The engagement of top management in IT discourse

by
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Abstract

In small to medium sized enterprises (SMEs) top management is responsible for the risk management in their company. In today's world, businesses are relying more and more heavily on IT and often this can be seen as a huge risk. As a potential risk factor and an integral part of any business, IT therefore falls under the portfolio of top management. However, there is a general perception, especially among dedicated IT professionals, that there is a gap between business, that is top management, and IT and that successful communication is not always achieved. The lack of successful communication between top management and IT role players could have a negative impact on a business' ability to operate fully. This study is therefore concerned with the investigation of how top management (the IT decision makers in a company) engage in the discourse of IT. It aims to identify whether a communication gap between business (top management) and IT truly does exist and, if so, why.

The data for this study takes the form of recorded, semi-structured interviews with IT role-players and directors/managers who have IT as part of their portfolio, from ten SMEs in the greater Cape Town area.

This study is undertaken in the framework of semantic discourse analysis, concentrating on two notions of coherence, that of van Dijk's (1985) model of macrostructures and Brown and Yule's (1983) notion of 'discourse topic'. This approach is used in order to analyse the transcribed interviews with both top management and IT role players in order to determine whether the perception of a communication gap between business (top management) and IT is true and if so, what the reasons for this communication gap are. The analysis of the transcriptions allows the researcher to confirm the perception that a communication gap does exist and to identify two possible reasons as to why this communication gap exists, firstly, that there seems to be a lack of communication between IT and top management and, secondly, that top management's interpretation of what IT means to their company differs from that of their IT role players.

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Opsomming

In klein tot mediumgrootte ondernemings (KMOs) is topbestuur verantwoordelik vir die risikobestuur in hul maatskappy. In vandag se wêreld, maak besighede meer en meer staat op IT en dit kan dikwels beskou word as 'n groot risiko. As 'n potensiële risikofaktor en' n integrale deel van enige besigheid, val dit dus onder die portefeulje van die top bestuur. Daar is egter 'n algemene persepsie, veral onder toegewyde IT-profesionele, dat daar' n gaping tussen die besigheid, in ander woorde die topbestuur, en IT bestaan en dat suksesvolle kommunikasie nie altyd bereik word nie. Die gebrek aan suksesvolle kommunikasie tussen topbestuur en IT kan 'n negatiewe impak op' n onderneming se vermoë om ten volle te funksioneer he. Hierdie studie is dus gemoeid met die ondersoek van hoe topbestuur (die IT-besluitnemers in 'n maatskappy) betrokke raak in die diskoers met IT. Die doel is om vas te stel of 'n kommunikasie gaping tussen die besigheid (topbestuur) en IT werklik bestaan, en indien wel, waarom te identifiseer.

Die data vir hierdie studie neem die vorm van aangetekende, semi-gestruktureerde onderhoude met rolspelers en direkteure / bestuurders wat IT as deel van hul portefeulje het in tien KMOs in die groter Kaapstad-gebied.

Hierdie studie is onderneem met die raamwerk van`n semantiese diskoers-analise, en konsentreer op die twee begrippe van samehang, dié van Van Dyk (1985) se model van makrostrukture en Brown en Yule (1983) se idee van `n 'diskoers onderwerp'. Hierdie benadering word gebruik om die getranskribeerde onderhoude met beide topbestuur en IT-rolspelers te analiseer en ten einde te bepaal of die persepsie van 'n kommunikasie gaping tussen die besigheid (topbestuur) en IT-rolspelers waar is en indien wel, wat die redes vir hierdie kommunikasie gaping is. Die ontleding van die transkripsies stel die navorser in staat om die persepsie dat 'n kommunikasie gaping bestaan te bevestig en om twee moontlike redes daarvoor te identifeer, in die eerste plek dat dit lyk asof daar' n gebrek aan kommunikasie tussen IT-rolspelers en die topbestuur bestaan, en tweedens, dat die topbestuur se interpretasie van wat IT beteken vir hul maatskappy verskil van dié van hul IT-rolspelers.

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Chapter 1: Introduction to the study

1.1 Introduction

The aim of this study is to investigate how top management (being the information technology 'IT' decision makers) in small to medium enterprises (SME's) engage in the discourse of IT with their IT role players[1]. There is a common perception that there is a communication gap between business (top management) and IT role players, and therefore successful communication is not always achieved, with this having a negative effect on the business' ability to function optimally. This chapter will give detailed explanation as to why this communication gap should be investigated, the aims of this study and will give us a brief outline of the various discourse methods used in the analysis of the data in order to identify as to whether a communication gap does exist and if so why.

1.2 Background to the study and research problem

In SME's top management is responsible for the risk management in their company. It seems that, businesses today are relying more and more heavily on IT and often this can be seen by professionals in the IT industry as a huge risk. For example internet connectivity can be interrupted and this can result in downtime for the company, therefore impacting the business negatively. A good example of this negative impact would be where a financial company is not able to process their transactions, or a company in manufacturing industry not being able to carry on with production. As a potential risk factor and an integral part of any business, IT therefore falls under the portfolio of top management.

There is a general perception, especially among dedicated IT professionals, that there is a gap between business, that is top management, and IT and that successful communication is not always achieved. The lack of successful communication between top management and IT role players could have a negative impact on a business' ability to operate fully. There could be a number of reasons for this unsuccessful communication. One possible reason is that top

[1] An IT role player for the purpose of this study is defined as the dedicated person who is involved with the operational aspects of IT in their company. The IT role players who partook in this study had the following job titles: Office Manager, Virtual Network Administrator, IT Administrator, Network Operation Manager and Solutions Consultant.

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management may not have the time to dedicate their attention to IT, or it could be that top management may feel they do not have the necessary expertise in this field and delegate this role to someone that they feel has more expertise in the field of IT. Furthermore IT role players could feel that top management do not value the role that IT plays in their business, or that they are unwilling to put in the time necessary to understand the more technical aspects of the field.

1.3 Aim of study

This study aims to determine whether there is a communication gap between top management and IT role players and if so why this communication gap exists.

1.4 Research Question

In order to achieve the aim of this study, the following two research questions have been formulated. The study will attempt to answer these questions.

1.4.1 To what extent does top management of SMEs engage with the discourse of IT?

1.4.2 What are the reasons for top management's participation or lack thereof in IT discourse with their IT role players?

1.5 Context

Technological advancements such as the internet and email have made it possible to communicate with individuals from different cultures from all over the world. This international communication has inturn affected how businesses compete with one another on a global scale. For the success of business in South Africa, and the future of our economy, IT has to play a central role. Saljoojee (2006:1) proposes that, "IT is becoming one of the primary factors to the survival of most organizations in South Africa". Over the last two decades there has been considerable interest from both academics and business communities around the business value of IT. If the assumption that 'a communication gap between IT and business' proves to be true, research is needed not only to identify the reason for this communication gap but also to provide suggestions for improvement of communication.

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Shortis (2001) was also consulted in order to identify how technology affects communication on all levels and how it has brought along a variety of new terms "a lexicon of specialist terminology" (Shortis 2001:6). According to Shortis (2001:34), these new technology terms emerged as a result of technical development and that when there are specialised activities, such as IT, there is a need for an associated specialised language to refer to these activities. Technology terms are a type of jargon, a 'mode of speech' familiar to a profession, which can exclude any individual who does not share the same language (Shortis 2001:35). Insights from work on Intercultural Communication, such as Gudykunst (2003) and Guirdham (1999) will also be useful in considering the culture of IT and the culture of business and how jargon creates and intergroup and an outergroup, individuals that are able to understand the language and those who don't. Finally, Ting-Toomy (1999) gives us ideas as to how technology has assisted with intercultural communications.

Various approaches are used in the analysis an interpretation of texts. Some prominent literature on discourse analysis is in the work of He (2003). Discourse analysis is concerned with the context and processes through which we use oral and written language to specific audiences for specific purposes (He, 2003:428). For the purpose of this thesis, the work of Koester (2006) was used to gain a better understanding of workplace discourse and how it occurs in a wide range of settings from communication between co-workers, to the interactions in service encounters to international business communication.

This study will be undertaken in the framework of semantic discourse analysis, concentrating on two notions of coherence, that of van Dijk's (1985) model of macrostructures and Brown and Yule's (1983) notion of 'discourse topic' in order to identify if a communication gap proves to exist and if so why.

1.6 Research Design

The data for this study was collected in the form of semi-structured interviews. The interviews were conducted by the researcher to enable her to clarify any misunderstandings of a question and to expand on certain questions if necessary. The interviews were recorded on a digital voice recorder and transcribed by the researcher.

Before any interviews could be conducted for this study, ethical clearance needed to be obtained from the Stellenbosch Research Ethics Committee. A signed permission letter was

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requested from each company in order to select participants for the research study, these permission letters were then sent back to the Stellenbosch Research Ethics Committee, in order to obtain ethical clearance. Information consent forms (ICFs - see Appendix A and B) were drawn up and were requested to be signed by all participants who took part in the study. These forms were kept by the researcher herself as this study is only for research purposes and all participants are kept anonymous in order to avoid any conflict of interests.

The interview process was conducted with ten individuals in top management and ten IT role players in various SMEs in the greater Cape Town area. Half of these SMEs are current clients and half potential clients of an outsourced IT support company based in Stellenbosch, at which the researcher is employed. Before the researcher interviewed the selected participants a list of interview questions were sent via email a day in advance of the interview. The interview was conducted in an environment of the participants choosing (e.g. their company offices, coffee shops, etc.), in the hope that this relaxed atmosphere would make them more comfortable and therefore more willing to share their true opinions and insights on IT.

The data were analysed with the use of the semantic discourse analysis approach (van Dijk 1985, 1995). Various trends were identified by the researcher and various sections of the data were analysed in order to identify whether a communication gap is constructed by the participants and if so, why.

1.7 Chapter outline

This study is structured as follows, chapter one serves as an introduction to the research study, outlining the problem, aims, and the specific discourse method used. The study consists of five more chapters which provide an overview of the related literature, data collection, analysis of data and finally a summary and conclusion of this study.

The division of this remainder of this study is as follows:

Chapter 2: Literature overview- of the importance of IT, discourse in the workplace and IT and discourse.

Chapter 3: Theoretical framework- this chapter provides a theoretical framework of the specific discourse methods used in order to analyse the data.

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Chapter 4: Methodology- this chapter provides a description about how the data was collected, looking at the selection of participants, data collection instruments, research methods and data analysis.

Chapter 5: Data analysis- this chapter gives an analysis of the data using semantic discourse analysis and discusses the results in detail.

Chapter 6: Conclusion- this chapter focuses on the results obtained from the analysis, the limitations to the study and provides various suggestions on how this topic could be further researched.

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Chapter 2: Literature review

2.1 Introduction

As discussed in chapter one there is a general perception, especially among IT professionals, that there is a gap between business (this being top management) and IT, and that successful communication is not always achieved. The lack of successful communication between top management and IT role players could have a negative impact on a business' ability to function optimally. The aims of this chapter are, by means of a literature study, to present a theoretical overview of the importance of technology in human communication, the communication culture of IT discourse in the workplace and IT and discourse.

2.2 Importance of technology in a global era

Our world is becoming increasingly smaller with all the rapid changes in our global economy, technology, transportation and immigration policies (Ting-Toomey 1999:3). "In organisations throughout the world, we find a widespread use of technology and an increasing reliance on the internet for internal and external communication" (Gunnarsson 2009:249). Technological advancements such as the internet and email have made it possible to communicate with individuals from different parts of the world. As Gunnarsson (2009:249) states "every strand of workplace communication has, in one way or other, been transformed by technology". Due to these changes we find ourselves in contact with people who are culturally different from ourselves on a daily basis. In order to effectively communicate with different cultures we have to learn to be mindful and manage differences flexibly.

This international communication has in-turn affected how businesses compete with one another on a global level. For the success of business in South Africa, and the future of our economy, IT has to play a central role. If the assumption that 'a communication gap between IT and business' proves to be true, research is needed not only to identify the reason for this communication gap but also to provide suggestions for improvement of communication.

Ting- Toomy (1999:4), states that "in this era of global economy, it is inevitable that employees and customers from dissimilar cultures are in constant contact with one another".

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One of the factors, according to Ting-Toomy (1999:4), which contributes to the diversity of the workforce on the international level is communication technology (IT) such as the internet and email. Hartley (2000:1), states that "we now accept computers as essential equipment in the commercial organisations". In the 21st century we are seeing how technology is changing the way organisations communicate with one another. If technology failed for any apparent reason, communication, intercultural or otherwise, would not be able to take place.

A 2020 workforce report showed that international trade grew by 120% on a global level between 1980-1995, (Judy & S'Amico 1997 in Ting- Toomy 1999:4). This is not to say that intercultural communication in organisations is the result of only technological changes, however, it is perceived to be of benefit to the international trade growth.

Saloojee's (2006:113), exploratory study investigating the business value of IT in South Africa revealed that South African organisations view the business value of IT as being a successful enabler of their business objectives, strategies that resulted in business improvement. According to Saloojee (2006:35), "The success of implementing a IT project depends on the successful management of IT resources and adoption of IT systems by internal business staff and external people within the deployed business processes", therefore communication between IT role players and top management is inevitable and essential.

2.3 The communication culture of IT

Technology affects communication on all levels and has brought along a variety of new terms "a lexicon of specialist terminology" (Shortis 2001:6). According to Shortis (2001:34), these new technology terms emerged as a result of technical development and that when there are specialised activities, such as IT, there is a need for an associated specialised language to refer to these activities.

As Shortis (2001:35), explains, "the newness of technology can create context where people have very uneven access to it and a word can act as a shibboleth showing membership to the group". Technology terms are a type of jargon, a 'mode of speech' familiar to a profession, which can exclude any individual who doesn't share the same language (Shortis 2001:35).

Philipsen (1992 in Gudykunst, 2003:57), argues that every culture has a specific speech code which implicates a culturally distinctive psychology, sociology and rhetoric. Communication

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can therefore be viewed as creating a culture. In the case of IT aspects of this code can be referred to as "techspeak".

"Techspeak" is defined by *The New Hacker's Dictionary* as "the formal technical vocabulary of computer science as found in textbooks, technical dictionaries and standard forms" (Shortis 2001:35). The use of techspeak is important in the context of this study, as the vocabulary of a language, or code, can be considered a kind of lexical map of the preoccupations of a culture or sub-culture (van Dijk 1985:65).

Unfortunately, newspapers, magazines and journalists often stereotype[2] people with expertise in the field of IT as dysfunctional, unattached males, labelling them as geeks, nerds or anoraks (Shortis 2001:39).

Cultural and subcultural groups, such as IT professionals, are often the objects of stereotyping by other population groups (Guirdham 1999:162). Guirdham (1999:158) discusses two sources of miscommunication[3] between two or more people, from different backgrounds, communicating with one another. The first source of miscommunication is relevant for this particular study, and includes the general problem of intergroup communication, stereotyping and prejudice which are 'universal barriers'. These all apply with particular force in intercultural situations.

Meetings between individuals from different occupational categories such as IT role players and top management are termed 'intergroup' encounters (Guirdham 1999:160). The problems of intergroup communication are increased by the near universal tendency to stereotype (Guirdham 1999:161).

According to Guirdham (1999:163), stereotypes "lead people to base their messages, their ways of transmitting them and their reception of them on false assumptions" therefore distorting intergroup communication. The problem with stereotypes is that they influence the way information is processed and the also constrain others' patterns of communication. Objectively there is often more variation within groups than between them, however stereotypes mask this variation. Furthermore, stereotypes create expectations about 'others',

[2] "A stereotype is a stable set of beliefs or pre-conceived ideas which the members of the group share about the characteristics of other groups" (Guirdham 1999:161).
[3] "Miscommunication arises from 'noise', in the technical sense of interference, whether physical or psychological, which prevents messages from being received" Guirdham (1999:158).

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and individual 'others' often feel pressure to confirm these expectations. Finally, stereotypes engender stereotypes, creating a vicious circle of expectations and expectation confirmations.

According to Prager (1999), there are a number of differences between IT professionals and non-IT employees. It is said that IT professionals have more autonomy, authority, and responsibility in their own jobs than non-IT employees. This points back to the point made previously, that most people do not fully understand the technical jargon of IT and therefore leave IT professionals (IT role players) to their own devices. IT professionals are also said to have more contact with those in authority, and customers compared to non-IT employees. This is due to them having to work with the IT equipment and infrastructure throughout their organisation. An interesting point that Prager makes, is that IT professionals are said to discuss the strategy of the company more frequently than non-IT employees, the reason for this mainly being that all IT that is implemented in a company needs to be aligned with the company's goal in order to function optimally. IT professionals are also said to share more information, believe there is more consistency across the organization among philosophy, strategy, and organizational behaviour and believe their organization structure is more decentralized (Prager 1999:2).

2.4 Discourse in the workplace

Although this study looks specifically at identifying whether a communication gap between IT role players and top management does exist, we need to take into consideration the characteristics of institutional talk in general. This would include two aspects, how top management and IT role players communicate with one another in their usual settings regarding the decision-making, problem solving or specific goals that they wish to accomplish through IT, as well as how each participant communicates with the researcher when being interviewed in an institutional setting.

Koester (2006), looked at workplace discourse and how it occurs in a wide range of settings from communication between co-workers, to the interactions in service encounters to international business communication. The term "institutional talk", according to Koester (2006:3), "is frequently used in literature to refer to interactions in all kinds of workplace setting. Institutional talk differs from ordinary conversation in a number of ways". The three dimensions of interaction in which institutional talk differs from ordinary conversation are:

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2.4.1. Goal orientation- "an orientation by at least one of the participants to some core goal, task or identity… conventionally associated with the institution" (Koester 2006:3).

2.4.2. "Special and particular constraints on what one or both participants will treat as allowable contributions to the business at hand" (Koester 2006:3).

2.4.3. "Inferential frameworks and procedures that are specific to institutional contexts" (Koester 2006:4).

The first distinction, being the participant's goal orientation, is reflected in a number of features of the workplace; for example, in the recurrence of particular types of discursive activity which can be associated with specific workplace practices, such as decision making, giving instructions or briefing (Koester 2006:4). Institutional encounters also have a 'structural organisation' consisting of various phases, each phase plays as role in the overall goal of encounter (Koester 2006:4). Task-orientated talk tends to be more structured than talk between participants who are not focused on a specific workplace task, there is also always an initiator announcing the purpose of the encounter (Koester 2006:4). This could either be the IT role player or top management or, as we see in this study, the researcher announcing the purpose of the encounter, when asking for content and discussing the ICF's.

Another way institutional talk differs from ordinary conversation (Heritage 1997) is that institutional interactions are often asymmetrical whereas 'casual' talk is symmetrical. For the person with the knowledge (the professional) the encounter is often routine, whereas for the lay person the encounter is new and access to expert knowledge is often unequal. Therefore in professional and workplace interaction participants may take on particular asymmetrical institutional roles (Koester 2006:5). In this study the IT role player would, in this case, be the person with the knowledge, as the topic of discourse is IT related matters, therefore top management is the 'lay person'. This makes their encounters asymmetrical from an expertise point of view. However at the same time the top management is usually the IT decision maker, and is the person with the most power in the encounter, as they are the person with the most institutional workplace knowledge. Even though IT role players may have the expert knowledge in the operational aspects of IT, they still lack the experience and strategic knowledge on how their company's goals are aligned throughout the company from a strategic point of view therefore; the encounter is asymmetrical from a power-relation point of view. Koester (2006:11), also notes that there are various mythological issues that need to be addressed when looking at the approaches to analysing workplace discourse. Isaksson, 2005 in Gunnarsson (2009:242) states that "in modern organisations, top managements

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devote a great deal of time to creating mission statements and organizational visions". A study conducted by Johannsson (2003) presented a case study which probed into the problem of how a "top-down communication strategy does not always lead to the same message permeating the whole organisation, and organisational visions are not infrequently interpreted by employees as unintelligible and insignificant" (Gunnarsson 2009:242). Johansson found that top management visions met different realities constructed by managers at a lower level, the managers' individual attitudes, knowledge and interpretations contributed in that they influenced communication about the strategy (Gunnersson 2009:242). Whereas the employees (these could be the IT role players) did not have the same detailed knowledge as the top managers has regarding the strategy and were not given the chance to acquire it. The above study illustrates how "power structures, conflicts individual attitudes and perspectives contribute to the successive distortion of top managements visions" (Gunnersson 2009:242). This could be a potential factor to consider in identifying as to whether or not the perceived communication gap between top management and IT role players does in fact exist.

One distinguishing feature of institutional talk is that it is difficult for an outsider (in this case the researcher) to understand exactly what people are talking about (Koester 2006:11).The researcher often lacks the relevant background information or 'context' to make sense of the discourse. As Koester (2006:11), states it is no easy task in defining what kind of background knowledge is relevant but it can be defined as the "actual physical and institutional setting or more broadly in terms of the larger socio-cultural context of the speaker and hearer world, this provides a backdrop to the encounter". One way the researcher overcame this problem was to conduct a fair amount of research on the history of the company being interviewed and to find out whether the company had an in-house IT role-player or outsourced their IT.

A number of methods are used in analysing workplace discourse these include a form of discourse analysis, which is used in talk-in-interaction, genre analysis, ethnography of communication. Furthermore, workplace data can also benefit from the use of quantitative methods provided by the corpus linguistic approach (Koester 2006:15-17). Another dominant method used in analysing workplace discourse is that of conversational discourse, which takes a different approach to context (Koester 2006:15).

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2.5 IT and discourse

The idea that "discourse and IT are intimately related is not a new perception", (LeVine and Scollon 2004:1). Discourse analysis is in many ways a product of technological change (LeVine and Scollon 2004:1). We use technology in multiple ways, when discourse was emerging as a subject of linguistic research, discourse in the form of spoken language was captured with use of a digital tape recorder.

Discourse[4] refers to "a form of language use, such spoken language which people use to communicate their ideas and thoughts "(van Dijk 1985:1). Van Dijk (1985:4) points out that there are three concepts of discourse, firstly that of language use, secondly, communication beliefs and lastly, interaction in social situations. For this study we are interested in what the participants have to say about how they interact in institutional situations when discussing the matter of IT.

Discourse research can be further divided into two types of inquiry; discourse as a structural approach and discourse as social interaction. The structural approach includes the questions to why some and not other linguistic forms are used (He 2003:429), and the second asks the question; what are the linguistic resources for accomplishing various social, affective and cognitive actions and interactions (He 2003:429). An important notion of discourse of spoken and written discourse is that of communication competence; "this not only involves knowing a language but also what to say to whom and what is regarded as appropriate in the particular setting, this involves taking into account the social and cultural settings in which the speakers/writing occur" (Paltridge 2006: 6).

