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Business information sources in Gauteng

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Business information sources in Gauteng

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A research report submitted to the Faculty of Commerce, Law and Management, University of the Witwatersrand, in fulfilment of the requirements for the degree of Master of Management by Research

Johannesburg, 2013

ABSTRACT

This research investigated the way in which an academic library could add value to the research undertaken by the business community in Johannesburg. The research was qualitative and data was collected via interviews, both telephonic and face-to-face.

Two research questions were examined: 1. Where does corporate South Africa access information? 2. Why does corporate South Africa access information?

The results were collated and themes drawn to reach conclusions. It was initially thought that researchers in the business community used Google and social media extensively in order to trace information for innovation, the development of new products, and marketing. A significant theme that emerged during the research was that people actually prefer personal contact, either face-to-face or via conferences and telephonically. This contradicts the library literature which maintains that libraries need to maintain a profile in the social media since this is where people are looking for information. It was also discovered that while researchers are using Google extensively, they are not using libraries to any significant extent.

It is recommended that libraries consider linking into communities of practice in order to ensure that they are part of the research process and, at the same time, part of the community of practice, and so are able to anticipate the research needs of their community. The research highlights the need for libraries to actively market their resources to their communities to increase their visibility in order to validate the value they can add to the bottom line of an organisation.

DECLARATION

I, Jennifer Anne Croll, declare that this research report is my own work except as indicated in the references and acknowledgements. It is submitted in fulfilment of the requirements for the degree of Master of Management by Research in the University of the Witwatersrand, Johannesburg. It has not been submitted before for any degree or examination in this or any other university.

Signed at Parktown, Johannesburg……

On the …….. day of 2013

DEDICATION

For Kate, who nagged…

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I should like to thank –

- Mark Peters, my supervisor, for his patience and assistance
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TABLE OF CONTENTS

DECLARATION ..... **III**

DEDICATION ..... **IV**

ACKNOWLEDGMENTS ..... **V**

LIST OF FIGURES ..... **IX**

CHAPTER 1: INTRODUCTION **11**

1.1 PURPOSE OF THE STUDY 11

1.2 BACKROUND TO, AND CONTEXT OF, THE STUDY 11

1.2.1 BACKROUND TO THE STUDY 11

1.2.2 CONTEXT TO THE STUDY 15

1.3 THESIS STATEMENT 18

1.3.1 MAIN RESEARCH THESIS 19

1.3.2 RESEARCH QUESTIONS 20

1.4 SIGNIFICANCE OF THE STUDY 21

1.5 DELIMITATIONS OF THE STUDY 22

1.6. ASSUMPTIONS 22

CHAPTER 2: LITERATURE REVIEW **24**

2.1 INTRODUCTION AND BACKROUND 24

2.2 INFORMATIN RESOURCES ACCESSED FOR INFORMATION 27

2.2.1 LIBRARIES 30

2.2.2 FREE SEARCH ENGINES 32

2.2.3 SOCIAL MEDIA 35

2.2.4 EFFECT OF FREE SEARCH ENGINES ON INFORMATION SEEKING

BEHAVIOUR 39
2.3 THE USE OF INFORMATION IN A BUSINESS CONTEXT..... 42
2.3.1 COMPETITIVE INTELLIGENCE.....43
2.3.2 INNOVATION.....43
2.4 CONCLUSION OF LITERATURE REVIEW 47
CHAPTER 3: RESEARCH METHODOLOGY 50
3.1 RESEARCH FRAMEWORK 50
3.2 RESEARCH METHODOLOGY/PARADIGM 51
3.2.1 QUANITATIVE RESEARCH 51
3.2.2 QUALITATIVE RESEARCH.....52
3.2.3 MIXED METHODS RESEARCH.....53
3.3 CASE STUDY RESEARCH 54
3.4 RESEARCH DESIGN 55
3.5 VARIABLES 56
3.6 POPULATION AND SAMPLE.....57
3.6.1. POPULATION 57
3.6.2 SAMPLE AND SAMPLING METHODS 57
3.7 THE RESEARCH INSTRUMENT 58
3.8 PROCEDURE FOR DATA COLLECTION.....59
3.9 DATA ANALYSIS AND INTERPRETATION.....59
3.10 LIMITATIONS OF THE STUDY 60
3.11 CREDIBILITY AND DEPENDABILITY.....60
3.12 ETHICS 62
CHAPTER 4: PRESENTATION OF RESULTS 63

4.1. INTRODUCTION....63

4.2 DEMOGRAPHIC PROFILE OF RESPONDENTS....65

4.3 RESULTS PERTAINING TO RESEARCH QUESTION 1....66

4.4 RESULTS PERTAINING TO RESEARCH QUESTION 2....73

4.5 CORPORATE LIBRARIANS AND THEIR CLIENTS....75

4.6 TRIANGULATION OF RESULTS....76

4.7 SUMMARY OF THE RESULTS....78

CHAPTER 5: DISCUSSION OF THE RESULTS....82

5.1 INTRODUCTION....82

5.2 DEMOGRAPHIC PROFILE OF THE RESPONDENTS....82

5.3 DISCUSSION PERTAINING TO RESEARCH QUESTION 1....82

5.4 DISCUSSION PERTAINING TO RESEARCH QUESTION 2....93

5.5. CORPORATE LIBRARIANS AND THEIR CLIENTS....95

5.6 TRIANGULATION OF RESULTS....96

5.7. CONCLUSION....97

CHAPTER 6: CONCLUSIONS AND RECOMMENDATIONS....99

6.1 INTRODUCTION....99

6.2 CONCLUSIONS OF THE STUDY....99

6.2.1 PROPOSITION ONE....99

6.2.2 PROPOSITION TWO....103

6.2.3 PROPOSITION THREE....105

6.2.4 PROPOSITION FOUR....105

6.2.5 PROPOSITION FIVE....106

6.3. SUMMARY OF THE RESEARCH....110

6.4 RECOMMENDATIONS.....111

6.5 SUGGESTIONS FOR FURTHER RESEARCH.....113

REFERENCES.....116

APPENDIX A 143

APPENDIX B 145

APPENDIX C 146

APPENDIX D 147

LIST OF FIGURES

FIGURE 1: KUHLTHAU AND WILSON'S MODEL OF INFORMATION FLOW..... 29

FIGURE 2: VUORI AND OKKONEN'S MODEL OF INFORMATION FLOW 29

FIGURE 3: INFORMATION FLOW BASED ON DAWSON 31

FIGURE 4: PIE CHART SHOWING SUMMARY OF PREFERRED RESOURCES 69

FIGURE 5: BAR CHART SHOWING SUMMARY OF PREFERRED RESOURCES 70

FIGURE 6: REASONS FOR RESEARCH IN COMPANIES 74

FIGURE 7: RESOURCES SUPPLIED BY THE LIBRARY VS DEMAND FROM USERS..... 95

FIGURE 8: MODEL OF INFORMATION SOURCES USED..... 107

LIST OF TABLES

TABLE 1: RESULTS SHOWING INTERVIEWEES AND THEIR PREFERRED INFORMATION SOURCES 67

TABLE 2: SUMMARY OF RESULTS 68

TABLE 3: PRIMARY REASONS FOR RESEARCH WITHIN COMPANIES 73

CHAPTER 1: INTRODUCTION

1.1 Purpose of the study

The purpose of this study was to assess the way in which companies access information, and why they do so, in an information rich world and to consider the value that access to libraries, both corporate and academic, adds to this information.

1.2 Background to, and context of, the study

1.2.1 Background to the study

Internationally, both public libraries and academic libraries have tried to expand their operations into the local community with services targeted directly at businesses that have a need for research services, such as, among other services, loans from other libraries, article retrieval from both physical and electronic journals, books in stock in the home library, in-depth research on specific requests, but that do not have the resources that would be required to maintain a permanent company library.

Bennett and Nicholson (2004) have explored the way in which academic business libraries interact with research services in an attempt to determine trends and best practices. Unfortunately, they tend to examine computerised services rather than personal services and concluded that there were no definite useful trends in 2004. In the United States of America, many of these services have been operated by the local public library (Ernest 1993), although there are reported instances of these services operating from universities (Calzonetti 2004; Keller 2007; Simon 1997; Ward, Fong & Camille 2002), while in Great Britain, they tend to be run by the local university (Broady-Preston & Cox 2000; Latimer 1996), or from large corporate libraries (Webb & Winterton 2003), although there are occasional offerings from large public libraries

(Humphreys 2010). Europe seems to operate these services from a public library perspective (Cotta-Schonberg 2000; Johannsen 2004a/b). In both instances, the institutions have seen a need that they have felt could be successfully filled to the advantage of both the institution and the public.

These schemes are usually intended to be self-sufficient, to balance their own books, and, if possible, to increase the funds of the primary institution (their profits should be ploughed back into the primary institution). The University of the Witwatersrand has operated a similar scheme for approximately 25 years, with great success. Details of the scheme are attached at Appendix A.

With the advent of electronic databases, these schemes found themselves in a copyright quandary and have had to modify the way in which they work in order to comply with the copyright laws and the licensing agreements of the databases, which vary from database to database. Several alumni offices have also started offering extended library services to past students, and the database owners themselves have, in some cases, opened up access to the databases to individuals and small businesses at a reduced rate. Free Internet service providers, such as Google, Yahoo, Copernic, etc. have further eroded the market, and consequently, the financial stability of these schemes.

McDaniel and Epp (1995) mention that libraries operating such schemes, offer value for money, enabling businesses to access academic information and assisting them in finding useful, relevant information in the mass of available information. Rader (1997, 2000) points out that these fee-based schemes can generate extra funds for the university, so that everyone gains by opening access to companies and to people who are not current students or staff of the institution offering the service.

There has been a significant amount of research undertaken which considers the value of in-house corporate libraries and the way in which these libraries add value to the corporation (Barter 1994; Calzonetti 2004; Simon, 2011). Attempts have been made to measure this value in order to justify the maintenance of in-house libraries. There is, however, very little research on

the value that a specialist academic library can add to the corporate world. Gordon (2010) emphasises that people “need to know what we don’t know”, because the implications of not having sufficient current information in the business arena could have serious financial implications for the company. Hulme (2009) feels that information should be considered as a strategic asset and should be available on demand, as this will help businesses operate better and achieve their investment and innovation goals quicker and more cost-effectively. Strouse (2003) feels that it is vital to assess the value of information as it affects returns on investments made by the organization. Abels, Kantor and Saracevic (1996) mention that it is difficult to put a value on information and as difficult to determine whether this information requirement should be outsourced to another provider, or kept in-house. Lewis (2004) discusses changes that he perceives to be disruptive and which potentially affect companies. He points out that companies depend on customers and investors and that the company has to be aware of any changes to the commercial environment in order to deliver value to both customers and investors. Corporate libraries tend to be very focused on the core business of the company, whereas the academic library tends to have a greater variety of book and journal stock since it caters to a wider market.

There is a long history of company libraries within organizations, both locally and internally, and these focus exclusively on their immediate company clientele. Armstrong (1975) mentions that company libraries contribute significantly to the organizations’ knowledge base and by so doing, contribute to the bottom line, financially. He mentions that executives need daily information pertaining to other companies, and the business librarian provides this information. MacDonald (1983) mentions that company libraries provide a wide variety of information, ranging from technical information to business related information. The company library name varies from ‘Information Centre’ via ‘Knowledge Centre’ to ‘Resource Centre’ which reflects the different resources and skills required from the professional staff in the 21st century. It is difficult to define corporate libraries, but they are generally regarded as those libraries attached to specific companies, that render an information service exclusively to that organization (Singh & Kumar 2005).

