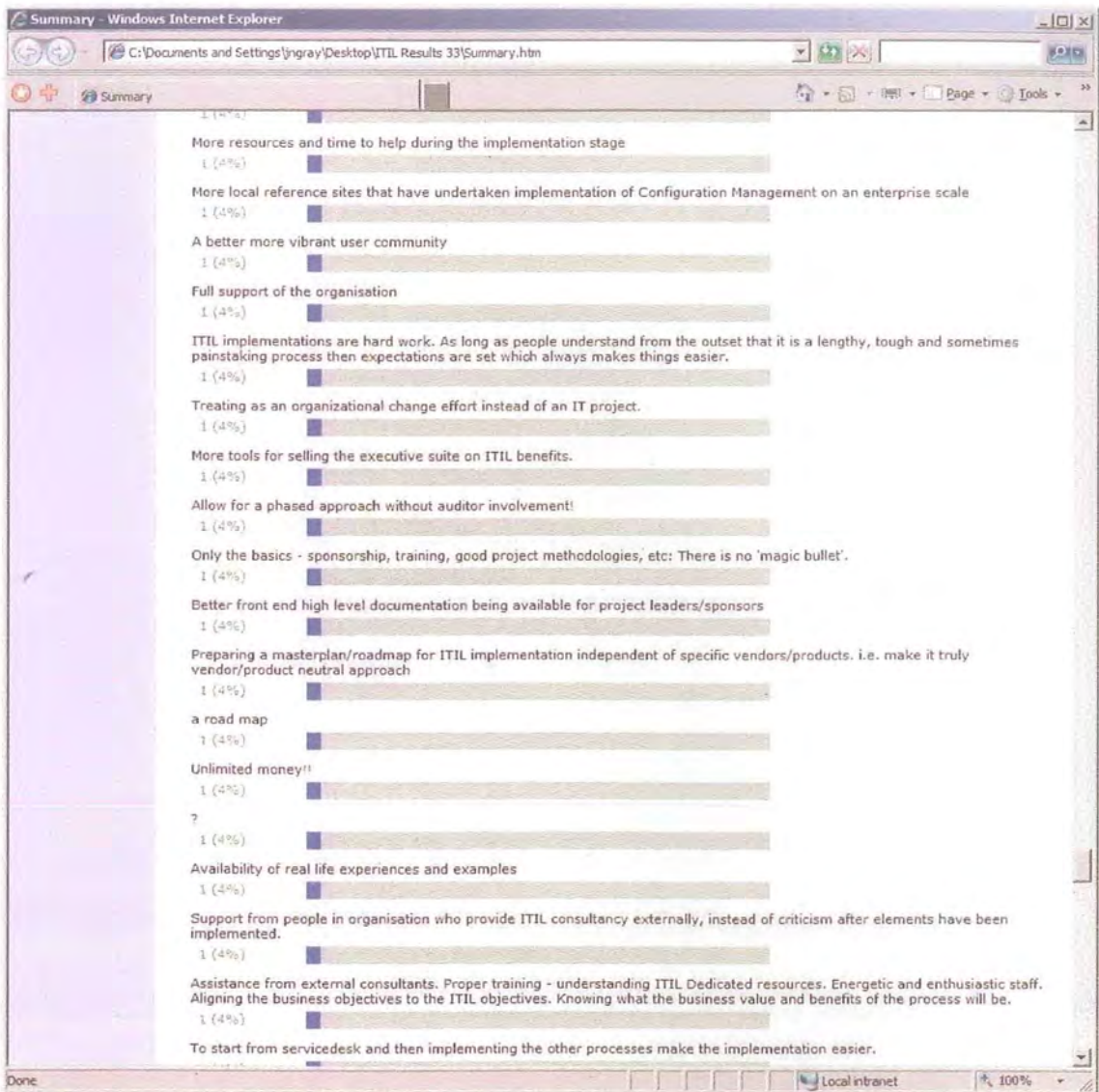
APPENDIX D: Answers to Open Ended Questions