The term discourse analysis was first introduced by Harris in 1952 as a way of analysing connected speech and writing (Paltridge 2006:2). He had two interests the first was examining language beyond the level of the sentence, and the second was to investigate the relationship between the linguistic and non-linguistic behaviour. As van Dijk (1985:4) states "Discourse analysis is committed to investigating what language is used for".

According to He (2003:428), "discourse analysis is concerned with the context in and the processes through which we use oral and written language to specific audiences, for specific purposes, in specific settings". According to Paltrige (2006:3) discourse analysis "considers

[4] He (2003:428) states that "the term "discourse" is used by many in very different senses, some having little to do with language" therefore; discourse is defined in many different ways.

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the relationships between the context in which it is used and is concerned with the description and analysis of both spoken and written interactions. Discourse analysis sometimes also uses language to discuss aspects of language use in the area of pragmatics[5]".

Discourse analysis "seeks to describe and explain linguistic phenomena in terms of the affective, cognitive, structural and cultural contexts of their use and identify linguistic resources through which we reconstruct our life, our identity, role activity, community, emotion stance, knowledge, belief ideology and so forth" (He 2003:429). Put simply – discourse analysis is interested in how we organise what we say in the sense of what we would say first, and what we say next, whether we are having a conversation with a friend, college, writing a book or even typing up an email.

Discourse analysis also provides us with insights to identify the everyday manifestations and displays of social issues in communication and interaction (van Dijk 1985:7). In order to be able to give a holistic view of a communicative interaction, van Dijk (1985:5), discusses this point further stating that "we need to identify how discourse details serve as a function in the creation, the maintenance, or the change of such contextual constraints as the dominance, the power, the status, or the ethnocentrism of one of the participants".

Focusing on the contextual constraint of power, analysis of discourse in an institution/workplace can hardly be called complete if we do not show how top management (in this case) displays power[6] and exerts control (van Dijk 1985:5). When we talk about power we are talking about relationships between employers (top management) and employees (IT role players), features of the relationships include those that contribute to having or not having power are remarkably diverse (van Dijk 1985:61).

Van Dijk (1985:61), carries on with this argument stating that these 'power' relationships are not natural and are artificial socially constructed inter-subjective realities. "Not only is it used to enforce and exploit existing positions of authority and privilege in obvious ways (commands, regulations, etc.); the use of language continuously constitutes the statuses and roles upon which people base their claims to expert power, and the statues and roles which seem to require subservience" (van Dijk 1985:61-62). There are various methods of discourse analysis, "discourse analysis has discourse as its prime object of study, and through it may

[5] Pragmatics is a field with in linguistic that is concerned with what is meant by sentences uttered and not by what the words in their literal sense mean (Paltrige 2006:3).
[6] Power is defined by van Dijk (1985:61), as "the ability of people and institutions to control behaviour and the material lives of others".

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take excursions into different fields, must always be careful to return to the main concern" (Cook 1989:13). Looking at Gee's (1999:5) work on discourse analysis, he mentions that different approaches fit different issues, and different approaches sometimes reach similar conclusions using different tools.

The methodology employed in this study does not focus on all the linguistic approaches to discourse analysis, some of which might for example focus on aspects such as phonology, morphology, syntax, but rather focuses on a particular semantic approach to analysing discourse.

2.6 Conclusion

As mentioned previously 'IT can be seen as an intergroup (a culture so to speak) whereas top management is viewed as the outergroup. A way of looking at the cultural ways of speaking and writing is through the notion of discourse competence (Bhatia 2004). Discourse competence according to Platridge (2006:7), "draws together the notion of textual competence, generic competence and social competence".

It is important to note that this study focuses on semantic approach of discourse analysis, however, we must bear in mind that the social competence of discourse needs to be taken into consideration as it describes how we use language to interact in social encounters, in this case 'workplace' situations in a way that enables us (the researcher and the participants) to express our social identity within the constraints of the particular social situation and communication interaction, whether between the researcher and participant being interviewed or the interaction the participant is discussing with researcher, about how he/she interacts with their IT role player or their top management. In the following chapter we will discuss the theoretical framework of semantic discourse analysis and the notion of discourse topic to provide us with the tools to interpret linguist texts.

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Chapter 3: Theoretical framework

3.1 Introduction

The previous chapter looked at the importance of IT and how it has enabled people to communicate with one another through various technologies such as Skype, email and instant messaging from all over the world, promoting intercultural communication. It also touched on previous linguistic studies that were carried out on IT jargon and how this creates an 'intergroup' and 'outergroup' relationship between people who are able to understand the jargon and those who are not. Another aspect discussed was how IT and discourse are related and the different methods with which one is able to analyse discourse in the workplace. This chapter will give us a detailed view of the specific theoretical framework, namely discourse analysis, used by the researcher in order to analyse the discussions between the researcher herself and the participants in the study.

3.2 Analysis of discourse

The analysis of discourse is essentially the analysis of language in use (Brown and Yule 1983:1). In order to analyse the discourse of the participants, data was taken from tape-recorded interviews and transcribed; we will see in chapter 5 that these utterances are rarely in the form of a single sentence, unlike the data used in grammatical theory analyses. This type of linguistic material is sometimes described as performance data and may contain features such as hesitations, slips of the tongue and non-standard forms, which theoretical linguists like Chomsky believe should not have to be accounted for in the grammar of a language (Brown and Yule 1983:20). However, the data obtained from these transcriptions cannot be considered in isolation from the descriptions and insights provided by theoretical accounts of grammar (Brown and Yule 1983:20).

In recent years the 'idea' that a sentence can be fully analysed without taking 'context' into account has been seriously questioned (Brown and Yule 1983:25). When analysing discourse Brown and Yule (1983:27) note that context in which a piece of discourse occurs needs to be taken into account. Since the 1970's linguists have been interested in the importance of context in the interpretation of sentences. A number of models have been developed to describe context in the different discourse analysis approaches. A tradition which has

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impacted the approach to context owes its origins to the notion of 'context of situation' which was developed by Malinowski, he believed that the context of the situation is "indispensible for the understanding of the utterance" (He 2003:432). This notion was later elaborated on by Firth (a British linguist) who pointed out that the context for situation entails the following dimensions: the relevant features of the participant, the relevant objects and the effect of verbal action (He 2003:432). Halliday (1985) and his colleges developed this idea even further detailing that context is represented as a complex of three dimensions field, tenor and mode. While this will be dealt with in much more detail in chapter 5, it is possible to define "field" as "a social action in which discourse is imbedded", "tenor" as a set of role relations among the participants, including status roles and whether is it's a permanent or temporary relationship, and "mode" as the role of language in the interaction (He 2003:432). He (2003:432) states that "in this view, language is a system of choices, made on the basis of contextual configurations which accounts for field, tenor and mode".

In order to be able to interpret and analyse a piece of discourse it is necessary to know who the speakers and hearers are as well as the time, place and production. As the researcher does not have direct access to a speaker's intended meaning in producing an utterance, the researcher therefore has to rely on a process of inference to arrive at an interpretation for utterances or connections between utterances (Brown and Yule 1983:33). Discourse analysis is concerned with what people using language are doing and accounts for the linguistic features in the discourse as the means employed in what they are doing (Brown and Yule 1983:26). Brown and Yule (1983:225), isolate three aspects of the process of interpreting a speakers/writers intended meaning in produced discourse. These aspects are: computing the communicative function (how to take the message), using socio-cultural knowledge (facts about the world) and determining inferences to be made.

According to Brown and Yule (1983:26), a discourse analyst "treats their data as the record (text) of a dynamic process in which language was used as an instrument of communication in a context by a speaker/ writer to express meanings and achieve intentions (discourses)".

This study is concerned with describing the linguistic means used by people to communicate those meanings and interactions and what the participants say on a literal level about how they communicate with either their top manager or IT role-player concerning the topic of IT and how they interpret IT. In order to identify whether a communication gap exists between top management and IT and, if so, why, semantic discourse analysis is used.

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3.3 Semantic discourse analysis

Van Dijk (1985:1) points out that there are various methods of discourse analysis. These discourse analysis methods are categorised firstly along the usual levels of grammatical descriptions in linguistics such as phonology, morphology, lexicon, syntax and semantics. The second dimension of analysis, at the boundary of linguistics and other disciplines, includes pragmatics, analysis of argumentation, narrative and nonverbal communication. Van Dijk (1985) states that "discourse analysis as an independent discipline has borrowed descriptive frameworks and methods/techniques of analysis from other disciplines".

Before specifying how to give a semantic analysis of discourse, van Dijk (1985:103) points out that we first have to define what the semantic approach is and what kinds of semantic analysis can be distinguished. Van Dijk (1985:103) defines semantics as "a component theory within a larger semiotic theory about meaningful, symbolic behaviour". Due the scope of this study only the semantics of natural language utterances (discourse and the component elements, words, phrases, clause sentences, paragraphs and identifiable discourse units) will be discussed. Van Dijk (1985:103) identifies the most general concept used to denote the specific object of the semantic theory as being the concept of interpretation. He further categorises 'interpretation' into two specific types, that of 'abstract' interpretation, as found in grammatical theories and 'concrete' interpretation, as found in cognitive models.

Abstract and concrete interpretations are not unrelated; van Dijk (1985:104) states that "an abstract linguistic (grammatical) semantics usually has empirical claims that it intends to model at least some aspects of concrete interpretations of language users as they are accounted for in psychological models". Van Dijk (1985) discusses this in further detail stating that the interpretation of discourse, as it is to be explained in semantic theory of discourse, is the assignment, to (linguistic) expressions, of meanings, which are "conceptual objects of various degrees of complexity, depending on the complexity of the corresponding expressions" (van Dijk 1985:104). This interpretation is referred to as "intensional". "To provide an extensional interpretation of discourse is to specify what such discourse is about, that is, the individuals, properties or state of affairs that constitute its various referents in some formal model of a possible world" (van Dijk 1985:104). In order to interpret discourse (that is, to assign meanings) we therefore also need to have a fair amount of world knowledge (van Dijk 1985:105).

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Language users gradually build up a knowledge of information about facts, this could be done through reading discourse or listening to some type of discourse. This knowledge is then stored in date models of situations in episodes of memory (van Dijk 1985:106). These models provide knowledge and referential basis for the interpretation process (van Dijk 1985:107).

According to van Dijk (1985:107), "Individual language users may also generate opinions, that is, evaluative beliefs, about individual objects or facts, based on their attitudes and ideologies".

Looking at van Dijk's (1995:243) work on discourse semantics and ideology, he examines the ways ideologies articulate themselves at the level of discourse meaning. Van Dijk (1995:243), states that "if it is assumed that ideologies are preferably produced and reproduced in societies through forms of text and talk of social actors as group members, it seems plausible that some semantic structures are more effective than others".

According to van Dijk (1995:256), among the various levels of discourse of which ideologies may be seen to manifest themselves, the level of meaning and reference plays a central role. The theoretical assumptions and analyses in van Dijk's (1995:256-283) work suggests that when interlocutors communicate with one another, what they say and the meanings attached to what they say (discourse) is liable to embody opinions that derive from their underlying ideologies. It must be noted that although ideologies need to be taken into consideration when analysing discourse and will be briefly discussed in chapter 5, the scope of this study allows us to only focus on the major components of semantic discourse analysis.

Van Dijk (1995:283), states that "from the rather straightforward level of lexicalization, to the more complex structures of propositions, implication or coherence relations between propositions as well as overall meanings or topics, representations of persons and events in underlying mental models may transmit group-based evaluations to semantic structures of discourse". This will be discussed further in chapter 5.

The representation of discourse will therefore be both objective and subjective. Subjective interpretation will depend on contextual factors such as personal motives or social aspects of the communication setting, as discussed above. These factors will therefore determine which meanings will be accepted by individual language users and which will be ignored.

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3.4 Cohesion, coherence and information distribution

Notions which are relevant in semantic interpretation are coherence, cohesion and information distribution. World knowledge, beliefs, attitudes, interests and goals of speech may vary from one participant to another. Participants also assign different global meanings to some discourse as they have different evaluations about what is the relevant or important information for the discourse and the communication context as a whole (van Dijk 1985:117).

Even with individual and subjective variation, however, there is still enough overlap to generate successful communication and interaction.

Discourse semantics should be both intensional and extensional and should also be about meaning and reference (van Dijk 1985:105). Van Dijk (1985:105) identifies two aspects of semantic discourse analysis; the first aspect is to "investigate how sequences of sentences of a discourse are related to sequences of underlying propositions" and secondly "how the meaning of such sequences of underlying propositions is a function of the meaning of the constituent sentence or proposition". At the same time, semantic discourse analysis has an extensional referential dimension, we want to know what sequence of sentences in discourse can refer to (van Dijk 1985:105).

Semantic theories contain the following six notions: interpretation, meaning, reference intension, extension, truth values/ facts. The main aim of such theories is to specify the rules, whereby meaning units such as propositions are assigned to natural or formal language expressions (van Dijk 1985:106).

There are also a number of aspects of meaning and reference of discourse that cannot be described in terms of the meanings of words, phrases or sentences. The first aspect to consider is the fact that discourse usually consists of sequences of sentences that express sequences of propositions. We don't only need to know how meaning of words and phrases within a sentence are related, we also need to be aware and find out how the meanings of sentences are related, as to form the meaning as a whole. An important point van Dijk (1985:108) makes is that sentences follow each other in a linear fashion. However, discourse is not just a set of sequences but rather an ordered sequence, with conventional constraints on the possible ordering, if it is to be meaningful and if it is to represent certain fact structure such as episodes. Van Dijk (1985) carries on his discussion, proclaiming that "the proposition

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sequence underlying an acceptable discourse must satisfy various conditions of what is called coherence". Other terms have been used to denote semantic relationships defining unity of discourse such as "cohesion" or "connectedness". This connection is used as a particular aspect of coherence; it is the "local linear semantic relationship between subsequent propositions" (van Dijk 1985).

Coherence is defined as a research field with in discourse analysis, which is applied to the interpretation of the attached transcripts which are discussed in chapter 5 of the data analysis.

Another research field of discourse analysis is that of cohesion which will be discussed further in this chapter. Three additional research fields found within discourse analysis include: information structure[7], grounding[8] and discourse types and genres[9] (Verschveren, Ostman and Blommaert 1995:242).

Due to the nature and scope of this research study, only cohesion and coherence will be discussed in further detail, as these are the two theoretical notions used in the data analysis and are most relevant in semantic discourse analysis. Cohesion, according to Verschveren, Ostman and Blommaert (1995:243), is concerned with the question of how sentences and propositions are explicitly linked together with different kinds of overt ties. Not all the relations among various parts of discourse are marked with specific kinds of cohesive devices, we all have a background knowledge of some kind that we have gained either through past discourse episodes, our community or our culture and we are reliant on that knowledge to be able to interpret and understand our interlocutor, even if certain pieces of information are missing. This implicit textuality is usually referred to as coherence (He, 2003:243).

The distinction between cohesion and coherence is a fairly large one, cohesion is said to be a characteristic of discourse as a product, and coherence, as mentioned previously, is connected with interpretability (Verschveren, Ostman and Blommaert 1995:243).

[7] Information structure is a research field with in discourse analysis which looks at why some word orders in sentences are better than a sentence with a slightly different word order, (see Brown and Yule 1983:153-188 on the concepts and background).
[8] Grounding helps identify what parts of discourse are more important than others (Verschveren, Ostman and Blommaert 1995:242).
[9] Discourse types and genres is an area that has traditionally been part of the study of literature, however we are seeing it play a part in discourse analysis, it is crucial to pay attention to variation in terms of discourse types and genres otherwise there is a risk of uncontrolled comparisons, which may affect the results of an investigation (Verschveren, Ostman and Blommaert 1995:242).

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Cohesive devises include, repetition of an item, synonymy, antonym, hyponymy, comparisons, conjunctions, ellipsis, etc. these cohesive ties link together parts of texts and thus connects text as a whole (Verschveren, Ostman and Blommaert 1995:243).

The distinction between cohesion and coherence, according to Verschveren, Ostman and Blommaert (1995:244), is said to "only be upheld in theory and the concepts are convenient tools for discourse analysis". Furthermore, "all elements in a sentence ultimately contribute in some way overtly or covertly to the textuality of discourse making it look as coherent whole" (Verschveren, Ostman and Blommaert 1995:244).

Verschveren, Ostman and Blommaert (1995:244) discuss six approaches to address the question of how coherence could possibly be explained: one way to address these issues is the help of micro-level analyses, explaining what happens when two sentences are combined. This approach is seen in the work of Sperber and Wilson's relevance theory. A second approach to coherence is to systematise and further develop ideas brought forth in the tradition of argumentation and rhetoric. A third set of approaches challenge coherence by focusing on the interactive properties of discourse analysis in conversational analysis. Coherence can be explained through adjacency pairs such as turn-taking. A fourth approach argues that in order to understand and adequately interpret a text the receiver has to build up a particular frame of reference for it, a schema that organizes the ensuing discourse. Another attempt at coming to terms with the concept of coherence is to use notions like 'implications', 'negotiation' and 'adaptability' as explicatory tools in relation to concepts of inference and context. And the last approach is that of van Dijk's (1977, 1980) model of macrostructures[10].

Cook (1989:28) discusses how some stretches of language are coherent while others are not; and how sentence can have different functions (meanings) attached to them. Cook (1989:28), also states that "it is quite usual for an utterance to perform more than one function at once", therefore the meaning of a sentence or discourse varies with the context.

Van Dijk (1985:115) categorises coherence into three different types: conditional coherence, functional coherence and global coherence (macrostructures). Conditional and functional coherence are grouped together under the term "local coherence".

[10] Macrostructures are based on a summary of the content of discourse and can be recursively reduced to finally yield on one macro position.

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Some conditions of local coherence according to van Dijk (1985:109) include: when analysing a sentence, the object must be introduced before the propositions, such as 'contents', can be properly specified, this results in the sentence being meaningful and one is able to understand the facts. Conditional coherence can be seen when the sentence ordering in discourse may indicate the use of sentences as an explanation. On the other hand functional coherence is "simply signalled by clause or sentence coordination and subordination" (van Dijk 1985:112). Van Dijk (1985:110) states that "a sequence of propositions is conditionally coherent if it denotes a sequence of conditionally related facts, such as causes and consequences, whereas a sequence of propositions is functionally coherent if the respective propositions have themselves a semantic function defined in terms of the relation with various propositions", simplified functional coherence is formed out of conditional coherence. Van Dijk (1985:112) shows that there are rules and strategies for ordering sentences and expressing spatial temporal and conditional relations between propositions and fact. Furthermore, he notes that coherence should always be defined in terms of full propositions and the facts that denote them and that coherence is relative to the world knowledge of the speaker and the hearer.

The second aspect of semantics of discourse involved in the definition of coherence is that discourse is "not simply a representation of facts" (van Dijk 1985:112) but must respect various information processing constraints from both cognitive and social points of view. "Used in social contexts, discourses are performed as speech act sequences and their first function is to establish some kind of pragmatic representation in the memory of the hearer/reader" (van Dijk 1985:113).

Discourse, according to van Dijk (1985:113), should represent a number of communication principles:

3.4.1 Discourse should have enough information

3.4.2 It should be relevant with respect to the topic of discourse or conversation

3.4.3 It should be brief and clear

3.4.4 The reader should be able to relate each sentence to previous and possibly following sentences as well as to the context and about the world

3.4.5 Each point of discourse should have some new information, which may be textual or contextual

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The third aspect of discourse semantics is that of global coherence. Besides local semantic structures, discourse also has a global semantic structure (a macrostructure). Van Dijk (1985:115) defines a macrostructure as a "theoretical reconstruction of intuitive notions such as topic or theme of a discourse".

Van Dijk (1985:115) argues that "the meaningfulness of discourse resides not only at this local (or microstructural) level of immediate clause and sentence connections but also at a global level". This means we are able to explain the properties of meaning of larger fragments of discourse such as paragraphs (van Dijk 1985:115). Sentences will be connected appropriated according to local coherence criteria; however, these sentences would not be of meaning without some constraint on what the discourse should be about globally. The macrostructure is therefore the semantic information that provides overall unity to a discourse; this will be discussed in much more detail in chapter 5. A similar approach to that of van Dijk's macrostructures can be found in Brown and Yule's (1983) notion of discourse topic which is essential to the concepts of relevance and coherence. Speakers and writers have topics not texts (Brown and Yule 1983:68).

3.5 Topic and Themes

According to Brown and Yule (1983:70), "the notion of topic is clearly an intuitively satisfactory way of describing the unifying principle which makes one stretch of discourse 'about' something and the next stretch about something else". It helps us distinguish between what one stretch of discourse is about from another.

One use of the term "topic" is associated with the description of sentence structure. Brown and Yule point out (1983:70) that according to Hockett (1958), a distinction can be made between topic and comment; in a sentence a speaker will announce something (topic) and will say something about it (comment). In the analysis of the data in chapter 5, the researcher is not interested in considering 'topic' as a grammatical constituent of any kind but rather the general pretheoretical notion of topic, as is unlikely to be identified as one part of a sentence.

Keenana and Schiffrin (1976) attempt to distinguish their notion of topic from the "sentential topic" used in grammatical theory and use the term "discourse topic". The implication in their study is that there must be, for any fragment of conversational discourse, a single proposition that represents the discourse topic as a whole. It is difficult to determine the topic of a text,

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what is being talked about, as this will be judged differently by different points of view and the participants themselves might have different views about what each of them are talking about. A topic is therefore only one possible paraphrase of a sequence of utterances. What is required is a characterisation of a topic that would allow each of the possible expressions to be a potentially correct characterisation of the topic. These characterisations can then be developed into a topic framework.

From the content or the text analysis, we can, in principle, determine what aspects of the context are explicitly reflected in the text as the formal record of the utterance. The aspects of context which are reflected in the text, and which are needed to interpret text, are referred to as activated features of context (Brown and Yule 1983:75). These features constitute the contextual framework within which the topic is constituted.

Brown and Yule's (1983:79) topic framework is constituted from "general knowledge, from the situative context of the discourse and from the completed part of the discourse itself" (Brown and Yule 1983:79).

The topic framework represents the area of overlap in the knowledge which has been achieved and is shared by participants at a particular stage in a discourse (Brown and Yule 1983:83). Once the elements in the topic framework and the interrelations between them have been identified the analyst has some basis for making interpretations with regard to conversational contribution.

Making a contribution relevant with regard to the existing topic framework can be captured in the expression 'speaker topicality'.

We must however also be aware that the speakers here have different personal topics and must take both conversational and speaker's topic into consideration when analysing what the speaker is saying (Brown and Yule 1983:88). Each speaker whether top management, the IT role player or the researcher will expresses a personal topic within a topic framework of the conversation as a whole (opinion) and this may become the new topic of a conversation (Brown and Yule 1983:88). Another relevant point to keep in mind is that in discourses there may be topic shifts where the topic moves from one topic to the next. The way speakers mark topic shifts are structural units in discourse which take the form of speech paragraphs called 'paratones' (Brown and Yule 1983:101).