There has been a great deal of research over the last 50 years, into the way in which people look for information (Wilson 1999). Rowley (2004) points out the need to develop insights into the way that library users and their information needs have changed over time. She continues that appropriate research will help libraries and their services stay relevant by offering what the users need. However, this research has usually occurred in universities and schools. Little has been done on the information seeking behaviour of workers in the business world, especially in the South African business world. There is a need to understand the way in which information products, such as databases and journals, are potentially used by business people, since a significant amount of money is utilised in providing these products and companies need to ensure that they are receiving value for money. There is also the concern that the advent of free search engines has changed the way in which people look for information (Haycock, 2008; Keller, 2007; Large, Tedd & Hartley, 2001). Information seeking behaviour is of interest in the business world because both information, and the time spent acquiring relevant information, has a cost and should add value to the organization. This research focuses on the information seeking behaviour of people in the business environment in Johannesburg, in order to determine whether businesses retrieve information differently to the way in which students retrieve information and whether access to a corporate scheme such as the one operated by the University of the Witwatersrand can add value to a business or not.

With this in mind, should libraries, specifically academic libraries, offering this type of scheme, adjust the type of service offered, or even radically restructure their schemes and reposition their services to take advantage of the way in which information is sourced and utilised in the 21st century.

1.2.2 Context of the study

This study falls firmly in the middle between data management and knowledge management. There is a distinct continuum from data to knowledge via information. Data are usually recognised as discrete objects, varying from computer programs to books and articles. This 'data' becomes information when a user needs specific information – if it is not needed, it remains data. When this information is internalised and made tacit by the user, it is transformed and becomes knowledge. Senapathi (2011) elaborates on the distinction between data, information and knowledge – he considers a 'continuum of understanding' as a movement from data to wisdom, that when data is contextualised, it becomes information which leads to knowledge, and sufficient knowledge ultimately can be considered wisdom. He maintains that information always has a context from which one can draw conclusions, that once information has been understood, it becomes knowledge that can be considered an asset by a company. Alavi and Leidner (2001, p. 109) confirm this view when they point out that "data is raw numbers and facts, information is processed data, and knowledge is authenticated data".

This study does not consider either data or knowledge, but seeks to understand the paths used by researchers to convert data to knowledge. An understanding of the way in which researchers look for information will help to determine whether they would benefit from access to an academic library and, by using this access, add value to their research and their organizations. The specific information sought will not be queried, merely whether an academic library would have been able to produce the information quickly and accurately.

We are currently living "in the midst of the greatest explosion of information the world has ever seen" (Rozakis, 2007) and people are finding themselves overwhelmed by the masses of available information without quite knowing what they need or how to retrieve that which they really need, in other words, information overload (Houghton-Jan, 2008). Somers mentions the "morass of conflicting information washing over us" (Somers 2005, p. 159). Bawden and

Robinson (2005, p. 180) call this the “dark side” of information and they suggest that this volume of available information is causing stress and frustration and is actually leading to too little information being utilized.

Sakalaki and Kazi (2009) query whether these paradoxes (too little, too much information) can be considered economically and they suggest that information can be valued in the same way that a physical asset can be valued. They maintain that this “value” is twofold – both the seller and the buyer of information place a value on the information and this may be different according to the perceived need of the recipient. This leads to a consideration of the nature of information while one attempts to reach a useful definition of information. This view confirms that of Kirk (1999), who considers that information and its management helps an organization achieve its goals, and the process of information retrieval and management supports the strategy of the business.

Macgregor (2005, p. 12) maintains that information is different to any other asset and cannot really be compared to material assets since it “represents the genesis of human thought, and is heterogenous and intrinsically intangible”, but because it is so different, it needs to be controlled in some way. Meyer (2005) supports this view of information as a resource and feels that information has a value which should appear in the company’s balance sheet. She continues by stressing that information is context dependent – this is an important point to note as one develops a definition of information. Kallinikos (2006) also emphasises what he calls the two sides of the equation, that the value of information is heavily dependent on what the recipient already knows, and that unless this information is new to the receiver and can be used by the receiver, it has no value. Its usefulness relies on the recipients’ desire to utilise the information received.

Other researchers, such as Hepworth (2007), maintain that information is increasingly being tailored to the specific requirements of the recipient of the information. Information is being commodified and personalized to suit the individual and this is affecting the way that people perceive information and the

way in which it is used. Hepworth (2007) stresses the contextuality of information and posits a simple model that places information in a personal and social context. He continues that it is only by understanding the consumer of information, that one is able to understand the information required and the information seeking behaviour of the end user of information. Haider and Bawden (2007) link this commodification of information to the idea of information poverty – that people have access to so much information that they have no idea where to obtain the specific information they need.

There has been extensive research written on what constitutes information. Case (2007) queries whether there is such a thing as “objective” and “relevant” information. He feels that the term “information” is vague and can have different meanings depending on the recipient. He insists that information has to make a “difference” to someone. “Information” as a word has several different dictionary meanings. He maintains that there are different types of information and that information can be seen as objective and that it tries to describe reality. It can also be subjective, in other words, a personal perception which may not be accurate. There is also sense-making information which allows the individual to move between the objective and the subjective in order to create a personal understanding of the situation under consideration.

He continues by explaining, that for him, there is an information path – information has a source that is transmitted to the receiver that is its destination. There may be interference in the transmission and the reception of this information that will affect the ultimate message received, but the primary factor should be the clarification of the message and the reduction of confusion. He builds on the earlier understanding of information put forward by Wurman (1991), who suggested that information is data transformed into something useable. Wurman (1991) mentions five rings of information – internal, conversational, reference, news, and cultural. Librarians would suggest that the first three (internal, conversational, reference) are the areas in which most communication, and therefore information, resides. He maintains that understanding received information is the key factor. Weller (2007) supports this and reaffirms the fact that information is multifaceted and amorphous.

Based on the above, information will be defined, for the purposes of this research, as a discrete item that is context-specific and leads to a change in the recipient. It is not data, it often requires pre-existing knowledge, and has the potential to create new knowledge, but is not knowledge. Unless the recipient has some background knowledge of the area under discussion, he will not be able to synthesize the information received and, not knowing what to do with this information, will just discard it as irrelevant. However, if the recipient of information has this background knowledge, information received will be added to this existing knowledge and new knowledge will be developed.

Because information has a perceived value, it would be useful for organizations to be able to quantify this value and to be able to show this value among the intangible assets of the organization (Lui, 2000; Introna, 1997; Owen, 2011; Poll, 2003). Jones (2010) maintains that information is an object that can be controlled, unlike knowledge that is the internalisation of information.

Librarians have always been interested in what people know and how they know whatever they know (Haycock & Sheldon 2008). If librarians understand how people look for information and what specific type of information they want, they, the librarians, will be better able to help them find the required information. In the business world, information has a financial value, and it is important to be able to retrieve quality information in the shortest possible time, on demand.

In conclusion, information is context-specific, should make a difference to the recipient, and ideally, is only sought when it is needed. If information is retrieved before it is needed, it will probably be discarded as unnecessary. In the business environment, it should add value to the business and to the individual researcher.

1.3 Thesis statement

An academic library does not function entirely on its own – it is aligned with the larger institution within which it operates. It also directly impacts on its

immediate student population in that it provides access to information so that students can produce original research. A business branch library has an additional focus in that the students engaged in business-related studies wish to take the information they obtain from the library back into the workplace in order to engender improvements in their workplaces. The business library often also offers access to its resources directly to the business world. This access is not currently being used to an optimal extent, possibly because the business environment does not know it is available, or because this environment obtains sufficient information for its needs from other resources.

1.3.1 *Main research thesis*

The intention of this research was to establish the best way in which an academic business library could add value to corporate South Africa, so that both business and the university can benefit in terms of services offered and savings generated. It intended demonstrating that the advantages of access to an academic library by the corporate world would be highlighted by this research.

Such advantages will depend, of course on what information corporate clients require, and how they access it. If corporate users require information other than that provided by libraries, and/or if they are able to acquire it by means other than using a library, then the library will not in fact be able to add value. This is the counter thesis in this research.

Therefore, in order to determine whether libraries, specifically academic libraries, can add value to the organisation, it is important to understand where company researchers find their information and what they are looking for when they need information. By evaluating these questions, it will be possible to determine the possibility for value adding on the part of the corporate and academic libraries.

1.3.2 Research Questions

The first question considered was:

- Where does corporate South Africa access information?

There are several ways of finding information, as mentioned previously, and the following were studied here: libraries, social media and the Internet, since these seemed to be the most likely resources utilised by companies in order to obtain work-related information. Abram (2011) mentions, among other items, social connectivity and cloud computing, both of which have become important within the last five years, so these concerns were deemed important enough to consider for this research, specifically the social connectivity aspect.

The research indicated that people use the Internet to a significant extent, but stop looking for information as soon as they feel they have enough for their current needs, whether this is complete information or even accurate information (Godwin 2006; Goldstuck 2010; Joint 2005; Liu 2000; Pomerantz 2006; Sadeh 2006; Urwin 2000). The intention in this research is to prove the validity of previous research, which has been done at universities, in the business world in South Africa.

The second question considered was:

- Why does corporate South Africa access information?

There are probably several reasons for companies needing information, but one of the most important is so that they know what is happening in their segment of the industry, in other words, for competitive intelligence, and for the development of new products, in other words, innovation. Another increasingly important reason for companies using the Internet is for the marketing of their company and their products, as the Internet provides a quick and cheap way to find out what people think and expect from companies and products.

Answers to these two questions should feed into the thesis that access to libraries, both corporate and academic, add value to the organisation.

1.4 Significance of the study

The significance of this study is multifold:

- it adds to the professional body of knowledge about information seeking behaviour in the 21st century;

- it highlights the effect of the Internet and social media in the provision of information to researchers in the business world;

- it demonstrates the value of information to a business. Alavi (2001) suggests that information improves the knowledge base in an organization and this usually leads to sustainable competitive advantage.

- it underlines the importance of information within an organization.

- in addition, this study aims to fill the existing gap in the information seeking behaviour literature by examining the way in which businesses find information and the way in which they used academic resources.

The timing of the study is important since information and access to information in various formats, and by various means, is growing on a daily basis and it is considered necessary to assess the way in which businesses access information in order to tailor relevant information resources towards people who need these and to determine whether the university corporate scheme is being optimally utilised.

1.5 Delimitations of the study

This study was limited to large corporate organizations in the Johannesburg area, which can be regarded as a microcosm of the Gauteng Province, to corporate libraries which are already members of the Corporate Scheme, and to consultants who could benefit by membership of the Scheme if they know about it. The conclusions can be extrapolated to other major cities in South Africa.

1.6 Assumptions

This research focused on the following groups:

- People involved in research within major companies who were approached to take part in this research and the results were extrapolated to the rest of the corporate environment.

- Corporate librarians in companies that are already members of the Corporate User Scheme at the University of the Witwatersrand were approached for their point of view and their experience of researchers within their organizations.

- Individual consultants who regularly required access to information were also asked to participate in the research.

It was assumed that companies approached to participate in the research would be able to access the Internet, and may well have in-house resources that are used to complement company research.