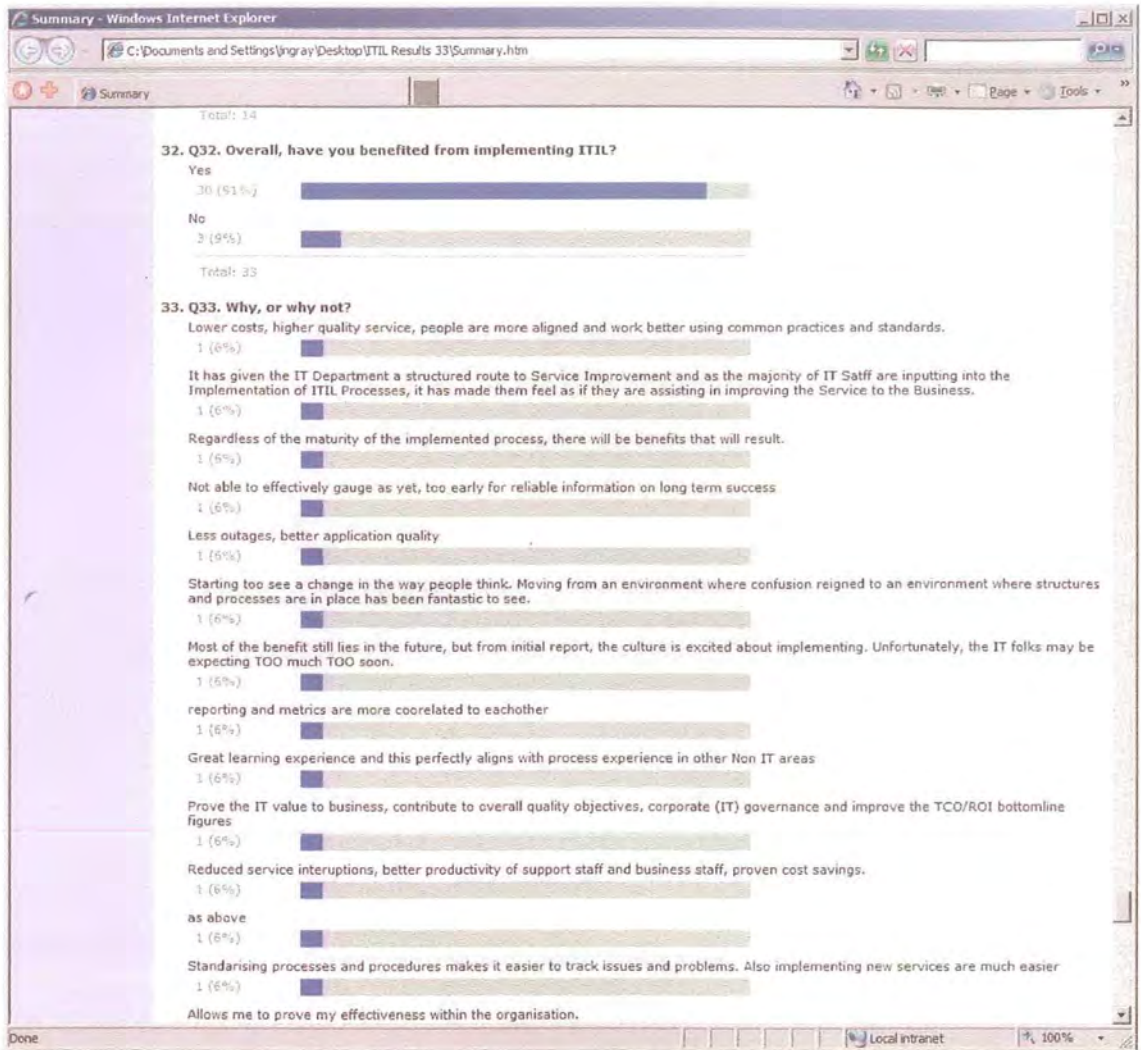












Summary - Windows Internet Explorer
 C:\Documents and Settings\Ingray\Desktop\ITIL Results 33\Summary.htm

Summary

Standardising processes and procedures makes it easier to track issues and problems. Also implementing new services are much easier
 1 (6%)

Allows me to prove my effectiveness within the organisation.
 1 (6%)

I can't say for sure although in some disciplines, like change mgt and incident mgt, there has been a tremendous focus on this and we are starting to see the benefits of the investment. I guess its too early to make such a judgement. The next 7 months will be crucial top the successful implementation of ITIL in the organisation. We will have a definite plan and strategy in place and will know exactly what direction we are heading in.
 1 (6%)

Have not implemented yet - working on it.
 1 (6%)

more stable environment, better relationship with the business
 1 (6%)

It is making parts of the organisation work together which have previously operated in (almost) isolation. The lines of communication are much better as is the accountability built into an ITIL structure.
 1 (6%)

Total: 18

34. Q34. Any other comments?

t

1 (9%)

The organisation must look at strategic and sustainable goals which ITIL can deliver and let those in the business of support be given the mandate to provide a successful ongoing implementation.
 1 (9%)

I wonder how well ITIL is promoted, given that the OGC owns the copyright and that only the ITsmf chapters in countries seriously push the standard forward. BS15000 (which provides companies with ITIL certification standards) is hardly adopted.
 1 (9%)

My view is that if the organization as a whole is in a state of chaos, then the implementation of any ITIL process will be that much more difficult to use and implement
 1 (9%)

Good luck and never give up. It may sound cliché but ITIL is a journey, not a destination
 1 (9%)

I like ITIL and we are the most mature of other organizations we have benchmarked with.
 1 (9%)

You mention ITIL compliance in a couple of the questions. Should this not read ITIL based as a common misconception is that you can be ITIL compliant - however ITIL is not a standard but a framework
 1 (9%)

Open for cooperation and collaboration
 1 (9%)

I look forward to seeing your thesis. Hope the info provided helps with this.
 1 (9%)

Done Local intranet 100%

Summary - Windows Internet Explorer
 C:\Documents and Settings\Ingray\Desktop\ITIL Results 33\Summary.htm

Summary

Open for cooperation and collaboration
 1 (9%)

I look forward to seeing your thesis. Hope the info provided helps with this.
 1 (9%)

none
 1 (9%)

Although we have been trying to implement ITIL for almost 2 years now, there hasn't been such a focus on this as we are embarking on now. With the renewed commitment from both management and staff alike, we will achieve our objectives. It is interesting that I was looking for academic research in this field when I stumbled on your survey. This is great as I want to do a PhD in this field. I would really appreciate all the help I can get. I am searching to see how much of information is out there (books, articles, white papers, journals etc). I am busy putting together a proposal right now ...Please keep in contact.
 1 (9%)

Total: 11

Done Local intranet 100%