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The occurrence of different types of discourse fillers such as *well*, *mmm*, *er* etc. are known to happen together with the topic shift, instances of these can be seen in all the attached transcriptions. In the work of Brown and Yule (1983:108), they mention van Dijk's macrostructures, discussed above. According to them, the macrostructure of a text defines the meaning of parts of the discourse, and the whole discourse, on the basis of meanings of the individual sentences (van Dijk 1977:16).

As we have already discussed the notion, 'topic' we will move onto the notion of the theme. The notion of the theme was develop by a European linguistic tradition known as the Prague School (He 2003:435). The term "theme" refers to a formal category, namely the left most constituent of the sentence (Brown and Yule 1983:126). Each sentence has a theme which is the starting point of an utterance, and a rheme which includes the information that follows. This is similar to the notion of the topic and comment as mentioned above (Brown and Yule 1983:126). According to Halliday (1967:212) the theme is "what the speakers use as their point of departure" (Brown and Yule 1983:313). Thematisation on the other hand looks at stretches longer than a sentence, what the speakers says first will influence everything that follows (Brown and Yule 1983:133).

We also find theme used sometimes to refer to the grammatical subject of a series of sentences, as in the remark by Katz (1980:26) in Brown and Yule (1983:133): "the notion of discourse topic is that of the common theme of the previous sentence in the discourse, the topic carried from sentence to sentence as the subject of their prediction"

What is important to keep in mind is that real interpretation does not proceed only by working from one unit to another by systematic rules, language users apply effective strategies to arrive as soon as possible at the intended interpretation, making use of textual, contextual and cognitive information at the same time (van Dijk 1985:118).

Interlocutors are permanently interpreting on-going talk that is a current turn or move of another speaker, with the goals of systematically linking this turn to their own previous contributions to the conversation and acquiring the information needed to make the next move in the conversation. This means that local semantic coherence assignment can be both backwards as well as forwards (van Dijk 1985:118).

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3.6 Semantic strategies

As mentioned above, when interlocutors are interpreting on-going talk, van Dijk (1985:118) states that "at the same time though, an actual speaker in such a conversation must monitor his or her own contribution to the conversation for its semantic coherence with previous turns of previous speaker(s) and must probably also anticipate possible interpretations by the hearer". This gives us an idea of how a speaker and a hearer in a conversational setting will follow both the rules of local and global coherence as well as various other effective strategies such as: cognitive and social strategies, conversational strategies, production strategies, semantic strategies and interactional strategies; these will be discussed in further detail in chapter 5.

The cognitive and social strategies that speakers and hearers use may involve interpretive short cuts or trying to puzzle out why the other speaker may be apparently speaking out of topic or makes some move that seems inconsistent with the previous one. These are called "conversational interpretation strategies" (van Dijk 1985: 118). According to van Dijk (1985:118) speakers also use production strategies to remain coherent and to motivate apparent deviations from coherence principles. The same on-going topic (macrostructure) may be interrupted for a personal or contextual reason, however, this should be signalled in the surface structure and the turn. Anticipating semantic strategies are also used, for example, when the speaker is expressing a proposition, they may realise that the interlocutor might be drawing a different conclusion, if this is not intended, the speaker may use a strategy to block such an inference, with words like *but*, etc. (van Dijk 1985:118). In discourse where participants are particularly interested in avoiding the wrong inferences, a 'hedging' strategy may be used (van Dijk 1985:119). Such semantic strategies are part of the overall communication and interactional strategies used to maintain and establish certain goals such as face keeping and self-presentation.

Another issue that needs to be addressed in discourse analysis is how language users contribute to our social, cultural and intellectual and emotional life (He 2003:438). There have been numerous studies carried out on how institutional activities are communicated linguistically. One question that is relevant to this study is "how are institutional (workplace) activities accomplished through verbal and nonverbal interaction?"(He 2003:438). In addition to the above mentioned concepts and notions we need to examine how identities are

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reconstructed linguistically, what the purpose of the interaction would be and how is the institutional knowledge of the participant's exhibited and the affective stance they project.

According to van Dijk (1985:131) there are seven conclusions that can be drawn up about the nature of semantic discourse analysis which are:

3.6.1 Without any semantic macrostructure (or topic) there will be no coherence in the discourse paragraph therefore there will be no point to the discourse.

3.6.2 Local coherence of discourse according to van Dijk (1985:131) "is to be formulated in terms of propositional relationships denoting relations between facts in some possible world".

3.6.3 Sentences and propositions have general ordering constraints to account for.

3.6.4 Both local and global coherence of discourse have surface cohesion markers, these included, pronouns, pro-verbs, lexical identity, articles, etc.

3.6.5 According to van Dijk (1985:132) local coherence "can also serve various pragmatic, stylistic and rhetorical functions such as linking speak acts…").

3.6.6 Each clause and sentence has a function in a communication sequence, when communicative partners are discussing a topic, some information may be already know (old information) whereas some may be new, thus "the topic- comment schema is imposed on the semantic representation of sentences and expressions depending on the language, context,..." (van Dijk 1985:132).

3.6.7 Lastly semantic discourse analysis is highly abstract and does not take into account sociocultural context. (These points are illustrated in figure 3.1).

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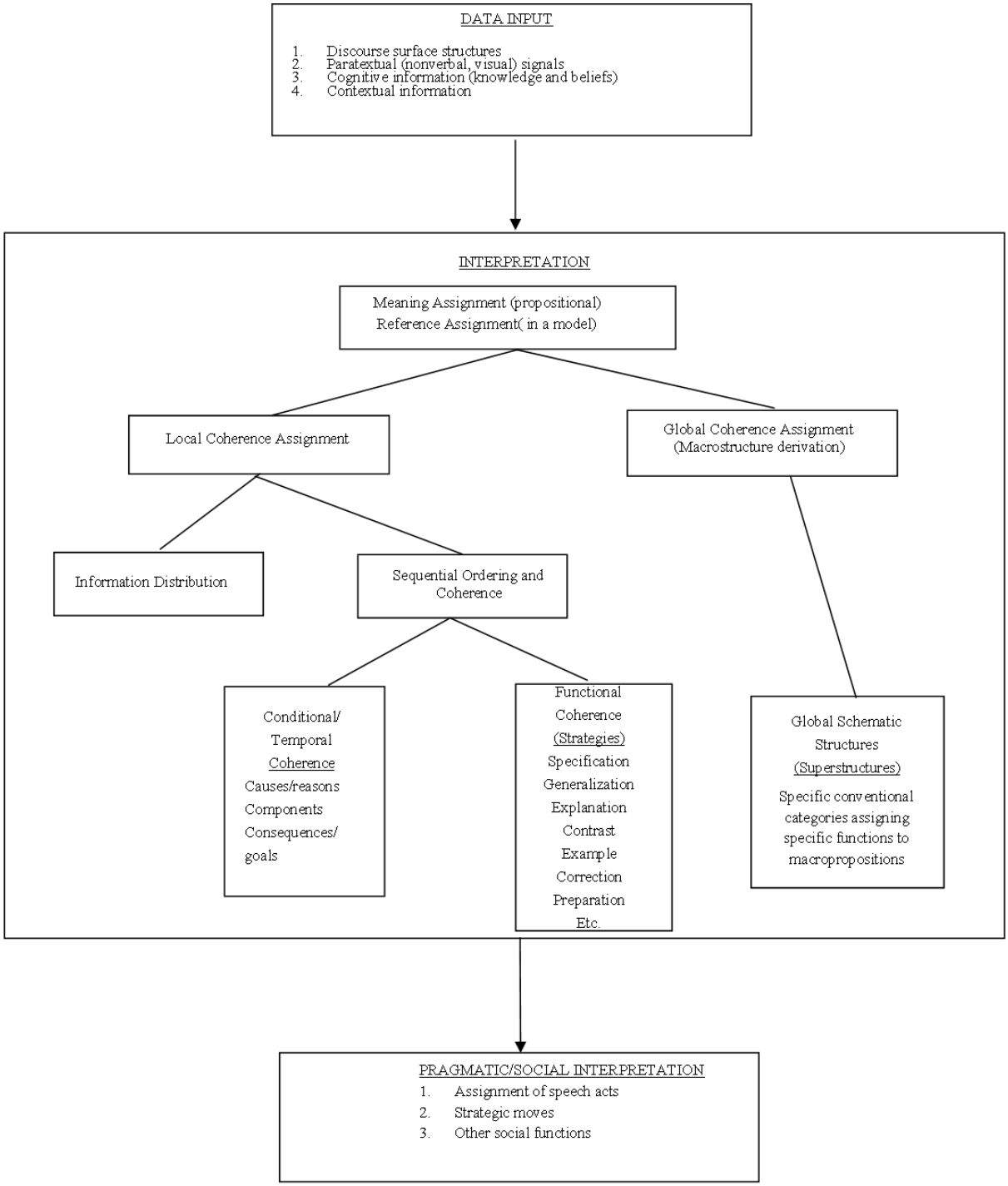

Figure 3.1 Major components of semantic discourse analysis (van Dijk 1985:133).

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3.7 Conclusion

Discourse analysis considers both text and context as crucial to the analysis of an utterance (Schiffrin 1994:383). In semantic discourse analysis, the inclusion of text as context seems unavoidable. This study uses such perspectives to analyse how adjacent utterances contribute to the communication context of one another (Schiffrin 1994:383).

The following chapter will discuss how the above mentioned approaches and notions are used in order to analyse the transcribed interviews between the researcher and the participants in the study, we will be looking specifically at the context of the situation, the topics, the themes and how the participants interpret the questions being asked.

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Chapter 4: Methodology

4.1 Introduction

The previous two chapters presented an examination of the relevant literature and a discussion of the theoretical framework of the study, respectively. This chapter deals with the research methodology of the study, including the selection of the participants, the research methods used and the means of data collection.

The objectives of this study were to identify to what extent top management of SME's engage with the discourse of IT and what the reasons are for their participation or lack thereof in IT discourse. In order to achieve these objectives, data was collected in the form of semi-structured interviews with IT role players and representatives of top management. Semi-structured interviews are used in qualitative research in order to "conduct exploratory discussions not only to reveal and understand the 'what' and the 'how' but also to place more emphasis on exploring the 'why'" (Sander *et al*. 2000:245).

Qualitative research aims to gather an in-depth understanding of human behaviour and the reasons for the behaviour. In order to determine the extent of top management's engagement with IT and understand the reasons for their (lack of) participation, the data elicited from the interviews was analysed using a discourse analysis approach.

4.2 Participant Selection

The participants were selected from ten small to medium sized enterprises (SMEs). These companies were chosen on the basis of whether they had an IT department, IT Manager, or outsource their IT, and identified through the researcher's experience in the IT industry in the greater Cape Town area. Ten IT role-players and ten directors/managers who have IT as part of their portfolio at these companies were approached and asked to participate. All companies selected rely heavily on IT for their business to function optimally. The researcher selected SMEs (companies with thirty to two hundred and fifty PC users) to work with for two specific reasons: firstly, in SMEs the directors/ managers are forced to get involved with IT on both an operation and strategic level, and secondly, the researcher had a greater chance of being able to interview a participant in a top management position in such companies.

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Six of the companies selected were current clients, while four were potential clients, of an outsourced IT support company based in Stellenbosch, at which the researcher is employed. Out of the ten companies selected, three of these companies outsourced all of their IT needs; three had both an internal IT contact employed at the company as well as outsourced a portion of their IT needs; two of the companies outsourced their IT but had a outsource person acting as their internal IT (person/ department) and the remaining two companies had only internal IT. The companies chosen were selected from different industries, see Table 4.1 below, as this provides credibility to the research, i.e. if a communication gap between IT and business does exist, it can be found in all companies and not just in selected industries.

Company	**Industry**
A	Auditing
B	Information technology
C	Financial
D	NPO
E	Tourism
F	Manufacturing
G	Financial
H	Auditing
I	Engineering
J	Retail

Table 4.1 Company associated industry

The researcher had considered, in the developmental stage of the research proposal, that clients of her current employer might feel uneasy about declining the offer to participate in the study. In order to overcome this potential discomfort, the request for participation was made via an employee of the researcher's company who has a relationship with the specific client, but who has no vested interest in the research (as the research does not have any connection to the company itself (see attached ICF's in Appendix A and B). Only if the client agreed to participant in the study did the researcher contact the client directly to set up a potential time to meet in order to conduct the research. It was felt that the clients would feel more able to decline the request if they were aware that the individual from the company approaching them did not have a vested interest in whether the client agreed, or declined the request to participant in the study. Both participants who were clients of the researcher's

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employer and who had agreed to be part of this research study and participants who were potential clients of the researcher's employer were contacted telephonically. This was done in order to set up a meeting to conduct the interviews for the research study.

4.3 Participant Characteristics

For the participants to remain anonymous, as confidentiality is of utmost importance to avoid any conflicts of interest between the researcher and her current employer, the participants are identified using alphabetic letters. Higher case letters were given to top management and the same letters in lower case were given to their IT role-player; this helps the reader to follow where the researcher has identified specific communication gaps in IT discourse between a participant in a top management position and their IT role-player. As all interviews were conducted by the researcher, the letter N, in higher case, indicates the researcher.

All the top management participants were in a senior management position in their company, while all the IT role-players that participated in the research study were in a junior to mid-level position. The top management who participated in the study and who were the decision makers for the IT in their companies had the following job titles: Financial Director, Managing Director, Partner, Joint Partner, Financial Manager, ICT Manager. The job titles of the IT role players included: Office Manager, Virtual Network Administrator, IT Administrator, Software Developer, Virtual Chief Information Officer, IT manager, Network Operations Manager, and Solution Consultant.

All the participants in top management positions had some form of tertiary education, while only six of the IT role-players had the same level of education.

South Africa is a multilingual country with eleven official languages, as such only ten of the twenty participants were English first language speakers, however, English is the lingua franca of commerce in South Africa, and so all the participants had a good command of English, either as a first or second language. Furthermore, all participants were asked to sign an ICF indicating that they had sufficient command of the English language, however, in a few transcriptions we can see some instances of code-switching[11] between English and Afrikaans.

[11] Code switching is defined as "the practice of selecting or altering linguistic elements so as to contextualize talk in interaction" (Nilep 2006:1).

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4.4 Research Instrument

Data was collected in the form of semi-structured interviews. A questionnaire was formulated to address certain areas of communication between top management and their IT role players. Various question were asked of top management about how they interact with their IT role players and vice versa. This was to identify as to whether or not top management was involved with IT on a both a strategic and operational level and if they saw the value of IT in their company. A different set of questions was formulated for top management and for IT role-players respectively (see Appendix C and D for the Interview schedule).

4.5 Research Methods

Once all companies' consent forms were obtained, and ethical clearance was given, the researcher made contact with the various companies to set up times to interview the relevant participants. The interviews were conducted in an environment of the participant choosing (e.g. their company offices), this was done in hope that a relaxed atmosphere would make the participants more comfortable and therefore more willing to share their true opinions and insights.

A day before each meeting, a list of the interview questions, with an attached ICF, was sent to the relevant participants via email by the researcher. All interviews were digitally voice recorded using a Dictaphone (after the signed ICF were received) and transcribed by the researcher. All data was collected in the space of one month.

4.6 Data Analysis

All data was analysed using discourse analysis, specifically discourse semantics as described in Chapter three. All voice recordings were transcribed and typed up by the researcher, (see Appendix E-X).

Using the theoretical approach, discourse analysis, in analysing the texts (transcriptions) and taking into consideration the work of He (2003:431-438), we look at a number of concerns in the particular study such as the context (the situation, participants…), the rhetorical goal,

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the speech act, referentiality, topicality and thematicity as well as the sequence and organization of the discourse.

4.7 Conclusion

This chapter discussed the research methodology followed in conducting the study and described the research approach, participant selection and data collection. The next chapter, chapter five, will present the analysis of the data obtained from the semi-structured interviews with both top management and their IT role players.

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Chapter 5: Data analysis

5.1 Introduction

As noted in chapter 1, there is a general perception, especially among dedicated IT professionals, that there is a gap between business, that is top management, and IT and that successful communication is not always achieved. In order to answer the research questions, namely, to what extent top management of SMEs engage with the discourse of IT and what the reasons are for their participation or lack thereof in IT discourse, data were collected by means of interviews, as discussed in chapter 4. In this chapter the analysis of the data is presented. The particular approach used in identifying as to whether or not a communication gap between top management in organisation and their IT role player does exist, is the use of van Dijk's (1985) semantic discourse analysis, as dealt with in chapter 3.

As mentioned previously, semantic discourse analysis deals with investigating "how sequences of sentences of a discourse are related to sequences of underlying propositions and how the meaning of such sequences is a function of the meaning of the constituent sentences or propositions" (van Dijk 1985:105). Before we go in to a full analysis of the transcriptions a few aspects need to be addressed, these include a summary of the context of the situation, semantic strategies, the general topics discussed by both groups and the particular themes which are identified in the data presented. This chapter is split up into two parts: sections 5.2 to 5.6 illustrate the various aspects of semantic discourse analysis as discussed in chapter 3 with reference to the data. Sections 5.7 to 5.10, give us a detailed analysis of the different perceptions of IT, the perceived communication gap as constructed by the participants, and how the researcher has interpreted the participants construction of this perceived communication gap.

Due to the nature and scope of this study, the researcher has only made use of the most relevant examples of discourse taken from the transcriptions[12].

[12] See appendices for full transcriptions of all the interviews.

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5.2 Semantic discourse analysis and context

As mentioned previously, a tradition which impacted the approach to context owes its origins to the notion of the 'context of situation'. The context for a situation entails the following dimensions: the relevant features of the participant, the relevant objects and the effect of verbal action (Firth in He 2003:432), and, according to Halliday can be represented as a complex of three dimensions: 'field', 'tenor' and 'mode' (He 2003:432).

Looking at the data being analysed in this study, what is taking place (field) are semi-structured interviews conducted by the researcher. Half of these interviews were conducted with a participant in a top management position, who is also the IT decision maker, and the other half were conducted with their IT role players. The discussion is concerned with how these individuals view IT, and how they perceive 'communication' with either their top management or IT role players, depending on the participant, concerning IT related issues in an organisational setting.

The relationship between the researcher and the participant, being an interview, is a formal one (tenor). On the one hand the participant represents their company and implements the companies various rules and policies, such as not discussing specifics about their IT decisions, as this may be 'confidential information' according to these policies. This problem was largely overcome by addressing the ethical considerations inherent in the exchanges and keeping all information that was presented to the researcher as anonymous. On the other hand, the participant also wishes to give as much information to the researcher regarding how they communicate with either their IT role player or top management in order to help the particular research study – in this way they are an advocate for the researcher's interests. It should also be noted that the relationship between the researcher and the participant is furthermore a temporary one.

Both the written and spoken language used in this instance constitutes the discussion (mode) of what the participants understand to be IT, how they view IT and how they communicate with either their top management or IT role players regarding IT matters and decision making.

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Before discussing the semantic rules of local and global coherence and the notion of topic and theme in the following examples, we need to firstly take into account how the semantic strategies are used by the participants when conversing with the researcher.

5.3 Semantic strategies in utterances

In chapter 3 we discussed how the actual speaker, in addition to following the general rules of local and global coherence, also uses various semantic strategies, such as cognitive and social strategies, conversational strategies, production strategies, semantic and interactional strategies etc., in order to interpret the ongoing conversation and determine the next appropriate conversational contribution.

In the following example we will discuss how conversational interpretation strategies may be used.

Example 1 (see Appendix K)

1 N: Do you interact operationally with your IT role players often? And if so why?

2 D: Um… I am the financial manager and I interact with my staff on a daily basis you know I run an open office so you know if I'm not speaking to somebody… they are welcome to come in.

3 N: And do your interact operationally with your outsource IT company?

4 D: Well you know when setting up the system I was involved in that/ um… and then I handed over from the daily operations from the breakdown if something goes wrong there is someone else that contacts their office, and occasionally you know I would also phone their office. **But** at the moment you know we have all these sites and we want all that information stored on our server here so they are busy with… don't know what you call it the firewalls? You know the firewalls and so on….

In turn 2 we can see how speaker D has interpreted the question posed to him as *how does he interact with his staff*. In turn 3 the researcher interprets this move as speaker D not understanding what is being asked, as speaker D speaks out of the 'topic' (the discourse topic being *how does he interact with IT role players*) and the researcher therefore tries to use an effective solution and rephrases the utterance in turn 3 in the hope that speaker D will draw

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the correct inference from the question the second time round. This is seen to be achieved in turn 4 when the speaker mentions that he was involved in the beginning, when setting up the system (system here refers to some sort of technical device) and by him continuing and saying *if something goes wrong there is someone else that contacts their office*, meaning that there is someone else that contacts the company's IT role players. The word *their* is a pronoun for the subject (IT role players) in the discourse topic.

In example 2 the researcher is asking (speech act) participant G how he would describe what the term "IT" means to him.

Example 2 (see Appendix Q)

5 N: If I had to ask you how to describe to me what the term 'IT' means to you how would you describe it?

6 G: Well IT in our company would / be one of the cornerstones of / of what we do what/ what we need to do um... to do our job. It's IMPerative that our systems work properly- / functions smoothly if its um... um we got a legal-obligation to keep it/ our records for advice for...for... LITerally years after we dealt with clients.

7 G: Um and um so you know all our client base management systems work on/ we literally can't deal without proper functioning network. It's ...///

8 N: So pretty much you would say that IT to you is what you need for your business to function.

9 G: ABSOlutly!

10 N: //and if you think of IT in general, would you think of it as just a computer?

11 G: NO

12 N: as programming or so you specifically see it as a business function? /

13 G: Well obviously it's not only um... a business function my um IT team in our office that do... that we... all new developments... so with gadgets some of them programmes ...to...to make our business not just a physical thing or a computer. We started to integrate our cellphones with, we/ look at certain types of pens which can record.

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14 G: Oh yes// Record meetings and advice um... do things more speedily because our...we have... A very big compliance um...onuses and u...u ...compliance obligation um ...towards thee...our clients AND um the Financial service industry u... give advice and keep record of it.

We can see in the above extract both cognitive and social strategies are used by the researcher in turn 8 in the second instance of turn taking. The researcher tries to use the effective solution of interpretive puzzles when participant G speaks out of the topic, (the discourse topic in this case would be *what the term "IT" means to the participant* - this will be discussed later in this chapter) and goes on to discuss what IT means in his company and does not directly answer the question of what the term IT means to him personally. In other words the researcher identifies that participant G has deviated from the topic of the discourse question and tries to interpret (understand) if participant G understands what is being asked, and if so, does he mean that he views IT as helping his business to function and nothing else?