It is accepted that Internet coverage is not optimal in South Africa. According to Goldstuck (2010), penetration of the Internet in South Africa is 73% for small and medium businesses, but with sectors such as the legal arena having 100% ADSL access, however this research specifically focuses on a selection of organizations and consultants in Johannesburg that have the Internet capabilities that would enable them to take part in the research, since it was

based on their personal methods of retrieving information, so the fact that not all businesses in South Africa had Internet access is irrelevant in terms of this research.

CHAPTER 2: LITERATURE REVIEW

2.1. Introduction and background

Johnson (1996) points out that a significant amount of time is spent looking for information and that people often are not productively employed while trying to find work-related information because they are looking in the wrong place or using available tools incorrectly. Drucker (1995) had earlier also mentioned this point by emphasising the role information plays in the economic chain involved in modern business and the need to utilise this resource properly for the growth and development of the business. This has cost implications for organizations, so if management could be made aware of the way in which employees looked for information, they would be better able to determine that the time spent was gainfully used and whether there was an optimal way of retrieving relevant information.

Researchers point out that organizations, in order to grow, need to continually discover new ideas and ways of working (Barter, 1994; Jones, 2010) and Barter (1994, p.12) adds that "learning should be continuous, for the person as well as the organization… {as} we want and need people who embrace change, innovation and quality…". Choo (2000) and Dason (2005) point out the need for the professional librarian in organising business information since this tends to grow organically and is only useful when it is managed and controlled by the professional.

Much research has recognised that information is vital in an organization, but that there is too much information and no one has time to utilise this information properly, as a result, companies are not utilising resources sufficiently and are not receiving value for the money spent on information resources (Edmunds & Morris, 2000; Koniger & Janowits, 1995; Saalaki & Kazi, 2009; Savolainen, 2008, 2009; Simpson & Prusak, 1995).

Relevant information is essential in any organisation. Johnson (1996) mentions six different aspects to information seeking – social information, decision making, cost minimization, social presence, uncertainty reduction and appraisal. In the work environment, two of these can be seen as important – decision making and cost minimization – and the way in which employees look for and justify their information seeking behaviours should address these two factors. Borghoff and Pareschi (1997) emphasize these points in their discussion of the utility of information technology in the information environment.

Palmer, Teffeau and Pirmann (2009, p. 3) point out that

"Scholars and scientists carry out layers of physical and intellectual activity through a complicated mix of mundane and seemingly idiosyncratic tasks that result in a range of immediate and long-term outcomes".

They continue to discuss the way in which information needs change over time and imply that academic and business information seeking behaviours are the same, but that researchers studying information seeking behaviour do not really understand these changes. Any study that attempts to throw light on information seeking behaviour in the business environment will improve the general body of knowledge in this area.

The researcher needs to see information seeking behaviours in context, in other words, an academic researcher needs, and will use, information in a different way to the needs and uses of the business person (Gaslikova, 1999; Introna, 1997). Without an awareness of the context in which the researcher is working, it will be very difficult to understand information seeking behaviours and to assess the value of these behaviours.

Marcella, Baxter, Davies and Toornstra (2007), in their study, concluded that users want information as quickly as possible and this is vital for the success of an organization, that they are not that concerned about perfection and absolute accuracy every time, but that speed counted. Edmunds and Morris (2000) mention the paradox of too much information, most of which is not useful. Chiware and Dick (2008), in researching the information needs of small businesses in Namibia, concluded that informal sources were preferred to

formal sources and that most small businesses did not know what formal sources were available and could be useful. De Alwis, Majid and Chaudry (2006) emphasise the difficulty of finding useful information quickly in the business world. Dutta (2009, p. 41) defines information seeking as "the complete range of human behaviour as it relates to the search for information in a purposeful way to meet an information gap". De Alwis, et al (2006), while acknowledging the usefulness of the Internet, point out that this access does not mean that relevant and accurate information has been retrieved. They mention that the 'processing' of information is a key component of a manager's job and as such, the reliability of the information retrieved is crucial to enabling the manager to work effectively and efficiently. Fourie (2003), Mi and Nesta (2006) and Nahl (2007) point out that the library needs to refocus the way it works and presents information since so many people consider themselves expert searchers yet are unable to retrieve information that is really useful.

There are different levels of information, such as informal (finding out what is showing at the cinema), formal (work related), and information that affects one's personal life (Case, 2007; Su & Contractor, 2011). The information seeking behaviour will vary according to the type of information that is being sought.

Early researchers into the way in which people look for information are Kuhlthau (Kuhlthau, 1991, 1993) and Wilson (Wilson, 1999, 2000) both of whom developed models which have been enlarged or confirmed by subsequent studies. These models try to get into the psyche of the researcher to determine what methods are used as people look for information. Their research, however, was not focused on the business environment, but on schools and universities.

Wilson (1999) specifically looks at the context which includes the person looking for information and the environment in which that person is operating, then he checks the barriers to finding the information which may also be personal and environmental, before he looks at the way in which the person looks for information. This led him to the development of models of information seeking behaviour where it would seem that all models are cyclical in some way – the person has a requirement for information, he then develops a strategy to find

this information, having found the information, he uses it as found, or revises his strategy and starts again. This cyclical behaviour probably applies in the business world as much as it does in the academic environment.

It has also been noted that, with deeper understanding of situations and people in the fields of psychology and communications, early theories on information seeking which maintained that information seeking behaviour tended to be circular, have been confirmed, and this behaviour is part of the larger information view already held by the seeker (Anderson & Kerr, 2002; Salajegheh & Hayati, 2009; Wilson, 1972). This behaviour is relevant in the business world when the context of information seeking is considered. Krikelas (1983) and Colineau and Paris (2009) have pointed out that if information is received by the requestor in an understandable format, the way in which it is retrieved becomes irrelevant, and the source also becomes irrelevant, and this research will demonstrate this.

Wilson (1995, 2000) has concluded further significant research into the way people retrieve information. This research was primarily done in the academic environment, and not in the corporate world. His more recent thinking demonstrates that he has now placed information seeking behaviour in context, and has expanded on the types of behaviour that can be employed by seekers. He draws attention to four behaviours that he considers important – passive attention (when information is received via the radio or television – the receiver does not look for the information), passive search (the user finds information by accident in areas that are unexpected), active search (the user is deliberately looking for specific information) and on-going search (the user has found information that is useful, but needs to continue searching for further information based on the results of the first search). Case (2007), Fisher, Erdelez and McKechnie (2005), Foster (2003), Marchionini (2006), Niedzwiedzka (2003), Salajegheh (2009), Spink, Wilson, Ford, Foster and Ellis (2002) confirm Wilson's (1995, 2000) thinking.

Other research has elaborated on these ideas in an attempt to develop the context of the search and sources used to obtain information. There have been attempts to link the context of the information seeking behaviour with the type of information sought and to develop the concept of information channels (books, databases, search engines) (Jarvelin & Wilson 2003).

Bernatowicz (1987) disagreed with early research on information seeking as she felt they ignored pre-existing knowledge in the information seeker, which would affect the type of information sought and which resources were used to find this information. She stresses the fact that the level of "need" should be considered. If the requestor has only a passing interest in an item, he or she will not investigate multiple sources for additional information, but if there is an urgent work-related problem that has to be resolved as soon as possible, the requestor will check as many sources as necessary to obtain relevant information.

Leekie (1996) also mentions the work requirement, and points out that information seeking behaviour tends to return to the starting point as more information is retrieved and additional information is required. He demonstrates that the sources, outcomes and awareness of the existence of information are important in the information seeking behaviour of researchers.

The librarian researchers working in the information seeking environment have all designed models of information seeking behaviour, many of which represent the same behaviours, merely differently expressed. Leading researchers developing models include Kuhlthau (1991, 1993) and Wilson (2000, 2002), who are consistently referred to by more recent researchers such as Dutta (2009) as the original developers of these models. The model shown here demonstrates that information tends to be iterative, organised and stored:

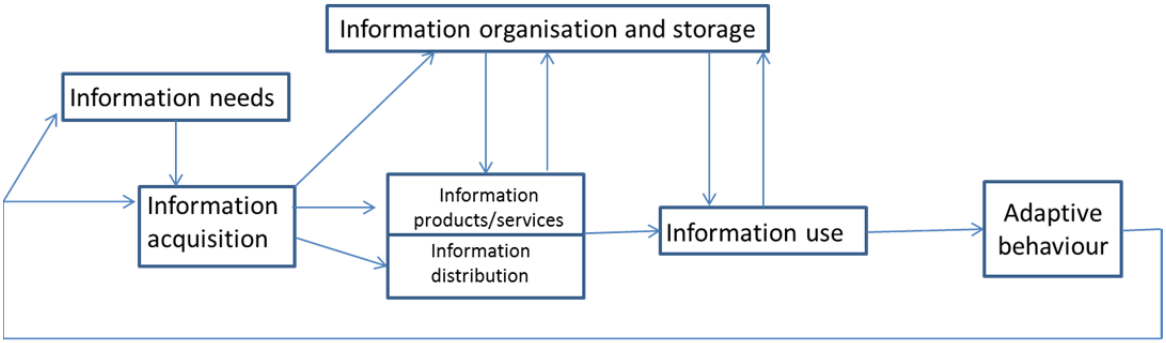


Figure 1: Model of information seeking behaviour

This model is loosely based on both models of information seeking behaviour.

According to Vuori and Okkonen (2012) information has a definite cycle which they picture as a circular movement of finding information, assessing it, and using it, or looking for new information.

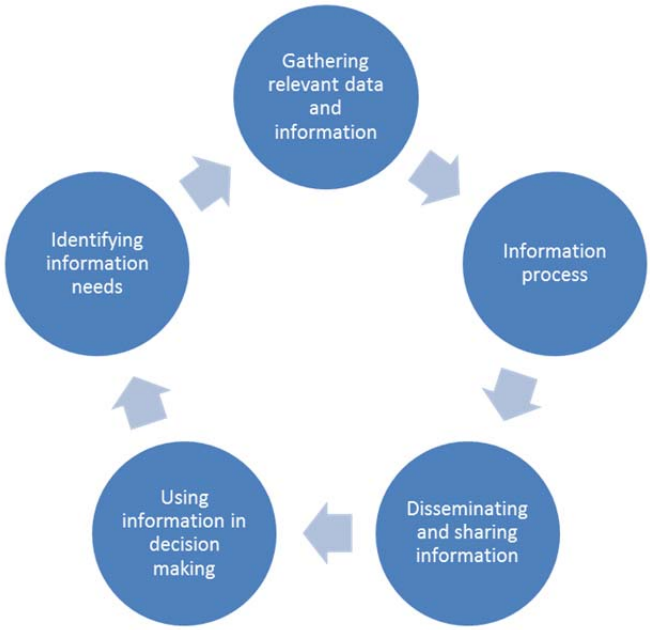


Figure 2: Alternative view of information seeking behaviour

This figure is based on the model developed by Vuori and Okkomen (2012).

Both these models demonstrate the iterative and circular path that information typically travels. The Kuhlthau and Wilson model also mentions storage of information which has become far more distributed and complicated with the advent of electronic data. This aspect has not been explored in the research.

However, one needs to bear in mind that not all information can be turned into knowledge and that not all knowledge is useful – the key to creating knowledge is to find the useful pieces of information when these pieces are needed (Senapathi 2011).

Other writers have pointed out that the concept of information is very wide and research should also include information 'avoidance' as well as its use (Pilerot 2012). This leads to a thought that perhaps researchers, knowing the volume of information available, stop looking when they have found sufficient for the moment.

The following sections detail research done in order to establish a background to the research and to provide the relevant theory from which the research can be conducted and conclusions developed.