The researcher interprets participant G's response as being that he sees IT as a business function. Participant G responds to the researcher's second question in turn 9, agreeing that he views IT as an enabler for his business and what the researcher had interpreted was correct. However, the researcher, still unsure of the meaning of the response, tries to clarify and identify as to whether her understanding was in fact correct, as we can see in turn 12. In turn 13 participant G clarifies this saying, *obviously it's not only... a business function*; again the researcher rephrases the question in turn 12 to make sure that participant G has understood what was being asked in the first instance by asking again if he views IT as a business function. In turn 9 we see that the topic changes, as it doesn't matter how many different strategies the researcher tries to use to block such an inference the participant carries on with his interpretation of the first utterance as asking what IT means to the company. In turn 14 we can see the participant does understand the researcher's question and realises at this moment that the researcher is drawing the wrong conclusions about what he intends to convey, and tries to make up for it by commenting further.

In example 2 we can see just how quickly we draw inferences that may not necessary be correct, possibly causing miscommunication.

Below we can find another example showing us how anticipating semantic strategies are used in discourse.

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Example 3 (see Appendix M)

15 N: If I had to ask you how to describe to me what the term 'IT' means to you, how would you describe it?

16 E: Um what its changed from our side and from what I, what I understand it to be was anything related to technology, would form as part of IT. What's happened now is that (cough) because of the emergence of the social platform also most got a structured and no structured day to day structure around companies all the time, um… and its quite a challenge now for us to box this thing also, which we also sitting with this… you know so where now… does the scope for technology start and what does it end…?

17 E: Because now you've got a emarketing that comes in as part of social media, um but but interpretation that I got from this organization is that anything that gets distributed on a technology platform whether it's viewed distribution whatever that would define as information technology.

In turn 16 speaker E draws the intended inference from the researcher's question and discusses how he perceives technology, however in turn 17 the speaker changes topic to discuss how you now have 'emarketing' which was not classified under IT a while back (background knowledge which is shared by both communication partners), he realises that the researcher may be drawing a different inference to the one he posed in turn 16 and quickly tries to block such an inference by using the word *but* in the second part of the sentence, therefore making sure that the researcher understands what he perceives to be IT and what he understands his company to interpret as IT.

The above examples were an introduction to demonstrate how communication partners also use semantic strategies, without realising it. These strategies semantically link a participant's turn or move to their previous contribution to the conversation, or their conversational partner's contribution, and enables them to acquire information needed for their next move; this demonstrates that local coherence can be both backwards and forwards, as proposed by van Dijk (1985:118). The following section gives a detailed analysis of a number of examples that have been taken out of the attached transcriptions. It must be noted that the researcher is analysing larger fragment of discourses and therefore cannot simply be defined in terms of the local coherence conditions (mention in chapter 3), therefore this section will discuss the topic, the theme, the subjects and the outline of the discourses. We therefore assume that besides local coherence, a discourse also has a macrostructure.

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In the following sections the researcher makes use of two approaches that address the question of how coherence can be explained. These include van Dijk's model of macrostructures as well as Brown and Yule (1983) similar approach, which is the notion of discourse topic, (discussed in detail in chapter 3).

5.4 Local and global coherence in utterances

The example below is a response to the question, asked by the researcher, *in what way does the participant in a top management position see IT as adding value to his business?*.

Example 4 (see Appendix U)

> I: Use pieces of equipment/ used to make job functions um... easy// PROcess.

In example 4 above, the topic of the utterance is IT. The utterance is a response to the question asked by the researcher about IT and therefore the speaker does not need to mention the word IT again as the researcher and the participant both know what is being discussed. The proposition is therefore what follows, and he interprets IT as a tool for the company to enable an employee to be able to work and perhaps make their jobs a little easier.

5.5 Discourse topics

In the next four examples the researcher tries to identify the particular 'discourse topics' in the various speech paragraphs (paratones) of both participants who are considered to be top management, and their IT role players respectively. The following question: *In what way, if at all, do you see IT adding value to your business?* was posed to both top management and their IT role players.

Example 5 (see Appendix O)

> F: Ok we are in a manufacturing company so we rely on software/ so um… if… if it wasn't for IT we wouldn't be able to manufacture everything.

Example 6 (see Appendix P)

> f: Well/ well… with intellectual property being that important as it is at the moment with um… especially in our company// everything that we do is research and basically

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> from there… then the products evolve. Having security and making sure everything is safe and protected and available for the users if they need it… that's… YOU Can't put a price on it! Its priceless… it's more important than anything else in the company.

When analysing both examples 5 and 6, we can see in example 5 that the object (participant's company) comes before the proposition *so we rely on software…*; this is an example of local coherence, however, as mentioned previously, meaningfulness of the discourse resides not only in local coherence but at a global level too, therefore, we need to identify the discourse topic. The discourse topic (which is a paraphrase of a sequence of an utterance) in this particular example is *if it wasn't for IT we wouldn't be able to manufacture everything*. In example 6 the 'topic' is *IT* even though it is not mentioned in the discourse, participant f is answering the question as to how he sees IT adding value to his company. The comment about the topic is that IT *is priceless… it's more important than anything else in the company*. The discourse topic would be *you can't put a price on it*; the word *it* is used as a pronoun to refer to IT. This is an example of where there is both shared knowledge/ understanding by the participant and the researcher. What is interesting to note is the meaning behind the utterance, and that each participant interprets the same question differently. Participant f sees IT as priceless and without 'it' the company would cease to exist as all the processes in the company rely on IT. Participant F on the other hand also understands that IT is important, however his interpretation differs to participant f, in that he interprets IT as a tool to help manufacture the company products.

Example 7 (see Appendix S)

> H: Um… I think one of the big projects here is to scan all of our documents so I and that's also saved on the server so, I can also almost see its more business process but it's also involved with IT. Um// and of course the speed that the computers work that type of thing and making sure that we've got the up to date versions of everything, that's more or less what I see in that we tried to do paperless but I think it's actually more paper now that the guys in the old days had/ just to have because you print and you reprint and you have a draft for financial statements tick there what's wrong and then they go back and they change it again so you've got numerous copies going through.

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Example 8 (see Appendix T)

> h: It's priceless I would guess, um especially in accounting they have to work over the internet itself on the' network drives' keeping so unless they want lots of paperwork, bookkeeping / computer are priceless I would say. Can't be replaced at the moment!!

In example 8 we can once again see that speaker h interprets IT as priceless and absolutely critical to the company, the inference we draw is that without IT the company would not be able to continue its operations. We are able to draw this inference from identifying what the discourse topic which is *IT is priceless*. Looking at example 7, speaker H does not view IT adding value to his business in the same way as his IT role player sees it. Participant H views IT as just something that enables him to possibly work quicker, he views IT as something that will give his company that competitive edge.

5.6 Speakers topic and topic shifts in discourse

In the above examples we have discussed both local and global coherence of utterances, and briefly touch on identifying the 'discourse topic'; in examples 9 and 10 below, we will discuss how to identify a 'speaker's topic' and identify 'topic shifts' which can sometimes be recognised by discourse fillers such as, *um*, *er*, etc. Examples 9 and 10 are the responses from IT role players as to whether or not they felt that their top management knows what is going on in the company's IT environment.

Example 9 (see Appendix H)

> b: I said yes because there's like a project plan so we have a stick to strict deadlines but then I um, also said no because there is sometimes poor communication, um/ so there are areas where they don't really know and that is probably because of the feedback from IT or… um or// miscommunication between the two parties.

Example 10 (see Appendix L)

> d: SO-SO- these- days. I believe in every company if they outsource that role then they// that person generally has more information on their IT systems. Most managers probably don't take as much interest as they should in their environment not realising that, if their servers or their IT environment went down, literally their whole company would stop in that period of time.// I find that in a certain instances when that happens

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> there is a major problem and realisation that IT is a critical part. Only up until something fails, // so I would say that 'top management' most of the time, does not play enough of a role/ overall sometimes.

In example 9 we can see how speaker b changes topic from him agreeing and saying yes he does feel top management knows what is happening in their IT environment to not agreeing and saying that there is sometimes poor communication. This results in the speaker feeling that top management doesn't always know what is happening in their IT environment, and he postulates that the reason for this is that there is not sufficient verbal feedback on the part of the IT role players, or perhaps misunderstanding when feedback is given. We can see that the occurrence of a filler, such as *um*, in this case happens together with the topic shift.

It is evident that in example 10 a 'speakers topic' can be identified, by the speaker saying *I would say that top management most of the time, does not play enough of a role…* the discourse topic in this case would be *top management not communicating/interacting enough.*

We have discussed local and global coherence, discourse topics, speaker's topic and topic shifts in discourse, the following section we will discuss how the notion of discourse topic is that of the common theme of the previous sentence in the discourse, and that the topic carried from sentence to sentence is the subject of their predication.

5.7 Different perceptions of engagement

In the examples 11 and 12 below we can see how IT roles player feel that their top management does not consult with them regarding their company's IT.

The below 'paratones' are both responses to a question asked by the researcher about whether their top management consults with them regarding the planning of IT in the company. Example 11 (see Appendix V)

> i: To a limited extent yes… I prefer it to be more to be honest um…. specifically that in the company the change of controls are not as good as they should be. Sometimes departments will approach you instead of a formal steering committee or something-like- that which shouldn't be happening/ but/ for the most part I am kept in the loop as to what is happening. Although in the past I have also experienced SUPRISES…

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where he will ask what is the status of this and I will go huh…! Because they have meetings and action points and no-body ever let me know!!

Example 12 (see Appendix F)

a: Less these days, a, a while ago he use to do the IT and slowly it… it you know/ moved to my side where things become more, other things too move obviously to take priority so I found that I was trying not to involve him to save him time, and um not bother him at all with all the nitty-gritty, / BUT THEN I found only when something went wrong he heard but when everything else was going smoothly he didn't know about it! So I say to him once a week/ so every Monday we sit/ either I write out a detailed email of what happened the previous week and maybe what's going to happen because his got more um /um/ a a *meer kennis wat ek het*[13] in what he wants and how he wants IT to work for his business./ So if I plan something I would like him to know beforehand so that he can sort- of- say no- not- that- way this is not the right way to go rather go this way or- HE might know about something else because he works directly with some of the guys at our outsourced IT company// and then I'm not in the loop so if I do things down here then you know there might be a GAP!

The theme is usually identified as what the speaker uses as their point of departure, whereas thematisation looks at stretches long than a sentence, what the speaker says first will influence everything that follows. As we are not analysing single utterances, we need to identify the thematisation of the 'paratones'. The general theme in example 12 would be that *top management does not consult as much as in the past* and according to the speaker this is an issue and feels that if they do not communicate enough there could be a potential communication gap. In example 11 the general theme would be that *top management does consult, but not enough*. Looking at both these examples we can draw the following inference, that IT role players in general don't feel as though their top management communicates enough with them regarding IT and that this perceived lack of communication could cause a bigger communication gap which in turn could have negative effect on the company as a whole.

[13] "more knowledge [than] what I have"

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5.8 Different perceptions of IT

The above examples show how local and global coherence can be identified in given utterances, as well as how discourse topic, speakers topic, topic shifts and the common themes can be recognised in different discourse paragraphs (paratones). In the following section we will discuss what the meaning behind these paratones are (looking at both the above examples and at further examples) in order to identify whether a perceived communication gap between top management and their IT roles player does exist, and if so, why.

Looking at the examples given above, we are able to draw certain conclusions from them, such as in examples 11 and 12 we can see that the common theme in both these paratones is that speaker a and speaker i feel that their top management does not consult with them 'enough' regarding the subject of IT, the meaning behind the utterances implies that this perceived lack of communication may lead to a possible communication gap. Analysing the paratones out of example 13, below, speaker A comments that he does interact with his IT role player (discourse topic) but he carries on and, in the proposition that follows, comments about how his office manager (speaker a) interacts with another individual from their outsource IT company (this is an example of a company who has a IT role player internally and makes use of an outsource IT company), and that they keep a record of their discussions, so that speaker A can also review them.

Example 13 (see Appendix E)

> A: mmm, um yes I do! I like to keep up to date on what is happening on the operational side because I// I have some experience in our company with where we have had successes and failures in the past and um… so I like to provide input… I would like to put in more but not necessarily the whole time. So I, WE are lucky to have an office manager who is quite clued up so she interacts with our dedicated IT contact from our outsourced IT company/// on the operational side, but they keep me up to date then and keep their minutes from their meetings, WHICH IS A NEW THING… um we have replaced this in the last 2 weeks and it helps me a lot if I know what's happening operationally. I can then have a quick overview within 2-3 minutes instead of sitting in a meeting for an hour or half an hour,/ but I'm updated and can

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> provide my input and sometimes I jump in in the operational side if needed ja… I want to keep in-touch with my company FOR SURE!

It must be noted that there was a two week period between the researcher interviewing speaker a, the company's office manager, and their top management (speaker A). Therefore we can assume that a communication gap did previously exist, when the researcher interviewed speaker a, and with the company changing the processes, keeping record of all IT related discussions and having a dedicated IT contact, they have provided a potential solution to closing the communication gap that was mentioned, or identified, in the initial interview with the office manager.

In example 11, above, speaker i comments that he would prefer to have more communication with his top management and that he is sometimes kept out of the loop, as he states *because they have meetings and action points and no-body ever let me know!* In contrast, for speaker I (see appendix U) the discourse topic is that *they have weekly meetings*, implying that he does interact operationally with his IT role players (in this case, speaker i). This assumption comes from both the researcher and the speaker having knowledge that 'meetings' implies that both parties sit down in a formal setting to discuss IT related issues, what is interesting to note is that speaker i mentions that his top management does not get involved in the day to day operations and only has weekly updates. Therefore we can conclude that speaker I does not feel that he need to communicate any more than he currently does with his IT role payer, whereas his IT role player feels more communication is needed. From this analysis we can identify that the lack of communication between the two parties has resulted in a communication gap.

Another example of a possible communication gap is where an IT role player comments on their top management not knowing what is happening in the their IT environment. We can see this clearly in example 9 above, where there is a topic shift when speaker b comments, saying *no because there is sometimes poor communication… so there are areas where they don't really know*. However speaker b's top management, in this case, speaker B (see appendix G) does not share this opinion. Speaker B, in discussing how he interacts with his IT role player, says that he interacts with them *often like in three times a day*. Speaker B's response is, further, that he only consults with his IT role players when he feels it is the right time or when it is needed, therefore we can interpret this piece of discourse as he does interact operationally with his IT role players, however, we can only see in the rest of the

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discourse how he mentions that he sees IT guys as a travel agent. Through his background knowledge he perceives IT role players as specialists in what they do and that they are not business minded and therefore he only interacts with them on a operational level. Looking at speaker b's discourse topic, we can infer that he would like his top management to consult with him more, therefore, this could be an example where a potential communication gap could exist, whereby speaker b would like speaker B to interact more. Speaker B on the other hand has his own personal reasons for not communicating more. Each participant is drawing different conclusions of how they are supposed to interact in a workplace.

Looking back at example 10, speaker d remarks that top management does not play enough of a role in managing IT (discourse topic). When analysing how speaker d's top management perceives interaction to be, speaker D (see example 1 above) comments that he was initially very involved with his IT role players in the beginning, but now if something goes wrong with their IT someone else in the office contacts their IT role players. Therefore, we can assume that speaker d feels that top management could be more involved and his assumption is accurate, as speaker D states that he *used to interact; but not anymore*. We are able to draw the following inferences: that a communication gap exits either from a lack of communication between the two parties, or from the possibility that top management's interpretation of IT differs from the interpretation by their IT role players. These conclusions will be discussed further in section 5.9 below.

5.9 Interpreting the importance of IT

Looking at examples 5 and 6 above, speaker F interprets IT as an enabler (a software product) allowing the company to be able to manufacture their products for retail purposes. Speaker f interprets IT as a necessity for their company to function, and remarks that *it is priceless* (meaning is critical to the company). We can therefore draw the conclusion that speaker F interprets IT very differently from how his IT role player interprets IT. Speaker f also interprets IT as extremely important but views it from a process side and feels that if IT fails their company would be negatively affected.

Looking at examples 7 and 8, we see that speaker H interprets IT as an enabler which allows people to work quicker whereas, speaker h interprets IT in the same way as speaker d, as "priceless" and critical to their company. The same can be said for speaker e (see appendix N) he views IT as *making a business run…* (discourse topic) and that it is the core function of

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a company. Speaker e's top management on the other hand interprets IT as a business tool (see example 3). Lastly when analysing a paratone in appendix I, speaker C interprets IT as a tool again or a device to make their business function better and easier (in this case he would like to go paperless and in order to do that all documents would have to be scanned and saved on certain IT equipment). Speaker C's interpretation is somewhat different to his IT role player speaker c (see Appendix J), who views IT as critical and without it their company could would not be able to function.

This leads us to the conclusion (interpretation) that a communication gap does seem to be apparent between top management and their IT role players. There are also two possible reasons for this communication gap, firstly, it could be a lack of communication between the two parties - this can be seen in the above 3 examples in this section - a second reason can be drawn from looking at the rest of the examples in this section; all of the participant in a top management position seem to interpret IT as a resource, allowing them to work faster and possibly making their jobs a little easier, whereas their IT role players' interpretation of IT is that of a necessity, and not just as a tool or resource for the company but rather as "priceless".

This conclusion can be supported by analysing appendices Q, R, V and W. It seems that speaker G (example 2) interprets IT not just as a business function but as imperative to their company and the company's processes. Speaker g comments that his top management previously saw IT as a burden and a cost, and continues stating *but I think he has changed in terms of seeing the value of IT*, (there is a topic shift present in this utterance which can be identified by the use of the word *but*), implying top management and their IT role players now interpret IT in the same way and therefore there does not seem to be any communication gap between the two in this particular company.

The same can be said for company J, speaker J interprets IT as it becoming the core of their business (see appendix W). Speaker J also goes on to state that *IT allows us to work on a daily basis I think from a business point of view*. His IT role player also interprets IT as assisting businesses with their processes and is the *backbone of a company*.

These two examples add credibility to the second possible reason as to why a communication gap exists between top management and their IT role players. This gap occurs simply because a company's IT role player's interpretation of IT differs from that of top management's interpretation of IT. When looking at the last two examples, both speaker J and speaker G's

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interpretation of IT is the same as their IT role player's interpretation of IT and therefore a communication gap does not seem to exist.

5.10 Interpretation from the researcher's point of view

Section 5.9 gave us two possible reasons for a perceived communication gap existing between top management and their IT role players. In section 5.7 we discussed how IT roles players feel that their top management does not engage enough with them regarding the IT in their company, and section 5.8 discussed how IT role players and top management have different perceptions of IT. Another important factor to consider in this analysis is how the researcher has interpreted what the participants say regarding what they perceived to be IT and how they interact with their IT role players or top management and vice versa. Looking appendix E and U the researcher has interpreted that the participants in a top management position do not communicate enough with their IT role players even though participant A has said that he does and participant I mentions that he has weekly meetings with their IT role player. The researcher has drawn the following inference and taken into account that even though top management may be allocating specific time with their IT role players they do not consult with their IT role player on the particular issues which their IT role player may been wanting to discuss. This in-turn links to the top management and their IT role players different perceptions of IT. We can also see how ideologies as mentioned in chapter 3 play a part in the interpretation of discourse. Van Dijk (1995:275) mentions that "there is one semantic feature, largely ignored in the literature on discourse semantics, which may have important ideological functions, viz. the level of description and degree of completeness of a discourse or discourse fragment". Even though the researcher believes that top management (participant A and I) does consult with their IT role players (a and i) and that their IT role players have confirmed that their top management does allocate time to discuss IT matters with them, the researcher interprets that the IT role players still seem to feel that more communication is need. The reason for this would possibly be that participant A and participant I do not give enough information to the researcher regarding what it is that they discuss with their IT role player. The above discussion is an example of where the researcher interprets the different perceptions of IT as being a possible reason for the participant's perception of a communication gap.

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5.11 Conclusion

Using semantic discourse analysis and with the use of van Dijk's model of macrostructures and Brown and Yule's notion of 'discourse topic' we are able to identify that a communication gap does in fact exist between top management and their IT role players in some companies and two possible reasons for this communication gap are 1: the lack of communication between top management and their IT role players and 2: the differences in interpretation of IT between top management and their IT role players. Chapter 6 will give a summary of the results and the previous chapters presented in this research study, as well as discuss the shortcoming of this particular approach and give suggestions about how this research topic could be further investigated.

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Chapter 6: Conclusion

6.1 Introduction

Looking back at the previous chapters, chapter one discussed the general perception, especially among dedicated IT professionals, that there is a gap between business, that is top management, and IT and that successful communication is not always achieved.

Chapter two gave us a theoretical overview of the importance of technology in human communication, the communication culture of IT discourse in the workplace and IT and discourse. A few possible factors were discussed as to why a communication gap between the top management and their IT role players could exist. Looking at the attached transcripts (see appendix E-X) various questions were posed to the participants in a top management position and their IT role players as to what excites them about technology, and the general remarks were 'the constant change'. It is remarkable how technology is developing at such an alarming rate and how it has changed how we communication with people, from email to Skype to social networking.

In Chapter three we discussed the approaches to discourse analysis and in particular the semantic discourse analysis approach that can be used in order to interpret discourse. Two approaches used in the analyses of the discourse data were van Dijk's model of macrostructures and Brown and Yule's (1983) notion of 'discourse topic'. In Chapter four we discussed the research methodology of the study, including the participant selection, the research methods used and the means of data collection.

A detailed analysis of specific examples taken from the various transcriptions was presented in our last chapter. We were able to verify that the perception that a communication gap does exist was correct. From this we were able to identify two possible reasons as to why this communication gap exists, firstly there seems to be a lack of communication between IT and top management and secondly, top managements interpretation of what IT means to their company differs to that of their IT role players.

This chapter will give a brief summary as to why this communication gap was investigated and what value this research study can add to the body of knowledge. We will also discuss

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the limitations of the study, the limitation of the approaches used and how this research topic could be further investigated.

6.2 Importance of IT in the SME space

As discussed in chapter two, IT has changed the way we are able to communicate with individuals from different cultures. Looking at IT from a business point of view, IT enables this communication with international companies increasing the trade growth and in turn affecting our global economy.

IT seems to be the 'core' of a company and without it a company would not be able to operate as effectively. It seems that we are in a technology era and if companies (in the SME space) do not fully understand the importance of IT it could negatively impact their company, and our country's economic growth. Once top management is able to fully understand the importance of IT in their business they can then take it to the next level really utilising their IT as a tool in order to be more profitable.

There has been a surge of research interest in how institutional professional activities are carried out linguistically (He 2003:439). Such as how teachers and students interact, how doctors communicate with their patients. However, when searching for literature on IT and discourse there seems to be a very limited amount. This study therefore contributes to linguistic literature on IT discourse in the workplace.

This study also hopes to open up the minds of both top management and IT roles players to realise the importance of IT in a company and how it can impacts our country's economic growth. By having this knowledge as to why this communication gap exist, top management and their IT role players could try to find some way in order to bridge the gap. However, we also need to take into consideration the limitations of this study and the particular approach used.

6.3 Limitations of the study

Due to the limited scope of this research study only twenty participants were selected to be interviewed, therefore, although we were able to identify a communication gap in these ten companies, our findings as to whether a communication gap between top management and

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their IT role players cannot be one hundred per cent conclusive. It also needs to be noted that this research study is only representative of the greater Cape Town region.

Even though van Dijk presents us with a fairy holistic overview on some of the theoretical notions that allow us to conduct a good semantic analysis and interpretation of discourse, it should be said that there are a few limitation to these theories. Van Dijk (1985:121) states that "theories do not immediately fit the empirical phenomena they try to account for". Van Dijk (1985:121) has summarised his theses into the following points as they apply to semantic discourse analysis.

6.3.1. Theories and their component statements are relatively abstract, and therefore the "conditions of local and global coherence don't always apply or indirectly apply to the discourse data" (van Dijk 1985:121).

6.3.2. The theoretical assumption of local and global coherence of discourse should have a universal nature.

6.3.3. There is also no distinction between written or spoken discourse, although van Dijk's (1985:121) observations are for monological discourse. This limitation has been overcome by including Brown and Yule's (1983) notion of discourse topic.

6.3.4. Participants and discourse analysts apparently "root their semantic interpretation in personal epidemic models" (van Dijk 1985:121). Therefore, the interpretation given is subjective representation.

6.3.5. Semantic analysis only gives us a limited description of the discourse data.

6.3.6. The approach does not take various social constraints into account such as social setting, participant roles, age, sex, status and power. These may add to the conditions of meaningfulness of the discourse.

6.3.7. Van Dijk's theory is also far from complete, he stated that "there are still many aspects of discourse meaning we simply do not know yet or know only imperfectly, so that general rules or conditions cannot yet be formulated" (van Dijk 1985:122).

6.3.8. Looking at van Dijk's work on ideology and semantics, further research is needed to "attend to the ideological basis of phonological and graphical expressions, syntax, style, rhetoric, pragmatic properties and interactional dimensions of discourse" (van Dijk 1995:284).

6.3.9. Van Dijk's theory of the internal organizations of ideologies is still far from complete, even though in van Dijk's article he began to explore some dimensions of the ideology-discourse link, further research is needed to examine the relationships "in a

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broader framework of the societal, political and cultural functions of ideologies and their cognitive and discursive organization and expression" (van Dijk 1995:284).

6.4 Conclusion

In order to be able to prove conclusively that a communication gap does exist and that the two possible reasons suggested for this gap are considered as true, further research is needed.

A number of aspects would need to be taken into account such as the social constraints (social setting, participant roles, age, sex, status and power) as well as the sociocultural aspects of the SME and IT environment. There are a number of approaches which may be used in order to look at the study from a different viewpoints, these include, conversational analysis (possibly looking at how the top management and their IT role players communication in a workplace setting where the researcher would observe the interaction), pragmatic discourse analysis, (looking at the meaning behind the utterances and taking context in to account), applied discourse analysis, critical discourse analysis (to investigate power, distance, etc.) as well as professional discourse analysis (which looks at how top management and lower management interact with one another looking specifically at their individual attitudes, beliefs, and knowledge regarding various topics).

Once we have a clearer understanding as to why this communication gap exists, we can start to investigate the possible solutions to bridge this communication gap and improve communications. By analysing the data in this study we have confirmed, in a limited way, the perception that a communication gap does exist and we have identified two possible reasons as to why this communication gap exists, taking the first step in such a process.

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Appendix A

Information consent form: given to participants in a top management position.

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jou kennisvennoot • your knowledge partner

STELLENBOSCH UNIVERSITY
CONSENT TO PARTICIPATE IN RESEARCH

The engagement of top management in IT discourse.

You are asked to participate in a research study conducted by Ms Natalie Kowalik, from the department of General Linguistics at Stellenbosch University. This study is for the fulfillment of an MPhil degree in Intercultural Communication and as such the results will be published in a thesis. You were selected as a possible participant in this study because you are in a top management position in your company where IT falls under your portfolio.

1. PURPOSE OF THE STUDY

This study aims to determine whether there is a communication gap between top management and IT role players and if so why this communication gap exists.

2. PROCEDURES

If you volunteer to participate in this study, we would ask you to answer a series of questions that will be asked by the researcher about, among other things, how you perceive the role of IT in your company.

- The interview will be conducted in an environment of your choosing.
- The interview will be recorded via a digital voice recorder.
- The interview will take about 15-30 minutes.

3. POTENTIAL RISKS AND DISCOMFORTS

There are no foreseeable risks and discomforts in this study. However, if the participant feels that they would not like to answer any particular question as they may feel the information is confidential they are more than welcome not to comment.

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4. POTENTIAL BENEFITS TO SUBJECTS AND/OR TO SOCIETY

The participant/s will not benefit directly from this study. However, the research obtained in this study will be of benefit to academic research, and to companies that rely heavily on technology for their business to function optimally.

5. POTENTIAL BENEFITS TO RESEARCHER/MSP

This study is independent research and is not representative of Space Age Technologies (Pty) Ltd. No rewards (financial or otherwise) will be accrued by the researcher for undertaking this research. The researcher will in no way give any feedback (verbal or written) to her employer regarding the research that has been conducted, to avoid potential conflict of interests.

6. PAYMENT FOR PARTICIPATION

There will be no payment for the participation in this study as the study is for research purposes only.

7. CONFIDENTIALITY

Any information that is obtained in connection with this study and that can be identified with you will remain confidential and will be disclosed only with your permission or as required by law. Confidentiality will be maintained by means of pseudonyms or participant numbers in the thesis.

The consent form that will have the participant's names on will be stored in a file that will be locked in a drawer and only the researcher and supervisor will have access to it.

The interview will be audio taped via a digital voice recorder. If the participant wishes to review the recording they may do so within 24 hours of the interview being conducted. The recordings will be stored in a locked cabinet and the data obtained in terms of transcriptions will be stored on a password protected computer

8. PARTICIPATION AND WITHDRAWAL

You can choose whether to be in this study or not. If you volunteer to be in this study, you may withdraw at any time without consequences of any kind. You may also refuse to answer any questions you don't want to answer and still remain in the study. The investigator may withdraw you from this research if circumstances arise which warrant doing so.

9. IDENTIFICATION OF INVESTIGATORS

If you have any questions or concerns about the research, please feel free to contact Ms. Natalie Kowalik email: natalie@sat.co.za; tel. 083 271 2762 (researcher), or Dr. Kate Huddlestone, email: katevg@sun.ac.za; tel. 021 808 2052 (supervisor for the study).

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10. RIGHTS OF RESEARCH SUBJECTS

You may withdraw your consent at any time and discontinue participation without penalty. You are not waiving any legal claims, rights or remedies because of your participation in this research study. If you have questions regarding your rights as a research subject, contact Ms Maléne Fouché [mfouche@sun.ac.za; 021 808 4622] at the Division for Research Development.

SIGNATURE OF RESEARCH SUBJECT OR LEGAL REPRESENTATIVE

The information above was described to me by Ms. Natalie Kowalik in English and I am in command of this language or it was satisfactorily translated to me. I was given the opportunity to ask questions and these questions were answered to my satisfaction.

I hereby consent voluntarily to participate in this study. I have been given a copy of this form.

_____

Name of Subject/Participant

_____

Name of Legal Representative (if applicable)

_____ _____

Signature of Subject/Participant or Legal Representative **Date**

SIGNATURE OF INVESTIGATOR

I declare that I explained the information given in this document to _____ [*name of the subject/participant]* and/or [his/her] representative _____ [*name of the representative]. [H*e/she] was encouraged and given ample time to ask me any questions. This conversation was conducted in [*Afrikaans/*English/*Xhosa/*Other*] and [*no translator was used/this conversation was translated into* _____ by _____].

_____ _____

Signature of Investigator Date

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Appendix B

Information consent form: given to IT role players.

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jou kennisvennoot • your knowledge partner

STELLENBOSCH UNIVERSITY
CONSENT TO PARTICIPATE IN RESEARCH

The engagement of top management in IT discourse.

You are asked to participate in a research study conducted by Ms Natalie Kowalik, from the department of General Linguistics at Stellenbosch University. This study is for the fulfillment of an MPhil degree in Intercultural Communication and as such the results will be published in a thesis. You were selected as a possible participant in this study because you are an IT role player in your company.

1. PURPOSE OF THE STUDY

This study aims to determine whether there is a communication gap between top management and IT role players and if so why this communication gap exists.

2. PROCEDURES

If you volunteer to participate in this study, we would ask you to answer a series of questions that will be asked by the researcher about, among other things, how you perceive the role of IT in your company.

- The interview will be conducted in an environment of your choosing.
- The interview will be recorded via a digital voice recorder.
- The interview will take about 15-30 minutes.

3. POTENTIAL RISKS AND DISCOMFORTS

There are no foreseeable risks and discomforts in this study. However, if the participant feels that they would not like to answer any particular question as they may feel the information is confidential they are more than welcome not to comment.

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4. POTENTIAL BENEFITS TO SUBJECTS AND/OR TO SOCIETY

The participant/s will not benefit directly from this study. However, the research obtained in this study will be of benefit to academic research, and to companies that rely heavily on technology for their business to function optimally.

5. POTENTIAL BENEFITS TO RESEARCHER/MSP

This study is independent research and is not representative of Space Age Technologies (Pty) Ltd. No rewards (financial or otherwise) will be accrued by the researcher for undertaking this research. The researcher will in no way give any feedback (verbal or written) to her employer regarding the research that has been conducted, to avoid potential conflict of interests.

6. PAYMENT FOR PARTICIPATION

There will be no payment for the participation in this study as the study is for research purposes only.

7. CONFIDENTIALITY

Any information that is obtained in connection with this study and that can be identified with you will remain confidential and will be disclosed only with your permission or as required by law. Confidentiality will be maintained by means of pseudonyms or participant numbers in the thesis.

The consent form that will have the participant's names on will be stored in a file that will be locked in a drawer and only the researcher and supervisor will have access to it.

The interview will be audio taped via a digital voice recorder. If the participant wishes to review the recording they may do so within 24 hours of the interview being conducted. The recordings will be stored in a locked cabinet and the data obtained in terms of transcriptions will be stored on a password protected computer

8. PARTICIPATION AND WITHDRAWAL

You can choose whether to be in this study or not. If you volunteer to be in this study, you may withdraw at any time without consequences of any kind. You may also refuse to answer any questions you don't want to answer and still remain in the study. The investigator may withdraw you from this research if circumstances arise which warrant doing so.

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SIGNATURE OF RESEARCH SUBJECT OR LEGAL REPRESENTATIVE

The information above was described to me by Ms. Natalie Kowalik in English and I am in command of this language or it was satisfactorily translated to me. I was given the opportunity to ask questions and these questions were answered to my satisfaction.

I hereby consent voluntarily to participate in this study. I have been given a copy of this form.

_____

Name of Subject/Participant

_____

Name of Legal Representative (if applicable)

_____ _____

Signature of Subject/Participant or Legal Representative **Date**

SIGNATURE OF INVESTIGATOR

I declare that I explained the information given in this document to _____ [*name of the subject/participant]* and/or [his/her] representative _____ [*name of the representative]. [H*e/she] was encouraged and given ample time to ask me any questions. This conversation was conducted in [*Afrikaans/*English/*Xhosa/*Other*] and [*no translator was used/this conversation was translated into* _____ by _____*]*.

_____ _____

Signature of Investigator Date

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Appendix C

SEMI-STRUCTURED INTERVIEWS: Question asked to top management:

i. If I had to ask you how to describe to me what the term "IT" means to you, how would you describe it?

ii. In what way, if at all, do you see IT adding value to your business?

iii. Do you interact operationally with your IT role players often? And if so why?

iv. With regard to the planning of your company's IT do you:

   a. Perform this together with your IT role players; or

   b. Delegate the task to your IT department; or

   c. Prefer to perform this on your own?

   What are your reasons for doing it in this manner?

v. Do you need something tangible, such as a report, to show what is happening in your IT environment, or do you just need verbal feedback regarding the status of your IT?

vi. What excites you the most about technology?

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Appendix D

SEMI-STRUCTURED INTERVIEWS: Question asked to IT role players:

i. If I had to ask you to describe to me what IT is, how would you describe it?

ii. In what way, if at all, do you see IT adding value to your company?

iii. How would you describe to me what the term "IT" means to your top management?

iv. Does your top management consult with you regarding the planning of IT in your company?

v. What do you think the reason is for consulting with or without you?

vi. Do you feel that top management in your company knows what is going on in the company's IT environment?

vii. What excites you the most about technology?

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Appendix E

A transcription of an interview; conducted by the researcher with a participant in a top management position.

i) N: If I had to ask you how to describe to me what the term "IT" means to you, how would you describe it?

A: Well basically technology…/ um, I would say it refers to anything that can make manual work faster/ replace manual work and make it faster and make your finalization of any project faster.

N: And do you see it as a business function.

A: For sure!

ii) N: In what way, if at all, do you see IT adding value to your business?

A: I think I'm very open and looking for possible scenarios where we can use IT to enable us to see business better or faster or better than we did it before.

iii) N: Do you interact operationally with your IT role players often? And if so why?

A: mmm, um yes I do! I like to keep up to date on what is happening on the operational side because I// I have some experience in our company with where we have had successes and failures in the past and um… so I like to provide input… I would like to put in more but not necessarily the whole time. So I, WE are lucky to have an office manager who is quite clued up so she interacts with our dedicated IT contact from our outsourced IT company/// on the operational side, but they keep me up to date then and keep their minutes from their meetings, WHICH IS A NEW THING… um we have replaced this in the last 2 weeks and it helps me a lot if I know what's happening operationally. I can then have a quick overview within 2-3 minutes instead of sitting in a meeting for an hour or half an hour,/ but I'm updated and can provide my input and sometimes I jump in in the operational side if needed ja… I want to keep in-touch with my company FOR SURE!

iv) N: With regard to the planning of your company's IT do you:

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a. Perform this together with your IT role players; or
b. Delegate the task to your IT department; or
c. Prefer to perform this on your own?
   What are your reasons for doing it in this manner?

A: Um, I try to do it with the IT role players um… by that I assume you mean-my-outsourced-company-more…? Just because… I-mean they are the specialists! So if I want input I tend to gather my questions and have monthly meetings or whatever, I give my questions in the meetings then make plans from then onwards. I felt in the past if I had a question and had a look on the internet, I can spend five hours and not get the same input- I CAN SPEND FIVE DAYS and not get the same input! Where if I have a meeting with the IT professional its takes a hour or even thirty minutes, I feel they have tested what's out there/ and they know what works and what supports what. //And they can give you just the pro's and con's upfront, instead of going to search for it. In the past we had a communication gap but it wasn't just because the IT guys didn't ask me what I expect, but also I didn't tell them what I expected because I thought my expectation and needs were very unreasonable.
To answer the second part of your question, I think it's much more effective and productive to do it in this manner, um you ask your questions with the knowledge base to back it up. It's more effective than you going out yourself looking for the answers and …trying out the pros and cons!

v) N: Do you need something tangible, such as a report, to show what is happening in your IT environment, or do you just need verbal feedback regarding the status of your IT?

A: Um I think I like a report in that it's… I can use it or don't use it… it's my choice. For example, this past week I got a report on the internet usage, email usage etc. I get twenty six reports a year and I only take a look at say 5 of them, but it's there if, if, I want it and I can refer back to it... I mean if I look at Mondays I can refer to last month's usage, I can look at it… it's there.

//Um, it's not like you have to ask someone and then they can't remember it, so I like the written reports and the feedback- that we are getting, also the reports we are getting from the operational meetings, just to be in touch with what they doing and planning, um, but also I can use it if I want to reference SOMETHING.

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vi) What excites you the most about technology?

A: WHAT EXCITES ME the most*///Interesting question….

N: It can be a personal or business related whatever you prefer…

A: /// Might be boring again but I think the concept of doing something quicker and faster than we did before and that IT can take the load of work off… say in man hours that you can spend elsewhere um effective usage ja./ Ja, I mean I don't know if you are aware, but we bill every six minutes of the day to something in our timesheets, every minute you can save is worth a lot of money especially if we have to sort it out, or our offices are basically effectively shut down if the servers are not working. Ja, and sometimes I think of times when I have a specific need in that I want IT to solve could be a problem maybe, you may not have a solution to the problem D, E or F but then you get advice and sometime when you solve problem C, you can end up solvING everything all at once. /The fact that you getting your solution plus something extra, um… helps me a lot!

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Appendix F

Transcription of an interview; conducted by the researcher with a participant who is an IT role player in their company.

i) N: Ok the very first question is… if I had to ask you to describe to me what IT is, how would you describe it?

a: Except for 'information technology' *// to do with computers, it's to do with computers, / and the interacting between man and the computer, basically!
a: Ja (laugh)

ii) N: Ok second question/ in what way, if at all, do you see IT adding value to your company?

a: Well it makes things faster//
N: ok
a: Um/////on a personal level and I think on an, an individual personal level I think it's nice for someone to work with a computer. I know there are some people that do not like working with computers, but it's like extra/// uitdagen... what's uitdagen?
N: Ja
N: Ja ek weet, a challenge?
a: Ja..,/ Just makes life easier I think/ it depends on how um much you know about computers, but IT is then there to help you make things go a bit QUICKER.
N: Ok
a: and easier.

iii) N: Great/ third question: How would you describe to me what the term "IT" means to your top management?

a: I think maybe much more, if there is something new on the market he wants to try it! But anything that makes life easier and faster, because I think in finance IT is getting more busier no matter what you do to stay ahead you// you have to invest in IT

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all the time and you have to keep up to date with the times so to say. So...so/ his very into IT... it's interesting to him you know-his –like-me with IT and gadgets.

iv) N: * ok perfect and does your top management consult with you regarding the planning of IT in your company?

a: Less these days, a, a while ago he use to do the IT and slowly it… it you know/ moved to my side where things become more, other things too move obviously to take priority so I found that I was trying not to involve him to save him time, and um not bother him at all with all the nitty-gritty, / BUT THEN I found only when something went wrong he heard but when everything else was going smoothly he didn't know about it! So I say to him once a week/ so every Monday we sit/ either I write out a detailed email of what happened the previous week and maybe what's going to happen because his got more um /um/ a a meer kennis vat ek het in what he wants and how he wants IT to work for his business. //So if I plan something I would like him to know beforehand so that he can sort- of- say no- not- that- way this is not the right way to go rather go this way or- HE might know about something else because he works directly with some of the guys at our outsourced IT company// and then I'm not in the loop so if I do things down here then you know there might be a GAP!

v) N: What do you think the reason is for consulting with or without you?

a: They trying to involve me and sometimes 'cc' me in a mail but I sometimes don't understand them I must say. But this way we can prevent MISHAPS! Our director can explain to me what's going on and this way he can make changers and say no let's rather try this/ that's good or whatever.

vi) N: Do you feel that top management in your company knows what is going on in the company's IT environment?

a: Yes, I type up a report and give it to him on a Monday's, I say this week we planning this and he can advise me that if I am going the right direction.

vii) N: And the last question what excites you the most about technology?

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a: That I don't know.../// *, I get all excited if I don't know something works cos then I want to know and I Google and um… I read up and try and solve the problem myself and if I can't then I would./ I would like to know how to solve it.
I don't always like it if they solve it I WANT TO-KNOW-HOW-THEY-DID!
Ja/ so next time I also know, sometimes I forget when they go in to deep but it's interesting for me to know what they did.

N: Ok and the latest gadgets?

a: Well that / I try not to involve myself too much into that./Too many gadgets and IT out there! I went that way but I had to cut it off as I have a family at home as well you know the technology that's out there/ sort of eats you up. And if you have a cell phone and an ephone and everything in your handbag you forget that you know you busy with these things and I have to cut off somewhere.

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Appendix G

Transcription of an interview; conducted by the researcher with a participant in a top management position.

i) N: Ok the very first question is… if I had to ask you to describe to me what IT is, how would you describe it?

B: We// it's basically for me something around information, so I will expect information um um… different formats of information, um that is actually being processed through a technology platform, so um my personal expectation would be a solution um in other words that um format of the technology that processing information provides for me, um a solution around how to manage your business in my case would be managing people and how to manage strategy so that's basically how I see that and what is my experience. My business!

N: So you use it for your business? Focus on your business.

B: Correct I use it for my business but also for our clients. So so… therefore, pretty much in that space so so I would see it as a end result of / you know, a lot of work/ that's how how /we see information technology. How to get information technology to work could be through things like hardware and network infrastructure and etc. etc. But that for me is the input to that sort of solution and it's not the focus for me from information technology perspective although I realise that it's a very important input towards that.

ii) N: Ok second question/ in what way, if at all, do you see IT adding value to your company?

B: Yeah well, that question has to do with three components to it, um the one component is a positive component in saying how else does IT add value to your business but there's also a second component whereby if it is not done professionally it becomes not a value adder but a distractor so a person needs to keep that in mind so

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it's nice and innocent to see the positive but the issue around… so if I start with the positive that for us to enabling to get to business results come around all the integration ability in order, if we again talk about our world which is data based driven/ um rather then you know um, Microsoft office equipment windows for example as that is also technology , in our world when I talk about data base applications it means to us that we can have supper efficiencies around um you know where we can't have one input of data and really solutions of companies out of that one input of data, so that's that very helpful for us. BUT if you have downtime or whatever and you have got to do things all planned for a manual environment it's there where it actually becomes a distractor um because you know you got to really plan for two sets of work um um in these two worlds… so um so a person has got to be very you know/ both of them good, it can go either way depending on the way it's being managed. The way it's being provided and applied, a good example is email you know, email is a huge enabler um in terms of getting solutions but um… at the same time um um… if emails are down it can create a huge inefficacy within your business so that's why we need to look at things like what is the performance um criteria that we are linking towards technology performance so we on tract that and make sure that we are getting that sort of enabling benefits set out solves out from the start so what I find is that when people move into a technology space they don't always define what are the objectives are of what they need that put how they are going to measure the impact, the success of that and I think it's important to bring those components in as well.

iii) N: Do you interact operationally with your IT role players often? And if so why?

B: Um often like in three times a day…. Yes because the thing is that we cannot um, /.