2.2. Information resources accessed for information

There are several ways of finding information, as mentioned previously, and the following will be examined here: libraries, the Internet and social media, since these seem to be the most likely resources utilised by companies in order to obtain work-related information.

2.2.1 Libraries

Businesses have to be careful with the way in which they spend their resources in these financially depressed times. As a result, businesses are turning to other sources to provide them with information at a lower cost than providing this in-house (Allen, 2011; Liu, 2000; Mattarazzo & Prusak, 1995; Missingham, 2005; Owen, 2011; Ridley, 2010). Those companies that have corporate

libraries are concerned about the return on the investment in the library and are debating whether the same resources are not available more cheaply elsewhere. Corporate libraries are having to actively manage expectations from management and need to spend time justifying their existence (Camlek, 2010; Cram, 1999; MacDonald, 2010; Matarazzo & Prusak, 1995; Missingham, 2005; Neal, 2011; Poll, 2003; Seidler-de Alwis and Fuhles-Ubach, 2010). This is proving challenging to many corporate libraries, but provides an opportunity for the academic business library to position itself as a provider of information at a relatively cheap level, (Choo, 2000; Gottfried, 2011; MacDonald, 2010).

Dawson (2005:53) discusses professional input into a company and uses a simple way to explain this:

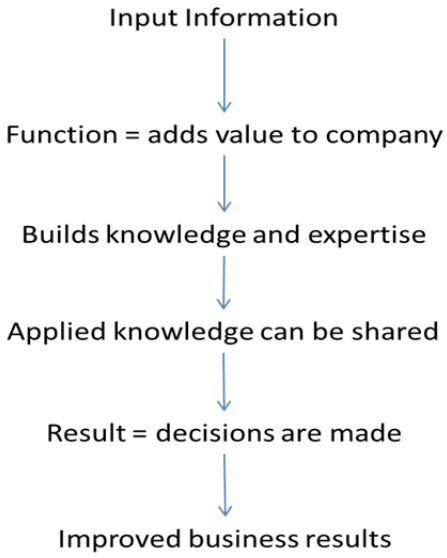


Figure 3. Information flow

Based on Dawson (2005)

While Dawson was not specifically referring to a library, but to professional firms, in his research, this can just as easily refer to libraries, since they offer a

professional service with the above mentioned results. Perret (2010) reaches similar conclusions in his discussion around corporate librarians and academic libraries serving the business world.

2.2.2 *Free Search Engines*

Free search engines have been developed for the Internet over the last approximately 20 years. These include well-known names such as Google and Yahoo, but also include lesser known products such as Copernic and Ask.com. Caufield (2004) discusses the usefulness of Google by analysing the sub-products provided by the search engines. He feels that the mimicking of resources as though they were coming from a traditional library explains a significant part of Google's success. Joint (2005) and Vise and Malseed (2005) recognise that Google intends to be *the* information resource for everyone. Kesselman and Watstein (2005) and Tenopir (2005) add to this impression by mentioning the federated searching available via Google Scholar and how valuable a tool this has proven to be. A federated search is one that searches over several databases simultaneously to deliver one set of results to the enquirer. Gardner and Eng (2005) ran several searches on Google Scholar in order to determine the usefulness of the search engine and concluded that, though there were faults, it was a useful resource that could be recommended to users with professional provisos. Tenopir (2005), Felter (2005), Mi and Nesta (2006) and Sadeh (2006) concurred with their findings.

Brophy and Bawden (2005) in their study, determined that it was very much horses for courses – that Google had tremendous strengths in certain areas, but that academic resources were superior in other areas. They felt that this 'gap' could be narrowed with better training on the use of both Google and academic databases. Godwin (2006) enlarges on this training need in his study of social networking and Google. Watstein and Mitchell (2006), while accepting online search engines, feel that libraries still have a significant role to play in retrieving information for the user.

Vise and Malseed (2005) traced the start of Google and the way in which it has affected students. They mention the continuous disagreements concerning search engines. On the one hand, Google makes students lazy and on the other, it encourages them to continue digging for elusive bits of information long after they would have stopped if they were still using paper copy material. Miller and Pellen (2005) point out that library databases, in order to compete with Google, need to ensure that their search procedures are as simple to use as those of Google and deliver comparable results. MacColl (2006) feels that libraries have no option but to work with the likes of Google. Introna and Nissenbaum (1999) point out that the web is enormous and that most of this information is not readily accessible to the general user, who needs guidance in retrieving the hidden information, but, by the same token, people are not very interested in retrieving everything, as long as sufficient information for their current needs has been found.

Bond (2004) on the other hand feels that the experience librarians are able to bring to searching for information means that they are able to exploit the technological advances far better than the man in the street. Urwin (2000) recognised as long ago as 2000, how useful the Internet would be for small businesses and that it would enable them to compete in certain areas with large, well-resourced organizations. Rowlands, Nicholas, et al (2008) point out that the internet has become so pervasive that it is almost invisible, that everyone considers themselves to be expert searchers, which may not necessarily be the case, and that librarians need to market themselves better to ensure that researchers know that there are real experts to turn to, to help them find the information which exists, but which cannot be retrieved because it resides in a fee-based resource, in other words, it has to be paid for, except by specialist librarians who have extensive contacts in other libraries and which enable them to access items which are not available in the local in-house or public library.

This provides an excellent link back to the library since the academic library often has already paid for these resources and can provide them to the external user at a minimal cost.

Brabazon (2007, p 145) quotes Stafford (1999) as saying

‘Academic research involves three steps: finding relevant information, assessing the quality of that information, then using appropriate information either to try to conclude something, to uncover something, or to argue something. The Internet is useful for the first step, somewhat useful for the second, and not at all useful for the third’ but it could be argued that the flexibility, development and resourcefulness of the Internet since 1999 has made this a superfluous statement since just about all information can be tracked via the Internet with sufficient time and attention to detail. Sadowski, Maitland and van Dongen (2002) feel that the Internet provides a strategic resource for small businesses and that these small businesses probably make more use of the Internet than larger better-resourced businesses.

Hamilton (2004) points out that information is key to everything, that people and companies have moved away from making physical artefacts, and that service delivery of some kind is the general way of working – without internet access and an understanding of the tools provided electronically, no one business can succeed in the 21st century.

So many people are against Google and its ubiquitous influence as they feel that it provides a dumbing down of the population, because it is just too easy to find the information one is looking for (Anderson & Rainie, 2010). However, there is a growing body of researchers that feel librarians can successfully intervene and make Google even more useful since this is a profession that knows how to search for useful and useable information quickly and reliably (Joint 2011).

Detlor (2003) in his research on information seekers, has users moving to and from internet resources, which is what he maintains happens in the business environment. It is important to note he sees this as a bi-directional process (users-internet-users) that suggests that researchers were, when he wrote his article, becoming aware of Internet based resources for their information needs.

McKenzie (2003) raises several points that she feels other researchers have ignored, such as “serendipitous” information received, where the researcher

stumbled upon information without really looking for it, and situations where the researcher is referred to people who could be useful in finding information. This is an important point to bear in mind when considering free search engines.

Little research has been developed which focuses specifically on the business environment and even less that examines the effect of free search engines on information seeking. However, Pleitner (1989) tried to demonstrate the information problem in small businesses, but this was not expanded to show information seeking behaviours in small businesses. He later elaborated on what he called the "technics" section to embrace four factors that he considers important. This section constitutes the primary focus of his research and highlights the importance of selecting relevant sources and processing or understanding the results. This is particularly important in the business environment since an inaccurate understanding of information could have financial implications for the organization.

There are several alternative free search engines which agglomerate (in other words, gather everything together in one place) information to the users' requirements, eg. Scitopia (www.scitopia.org), Zibb.com (www.zibb.com) and Zanran (www.zanran.com), but these are not very well-known so have not been specifically explored in this research.

Niedzwiedzka (2003), in discussing information seeking behaviour in general, has elaborated on Wilson's previous thinking and has developed a useful way of looking at information seeking behaviour that fulfils the requirements of the business environment. However, while there has been some research on information seeking in the business world, there has been little specific to South African conditions.

2.2.3 Social media

There is increasing evidence of the role of social media in the information seeking and retrieval activities of businesses. Social media embraces all kinds of informal, uncontrolled media that are used to communicate with other people and to engage with people who may be considered more knowledgeable than

the information seeker. Media that fall within this scope are Twitter, Facebook, LinkedIn, YouTube and many other systems commonly used on a daily basis. Lange (2008, p. 362) suggests that a social network can be defined as "relations among people who deem other network members to be important or relevant to them in some way". Weaver and Morrison (2008) suggest that since people are generally sociably minded, this is just an extension of the sharing that has always existed between friends and acquaintances. Loudon and Hall (2010), Zeeman, Jones and Dysart (2011) and Zhao and Rosson (2009) mention the utility of connecting like-minded people via social networks and microblogging, and the usefulness of collaboration with others in a similar situation. Puffer and McCarthy (2011) extrapolate this situation to the Russian economy and point out how useful personal networks have proved to be in a rather dysfunctional economy.

Aharony (2012, unpag.) defines Twitter as a "novel form of communication [which] involves posting updates, ideas, or simply quick notifications, thus providing a flexible platform for communication". Twitter has also been seen as superficial and therefore of no use in the business arena, although research indicates that internationally businesses are finding ways of using the apparent superficiality of Twitter to the company's advantage, especially since it allows interaction across time and space (Loudon & Hall 2010). Vuori and Okkonen (2012), on the other hand feel that the informality of social media can be utilised for active decision making within the organization. They feel that social media are ideal for moving information around, both internally and externally, to keep everyone up to date on events.

Anandya (2010) considers that the exchange of information via social networks is intangible but increasingly valuable as people build up a connection with other subscribers to the network who could prove useful resources of information at a later date. DiMicco, Millen, Geyer, Dugan, Brownholtz and Muller (2008) feel that early users of social media want to be seen as thought leaders in their field and as the experts to whom others should refer. Knowledge and the ability to access it speedily is very important in the business environment and Wang and Wei (2011) mention this and underline their

appreciation of the need for both sharing and reusing of information to create new information. This is a common theme that recurs regularly

Wirtz, Schilke and Ullrich (2010) assert that social networks are increasing in importance to businesses, as, not only do they allow the development of new contacts, they also encourage the creation of new business models and assist the company to remain relevant in the electronic age as companies that fail to maintain a digital presence tend to fade from view.

In an article on the information explosion, Abrams (2011) lists those trends which he foresees radically altering the way in which information is handled. Among these trends are mobility (using tablet computers and smart mobile phones), social connectivity (Facebook, LinkedIn), cloud computing, apps, globalization and the supply of instant information anywhere anytime. Morris, Teevan and Panovich (2010) and Dunning (2011) have considered social media as research tools and are largely in favour of their use, mainly because of the increased amount of information readily retrieved using these tools. Kaplan and Haenlein (2010) maintain that social media should be embraced as yet another tool in the information armoury and used to their fullest potential to find information, link researchers, and provide links to potential and existing customers. Bughin, Byers and Chui (2012) suggest that the use of social media allow companies to increase their market share and to take advantage of new opportunities that may arise, and they see an increasing integration of social media into the general work flow of an organization.

Social networking allows all kinds of contact, from the sharing of family photographs to the development of new treatments for medical conditions (Hsiao 2011), and the wide variety of uses to which social networking can be put has implications in the business environment since people can find themselves disclosing information which could be detrimental to the organization (Singh 2011). Albrechtslund (2008) underlines the speed at which information can be retrieved via social networking, but he gently points out that researchers should not lose sight of the more traditional research tools, such as books and journal articles.