The way I see IT guys is like I see um a travel agent… um a travel agent can't help me if I don't tell the travel agent what my needs and expectations are and travel agent can- can explore things with me provide options for me and I can take that say a step further and work with and relate to what that travel agent is saying to me…. What we tend to do with IT Guys um but that again there's also two sides of this what we do with IT guys to have this thing that we've got and so we expect them to understand the business cases and how to enable through technology the platform to deliver on

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that case so we dump it on them so that's not bright, so in ,my case, I will not allow that to happen here so, we would need to have a business case the business case is important and the business case is driven through a product manager or product executive who then for whom that um technology would be developed so that's how we would do that. BUT on the other side of the fence it's also true that a lot of IT guys sell it to you as if they have all the solutions so you have got to see through that because they don't! um so in my business I've got some very good bright guys you know they work here, I mean like they have worked overseas I mean really have got engineers proper engineers, you know university trained engineers you know some guys go to college over six months. Um but even with them I… the thing is you've got to understand what our requirements what is the needs we require, what are the client base uses going to be um what is the level of integration with the, what the other systems what does the client want to get out of it why do we want to enable stuff right down to writing up the business specs, um before we allow the IT guys to engage in dialog of what is…./

B: So we've got to understand that so I just find that people, dump that debate too easily um on IT guys and I think it's also because some misrepresent what they have to offer and that's what happens… is the IT guy to sort of calm there nerves but they do bring something what they call a business analyst. But with what you must keep in mind is that the business analyst does also not necessarily understand the IT and the business world so so that if you don't have a person who is the product executive owner then you actually short selling yourself.//That you you got to have that sort of component, that has got to be a business cause for technology.

iv) N: With regard to the planning of your company's IT do you:

d. Perform this together with your IT role players/ or

e. Delegate the task to your IT department/ or

f. Prefer to perform this on your own?

What are your reasons for doing it in this manner?

B: We prefer to scope it and um with a range of people that have the client interface, then we involve the technology guys and from an idea of sharing with them/ we

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would showcase them what is the end stake that the needs by pushing the limits with them of what is possible so what we don't want to do is we don't want to get the IT people guys, involved too early because then we get all the reasons why the technologies cannot happen so we want to straighten that debate and see you know what it is possible and whether we can't approach things from a different angle and and/ driven again by the market at and um how responsive is the market and and what is the feedback the market is giving. The Key thing for us is if we don't give answers the opportunity of getting our heads around what we/, what our requirements are and then get the IT people IT guy involved to influence them, then we have a risk of losing perspective of what we are actively trying to achieve that our key problem/ so so we don't want to involve them too early. Um… But for… they are in a way definite part of the process of involvement so it's not that I have no faith in IT guys not seeing… I think that um the truly entrepreneurial IT guys have their own business they won't work for you. Their framework of thinking is technical, I'm so what we need to do is to make sure that we have harness that perspective and not frustrate it, you know that what we've got to do with that.

v) N: Do you need something tangible/ such as a report/ to show what is happening in your IT environment// or do you just need verbal feedback regarding the status of your IT?

B: No no no… we need reports and the verbal feedback , the verbal feedback is based on the reports, because um, and you have to have a consistent progress on that all the time the thing again around the IT guy is that in terms of technology the going gets lost if you don't keep your hands on the progress they could wonder off in a different direction where by you won't find them again you know and I believe that technology must be an integrative progress,// so you want to bring out your first generation and then improve on it and improve on it and improve on it. But IT guys generally have a mind-set of they want to do produce the perfect product and the perfect product is a relative concept, could be perfect from a technological point of view… so therefore you can't leave them on their own you have to get have closure, and checks and balances on them so they don't bring reporting down.

vi) N: What excites you the most about technology?

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B: I think it's well first of all I think technology excites me, you know its I think it's fantastic and you know that what exciting for me is that it's if you have a true business concept um the enabler is technology and the way that technology has evolved now with mobile frames and especially something that excites me immensely that's the new tablet generation. You know…. So these things for me…me is that if you have a concept um the hardware is coming to the party now the network infrastructures are coming to the party now and the market is more open to it. So it's it's…. If I see what guys are busy doing um on the web for example it's just fascinating it's… it's just so cool, it's really I mean I've just now… example I've been approached by the guys in the States who were working with the rehabilitation of cancer patients you know it's just something we are going to put together to start off with we going to play around with….

this guy head coach of USA ski team and he is for the last 20 years worked with cancer patients you know, who have come right and all/ that sort of stuff, and what's fascinating is that his built about one hundred templates around that how with the type of things that we do with technology. We are going to see if we can't enable that stuff and you know that's what makes technology cool. Your hardware, your software the extent of which software is developed I mean work with… so fusion and flexible interfaces are very nice. What excites me is that we can integrate everything and we can actually enrich people's lives you know I mean we can really create a lot of meaning in stuff, what people do and I think is so fascinating and we are so privileged to be in this era that we are at now it just wonderful.

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Appendix H

Transcription of an interview; conducted by the researcher with a participant who is an IT role player in their company.

i) N: If I had to ask you how to describe to me what the term "IT" means to you, how would you describe it?

b: Um, well for us it could be a way to work more efficient um, to automate processes and to better store data so, you know/ a computer doesn't forget. / Um for better communication or collaboration between people.

N: And for yourself, do you see it as …/ do you enjoy it or….

b: Yes I do enjoy it.

N: Because it's part of your job obviously?

b: Ja Ja, the way I enjoy it is because it's a challenge, that's probably why.

ii) N: In what way, if at all, do you see IT adding value to your company?

b: Well we can provide through IT/ we can provide solutions to our clients.

iii) N: How would you describe to me what the term "IT" means to your top management?

b: Um ja, I'm trying to view it from top management's perspective so… ja, I think in terms of him// IT would mean money because its expensive um/ bugs, there I mean he always seems to see it as problems coming through, because that's why the client actually picks up the problem um so… um ja his then the person that gets feedback- that's negative feedback and then ja… we can see if there is a need for it in the market. So he probably sees it as a requirement and you know it's much better doing a survey on a computer itself instead of doing it on a paper base. /And then probably the time it takes to do something is probably more than what's expected.

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iv) N: Does your top management consult with you regarding the planning of IT in your company?

b: Yes

v) N: What do you think the reason is for consulting with or without you?

b: Um I think IT is a speciality role… um ja, not everyone has got that knowledge so- so IT is a very large field… there are specific sections in IT, and not everyone can be a pro in each section so that's why he consults with me.

vi) N: Do you feel that top management in your company knows what is going on in the company's IT environment?

b: I said yes because there's like a project plan so we have a stick to strict deadlines but then I um, also said no because there is sometimes poor communication, um/ so there are areas where they don't really know and that is probably because of the feedback from IT or… um or// miscommunication between the two parties.

vii) N: What excites you the most about technology?

b: Um, probably just the improvements that you can see that actually can be done through IT. If you look at a timeline from where IT started to where it is currently today um ja, it has changed the world, so I would say improvements….

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Appendix I

Transcription of an interview; conducted by the researcher with a participant in a top management position.

i) N: If I had to ask you how to describe to me what the term "IT" means to you, how would you describe it?

C: IT, what it means to us is basically to get your work done, um we we very dependent on the guys so that is why it's important to ... it's a funny a funny thing on the one side you don't want to see them the whole day, you just want to know that if there is a problem you can call on them and the problem gets fixed so that um… you can carry on with your job. Because we have become so IT dependent on all our systems on all our work so it's become… even if you want to or not, it's become a very very important part of our work.

ii) N: Ok, so IT to you is more of a business function and a tool?

C: For sure, for sure, BEcause we we… we joke often about it in saying that really our, if we see the guys here the clock is ticking we pay them money so… but on the other hand its… good to have them around to keep up to-date with your systems/ you can't allow your systems to get old or out dated, because sooner or later it will catch up with you, and then like we have learnt in the past/ then you have to fork out lots of money!
Um… alternatively you must keep up and and… and when necessary, have some expenses but at least keep it up to date with the outside world.

iii) N: Ok perfect and in what way, if at all, do you see IT adding value to your business?

C: The big drive is to go paperless and in order to go paperless you need IT. YES, it's the most important part um…more and more/ like I say/ dependent on programmes on… on systems that that um supply you with the paperless environment or at least a

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system to work with, corresponding with the different companies and therefore you need IT.

iv) N: Do you interact operationally with your IT role players often? And if so why?

C: For sure I would say…er interaction but basically 80 per cent of the time when there is a problem and it needs to be fixed then there's interaction. / We recently had a problem um… our systems tend to be very slow. Part of the problem is we've got maybe too much users going through that ISD line, which can only happen so much so we had our IT role player go and come up with some solutions trying to see if there's not something that we not missing um… and and maybe implement it at the same time/ obviously we looking at the cost. And you must weight that up with your current system and a certain cost obviously including um new possibility in what new solutions come with, a new price tag./ AND you have to weigh that up, um at the end of the day to see if it's worth it. THAT is where I say the 20% comes in where we have interaction with them, trying to get some solutions for… for maybe problem areas or…or areas that we think that we are not that effective, we trying to find out if we cannot make it more effective.

v) N: Oh ok… and um that is also linked to the fourth question/. With regard to the planning of your company's IT do you:

g. Perform this together with your IT role players; or

h. Delegate the task to your IT department; or

i. Prefer to perform this on your own?

What are your reasons for doing it in this manner?

C: Our company hasn't got an IT department so we link up with an outsourced IT company. Um with our agreement they are looking after our servers and the maintenance, / we have an agreement in place that… if there's ad hoc, um programmes or something more specific, such as target areas, we have appointments with the guys. Sit down around the table and discuss and introduce solutions. The knowledge, they've got the knowledge they are up to-date with what is happening um we we specialise in our specific area Investment Fund Management and Short term

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insurance um and they specialise in that specific field which… is IT. As you know um IT um is… QUITE broad. It's quite broad and everyday there's new developments and then there's obviously from time to time… you need to be updated.

vi) N: Ok and do you need something tangible, such as a report, to show what is happening in your IT environment, or do you just need verbal feedback regarding the status of your IT?

C: Currently we are receiving on a weekly basis a report on what is, how many users/ what sites they are working on so you… we read that. I think it's a good thing.
Verbally… / (hesitation pause) feedback yo Yoh it's… I don't think it works well, because often you… Ja it doesn't happen! Verbally usually come in with a curtain aspect or if there is a problem. I mean but otherwise getting a report like this weekly report or even if it's a monthly report it's probably a better option.
That will force people to just have a look at it./ I mean it its verbally ja I don't know/(pause hesitation). Everyone is running around you don't make time to sit down and pick up the phone to verbally give feedback.

N: Yes that's true and you also might forget information and it could get lost.

C: Look it might be that you get the reports at the end of the day but then at least you've got reference if you want to go back to something or refer to… or look at what are the current users of your IT setup, and obviously that also helps with budgeting in the future.

vii) N: And lastly what excites you the most about technology?

C: IT makes your job much easier, but then you must decide on/ make a decision… are you going the IT route or are you NOT going the IT route, it depends on business to business and what type of sector you are in, um we we find we must either go full IT or we must stay with the paper, and I think we've made that decision and we have decided that we could never go 100 per cent paperless but as far as possible we would like to go the IT route, it just keeps you up to date its its just more effective.

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viii) N: Ok and that's what excites you?

C: Ja, Ja// I think that is what you've, if you start investigating, these millions of possibilities firstly…you you just got so much time to spend on that. I mean some guys get excited about what they are interested in are for myself and for my company I think our interests lie in where we can make our business more effective and where it can help us to make more money… That's the bottom line.

N: Thank you for being so honest.

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Appendix J

A transcription of an interview; conducted by the researcher with a participant who is an IT role player in their company.

i) N: If I had to ask you how to describe to me what the term "IT" means to you, how would you describe it?

c: Um I would say In a nutshell it is for me….Is it a personal thing or for business?

N: Either or how do you see IT?

c: I see it as…/ IT is every much a component of a business and um it depends how you-you-you use it and how it's managed and it can determine your bottom line in that way as well. IT is a very challenging thing because IT is- is a very young industry component and if you look at business like a whole; it's not even a hundred years old, it's getting towards the 50 year mark depending where you start counting information technology, depending on where you see its existence in general it's a very young component of the industry, business and um it's only started to… there's not a lot of frameworks around it… it's not like accounting…. It's very old, people have been trading with money since-since when money was introduced years ago um there's been frameworks… there's been systems, there's been governing bodies um it's-it's in IT because it so new there's still a lot of people finding the value in IT. I think that's why a lot of businesses struggle so much with it, to make it work because it's so young and such a new component to other um… frameworks if I can call it that.

ii) N: In what way, if at all, do you see IT adding value to your company?

c: That's always interesting… for them its… I think they just want to make sure that the business is running as optimally as possible and with the right tools and systems that they using and the technology they using. They don't really want to know about technology and what's under the engine they just want to know… that the car is working… they want to load three passengers, can the car take three passengers with

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me as a driver and it can take me from A to B whether it is a Toyota or a BMW I just want to be able to do what I need to do. And if there is a problem I want to know there's someone who can get it going again and that's about it.

iii) N: How would you describe to me what the term "IT" means to your top management?

Because they don't have the expertise it's not there business, there business is to do what they do and then they rely on others to make the things behind the curtains work um unfortunately a lot of the small business owners are forced to learn to know more about what goes on behind the scenes because their // traditional people are not specialised and their depth of knowledge and breath of skills in a small IT support company is not good so typically they can give ok advice but as soon as their requirements become a bit more they… you know… things fall apart and it becomes a bad relationship…/ that's where we engage with the clients, that's why I say when I typically see the clients in such a scenario the change.

iv) N: Does your top management consult with you regarding the planning of IT in your company?

c: yes they do, once a relationship of trust has been established, which as you know it takes originally// it takes time getting to know new parties and only after they have a few runs with you do they start trusting you.

v) N: What do you think the reason is for consulting with or without you?

c: I think they have a better understanding than before, um like I said small business owners are forced to get their hands dirty to that level um I think we… it's a bit of they might not have the depth of knowledge but they know when things aren't going right you can see in the service delivery systems are quite visible to a business owner in terms of turn around but for business owners to spot, also if they want to draw a report they can't but what is also not that visible to top management is that these systems are capable of something and they are ignorant to the capabilities but more

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relevant again from that space the SME space and they are often given system that are capable of giving more but the previous company was not able to give them more…. then when you….when I come in you can work from home, you have got to show trust and that where I have to ask " what do you want to do with your business" and people do what is important to them.

vi) N: Do you feel that top management in your company knows what is going on in the company's IT environment?

c: So… so alot of it is also ignorance to what a system is capable of doing, but that boils down to the previous statement it not their job to know… what their job is…/ is to get that information from the people that support them.

vii) N: What excites you the most about technology?

c: Um I think that it's… it's, what excites me is probably what the real difference or value is experienced by the clients, when you can actually release the power of the systems and realise it's not a burden, I know a lot of the technical people always rant and rave when there programmes work 99.9% of the time, but that means nothing to business it should be running like that 99% of the time. What excites me is that I am also a user as well///and what I have seen with technology is it's in many ways has made my work and personal life better. I can work from home and spend time with the family I can work from the beach if I want to, I can go away for a weekend and not be close to work// you are not constrained to your office. And it also implies all these new things and changes about how people interact and the expectations from people on how you should engage; instant messaging… expectations have changed. In the last 10 years emails have changed from a replacement for a letter… a written letter. It was 100% fine to respond to that person in 3 weeks' time it was acceptable, email speeded that up to one week, today if someone sends you an email in the morning and you reply at 5 o' clock, its seen as a slow response and um… and now I am not even talking about sms's and Instant messaging, which is very disruptive so there is a lot of good stuff that comes from technology that excites me but there is also bad stuff that comes from technology….It's a culture…! But I think the good there's a lot more good than bad stuff.

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Appendix K

Transcription of an interview; conducted by the researcher with a participant in a top management position.

i) N: If I had to ask you how to describe to me what the term "IT" means to you/ how would you describe it?

D: Internet technology ne, what do you call it?

N: Information technology…?

D: Ja, information technology… ja, to us its important u know because we have about ten sites in different areas in/ the poorest of poor areas um… that um… that we have to communicate with via internet// with the banks um… and which is important and… and with all our suppliers. We use it for creditors, debtors and obviously with the emails that we…/ you know// **people** you know… we have clients that you know… we have a client base… so therefore a lot of information is saved and/ sent for the clients to the courts. So internally with our budgets and we have to project proposals that we use our computers for// so basically all our functions are IT based.

ii) N: In what way, if at all, do you see IT adding value to your business?

D: Its well… it's firstly it's a big time saver// the accounting is done on computer/ we have a… we have five people hanging off the server// the accpack so you know we… everyone can work on the system at the same time. You know the old bookkeeping system where you had to write in book you know… it used to take much longer and probably needed a much bigger staff… so the information we can extract from the systems or detailed information from writing up is invaluable/ you know you cannot get that information from a book… information from just putting it into the ledger the computer does the calculations and stuff for you.

iii) 1 N: Do you interact operationally with your IT role players often? And if so why?

2 D: Um… I am the financial manager and I interact with my staff on a daily basis you know I run an open office so you know if I'm not speaking to somebody… they are welcome to come in.

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3 N: And do your interact operationally with your outsource IT company?

4 D: Well you know when setting up the system I was involved in that/ um… and then I handed over from the daily operations from the breakdown if something goes wrong there is someone else that contacts their office, and occasionally you know I would also phone their office. **But** at the moment you know we have all these sites and we want all that information stored on our server here so they are busy with… don't know what you call it the firewalls? You know the firewalls and so on….

iv) N: With regard to the planning of your company's IT do you:

a. Perform this together with your IT role players; or

b. Delegate the task to your IT department; or

c. Prefer to perform this on your own?

What are your reasons for doing it in this manner?

D: Um… no… we do and you know we find out the requirements of everybody you know and I just speak to the other people here you know the other managers here and seek the managers obviously… we see that we cater for everyone 'NOT just me in the finance department… ja it has to have the capacity to run all onsite, onsite here we have about thirty computers and we are going to connect with all the other sites and you know there are about 3 to 4 computers on each of the other sites so that we could be linked here and have the backups if anything goes wrong, we do have a lot of burglaries and if people steel a computer we have thee data stored on the main server here. Ja…/ it's a good thing. Ja, the reason for doing this in this manner as I said we have burglaries and we have the proper backups and also there was a incident in at our one branch, where people stole four computers there they also broke into a cabinet there so our backups you know we have to keep these cases as you know if they go to the magistrates court, um, and for the children's precaution to we have to keep these files save, so you know these cases have to go to court we have the information available you know….

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v) N: Do you need something tangible/ such as a report/ to show what is happening in your IT environment// or do you just need verbal feedback regarding the status of your IT?

D: Um no we do print hard copies which we distribute for example the finance department distribute to their first line managers you know measure all the expenditure of the departments// you know we have 12 different business departments its departments, but they running on our stuff so we have accpak handling that role, so they are incredibly… also to sure that the information is correct and that we don't have information that doesn't belong there um so… we have to make sure it doesn't go to the wrong department…

N: The outsource company…?//

D: Yes, definitely, we are in the process of yes getting detailed reports from them. We haven't really you know got to that stage but we will be getting to that stage.

N: ok and would you prefer that?

D: We will see if the internet sites are appropriate for the company and the organisation, um for example if we find people go onto thee you know prohibited sites we can stop them you know… but we also restrict them not to go, the ones we put on now will be restricted to certain sites they can browse the internet.

vi) N: What excites you the most about technology?

D: Um well I am not excited any more…/BUT ja if you look at you know when I started there we the manual books in my time, um and definitely it has an advantage and then we had calculate and check stock * but you know it sometimes took forever when you press it you know multiplication or something…. Ja, that you know… with our own server sitting here, where in the past we had computers but they all had a mainframe computer which we had to work off into… you know I USED TO WORK FOR COMPANY where we got to the mainframe which was in Joburg so you know we had to pass all that information to them where here we have all that information right here so we don't have to send information anywhere else…. And um you know we used to run… we used to go to IBM in Cape Town and with these cards you know it's also part of the programme you know you had the program and the card and you

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feed it in that system and then it did a summery run and that I had to send to Joburg and we did that the final run their cos if we did that first round you know the testing of the cards all that information is correct on their… you know we had to do the test run in Cape Town and send to Durban… here we run onsite. So it's an advantage…. There's also more time too. There are many benefits/ your RIP5's you don't have to write them you… with the accounting system you can do your complete set of books on the system, and then there's also thee… flashdrives you can make electronic copies and give it to the people… auditors they like these electronic copies then they don't have to retype the things so there is a big advantage with modern technology also with banking I mean you don't have have to go to the bank I believe the cellphones they have they improved that as well. If you want to see something or even at a shop, communicate with there's… you don't have to write up a cheque or even give your card you know, you walk around with your cellphone so it's much easier but/ it's still coming…, they say it's in Japan already, technology communicating with their systems some way or other. You saw it in the movies how some people have this breathalyser they give you and in fact that person… so you don't have to even stand there so…/. Ja it's coming it's coming from those old movies that you see, it's just a change but you know with your cellphone/// I mean now they can also read your blood type to see if you have diabetes. The only disadvantage is that you sit in front of a computer all day long… um it does strain your eyes and these computer games that the kids play… they get hooked on them and obviously too much of a good thing is also not too GOOD!!

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Appendix L

Transcription of an interview; conducted by the researcher with a participant who is an IT role player in their company.

i) N: If I had to ask you to describe to me what IT is, how would you describe it?

d: I would describe it as a core component of most business/ um… a lot of people don't realise that without IT the whole company could not exist. // I would say it's one of the biggest assets a company could have.

ii) N: In what way, if at all, do you see IT adding value to your company?

d: It allows all our users to engage with the general public from their offices. Keep their user data safe. Um/ it… allows them to perform most of their business duties in a sense, like paying accounts, researching information/ ALLowing them basically to perform their jobs.

iii) N: How would you describe to me what the term "IT" means to your top management?

d: I think top management actually has grasped that IT plays quite a big/ important role in the company, without it they would not be able to function as a business. He does take active part in trying to know what is happening in the IT environment and he also has invested quite heavily in IT in the past couple of weeks and/ he does see the value in IT. Um… and I think he realised that he does as much as he can and all their outsource information that he doesn't have to make us an existence to maintain a forum, so he does see the value and the criticality of IT at this moment.

iv) N: Does your top management consult with you regarding the planning of IT in your company?

d: Yes, um… they do have a plan change. They will get us involved to consult- so-that- they- purchase- the- right- equipment, I mean being a charity funded organisation they obviously have to look at cost and money wisely/ and realise that they have to purchase strategically.

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v) N: What do you think the reason is for consulting with or without you?

d: Um… to basically make sure that they get the most out of their IT, so that they make IT work for them// basically!

vi) N: Do you feel that top management in your company knows what is going on in the company's IT environment?

d: SO-SO- these- days. I believe in every company if they outsource that role then they// that person generally has more information on their IT systems. Most managers probably don't take as much interest as they should in their environment not realising that, if their servers or their IT environment went down, literally their whole company would stop in that period of time.// I find that in a certain instances when that happens there is a major problem and realisation that IT is a critical part. Only up until something fails, // so I would say that 'top management' most of the time, does not play enough of a role/ overall sometimes.

vii) N: What excites you the most about technology?

d: Basically… um… I think it's the learning aspects and that it changes ever time… it's more of a challenge to yourself to figure it out/ to-to grow with the technology as it's getting better. I like having to think and not DO repetitive tasks so, IT is very challenging in that respect, you never really deal with the same problem or implementations over and over again, you always dealing with cutting edge technology as it comes out and as you know with technology, something comes out every five minutes. So/// IT does keep you on your toes… and I think the thinking aspects/ building a project of what's-out-there-at-the-moment is challenging and I enjoy that!

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Appendix M

Transcription of an interview; conducted by the researcher with a participant in a top management position.

i) 15 N: If I had to ask you how to describe to me what the term 'IT' means to you, how would you describe it?

16 E: Um what its changed from our side and from what I, what I understand it to be was anything related to technology, would form as part of IT. What's happened now is that (cough) because of the emergence of the social platform also most got a structured and no structured day to day structure around companies all the time, um… and its quite a challenge now for us to box this thing also, which we also sitting with this… you know so where now… does the scope for technology start and what does it end…?

17 E: Because now you've got a emarketing that comes in as part of social media, um but but interpretation that I got from this organization is that anything that gets distributed on a technology platform whether it's viewed distribution whatever that would define as information technology.

ii) N: Ok second question/ in what way, if at all, do you see IT adding value to your company?

E: Ours? We've actually just gone through um we've made it public um we've gone through a future fit, change strategy for the organisation and that was guided by technology but it was forced on by technology in the tourism space specifically, people// you are not seeing the numbers of centres anymore but what you still see is where does booking came from where are… on technology platforms so through devices obviously the internet as well but through Pc's, their mobile devices and the value that technology brings to tourism space is I think is probably the most value being added, so, the building the brand of a city can happen online to the world where you've got a much bigger audience, so your… your platforms/ you have to capitalise

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on those platforms in order to get that word out there, and so- so it// the value is um now I don't think anyone can quantify it. There's an immense value that technology as as a driver and an enabler of these services we deliver to the bigger platform.

iii) N: Do you interact operationally with your IT role players often? And if so why?

E: Which role players, service providers these kind of things? Yeah, I'm the… I manage all the contracts so um contract management um is generally would be a one person that would be assigned so contact management would generally be between myself and then the account manager from the service providers so I get involved directly there. So generally I don't get involved in a operational level I usually just get them to sort it out.

iv) N: With regard to the planning of your company's IT do you:

a. Perform this together with your IT role players; or
b. Delegate the task to your IT department; or
c. Prefer to perform this on your own?

What are your reasons for doing it in this manner?

E: Um the first one a) I've got to get these guys involved operationally on a day to day basis and there's a lot of optimisation, it's got a big focus on a// TECHNOLOGY has to see the value of research and development so I can't get involved in everything, so what I have to do is I have to workshop with good old organisations to CBS engineers and Staff get them involved and get the input see what kind of um kind of angle there is in the different spaces so I definitely get them involved. There's a// specifically on in the technology information space… things change literally hour by hour um as an example you take if you have been out of the office for one or two hours and you come back and things look different because they have downloaded updates, so there are live updates live changes um what it means for me is that there are touch points that have to be kept track of, so I got teams dedicated to manage certain portions of the infrastructure and um so they can be seen as specialists, specialists on managing new work infrastructure specialists, so I then, I then have a broad skills set. I can understand all of those points but they are the specialists and they can say to me listen you know what/ let's not have to support this cost. What are

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we saying specifically of we want to improve this service by 10% what is it at the moment you would break it down and say listen these are the weaknesses this is the kind of calls that we drop these are um... cost related to the calls… all of that kind of things and for me really that kind of detail doesn't really, I don't care about these details on a day to day basis, but when I do my strategic planning, it's important to have in mind those kinds of things, cos those drive cost status.

v) N: Do you need something tangible, such as a report, to show what is happening in your IT environment, or do you just need verbal feedback regarding the status of your IT?

E: Well let's put it this way my first ten minutes of every morning I spend going through those reports, so I have got alerts notifications reports that I can see on a daily weekly, monthly basis. I would get things like um health status of my data centres, my servers on a monthly basis I would get my status of what's going on the whole company. Status on the printers on all those kinds of things um so so it's definitely/… I… I… I generally want the guys to speak to me every day, send me a notification, send me an email, update and let me, when I get the time, at my own, own time let me look at it so I don't have to get you involved and break you away from whatever you are doing, um so for me it works better if I can get a report sent to me and notifications and all those sorts of things.

vi) N: What excites you the most about technology?

E: I think that the big thing in this space has been um specifically for Cape Town Tourism whatever I do, the world sees! I change people's lives, it changes how people operate with us and deal with us and that a big drive for me in that I have to make sure my team stays creative//we stay innovative, so that there are always new ideas coming in um technology is doing a lot of things for a lot of people / um but on our side we… we have to package, we have to put it into something that people can touch you know people. The level of satisfaction a business has is something we can drive// we can add value where we can contribute to that satisfaction level you know. Um people interact with us through our online platform our social touch screens when they walk

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in here… as soon as they touch the walls or take photos when they walk in here… those things… so its tangible… it's realistic. And that's what is exciting for me!!

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Appendix N

Transcription of an interview; conducted by the researcher with a participant who is an IT role player in their company.

i) N: If I had to ask you to describe to me what IT is, how would you describe it?

e: Um… IT is the modern word for what we use to call automation and that is what we should be doing. Information technology talks about how we provide the infrastructure and do the work behind what we… supply businesses with the information they need. But automation tells us what to do, we take business processes and automate them and make them work better so I prefer automation! The old word for IT!

ii) N: In what way, if at all, do you see IT adding value to your company?

e: Um what IT does is it makes sure businesses can run, and how they supposed to with infrastructure and the tools that otherwise they would have to do all these things manually. Email is a great example, we just send an email you don't even think about it which is the automated delivery process of sending a mail to the right person, and we archive email is stored somewhere so that correspondence that we have now automated we provide businesses with not just the a paperless way to send a mail but also the tools to archive it's a simple easy tool. We provide businesses with the tools to perform and make their jobs easier.

We couldn't run our business without IT… we provide IT platforms for our clients and without IT internally we wouldn't have the tools in order to do that. So it defiantly makes us faster and more efficient, without IT we couldn't function we couldn't do our jobs. We saw that when they power went off this weekend, the power went of our PC couldn't go on and we couldn't work and therefore not bring any money in. We wouldn't be able to work without a PC.

iii) N: How would you describe to me what the term "IT" means to your top management?

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e: Mmm… that's difficult. / In their company their top management is an IT guy, when it comes to businesses that we do work for… they probably do see the value in IT something that they can't do without/ probably the necessary evil… um but some of the CIO's type management see what IT really does. A CEO probably just sees it as an expense and something for them to use to do what every competitor can do. I think most top management see IT as a support function like HR or marketing it's not the primary core of the business that makes the money but without it they are less likely to function. So like HR is a support in that they support the business in what they do. I think more senior management sees IT in the same bracket.

iii) N: Does your top management consult with you regarding the planning of IT in your company?

e: Yes, certainly, , we can't have business working how it should without IT being able to support that, so it's a bit of a give and take… so they… they tell us what they need and we tell them whatever it is to be able to achieve those goals.

iv) N: What do you think the reason is for consulting with or without you?

e: As I said they have clear business needs that… 'this is what we want to achieve' and they don't really care what specific. So on my side what solution or system or what piece of equipment or whatever we need to purchase or a system we need to purchase that is something we can support internally so business has these requirements/ business requirements and based on that you come to whatever solution is necessary.

v) N: Do you feel that top management in your company knows what is going on in the company's IT environment?

e: Reports are always good to have, so yes to a certain extent.

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vi) N: What excites you the most about technology?

e: Well technology is awesome because we always moving forward there is always something new// IT being thee environment it is its pretty close at hand, what's new and fantastic and shiny… tomorrow is already old news…. Yes I don't think there is a segment that as fast as IT and that means we have to keep up. You are always learning something new… getting something better. I enjoy that there is always something new a better way to do things, plenty of gadgets out there that are interesting but most gadgets/ personal gadgets (I enjoy the more corporate gadgets but then they are sort of out of my price range). I think we are definitely seeing the end of desktops and laptops which makes my life as a desktops support also very interesting because these better devices which help perform their business functions also help them get on to facebook and chat with their friends so the personal and business side is merging and is a challenge to manage.

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Appendix O

Transcription of an interview; conducted by the researcher with a participant in a top management position.

i) N: If I had to ask you how to describe to me what the term "IT" means to you// how would you describe it?

F: Ok its… it's… it's a combination between heaven and hell. It's heaven if everything works and its hell if it doesn't work. I have just done a report and changed to a new laptop and we have got a graph of these things… it's wonderful and makes my life a lot easier. Especially if I just have things that I have to just copy and paste um… it's a must and yeah it helps me a lot in my work// its wonderful and IT is also about the internet. And especially with us being in America and so on… it… its immediate communication// I don't know what we could have done um… I suppose we could fax and things like that but still it would be a lot slower/// we would struggle if we didn't. It enables us to compete in a global market and do business!

ii) N: In what way/ if at all// do you see IT adding value to your business?

F: Ok we are in a manufacturing company so we rely on software/ so um… if… if it wasn't for IT we wouldn't be able to manufacture everything.

iii) N: Do you interact operationally with your IT role players often? And if so why?

F: Ok! we sort of forced to interact when something is wrong// when the internet is down/ um… or something is not working um… but we do have a planning meetings for example how we can get faster internet and we do discuss things like offsite backups and firewalls and things like that….

iv) N: With regard to the planning of your company's IT do you:

a. Perform this together with your IT role players/ or

b. Delegate the task to your IT department/ or

c. Prefer to perform this on your own?

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What are your reasons for doing it in this manner?

F: Ok um… firstly as a financial manager responsible for IT… I know that I don't know a lot about IT and that I must trust thee… advice of the people that actually studied it. We have quite smart guys in our IT department so um… we will definitely make decisions based on um… a lot of different people talking about the problem and coming to a consensus answer!

N: By meeting with everyone you feel that you will have the right outcome?

F: Yeah to a point because I am sure they will be able to um convince me to make a decision but um… I must trust their judgement… **I can't say** that I know a lot **about IT**.

v) N: Do you need something tangible/ such as a report/ to show what is happening in your IT environment// or do you just need verbal feedback regarding the status of your IT?

F: Ok um…// a report will always be better. I mean verbal feedback… you can't just go back and also in a way um… I must believe that I must trust what the IT person tells me. If it's a backup then it's a backup the only time that I would be needing verbal feedback is when something goes wrong.

vi) N: What excites you the most about technology?

F: Um… well … it's just a fact that IT can make one so much **more productive.** You can do so much more/ and it's… **so-much-faster** and-it's-**wonderful**// it's also frustrating how things are always changing. So it's very difficult to keep up to date with all the changes.

N: ok and the gadget side of things?

F: Well ja… **Skype** is wonderful and-and um… for me I just got a hard drive from someone with…// I think…/ what's it?... two hundred gigs of songs on... and it's the most amazing collection and yeah so my CD days are over now….* It will just be electronic use from now on// and I just make a copy! All the artists from my time/// *Yeah/ it's better!

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Appendix P

Transcription of an interview; conducted by the researcher with a participant who is an IT role player in their company.

i) N: If I had to ask you how to describe to me what the term "IT" means to you/ how would you describe it?

f: Well// I would say describe information technology as everything that has to do with information or um… basically any intellectual property that needs protection/ anything that has to do with intellectual data um… the systems around it/ and the security around it/ anything that has evolved with the information.

ii) N: In what way, if at all, do you see IT adding value to your company?

f: Well/ well… with intellectual property being that important as it is at the moment with um… especially in our company// everything that we do is research and basically from there… then the products evolve. Having security and making sure everything is safe and protected and available for the users if they need it… that's… YOU can't put a price on it! Its priceless… it's more important than anything else in the company.

iii) N: How would you describe to me what the term "IT" means to your top management?

f: Well if something goes wrong/ when everything goes right there's… they don't care about it. When something goes wrong that's when they care about it and having intellectual property available to use 24/7// top management knows it's important. it needs to be available AND it needs to be out there// and they have to have access to the data.//

They know it's important and they give me leeway to whatever I need to do… OR need to do to-have-that-access.

f: So they work with me. *

iv) N: Does your top management consult with you regarding the planning of IT in your company?

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f: It's more feature request implementation and then some feedback… but a lot of what is… comes from my side/ because I'm the one that gets phoned up at 1 o'clock…2 o' clock in the morning if something goes wrong .

So I have the monitoring systems up and available that lets me know beforehand if something goes wrong so it's more protecting myself and … getting and helping me out and helping them out… I mean… I am the person that is responsible for the systems so// it's more me and what I want/ and getting to that point and getting them everything they need. Otherwise it's more feature request// what they want to have some access to this… out in the world… and then I have to make it work.

v) N: What do you think the reason is for consulting with or without you?

f: Well up until… like I said it's for research I had no idea I just went with it…. It's more/// PUBLIC RELations…. let me put it that way!!

N: Do you feel that top management in your company knows what is going on in the company's IT environment?

f: I would say fifty-fifty, Yes/ No. Um… they know what they want and that's about pretty much it! Um… I know where I want to go and because I'm also software developing they more interested in me getting the software out than getting the IT structure in. So… I spend about eighty-twenty per cent on more software development so getting my IT structures is more my side… and communicating to them what I've done through email and then hopefully the email doesn't disappear in the black hole* um… hopefully they read it. So they supposed to know and I let them know… but I'm still hoping that they read the mail. So it's…it's more hoping that things don't go in a brick wall and hopefully it goes through so…. Hope you don't say that to anyone else…!*

vi) N: What excites you the most about technology?

f: Well for a young guy of my age or round about my age and being into sport and working in sport and in toys to play with it's a hell-of-a-lot- of- fun. I was here for about a year and I went to Wimbledon because our company… we have a tennis company as well and they do the scoring of not just the ball speeds but the ATP… their whole scoring systems and Wimbledon's scoring system is done by us/ the

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software. I was there two or three years ago and how exciting is that…? To actually be at Wimbledon!! So it's a lot of new experiences and playing around…* so it's a lot of Fun! I enjoy it… It's just fun!

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Appendix Q

Transcription of an interview; conducted by the researcher with a participant in a top management position.

i) 5 N: If I had to ask you how to describe to me what the term 'IT' means to you how would you describe it?

6 G: Well IT in our company would / be one of the cornerstones of / of what we do what/ what we need to do um... to do our job. It's IMPerative that our systems work properly- / functions smoothly if its um... um we got a legal-obligation to keep it/ our records for advice for...for... LITerally years after we dealt with clients.

7 G: Um and um so you know all our client base management systems work on/ we literally can't deal without proper functioning network. It's ...///

8 N: So pretty much you would say that IT to you is what you need for your business to function.

9 G: ABSOlutly!

10 N: //and if you think of IT in general, would you think of it as just a computer?

11 G: NO

12 N: as programming or so you specifically see it as a business function? /

13 G: Well obviously it's not only um... a business function my um IT team in our office that do... that we... all new developments... so with gadgets some of them programmes ...to...to make our business not just a physical thing or a computer. We started to integrate our cellphones with, we/ look at certain types of pens which can record.

14 G: Oh yes// Record meetings and advice um... do things more speedily because our...we have... A very big compliance um...onuses and u...u ...compliance obligation um ...towards thee...our clients AND um the Financial service industry u... give advice and keep record of it.

ii) N: So second question would be in what way, if at all, do you see IT adding value to your business?

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G: I would maybe rephrase IT per say doesn't help much PROPER FUNctioning IT... is INCERDIABBLY important um... it's you gotta u.. system that you can trust know that it is up and running all the time you know...it's like your body if you don't have oxygen.

N: Yeah

G: you-know... whatever you want it's... you only miss it when it's not there!

N: yes

G: so you… and that's also with IT you...when everything's fine nobody seems to care about it... BUT let one thing go wrong ... and then everybody knows about it and Um...you...you know things don't function as it should and it's critical...it function is important... time gets wasted.

N: OK

iii) N: third question with regard to the planning of your company's IT do you: Perform this together with your IT role players, delegate the task to your IT department or prefer to perform this on your own?

G: Well um… we DO interact with them, you... we have set meetings and where we look at some strategic objectives, to how to further better our systems... so... on... um... and then obviously we / when things go wrong you... we... interact with them um... because um as I've found a computer you doesn't necessarily function properly um... they um I'm talking about desktops and laptop show to install all the programmes – um- interact would be because it has to be sorted out.

N you... ok

G: Can I take that (voice recorder)

N: Perhaps, Yeah go for it: ok it might be a bit easier like that (Laugh)

N: typing with one hand not such a good idea ok so now there are two parts to this question/ ok.

N: What are your reasons for doing it in this manner?

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G: Well um... in our company we I am the dedicated IT DI well- director for IT um... so the buck probably stops with me in our company but within the company as I say we have a team as it to be quarantine... you... you... but more specifically various needs for various um... one specifically is the a.. IT to get better performance probably what's available out there um.. So in terms of a...responsibility ... I...I would probably be the responsible person in our company that you...You delegate I...especially, I mean it's important to get the you... you get from the YOUNGER GENeration or youngest staff grew up with different / ja... IT GADgets, values and experiences it and it is we do so being the youngest director within the company it's default you know it's you get passed the BUCK just referred to by your age even from when i am sitting in IT to tap into the younger... you know our younger staff experiences.

N: Sorry do you guys also have internal IT Staff in your company?

G: No, we use an outsourced company i// um ... so it's just one IT service provider and we try to use an outsource IT company um.. you know um for everything cos you know ...it's you... we trusted that they has the necessary contacts to... to be ask to get us to these service providers... we need/ the only other service provider that we do use come to think about it is our client relationship manager um management systems you....That's a Durban based company they do a huge amount of work for the financial services industry.

N: That's quite important being in the financial industry.

G: JA ja..

N: and do you guys talk a lot/ do you...

G: Yes, Yes we do see, we-on the phone regularly/ sometimes a bit too much... (Laugh)

N: (Laugh)

iv) N: And then what is the reason behind doing so?

G: Well initially you... we started off as a very small company of five people you... we had one computer that was set up as our server. You with a single IT guy you... he

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supported us through quite a large part of our growth... he... but then... he moved on because he was in a different industry we then got a different service provider you and one of our main thing was that we needed more than one person to be available because if you only have one person service provider then ... its... you... you can't rely on availability um unfortunately that this company the subsequently dissolved and um we... then made the sector that we not going for um.. I wanted a reputable company to do our IT and that's how we got with our IT compnay. AND besides that you know the thing it that we've grown from that 5 initial staff members we are now on to nineteen staff so it's... important to have somebody that was a larger company than that of a... a... small service provider!

N: Ok/ Do you find that by interacting with them that you get more clarity on what to do... and how to do it... and ja...

G: Ja, sure I've learnt an amazing amount since we've you.. we since I have become responsible as the liaison between Finfocus and our outsourced IT company, um I think my technical knowledge has gone up even though i rely on the outsourced consultants to obviously still do thee..um you know advise me on the technical aspect because you know that why i outsource it...other-wise i-would have done it myself you know that you .. It's important for us that you can trust people um and...

(Phone rings for next appointment)

v) N: Technology, and then two more questions so it should be quick. Do you need something tangible, such as a report, to show what is happening in your IT environment, or do you just need verbal feedback regarding the status of your IT?

G: No I think it's really important to have a IT, um report you know the saying goes that even though a pencil that is not sharp remains longer than you... any person as the thing is you get a feeling when problem areas may be in the company so that you can address it...it might be computer issues or a certain user or you ... um it's better to know in a report that our um the internet usage matches that of our tasks um it's a bit easier and um our planning you know for future costs you can get something in writing and plan our budgets, and um...its incredibly important our...it's just the way we work as well- our ADVice need to be recorded um... I think from our Industry... working in our industry its its just a given that... it's just like a report.

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vi) N: Ok, Um and then the very last question is what excites you the most about technology?

G: Please repeat the question please.

N: What excites you the most about technology?

G: To Date. /// Well I, I'm excited about the move towards um.. INTEgration of systems you know so you can um... use different things/devices and be on the same platform I mean that to me well be a GOAL! Um... Miniaturization is the other one um- so you don't have to log it around the huge laptop and I... I remember when you... aaa projectors use to come in... in a separate suitcase sometimes it was larger than like a clothes suitcase.* (Laugh) BUT now that they actually got small um.../. One thing I would like to see is more stability you know, unfortunately you...there's exponential growth um… in- terms of software and programming and stuff like that you tend to. you...you actually have that bit more hassles that that you in the past had because of systems issues....

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Appendix R

Transcription of an interview; conducted by the researcher with a participant who is an IT role player in their company.

i) N: If I had to ask you how to describe to me what the term "IT" means to you/ how would you describe it?

g: IT in short… IT is the communication backbone of your business// but it's also the um the process//. It improves your-business-processes by/ with your IT/ by streamlining your business processes um… so on the one side it improves communication-intercommunication with your clients/as-well-as internally it also improves/ you know… **your bus**iness processes um… and then thirdly it then/ um… provides more/ better visibility reporting out and that kind of thing.

In a personal way um…/ Ja/ I use IT outside of business generally for… for research and e-commerce that about it basically. But I see it more for a business perspective… as an individual/ it's just making your life easier.

ii) N: In what way/ if at all/ do you see IT adding value to your company?

g: It's defiantly a business tool and an improvement in productivity/ where a lot of their suppliers as well as clients working online/ and they can submitted forms online and a lot of processes which was done by hand and-the whole-toot scanned and faxed can now be done online in a smooth work flow// where in the past it was… where in the past it wasn't as quick// it defiantly improved productivity where before they even meet the client there are various forms they need to supply. So there's defiantly that benefit of being on-line and then making use of that. Connectivity but also client management// so having all the necessary documents pertaining to an individual or a business at your figure tips um…. to make all those decisions. So it's not just being able connect to a finance house but also to have all the right information and quick as possible// so then yes/ they do use connectivity but then they also do have quite a specialised in-house application to manage their clients um… data.

iii) N: How would you describe to me what the term "IT" means to your top management?