Social media have been utilised by online communities to encourage riots (vide London riots, Arab Spring) and research is starting to filter through examining this unexpected use of social media (Mansour 2012). Yeh, Lin and Lu (2011) mention the fact that people can interact via technology without ever meeting face-to-face, which encourages the more timid to acts that they would not normally engage in. Gorman and Pauleen (2011) confirm this by mentioning in their editorial that online information and social media can be used for both good and for evil, and the recipient needs to determine to which use the information will be applied. Scenario planners have been considering ways to understand this phenomenon and terms such as three-ringed world views (social media, feeding into the community, interacting with the larger geo-political world) are being considered (Schwartz 1998).

Several researchers have also mentioned the utility of social networks in the marketing of companies and for general communication with potential and existing customers (Anderson & Kerr, 2002; Bonomi, Heeg, Newton, Robinson & Shabani, 2010; Harris & Rae, 2009; Loudon et al, 2010; Van Zyl, 2008; Wirtze et al, 2010; Worley, 2010), but this has not been explored in depth, since this is not the primary focus of this research.

Based on the above research, the researcher needs to consider several items: the context of the search, the available resources, the needs of the researcher and the time available for the search (Gaslikova, 1999; Savolainen, 2009). These factors will be considered as part of this research, which will specifically consider the well-resourced business environment in South Africa, which has not been considered by researchers before.

The first research question was: where does corporate South Africa access information, and this overview examined three strategic sources of information – libraries, the Internet and social media.

2.2.4 Effect of free search engines on information seeking behaviour

Research indicates that people use the Internet to a significant extent, but stop looking for information as soon as they feel they have enough for their current needs, whether this is complete information or even accurate information.

Satisficing

Hepworth (2007) agrees with Swartz, Ward, Lyubomirsky, Monterosso, White and Lehman (2002) that information is a “commodity” that can be treated as any other commodity, and is thus an ideal candidate for any attempt to limit the amount of information that is necessary in order to accomplish the required task. They argue that people look for just enough information, and do not continue looking past the “good enough” level. This they call “satisficing” (Swartz et al 2002). Palmer et al (2009) have also mentioned this factor, although they have not named their results specifically. Nahl (2007) took this idea a step further and started trying to develop a model of research behaviour that incorporates this concept. Ward (1992) and Warwick, Rimmer, Blandford, Gow and Buchanan (2008) feel that “satisficing” comes into its own when the researcher has time constraints that do not allow him to spend an optimal amount of time looking for the best possible information.

Prabha, Connaway, Olszewski and Jenkins (2007) point out that there is little research on how and why people know when to stop looking for information. They maintain that people usually do not have every piece of information available against which they can make informed decisions, and, practically speaking, people stop looking for information when they feel that they have enough – they are satisfied with what they have found, that it is ‘good enough’. They mention research by Kraft and Lee (1979) that concluded there are three points at which people stop looking for information:

- when everything has been found – satiation has been reached
- when too much has been found and the searcher gives up searching – they call this the ‘disgust’ rule
- a combination, when the searcher has found too much information but is able to answer the query or is disgusted by the amount of information that has been retrieved.

This implies a certain amount of emotional response to the retrieval of information, but it should be placed in context.

Possibly the researcher, knowing that not everything has been retrieved, is still happy with what has been found and is content with the information in hand. Prabha et al (2007) mention further that the individual researcher decides how much information is needed, the amount of time available for the search is significant in deciding on whether sufficient information has been retrieved, and that this search is often handled via the Internet (Google) as it is quick and convenient. Connaway, Dickey and Radford (2011) also underline the time factor in modifying research behaviour.

There is an additional concept known as the “principle of parsimony” (Chatman, 1991; Douglas, 1999; Sober, 1981) that maintains that the simplest answer is usually the correct answer, and that there is no need to continue searching for information when a simple direct answer is sufficient.

Mansourian (2007) agrees with this concept in his study of coping mechanisms in searching. He posits that there four kinds of searches: trivial searches, alternative searches, fascinating searches and crucial searches, and that the depth to which people search depends on what the search means to them. He elaborates on this theme (Mansourian & Ford, 2006) in a discussion around satisficing and the principle of least effort as first developed by Zipf (1949), and further discussed by Case (2007). A model was developed to show when searchers stopped searching. This model includes as reasons for stopping searches early, information overload, time limits, the effort involved in finding useful information and boredom (Mansourian, 2006). Bronstein and Baruchson-

Arbib (2008) concur as they feel that the cost of finding useful information has a trade-off against the least effort needed to find this information. However, Bawden (2007) disagrees with this concept, feels that it cannot be proven and should be regarded as a metaphor rather than a solid theory.

Since the advent of free search engines, seekers of information seem to be taking the path of least resistance and are not looking and reading deeply to determine whether the information retrieved is the best possible information, but rather seem to be assuming that if the information is in a search engine, it is good enough to use. Marchionini (2006) calls this exploratory research as the user is just browsing in a search engine hoping to stumble upon useful information. Case (2007) mentions the ease of access to Internet information being more important than the reliability of the information found. Bond (2004) however, points out research that highlights how much irrelevant information is found on the Internet and how frustrating this is for the information seeker, even though this has been the first point of search for most users.

There is a growing body of literature on the effects of free search engines such as Google on libraries and information seeking. Godwin (2006) says that this is the "age of amateurs" who think they know how to find information but do their searching in a hit-and-miss way, assuming that what they find on the Internet will be correct and will not need verification. Case (2007) agrees with Godwin on this point. Watstein (2006) has done research in American libraries (not necessarily academic libraries) and mentions that 85% of her respondents feel that a search engine is reliable enough for their purposes. Brophy and Bawden (2005) point out that by 2003 Google had become accepted as a verb in the English language and was used generically for all free search engines, including but not limited to, inter alia, Yahoo, Ask.com, and Copernic. They feel that the demand for instant responses to enquiries have encouraged the satisficing/ least effort culture. Miller and Pellen (2005) suggest that libraries need to be aware of the effect of Google and to adjust their services accordingly. This study seeks to highlight the way in which Google, and other free search engines feature in the information seeking behaviour of researchers in the business environment.

Melchionda (2007) and MacColl (2006) expand on the effect of the Internet on information seeking strategies, mentioning among other items, the lack of quality of Internet resources, but mention that researchers need to accept that the Internet is here to stay and that it does provide significant resources. Daly (2000) has created a model of the impact of the Internet on business, and he feels that if this impact on business enterprises can be understood, the way in which the Internet is used, can help to create competitive advantages for business and employees using the resource. Nancarrow, Pallister and Brace (2001) second this opinion. Kennedy, Vardaman and McCabe (2008) emphasise the fact that young people entering the business world are accustomed to finding information electronically and feel that libraries need to ensure that they are well placed to take advantage of this tendency and to ensure that companies know what they can offer and position their libraries to push their special skills in retrieving information to the competitive advantage of the companies utilising their services.

There is no longer one way or place to look for information – there are many sources that should be used to achieve good and reliable results (Julien & Michels, 2004; Kesselman & Watstein, 2005). It is the writer's contention that free search engines, such as Google, have led to a large number of people finding just enough information and not extending their searches until the optimum or most useful information has been retrieved.

Urwin (2000) maintains that the Internet is an ideal solution for the small business as the information it provides, enables small businesses to compete on an equal footing with large enterprises. The DowJones survey (DowJones 2011) emphasises the potential for retrieving poor or incorrect information via the Internet, which can lead to bad business decisions based on inaccurate information. This study aims to determine whether this applies in the business world in South Africa as it does in the academic environment. Auditore (2012) has examined the role of social media for business intelligence, and feels they are useful gauges of, for example, brand knowledge and customer behaviour

Sadowski, Maitland and van Dongen (2002) studied the effect of the Internet on small businesses and its usefulness to the business in a preliminary attempt to develop a working model of the way in which organizations use the Internet. This research attempted to assess whether their research is valid for organizations in Johannesburg.

All the conclusions drawn concerning searching for information via the Internet apply to the use of social media, since this becomes even more of a quick, short-cut way to find information with no obvious way to check reliability. People using social media tend to assume an expertise which might not be there (Dunning 2011; Morris et al 2010).

Based on the literature, the following propositions were developed:

Proposition One:

Corporate users access the following sources of information in order to add value to the organisation:

- Libraries – as shown in the literature, there has been extensive research into the way that businesses approach their in-house resources and potential external resources, as there is a concern around the cost of information, and the need to add value to the company by use of the appropriate resources (McIntosh 2013)
- Free search engines – the literature confirms that Google and the Internet in general, remain the preferred first choice information resource, which is freely and quickly accessed, although there is recognition in the literature concerning the reliability of results obtained from free resources.
- Social media – the library literature asserts that social media is a quick information resource which is growing in popularity because of its ease of access., and Sin and Kim (2013) mention that students find these resources reliable. The inevitable result would be that these same

students would use these resources in the workplace when they get there.

Proposition Two

Libraries are able to add value when providing information to corporate users because they already have in stock, or can easily locate virtually any requirement a user has in the information field. It is often difficult to track down obscure information, but the company and academic librarian, working together, can usually source these needed items.

Proposition Three:

When using free engines and social media, the value of the information may be compromised by satisficing behaviour and a lack of reliability, This problem has been explored, as mentioned in the literature, the problem has been acknowledged and accepted, but no solutions have been offered (Auditore 2012; Bonomi et al 2010; Bronstein 2008; Chatman 1991; Prabha et al 2007; Schwartz et al 2002; Sober 1981; Ward 1992; Warwick et al 2009)

2.3 The use of information in a business context

There are probably several reasons for companies needing information, but one of the most important is so that they know what is happening in their segment of the industry, in other words, for competitive intelligence.

2.3.1 Competitive intelligence

There are many reasons why companies need access to information, but one of the most important reasons should be in order to find out what other companies are doing, whether it can be done better, cheaper or more innovatively. This has a cost implication for the company and ideally this information should result

in financial profit and increased business. Miller, Brautigam and Gerlach (2006) define business intelligence as “getting the right information to the right people at the right time. The term encompasses all the capabilities required to turn data into intelligence that everyone in your organization can trust and use for more effective decision making” (Miller et al, 2006, p.3). Hulme (2009) supports this contention, and sees information as a strategic asset. Miller et al (2006) and Caminade and Catasus (2007) feel that business intelligence is all-embracing, should encompass most people within the organization, will drive profits, will enable the company to anticipate the future and will be a source of sustainable competitive advantage.

Bernhardt (2003) emphasises the competitive nature of business. He mentions “competition for customers, competition for markets and, ultimately, competition for superior returns” (Bernhardt 2003, p. xv). As far as he is concerned, the business intelligence should underpin all strategic planning, since this will enable the company to operate ahead of their competitors in terms of innovations and thus will produce superior financial gains for the company. Connors (1997) emphasized this several years earlier, but stressed the technology on which information rests, without which information cannot so readily be accessed.

2.3.2 Innovation

Companies are continually engaged in research which should lead to inventions which can be developed into marketable innovations – all of which costs money, but should lead to enhanced company profits. None of these inventions can happen in isolation in the world in which the company finds itself. The company researchers need to see what has already been developed, determine whether this development is viable and whether there is a need for the development. This requires information research of a sophisticated level (Wissema 2009).