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g: How he saw IT…/ wasss just a cost/ a burden/ but now I think he has changed in terms of seeing the value in IT/ basically-making-his-life/ firstly as you know… what do they call themselves?//A consultant? Making his personal life better… but also managing his **team um**… in terms of having visibility of what they doing…//what data they submitting/ what business they are bringing in um… and also he has benefited from a more reliable environment where they can be more productive// that they have connectivity when they need connectivity// where they can access their reliable business applications from where ever they need to/ um… which in-the-past-it-was-a-bit-of-this and a-bit-of-that/ it's more reliable now.

iv) N: And does your top management consult with you regarding the planning of IT in your company?

g: One hundred per cent! Um… we continuously investing time in looking at new products um… options that are available to improve on their current processes/ making them more-productive/ um… so his looking at various different options that's where-they-can-submit-forms-digitally-in-front-of-the-client/ things that are small… but for their business could be a massive improvement. So yes/ **and** there is general feedback that comes from the whole business so um and request that get filtered to um us so there's very much a um conscious how can I say it… they continuously trying to improve on what they've got. So **IT is top of mind** in terms of seeing if there's um…. Where-other-businesses-are-not-quite-there-yet/ they see it as a cost um… and they… you know… they not actively involved in bringing out the value of IT.

v) N: What do you think the reason is for consulting with or without you?

g: Because I'm very 'intelligent' *

Because he firstly doesn't have the time to do all the research himself um… his not qualified um his a…/ in the- finance- sector/ so he doesn't have the time or the knowledge to know whether the things will work the way he wants them to… um so that's where he relies heavily on us to advise him to investigate certain solutions and then investigate the other options that's available. Um… the thing is that before we engage with him/ you know… he kind-of had a 'self-helped' approach… more or less-so he-throws-us-with ideas and we say **yes** or no.

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N: Do you feel that top management in your company knows what is going on in the company's IT environment?

g: Ja… his very much kept in the loop in terms of what… what is being done on the technical side/ and on the more strategic side his there… the whole board- of-directors are quite involved and I can see/ um… where they will as a board… you know… discuss various options and make decisions as a team. So it's not just the one director/ but- he- will do the donkey work/ the whole top management are actively involved.

vi) N: What excites you the most about technology?

g: What excited me most…? Um…//// well I don't know if it's more the type of work that I do// or IT per say…. BUT seeing where IT can make a difference within a business there with (company G) is a good example where they went from a break fix and there was no trust in their IT environment… It just didn't work their way. / Ever month they had a surprise in terms of costs and just about work so it was about taking that environment and putting the right structures in place. Where there's no more meetings with previous IT suppliers… what happen here or… excessive going on the internet because of that. So taking that environment into a more mature level where everything is more standardised **and** is stable it's… it's reliable/ and they know that they want to make certain changes. Where before if they did something then something else would just fall over its… that summarises-where-you-can-see-the-differences-IT-can-make-in-a-business/ from nothing to… to…and it's not too much about **wow** this-is-funky/ It's basically about getting the basics right and your business can function and run. But-for-me/ I enjoy the gadgets-side-of things/ that's what excites me!

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Appendix S

Transcription of an interview; conducted by the researcher with a participant in a top management position.

i) N: If I had to ask you how to describe to me what the term "IT" means to you/ how would you describe it?

H: Um// I think everything that has to do with technology //and um, the computers we use but particularly from my side/ is the laptops and desktops that we use as well as the servers / so basically all our work is on the server we do backups on our servers we so save everything on a server that's in the safe um… that's my IT.

N: simply for the business?

H: Ja, obviously there are also things like the internet connectivity on the internet that's also important for us because most of our work, if we submit anything to the tax office we obviously do it by the internet um… so that is quite important that, that the link is always up so, if it's down that a serious issue for us, and then the outsourced guy has to quickly restore that information/ so that is one of our big concerns so I also see that as a IT related thing.

ii) N: In what way/ if at all// do you see IT adding value to your business?

H: Um… I think one of the big projects here is to scan all of our documents so I and that's also saved on the server so, I can also almost see its more business process but it's also involved with IT. Um// and of course the speed that the computers work that type of thing and making sure that we've got the up to date versions of everything, that's more or less what I see in that we tried to do paperless but I think it's actually more paper now that the guys in the old days had/ just to have because you print and you reprint and you have a draft for financial statements tick there what's wrong and then they go back and they change it again so you've got numerous copies going through.

iii) N: Do you interact operationally with your IT role players often? And if so why?

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H: Um/ Ja, I get an update about every two weeks our outsourced IT people they come here and they just give me an overview of what's happening on the server what's our bandwidth, what's the usage by all the users um… and the problem areas and so on. I think ja, I know more or less what's going on and I've got an inhouse IT person here as well he gives me feedback as well and tells me what PC you've got to buy and so, got interaction with the It. Ja, his not a manager he's the guy that scans and makes sure the printer works and the computers are set up, of everything he doesn't handle or can't handle he goes to our outsourced company and they help him// so it's the outsourced company that is looking at the servers so they monitor the servers and makes sure that they are up and running, backups are done regularly.

iv) N: With regard to the planning of your company's IT do you:

a. Perform this together with your IT role players/ or

b. Delegate the task to your IT department/ or

c. Prefer to perform this on your own?

What are your reasons for doing it in this manner?

H: I think it's a mix of the three, because outsource company is helping us to do a proper budget for our IT needs to look at a… all our machines are old, older machines are then see every two years and then we have to replace them so they help us with that/ the IT person working here… he also checks and see's um… which machines need new things because they use to complain a lot that the machines were old and so that we do as well, and then for… my, what I do myself is that I just obviously check to see that the internet is up and running and they give me feedback so… I do it via our outsourced company and via our IT guy. H: I think that's the easiest what to do it. I mean because I can't spend, my work is not IT related I just want use it and know there's backups and everything. So/ um… I think it's time management so it's better for me to get someone and it's their expertise and that's why we source it out to them.

v) N: Do you need something tangible/ such as a report/ to show what is happening in your IT environment// or do you just need verbal feedback regarding the status of your IT?

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H: Um, I like a tangible report, they give it to me once a week to say what is happening in our environment so ja, I like a report.

vi) N: What excites you the most about technology?

H: mmm, I like the interaction, like um// let's see the, it's easier now to talk to clients I think, you can do it on a different platform as I'm actually investigating to make a feedback page for our company we don't have one, and we've got a website that's under construction, ja, but we don't have a proper website so that's a , lot of projects that I want to do is do is/ to get a proper website in place and maybe a facebook page so our clients can link in there and we can communicate with them. So I know about and I like I like um… the social network thing, as well so you can actually talk to new clients and then even your personal friends on that page so um… our other director is using the ipad he likes his technology so he can see his emails everywhere in the world. For myself and I can link up emails… so if you at a client you can respond and install a program called graphic soft and that's web based so that if you/ you can sign in from everywhere, you can sign in and so everything and see everything so we are embracing new technology, we're not where we want to be yet, but ja we working towards it!

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Appendix T

Transcription of an interview; conducted by the researcher with a participant who is an IT role player in their company.

i) N: If I had to ask you how to describe to me what the term "IT" means to you, how would you describe it?

h: Well for me it's all the computers working on the server keeping it, and maintenance on it you won't believe how much maintenance there is actually especially silly stuff um if the drives aren't mapped I have to make sure that they can print on the network printers/ um sometimes they can't connect to the servers and then it just the plain pulling out of the switch which you k now all the adapters so it all silly stuff mainly its keeping the system up so that everyone can work, for me that's IT. Well it's my job/ that's what it implies.

ii) N: In what way, if at all, do you see IT adding value to your company?

h: It's priceless I would guess, um especially in accounting they have to work over the internet itself on the' network drives' keeping so unless they want lots of paperwork, bookkeeping / computer are priceless I would say. Can't be replaced at the moment!!

iii) N: How would you describe to me what the term "IT" means to your top management?

h: Well 99% of the work gets done on the PC, so you got all the basic stuff, they do all the auditing and bookkeeping um billing everything gets done, excel spreedsheets and then of course the internet e- filling which seems to be a hassle lately because the SARS e-filling services are not up to scratch.

iv) N: Does your top management consult with you regarding the planning of IT in your company?

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h: IT, probably/ the same as me, as priceless! Can't be replaces at the moment we do need it, it's a big expense and I always want to upgrade the PC's as quickly as the need to, but it's defiantly a need in the business, It's a big need… / can't do without it.

v) N: What do you think the reason is for consulting with or without you?

h: Yes I give them what little information that I can, I will give them if I can't I will find out the information that they need.

vi) N: Do you feel that top management in your company knows what is going on in the company's IT environment?

h: Well, mostly second option, BUT, Space Age will come and tell us that this is what we need upgraded and last Charl and Lisa will ask me to just check it up and if we really need it or whatever, and I will see what I can find out for them.
h: Well yes um there's quite a bit they know of… a don't always understand peoples requests especially we've got 50%, well 50% are new PC's and third applications work but the older ones are still struggling, and yes it a big expense to replace them but I think they know what's going on the see the bill at the end of the month from Space Age especially…

vii) N: What excites you the most about technology?

h: I love gadgets… just open them up….*

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Appendix U

A transcription of an interview; conducted by the researcher with a participant in a top management position.

i) N: If I had to ask you how to describe to me what the term "IT" means to you, how would you describe it?

I: Use pieces of equipment/ used to make job functions um... easy// PROcess.

ii) N: In what way, if at all, do you see IT adding value to your business?

I: In many ways, um speed of processing, data from a financial point of view um… speed of analysis, um projections created, you can play with data much easier than on a manual system um it gives you um… well- let- me- GIVE-you-a-practical example, we- we, we have a dash board that picks up key indicators on performance of the company and flashes up on our what's not quite there but its.. when it is going to be functionally properly it will give us a high level indicator of problems that are in the business right across, so we have this dashboard figure of measurement criteria throughout the process, um and to me that's exciting.

iii) N: Do you interact operationally with your IT role players often? And if so why?

I: I have a, in our current structure with our service provider um, I have a weekly meeting with our, the, well our IT guy who is acting as our in-house IT guy his actually from an outsourced company … I don't know what his title um and the purpose of that meeting is to sort of make sure I'm in the loop with any issues that are happening in that system um good communication, protocol that I like to have, to pick up what's happening and then quarterly we will meet with thee Virtual CIO, I don't know what it's called… but basically that, I don't get involved in what they do day to day um in special cases yeah I just like to have a weekly update of what's happening.

iv) N: With regard to the planning of your company's IT do you:

d. Perform this together with your IT role players; or

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e. Delegate the task to your IT department; or
f. Prefer to perform this on your own?
What are your reasons for doing it in this manner?

I: I would certainly not do it on my own (Sarcastically said)…Um, by in large we take guidance. From… from our IT suppliers… um because they are the experts they are at the cutting edge and we're not and um we weigh that um recommendations up against our own internal view of things but most of the time we go with IT company's recommendations.

v) N: Do you need something tangible, such as a report, to show what is happening in your IT environment, or do you just need verbal feedback regarding the status of your IT?

I: The verbal feedback is fine, because um if something is going to go wrong 'm going to get to hear about it, we will get to hear about it quickly… So you don't need a piece of paper or a report to tell you that says… this or that… on other levels they do but I from a general running og IT I mean we got it monitor or you got to monitor it 24/7 so from that critical point of view then you don't need a report to say that. It's a no existing exceptional report.

vi) N: What excites you the most about technology?

I: The change!! I and um what you can do what you can do now you could probably do very differently in a years' time and um just coming from when I started working we were computer fools, there were no handheld calculators, there were no laptops, there we no photocopiers um… it's just the way that technology has…has um made the working environment in A WAY that much easier, but in the same ways that much more complex, um its simpler to do things but some time there's too many things behind the scenes to see them check and balanced um I think the excitement of change!

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Appendix V

Transcription of an interview; conducted by the researcher with a participant who is an IT role player in their company.

i) N: If I had to ask you how to describe to me what the term "IT" means to you, how would you describe it?

i: IT as per definition is information technology!

N: How do you see it?

i: It's an enabler for companies to provide information about how… your business is running/ as well as providing facilities to store manipulate and create your data.

Well obviously it's a multi-faceted thing// you have to look into communication and so on… // BUT ultimately it boils down to is your information/ which- is- your- data.

ii) N: In what way, if at all, do you see IT adding value to your company?

i: In their case there is a lot!/// Obviously communication being a big one/ transferral of data and um… the manufacturing system based on production schedule for EXAMPLE if that's down…// that- obviously- can't- happen and then every department is different you know Human Resources has their own set of data in terms of Pay-roll, employees progress and review etc. etc. Production has a different set of data in terms of their standard procedures/ their recipes and so on.

Finance will obviously be looking at costing, payments, accounts received etc. and you know… that's really it! You know every department it really going to have their own different type of data that they then need/ obviously the point of IT is to make that data easily accessible/ easily understandable/ and highly available.

iii) N: How would you describe to me what the term "IT" means to your top management?

i: An expense.* Um… the financial director see's the need for it but hates the expense of it um…/ but he does realise it's a necessity! And obviously wants the most function

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ability possible/ the most backups as possible for the lowest price possible! So… suppose with any company there is that looking at the 'Theory of Constraints' you going to have that.

You want the most out of it// but pay the least for it! (speaker I) being a accountant by trade and by nature/// I think he looks at it from an/ accounting- point- of- view/ that for him… it's a grudge expense.

iv) N: Does your top management consult with you regarding the planning of IT in your company?

i: To a limited extent yes… I prefer it to be more to be honest um…. specifically that in the company the change of controls are not as good as they should be. Sometimes departments will approach you instead of a formal steering committee or something-like- that which shouldn't be happening/ but/ for the most part I am kept in the loop as to what is happening. Although in the past I have also experienced SUPRISES… where he will ask what is the status of this and I will go huh…! Because they have meetings and action points and no-body ever let me know!!

N: So there is a bit of a communication gap?

i: The problem in my case is… it's not centralised its um… there's no form of steering committee anymore and I tend to things on my own mind shift.

So if HR wants something they don't realise that what they want/ can potentially affect systems in other departments.

v) N: What do you think the reason is for consulting with or without you?

i: No he doesn't leave me out the loop… the other people do…! He tends to use me as the point of contact.

Ideally the other departments should use him as a point of contact…/ as there is no form of steering committee in terms of capital expenditure.

Why does the director consult with me…? /Is because I have a pretty good relationship with him and keep him up-to-date/ so we do have scheduled meetings.

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vi) N: Do you feel that top management in your company knows what is going on in the company's IT environment?

i: They do and they pretty good like that um… the rest of the department NO!/ And um… the biggest problem at the top is that I don't think he wants to know too much about it to be honest. It must be something that blends in with the background that works. He does have an interest especially if costs are too high or a potential saving somewhere or um… of-course if something is broken and people are complaining to him or have quarries// that's about it.

vii) N: What excites you the most about technology?

i: Hmm… that's a very open question!

I would say just actually working with it.//* Because I enjoy working with it you know all the other things are a given working with it… it changes quickly. That's always going to be there but um… play with things and working with things… it's pretty cool!

N: So you enjoy just engaging and the interaction?

i: And I enjoy putting it together, yes!

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Appendix W

Transcription of an interview; conducted by the researcher with a participant in a top management position.

i) N: If I had to ask you how to describe to me what the term "IT" means to you, how would you describe it?

J: // Well information technology, um it's it includes everything, from hardware-to-software to the processes that we we implement it's our business to make it more productive and um more competitive. Generally on a level of our industry…/ make to get an advantage out of something that… other companies-don't- have!

N: So, you see it specifically as a business tool?

J: Yes! At the moment after we moved here it's at the core of our business, where in the beginning stages as a young entrepreneurial company it's sort of a side line issue you can see how you get along you've got your PC all sort of all corners you put them something together that just barley works and as your business grows and becomes more successful you suddenly see what it means to be core of your business after we've gone to our outsourced IT company you know we can actually can't go back now that we have committed… it's become a core of our business.

ii) N: In what way, if at all, do you see IT adding value to your business?

J: I think the information that we have got at hand I imagine is just so different in the early stages of the company what was at the beginning of our journey and what it is now it just so quickly to get to the information that your customers want that you know would have taken us aaages to compile these reports and this information is so, available at you know a click of a button um so I think we can just satisfy our customers in terms of required information that they want quickly than what we would have been able to in the beginning.

J: It allows us to integrate with customers I think and suppliers are a big thing currently is the control um once a business reaches a certain size it's very difficult to

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keep the control and IT allows us to work on a daily basis I think from a business point of view.

iii) N: Do you interact operationally with your IT role players often? And if so why?

J: Because we like them! (Laugh). \\ Um… role players within our company, or other people who supply us with the IT? I think in the beginning phases it was obviously very intense um corporation were certain integrations were, we have software written and we were integrating with certain um partners you know we had people working you know 2-3 weeks onsite doing work, that obviously a very hot phase in terms of the implementation I mean… if you not a single user that's integrated into and use special requirements you need to consult with specialists you need someone to advise you … so I don't think it's possible to make decisions alone, but I would consider us to be very computer… computer savvy! It's just not possible anymore.

N: Fantastic:

iv) With regard to the planning of your company's IT do you:

g. Perform this together with your IT role players; or
h. Delegate the task to your IT department; or
i. Prefer to perform this on your own?
   What are your reasons for doing it in this manner?

J: I think I think that part of the partnership with our outsourced IT company is that we buy admin time and so on… certain time from our IT role player… is that they come and advise us on issues, so for me it's easier if someone comes in for 20 minutes or half an hour… an hour and says look this is something you should consider because you simply get to the heart of the matter if you do need it because you know a report doesn't always answer- answer all of the questions and if you have got someone that understands your business um and that has been entrusted with looking after your business for some time 'he' will be able to make a better determination than I would by just reading a report. So I would say I prefer someone to come along and say don't you want to consider this….

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v) N: Do you need something tangible, such as a report, to show what is happening in your IT environment, or do you just need verbal feedback regarding the status of your IT?

J. Reports/ because we don't even have the time to get verbal feedback. But it depends we are talking about optimisation and- and I um I think for day to day things a report is fine. So it depends really…. If you consider new things I wouldn't consider them on a report, I want someone to come in and say here this is what we can do for you. So improvements for a new implementation I would also say verbal is important.

vi) N: What excites you the most about technology?

J: That I can be at the end of the planet and still be connected to everything. * I think for me… what we have implemented recently I think what excites me about it is that we currently have an IT platform that would actually be fitting much larger business and makes us, even though we relatively small to medium enterprise it makes us very different in terms of our infrastructure. I think that's extremely exciting that this now allows us to compete on a different level because we think the IT transformation actually helped us make a jump from a small back yard garage operation into a business that has a strong infrastructure and is able to compete on a different level I think that I find it very exciting that that that… and I would put it down to the IT the implementation that we have done and now that we are in a position that we are able to do that we previously wouldn't be able to do so I think it makes us a better business a more structured business a more ordered business, that has put certain frameworks in place that have sometimes not you know if your business closes tomorrow literally you don't have these frameworks in place it just grows whichever way business is growing and people just do the things they want to do do them. They not told to do them in a certain way that the business is run and that the boxes and the little things that people have to complete to do is reflected well on… on I think thee… the way the business is run as a whole. Also I think our core business has become so much more effective and if I look at our business, probably our biggest um challenge is HR and I think you can speak to everyone in South Africa and they will all tell you the same… the biggest issue is HR. If we had to run this company about 10-15 years ago we

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would probably have triple the size of staff… so um translating that into the biggest challenge we would have had, had a huge problem.

We would have had numerous problems and we would have had at least 1 or 2 people only exclusively taking care of staff. The fact that we are a medium size company is largely that is running on a staff on a limited staff is only due to IT. We don't have data captures in the business, we don't have….This is all integrated and we have been able to do without all that because of IT so, so you can actually afford to have thee… the training good people and the IT take away the not necessary. I think about 10 years ago um more/ less manual invoicing and things like that you know probably need fifteen people or more. I mean if you take our time that we spend on staff we should then… more staff…// so I think we benefit…. And I think it's good we did it early, I mean you don't have to be this MASSIVE business to find reasons to go from the right IT. It happens very quickly that you actually get repay on your IT.

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Appendix X

Transcription of an interview; conducted by the researcher with a participant who is an IT role player in their company.

i) N: If I had to ask you how to describe to me what the term "IT" means to you, how would you describe it?

j: Um… what the word means or what it means to me?

N: What it means to you.

j: Well// IT is basically the use of technology to assist business processes um… either to automate or to help process the information and by that I mean take data and turning it into something meaningful and in order to do that, we- need- tools…./ We could do it manually but it would take much longer, so there is much more value in applying it appropriately and not only to just give us information. It is the backbone of any company.

ii) N: In what way, if at all, do you see IT adding value to your company?

j: Um… well before they had a PROPER-approach to IT they used to have a lot of downtime, a lot of things use to break, they would have ad-hoc service interruptions all the time. When they made appropriate use of their ERP system which is a new source bag, which is something used to co-ordinate the distributing of all of their products// when they started to do it properly, um… they started to become more efficient, there information is more reliable and more accessible.

iii) N: How would you describe to me what the term "IT" means to your top management?

j: Mainly what it means/ is-a-cost-centre. They typically make the decisions according to what they cost… OPPOsed to what they are trying to achieve. What I try to do is to make them see… we need to find out where we can add value to your business and then spend appropriately… It's… NOT-LETS-SEE-how little we can spend as possible! There is an Afrikaans saying 'Goed koop is deur koop' most people don't understand… they just see it as a cost.

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iv) N: Does your top management consult with you regarding the planning of IT in your company?

j: Yeah/ Typically ever since we started engaging with them, they-they more open to ideas since they realised that there are different offerings.// They ask for recommendations and we link them to find out if we can make things faster and more reliable or ADD systems for things they haven't thought about. //So- they- have- better- use- of- this- information.

v) N: What do you think the reason is for consulting with or without you?

j: Because there job- is- to- understand- business- and- not- technology, and most companies don't understand that there's no point of understanding technology because… if it's not your core function and if you don't sell IT services there's no point of being an IT practitioner! So they good at what they do and I'm good at technology, so I help bridge the gap.

vi) N: Do you feel that top management in your company knows what is going on in the company's IT environment?

j: Yeah, now they do! Theirs is a lot of communication. They never used to previously! They use to try and spend mostly where they need to, they never had the right service providers and vendors so- they- never- saw- the- use- of- IT, they saw it as a whole lot of costs. The problem is you THrough a lot of money and something doesn't come out. So when we started engaging they realised we take the right approach and you firstly do what they want and then that person is guiding them to… to what they want and … and things work pretty well!

vii) N: What excites you the most about technology?

j: Um… the fact that IT is constantly evolving into trying to meet people's expectations AND always falls short because ever one want's a magic wand… um yeah, um… it is becomes more appropriate to life as-you-may-want-it.

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Appendix Y

Transcription conventions:

The use of a * suggests a laugh in the discourse.

. is used as a pause at the end of a speech paragraph (paratone).

/ indicates how long a pause is (one / counts as ever 2 seconds).

… is used when the speaker extends the words.

Capital letters are used to indicate stress through loudness of pitch and loudness.

Bold letter indicate a louder pitch and while the speaker is speaking faster.

– between words indicates utterances continue without a pause.

? is used as a normal punctuation mark (when the speaker is asking a question).

, is used when there is a slight pause in the utterance.