Shelfer and Goodrum (2000) underline the need for relevant information, that competitive intelligence provides advantages to the company receiving the

information and that ideally, this service should be provided by professional librarians, since these people have the relevant skills to access useful information. Gordon (2010) concurs and mentions that “we need to know what we don’t know”. Cronon, Overfelt, Fouchereaux, Manzvanzvike, Cha and Sona (1994) point out that companies were early adopters of the Internet for information retrieval, with the obvious extension of using this information to the advantage of the company. They continue by mentioning that companies source their information from many places “…the media, government, online databases, word of mouth” (Cronin et al 1994, p. 205), but academic libraries are left out of this list, and this should be a significant source of relevant information to all companies seeking to obtain any advantage over their competitors.

It has been pointed out that technological developments affect companies in many ways (Lewis 2004). He mentions that customers and investors are an organization’s “value network” and as such, need to be involved in some way with changes the company intends making to its products – the market for changes needs to be analysed carefully so that changes are not too disruptive. The company needs to investigate its market in order to find out this information. Without, in this case, innovation, summary changes might well lead to the demise of the company. Hulme (2009) underlines the fact that business intelligence enables the organization to plan for the future and to know how the company is currently performing. Both Lewis (2004) and Hulme (2009) underline the value of information to a business and feel that it is the only way in which a company can realise a good return on its investments. Unisa’s Bureau for Market Research (2011) has also been investigating the value of research to an organization and emphasise that increased competition in the market place requires the diligent retrieval of relevant information in order to counter the competition by understanding the market better. Auditore (2012) has examined the role of social media for business intelligence, and feels they are useful gauges of, for example, brand knowledge and customer behaviour.

The role of the corporate librarian in the provision of information to the company, has been examined and it has been suggested that the corporate

librarian should be seen as an integral part of the organization (Simon, 2011). Simon (2011) develops the idea of the return on investment of the corporate library. This feeds naturally into competitive intelligence, the need for innovation and the advantage the company obtains by the provision of appropriate information speedily obtained. Viviers, Saayman and Muller (2005) mention that there has been little research done on the applicability of competitive advantage in South African companies, from a library perspective. This research seeks to remedy that situation.

Based on the literature examined here, a further two propositions were proposed:

Proposition Four:

As demonstrated in the literature, corporate users seek information outside the organisation for the following purposes:

- Competitive intelligence
- Innovation .

Proposition Five

Libraries are able to add value to corporate users by providing competitive intelligence and innovation that they would not otherwise be able to access.

2.4 Conclusion of Literature Review

This section examined relevant literature in an attempt to create a theoretical grounding in order to address the research questions, which are

- Where does corporate South Africa access information?
- Why does corporate South Africa access information?

Five propositions were developed in response to these research questions, as follows:

Proposition One:

Corporate users access the following sources of information in order to add value to the organisation:

- Libraries
- Free search engines
- Social media

Proposition Two

Libraries are able to add value when providing information to corporate users because they already have the information in stock, or can easily locate virtually any requirement a user has in the information field. It is often difficult to track down obscure information, but the company and academic librarian, working together, can usually source these needed item.

Proposition Three:

When using free engines and social media, the value of the information may be compromised by satisficing behaviour and a lack of reliability. Several authors have discussed the validity of free sources of information, and are generally not in favour of these sources as it is difficult to check the validity. It is generally agreed in the literature that a professional librarian adds weight to the credibility of the research (Brophy & Bawden 2005; Daly 2000; Dunning 2011; Gardner & Eng 2005; Godwin 2006).

Proposition Four

Corporate users seek information outside the organisation for the following purposes:

- Competitive intelligence
- Innovation.

Proposition Five

Libraries are able to add value to corporate users by providing competitive intelligence and innovation that they would not otherwise be able to access.

The main thesis of this research is to consider how access to a business or academic library can add value to corporate South Africa, and the literature surveyed under the various research questions has provided propositions to guide the research which took place in Johannesburg during the course of 2012.

CHAPTER 3: RESEARCH METHODOLOGY

3.1 Research framework

Factors affecting the process of the supply of information were considered within a qualitative research paradigm, and an interpretivist framework. Kirkwood and Campbell-Hunt (2007) and Burke (2007) maintain that an interpretivist framework provides an all-embracing way of considering philosophies such as phenomenology, postmodernism, ethnomethodology and hermeneutics, since all these philosophies try to understand the subjective beliefs of the people involved in the research. They mention that interpretivists are interested in cases that do not conform to existing theories and seek to establish new and emerging theories through their research. This framework allows the researcher to consider phenomena and personal beliefs in order to make sense of the environment in a way that will create meaning for other researchers and for the people involved in the research. Sandberg (2005) points out that research into organizations concerns people and activities within the organizations, and this lends itself to interpretivist research. Easterby-Smith (2008) discusses an epistemology that he calls 'constructionist'. These two terms seem to have similar meanings in the literature and will be treated as the same conceptually.

Henning (2004) suggests that the researcher first needs to determine why research is being done in order to determine the kind of research to be undertaken. Until the researcher knows where he or she is going, he or she will be unable to determine the best route to follow. Kirkwood and Campbell-Hunt (2007, p. 221) are of the opinion that "the choice and use of research methods is one that is secondary to that of methodological paradigms, but it is essential that there is a good fit between paradigm and methods". They continue to say that a paradigm is the researcher's world view and serves as a map or a way in which the researcher can find his way through the maze of information. Bryman

(2007) endorses Henning's ideas and confirms that the type of research question raised dictates the methodology to be followed.

This research was a qualitative research project since, in order to understand how people find information, in-depth interviews were required. The research involved librarians of large companies in Johannesburg, researchers within these large companies, and consultants, who have an information requirement, and was triangulated by reference to research already done for corporate users by the Corporate User Scheme Librarian (document analysis). This provided rich data from which useful conclusions could be developed. Because this research was focused on the interaction between the academic library at the University of the Witwatersrand, the Corporate User Scheme offered by the university and the corporate environment in South Africa, it could also be considered to be loosely framed in a case study mode.

3.2 Research methodology /paradigm

Most research in libraries has centred on academic and public libraries with little attention being given to business libraries. Powell (1999) and Barker, Nancarrow and Spackman (2001) explore different paradigms in an attempt to derive new definitions of modern paradigms, but their discussion still points towards the two major existing paradigms of research: qualitative and quantitative research, which appear to cover new concepts and definitions well.

3.2.1 Quantitative research

There are three major research paradigms, all of which have their own very different strengths and which are used in very specific research applications. The original paradigm was quantitative research. This produces results primarily by means of surveys that are reduced to numbers and graphs to prove the results. It seeks to mimic scientific research that usually leads to a defined result. It tends to accept existing research models and tries to apply these

models to new situations. Practitioners feel that it is the best type of research for the social sciences since it results in an answer and can be reproduced in other situations (Crowley and Gilreath 2002).

Powell (1999, p. 96) says that quantitative research includes “survey … studies…designed to describe current status of phenomenon…” Because the researcher needs to explore the way in which research is conducted in companies, the reason for the research and the implications if this research is not carried out effectively, quantitative research is not regarded as a suitable model to follow.

This methodology was rejected for the current research since interviews were deemed desirable and necessary in order to understand where corporate researchers find information, to explore the reasons behind using the tools they do, and to understand what they wished to discover while using these tools. It also provided the opportunity to enquire whether the interviewee used libraries and knew of the existence of the Corporate Scheme available from the University of the Witwatersrand.

3.2.2 Qualitative research

Because working with people creates difficulties when the researcher tries to reduce emotions and thoughts to numbers, researchers developed qualitative research which tries to examine emotions and how people react to situations and to note this in such a way that other researchers are able to understand the situation and use the results to develop their own research which builds on the previous research (Krauss 2005). Qualitative research allows the participants in the research the opportunity to express their views openly. The researcher attempts to determine holistically the total environment involved in the research. Qualitative research tends to build theory as the research develops. Leedy and Ormrod (2005) point out that qualitative researchers try to examine the phenomena they encounter in all their complexity. They approach research from different angles to see all the facets of the problem. Cross (2004) points out that qualitative research is helpful when verifying results obtained during the

course of the research. Miles (1979), Given (2006), Merriam (1998) and Pratt (2009) point out that this type of research allows for a small selected sample to be researched while allowing the researcher to discover what is happening in specific events and to understand these events better. This also allows theory to be developed around the research conclusions.

Based on the intentions around this research, it was decided that qualitative research was the most suitable as this would allow the researcher the opportunity to engage with the interviewees and to extend the conversation, as necessary, to the consideration of information resource options that had not been considered by the writer.

3.2.3 Mixed methods research

Because researchers feel that qualitative research is too vague and cannot easily be reproduced or verified, they have developed a blend of the two types of research and this blend is known as mixed methods. Mixed methods seeks to take the most useful parts of both qualitative and quantitative research and to create a new result which can be reproduced, can be verified and at the same time, locates the research within a specific situation (Brennan 2005; Creswell 2009; Harrits 2011; Tashakkori and Teddlie 1998; Yin 2009). Harrits (2011) uses mixed methods to construct models which can be applied in other fields of research and may be useful in attempting to construct a model of information seeking behaviour within the business world.

A more recent development here examines the concept that research should actually be ‘multilevel’ to consider how people behave within an organization, that since organizational research is complex and should be dynamic and developing, the researcher needs to consider different ways of looking at the same situation in order to understand this situation in all its potential detail (Hitt, Beamish, Jackson, & Mathieu, 2007). The authors suggest that once the researcher has determined the focus of his research, he is then able to examine the relationship of this research to other groups within the organization under study, at all the levels that may intersect with the focused research.

Brannen (2005), Bryman (2006) and Mahoney and Goertz (2006) point out the advantages of mixed methods, specifically mentioning that quantitative and qualitative research used together provide good insights into the research problem.

Johnson and Onwuegbuzie (2004) are pre-eminent proponents of mixed methodology. They feel that it is a pragmatic solution to the problems encountered in qualitative and quantitative research. Valsiner (2000) emphasizes the fact that research actually looks at the phenomenon being researched and that the most useful methodology should be chosen without undue emphasis on either quantitative or qualitative methods. Fidel (2008) mentions that mixing methods balances out the problems encountered in one methodology by using another methodology at that point and that this creates a richness to the research and adds value to the conclusions drawn.

Several authors have mentioned the practical nature of mixed methods research and have concluded that it should have its own category – pragmatic research (Feilzer 2009; Morgan 2007; Nahl 2007). Since this research is intended to lead to practical and useful conclusions, this researcher feels that pragmatic research is a useful way of approaching this research.

However, since this research did not involve surveys or any quantitative analysis, mixed methods was rejected as not being suitable for this specific research.

3.3 Case study research

Researchers have discussed in detail the kind of research that could usefully be known as a case study (McBurney & White 2004; Merriam 1998; Henning 2004; Leedy & Ormrod 2005; Palakshappa & Gordon 2006; Tashakkori 1998; Thomas 2011; Travers 2001; Yin 2009) and have suggested that a good case study

examines a niche environment and a specific phenomenon. Within the case study, data can be both qualitatively and quantitatively obtained. Benbasat, Goldstein and Mead (1989) mention that case study research is ideal in a situation where theory is still being developed, one entity or group is being examined and the focus is contemporary. This research complies with these points. Powell (1999) mentions that case studies have become an important research method in libraries, because they allow the researcher to look at one specific group in detail, and this matches the focus of this research. Rowley (2004) points out that case studies allow for the analysis of situations and people that provide information that allows organizations to grow and develop strategic plans for the future. This is similar to Merriam's (2002) statement that case studies are selected because they involve a particular group of people or a situation which is of special interest to the researcher – in this case, information seeking behaviour in the business world. Both Kaplan (1988) and Travers (2001) support the use of case studies for researching individual communities. McBurney and White (2004) define case studies as exploratory studies of existing situations in an attempt to create and test various hypotheses. They add that case studies are typically used to study in depth either individuals or groups of individuals – in this case, a study of companies and their research retrieval methods.

Since this research is based on the Corporate User Scheme, as administered by the University of the Witwatersrand, and its subscribers, it can be considered as a case study because the approach is limited to a specific set of organisations involved in research and their support (librarians).

3.4 Research Design

Since this research is qualitative and involves interviews, the researcher relied on snowballing techniques to find researchers willing to be interviewed, followed by an examination of recent requests received by the Corporate User Scheme Librarian from her subscribers which were analysed to see if these requests tied up in any way with the themes that were drawn from the interviews. Five

corporate librarians were also interviewed to provide input into their experiences within their organisations. Koh, Gunasekaran and Rajkumar (2008) and Gabor (n.d.) point out that there may be problems with snowball sampling around potential bias, since the respondents are known to each other. However, the researcher conducted research in several organizations, which mitigated against this potential bias. Gabor (n.d.) mentions that snowball sampling is ideal for informal small groups that might be difficult to find. This would appear to be a good way to find company researchers who are currently unknown and who are possibly unaware of the potential benefits of accessing good data via recognised libraries. Semi-structured interviews were held in an attempt to draw out the respondents' ideas and perceptions around information retrieval and how they use this information.

3.5 Variables

McBurney and White (2004, p. 118) define a variable as "some aspect of a testing condition that can change or take on different characteristics with different conditions". There are usually two variables that are considered – dependent and independent variables. The dependent variable is the item that can change depending on the influence of the independent variable, which remains constant. According to McBurney and White, the independent variable will change the dependent variable in some way. In this research, the dependent variable would be the quality of information retrieved by the user, and the independent variable would be the professional assistance provided by a librarian. Not all variables are independent, and McBurney and White refer to this situation as confounding variables. This situation may arise in this research, as people looking for information may improve their results with practice and experimentation, but without the advice and assistance of a professional researcher. This should become clear during the course of the research.

3.6 Population and sample

3.6.1 Population

The population addressed both the demand and supply side of library usage. The users (demand side) are : researchers in large companies and consultancies

The providers of information value (supply side) are

- corporate librarians in large organisations who provide information services to their employees
- corporate library schemes

The following people were approached for their views:

- *Corporate librarians – 5*
- *People actively doing research within companies (these are usually senior staff members actively engaged in developing the organization in some way) – 13*
- *Consultants – 12*

3.6.2 Sample and sampling methods

In order to sample the user population, interviews were conducted with researchers in companies and consultancies who were willing to be interviewed, and with corporate librarians. The corporate library scheme at the University of the Witwatersrand was interrogated by means of a document analysis which drew on the research the Corporate Librarian has undertaken over the past 6 months to 1 year, which required significant analysis of the query before a response could be delivered to the member. It did not include the quick requests for book loans.

The sample used was a purposive sample since it was chosen to meet specific criteria (McBurney & White 2004) – certain large corporations in Johannesburg, consultants, librarians and members of the University of the Witwatersrand Corporate User Scheme.

3.7 The research instrument

Two research instruments were used

-*Interviews* were conducted with senior information staff and company librarians in an attempt to determine how the companies approach their information needs. These interviews were recorded, transcribed and analysed to draw themes, which reflected conclusions drawn. Schultze and Avital (2011, p. 1) define interviewing usefully as a research approach that is different to other research methods because it "engages participants directly in a conversation with the researcher in order to generate deeply contextual, nuanced and authentic accounts of participants' outer and inner worlds, that is, their experiences and how they interpret them". They mention that the interview must be grounded in the interviewees' own experience and there must be an explicit framework to the interview. The questions used must be consistent across all interviewees, but the interviewee should feel able to express him/herself openly without feeling bound to a rigid pattern and time table. Thomas (2004), Kvale and Brinkman (2009) and Rubin and Rubin (2005) emphasise the problems involved in interviewing people and underline the need for a structured schedule to which the researcher works, even for semi-structured interviews.

This research was semi-structured to allow the interviewees a chance to elaborate on their experiences. This fitted in with Willig's (2008) suggestions for interviewing people.

-*Document analysis* from existing requests received from members of the Corporate Scheme. Rugg and Petre (2007, p. 161) maintain that document analysis is "often a laborious way of gathering evidence to support what you

expected to find in the first place", but for this research it served as a useful tool to determine the kind of information requested by users of the Corporate Scheme at the University of the Witwatersrand (as detailed in Chapter 1 and Appendix A) and the researcher was able to ascertain whether this information tied in with the conclusions already obtained from the interviews. Leedy & Ormrod (2010) mention that this kind of analysis requires significant planning at the outset so that the researcher knows what kind of information will enhance the research as a whole. Hsieh and Shannon (2005) consider document analysis to be a useful and flexible method for analysing content. They define it as "a research method for the subjective interpretation of the context of text data through the systematic classification process of coding and identifying themes or patterns" (Hsieh and Shannon 2005, p. 1278).

The researcher examined her files to retrieve search request over the last 6 months to one year. This analysis strengthened the conclusions drawn from the interviews and created rich data and enhanced the validity of the research.

3.8 Procedure for data collection

The research involved both telephonic and face-to-face interviews, which were recorded. Detailed notes were made, and the interviewees were asked whether they agreed with the summary presented by the researcher.

3.9 Data analysis and interpretation

The data was analysed by the researcher herself. It involved a close consideration of the individual discussions during the interviews to determine common threads and themes which were mentioned. A schedule was drawn up which highlighted these themes, graphs were drawn to demonstrate more clearly the results so that these themes could be examined and conclusions developed. According to Welman and Kruger (2001) this close attention to the detail and content of interviews is known as 'content analysis'. They define content analysis as "a special application of systematic observation…[using]…

open-ended questions…to record the relative incidence of themes… (ibid., p195). The use of semi-structured interviews allowed the interviewee the opportunity to expand on ideas and opinions close to his/her interests, from which the researcher was able to draw the common themes (Details of the interview questions can be found in Appendix B).

3.10 Limitations of the study

This study was limited to existing subscribing libraries to the Corporate Scheme, to researchers in large organizations who were not directly linked to the Scheme, to company librarians and to consultants. These researchers and consultants were tracked via a snowballing technique, so they were often linked in some way. This could be seen as a limitation, but was deemed a suitable way to track down researchers who were not known to the Corporate Librarian. The librarians were already known to the writer from professional associations.

3.11 Credibility and dependability

In quantitative research, the researcher strives to achieve validity and reliability in the results. Hernon and Schwartz (2009) and Potter and Levine-Donnerstein (1999) discuss the issue of reliability and validity in research. They mention that in quantitative research, reliability rests on the consistency of the data but that whether this research could be replicated and the same results obtained. qualitative research relies on the replicability of the research and on the credibility of the results.

Validity relies on whether the research measures what the researcher intends measuring and whether the research is correctly interpreted by the researcher. Rowley (2004) mentions that these are targets which might not be reached during the research, however, the researcher needs to be aware of the issues and attempt to ensure the goal is reached. McBurney and White (2004) consider validity extensively. They mention four types of validity – internal, construct, external and statistical validity. They suggest that internal validity

applies if a cause-effect situation can be demonstrated between the different variables; construct validity applied when measurements measure what they intend to measure and do not create unintended measurements; external validity applies when the research can be replicated to other instances; statistical validity examines the link between the variables in an attempt to determine whether the link really exists or occurred by mistake. Krefting (1991), quoting Agar (1986), considers reliability in the qualitative sense and she asserts that the research must be trustworthy, applicable in other instances, internally consistent and as neutral as possible in order for it to be considered valid. Leedy and Ormrod (2010) also elaborate on validity and reliability in research.

Reliability has been defined by McBurney (2004, p. 128) as "the property of consistency of a measurement that gives the same result on different occasions", in other words, can the research be replicated in other situations, places and times. If it is possible to redo the research and obtain similar results, the research can be considered reliable. Potter and Levine-Donnerstein (1999) concur and mention that reliability is manifest in document analysis. Reliability per Leedy (2010) rests on the following points:

-interpreter reliability – this is when two or more researchers reach the same conclusions

-internal consistency reliability – defined as when all items being tested deliver similar results

-equivalent forms reliability – when two or more tests yield the same results

-test-retest reliability – the same results are achieved by testing the same people on different occasions.

However, as several researchers have pointed out (Denzin & Lincoln 2003; Schwandt 2001; Teddlie & Tashakkori 2009), these concepts cannot be easily transferred to qualitative research since it is impossible to exactly replicate interviews, for example. These authors suggest that the following criteria apply more conveniently to qualitative research: credibility, transferability, dependability, confirmability. They suggest that, based on the themes drawn from the interviews, another researcher would be able to draw the same or

similar conclusions, and thus the research would be deemed credible and could be confirmed. Schwandt (2001) suggests that triangulation, which uses multiple sources of information to draw inferences from the themes found in the interviews, is one way in which the researcher can ensure the credibility and dependability of the research. He continues by mentioning that the research would then be perceived as “trustworthy” and could be considered a sound piece of research.

The concept of credibility and dependability can be directly compared to the concepts of validity and reliability in quantitative research and are more useful methods of expressing the qualitative point of view.

This research made use of triangulation since two distinct types of research were undertaken – interviews and document analysis, in order to ensure credibility and dependability. The conclusions drawn from the individual research instruments led to similar results, which validated the research and answered any questions concerning the trustworthiness of the research.

3.12 Ethics

This research did not directly impact on individuals in their private capacity. It sought to determine how they obtain information which is used in the workplace. As such, there were no ethical implications which needed to be separately addressed by ethics committees.

CHAPTER 4: PRESENTATION OF RESULTS

4.1 Introduction

The purpose of this research was to establish why company researchers and consultants access information, for what purposes, and the best way in which an academic business library could add value to corporate South Africa, so that both businesses and the university could benefit in terms of services offered and savings generated. The researcher's objectives were that the advantages of access to an academic library by the corporate world would be highlighted by this research. Five propositions were derived from the literature in order to answer the initial questions.

Two research questions were asked, which related to the main research thesis and which were examined during the course of the interviews. The conclusions reached in the literature review are summarised here, but the results of the actual interviews will be examined in depth during the course of this chapter and the next.

- Where does corporate South Africa access information?

According to the library literature, which is based primarily in the academic environment and studies students and lecturers, people use libraries, social media and the Internet to access information.

The literature surveyed indicated that people use the Internet to a significant extent, but stopped looking for information as soon as they felt they had enough for their current needs, whether this was complete information or even accurate information. Based on this literature, the researcher asked corporate researchers where they looked for information in order to see whether this corresponded with the literature. The writer hoped to discover the extent of the use of free databases within the corporate environment in Johannesburg, and to

ascertain whether company researchers used valid, reliable, academic sources in their quest for current information.

- Why does corporate South Africa access information?

The literature suggested that companies need regular information, primarily so that they know what is happening in their segment of the industry, in other words, for competitive intelligence. Companies also need to be aware of potential sources of innovation so that they present new products to their core market on a regular basis. Another increasingly important reason for companies using the Internet is for the marketing of their company and their products, as the Internet provides a quick and cheap way to find out what people think and expect from companies and products. The question was posed in order to determine what company researchers were looking for and whether they (the researchers) were aware of the added value a library could bring to their research.

Several other themes emerged during the research which the researcher had not considered, but which appear to be relevant to the research. These will also be introduced here, and examined in further detail in Chapter 5.

All academic research requires triangulation of some kind in order to assess the validity of the research. The triangulation in this research was provided by interviewing both users and librarians, and further through an examination of recent information requests received by the Corporate Scheme at the University of the Witwatersrand. This reflected the point at which researchers stopped relying on their own resources and turned to an academic institution, with its greater resources, in order to complete their research needs.

This research was a qualitative research since, in order to understand how people find information, in-depth interviews were required. The research involved selected librarians of large companies in Johannesburg, consultants, and researchers within other companies, not necessarily served by corporate librarians, and was triangulated by reference to research already done for corporate users by the Corporate User Scheme Librarian (document analysis).

It was expected that this would provide rich data from which useful conclusions could be developed. Because this research was focused on the interaction between the academic library at the University of the Witwatersrand, the Corporate User Scheme offered by the University and the corporate environment in South Africa, it was considered to be research carried out within a case study mode. It has been pointed out that this type of qualitative research allows for a small selected sample to be researched while allowing the researcher to discover what is happening in specific events and to understand these events better, so by limiting the number of respondents interviewed, the researcher was better able to engage with the respondents to discover how and why they are involved in research in their respective organizations.

Both research questions were examined in depth, during the course of the interviews, to determine the responses that were obtained and the way in which these responses fitted the issues raised in the thesis. Graphs were drawn to clarify the results, so that themes and ideas could be extracted from the data. This was then considered in the light of recent requests for information addressed to the Corporate Librarian so that the conclusions could be verified by triangulation.

4.2 Demographic profile of respondents

This research took place over a three-month period, from February to April 2012. A snowballing technique was used to identify willing respondents who consented to taking part in the research. Early respondents were asked to suggest additional respondents for interviewing purposes, and they generally referred the author to contacts that they knew were involved in research within theor own or other companies. As mentioned in the Research Methodology chapter, snowballing implies consent to the research, but each respondent was verbally asked to confirm participation and the reason behind the research was outlined before each interview. Thirty two interviews were conducted, either face-to-face or telephonically, and detailed notes were made both during the interview and afterwards. At the end of each interview, the interviewer summed

up her interpretation of the interview and asked the respondent if this was an accurate reflection of the discussion.

The respondents were drawn from a wide cross-section of the research community in an attempt to elicit information from many people working in the field of research within companies. Seventeen men and fifteen women were interviewed. This was not a perfect spread, demographically, but since snowballing was used to track down respondents, it can be considered to be representative.

The following people were approached for their views:

Corporate librarians – 5
People actively doing research within companies (these are usually senior staff members actively engaged in developing the organization in some way) – 13
Consultants – 12

The corporate librarians were deliberately approached to see whether their experience while helping company employees differed in any respect from the responses the researcher obtained from the researchers and consultants that were approached.

4.3 Results pertaining to Research question 1

The first research question was: where does corporate South Africa access information.

The responses obtained in this research were tabulated (Table 1) so that the researcher could see at a glance which tools the individual respondents used most frequently. These responses were then added together and tabulated (Table 2) and a pie-chart and bar-graph was drawn which reflects percentages. (Graph 1 and 2)

Table 1: Preferred information Sources

People Interviewed	Google	Networking	Specialised databases	LinkedIn	Facebook	Twitter	Conferences	Libraries
1	x							x
2		x						
3	x		x					x
4	x		x					x
5	x		x					x
6	x	x						x
7	x	x		x				x
8	x	x		x	x			
9	x	x						x
10	x	x						
11	x	x		x	x			
12	x	x		x				x
13	x	x			x	x		
14	x	x				x		
15	x	x				x	x	x
16	x						x	
17	x	x						x
18	x		x			x	x	x
19	x	x	x					
20		x		x		x		
21		x						
22	x	x						x
23	x	x	x		x	x		
24	x	x						
25	x	x						x
26	x	x	x	x	x	x	x	
27	x	x	x					
28	x						x	
29			x					x
30		x	x				x	
31	x	x	x	x	x	x		x
32	x	x	x	x	x	x		x

Table 2: Summary of Results

Resources	# of people
Google	26
Networking	23
Libraries	13
Specialised Databases	13
LinkedIn	12
Conferences/Workshops	8
Twitter	8
Journals/Books	6
Facebook	5

Both these tables show that Google remains the primary information resource for most researchers. Libraries are utilised, but personal networking and conferences are considered more important as research sources. The use of personal networks and conferences was a surprise to the researcher since she had not anticipated this. Social media do not feature very high in the research resource arena for local researchers, which contradicts the literature discussed in Chapter 2. These results were confirmed by corporate librarians, based on their experience of research queries in the companies for which they work.

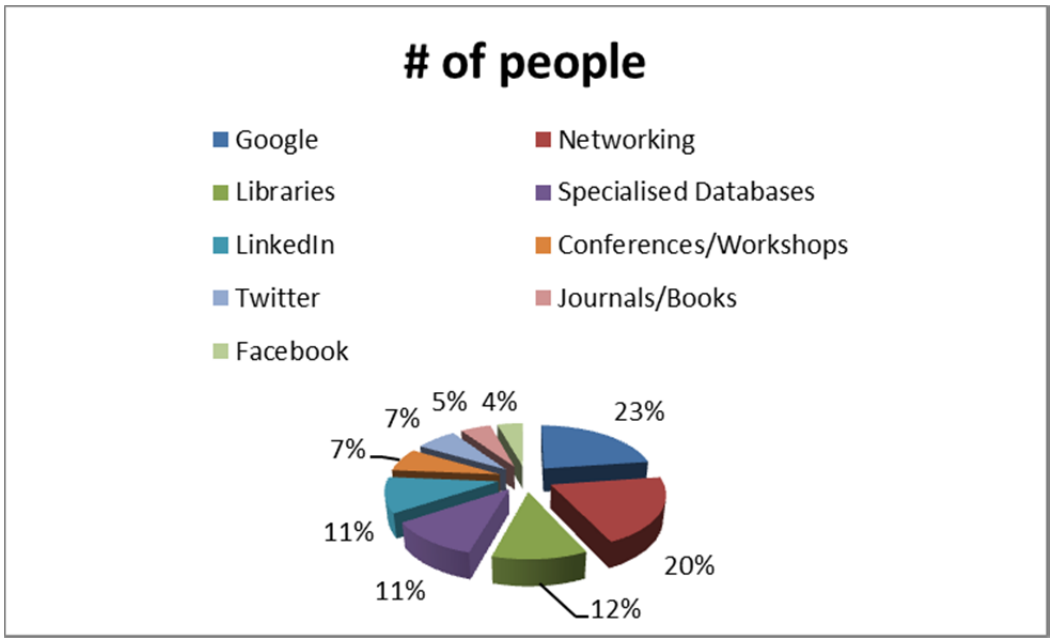


Figure 4: Pie chart showing Summary of Preferred resources

This pie chart shows clearly the spread of preferred information sources. If one then considers the individual percentages, it becomes apparent that Google at 25% is the dominant 'first-port-of-call' for research in the business world. There are some provisos here though, as a couple of respondents mentioned that the company for which they work, does not allow the use of any internet resource and that its use constitutes a dismissable offence.

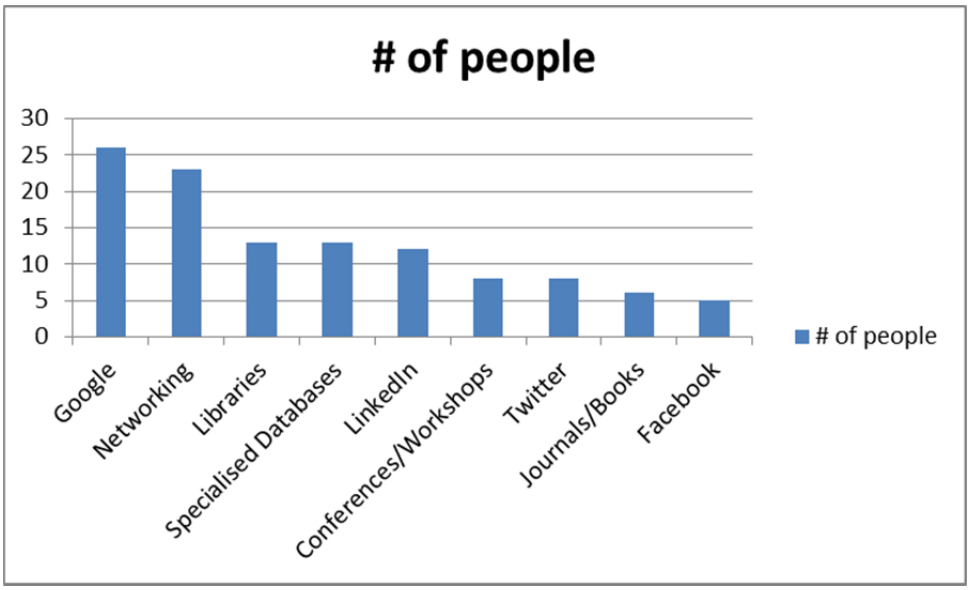


Figure 5: Bar Chart showing Summary of Preferred Resources

This bar chart was added to show the cascading effect of Google and Networking against alternative sources of information. If one adds together the responses obtained for LinkedIn, Facebook and Twitter, which are social media, one obtains 19%, which is noteworthy but not as significant as the percentage obtained adding together conferences/workshops and personal networking which constitutes 30% of the total. This is an aspect of information sharing that the researcher had not considered, and the researcher was surprised to discover how important it is for access to information. This result will be further discussed in Chapter 5.

If one analyses the responses obtained in the interviews, it quickly becomes apparent that the primary resources used in the local business environment are Google, personal networking and libraries. The literature, based as it is on the academic environment, suggests that social media are rapidly becoming the primary sources for retrieving information, but this research, which focuses on the current business environment in Johannesburg, does not bear this out. It

would appear that the business world is not as aware of the potential of social media as the academic world is, and are thus largely ignoring this resource as an area where information can fruitfully be retrieved.

Thus, it is possible to conclude, with conviction, that networking, at 22% together with conferences/workshops at 8%, is the primary source of information in the business world in Johannesburg, closely followed by the Internet, in the form of Google at 24%. Unfortunately, libraries are only seen as an information resource 11% of the time, which is a sad reflection on libraries and will be further discussed in Chapter 5.

The first research question was: where does corporate South Africa access information. This has been clearly answered by the responses obtained from the research, but it does not confirm the literature as discussed in Chapter 2, since the literature presumed that social media were a significant information resource and the research does not suggest that this applies locally. It also demonstrates that libraries are not generally considered as important sources of information which can profitably be utilised and which can add value to company reports with little additional cost, if any, to the company.

The research indicates that people use the Internet to a significant extent, but stop looking for information as soon as they feel they have enough for their current needs, whether this is complete information or even accurate information.

Based on the responses obtained in the interviews, researchers do not try to find all the information available in a particular field of research, but stop as soon as they feel they have answered the problem they are researching. Since Google and networking are regarded as the principle sources of information per the research, at 54% combined, it is the opinion of this researcher that company researchers tend to have a fairly superficial regard to research. This confirms the literature around information seeking behaviour.

All the respondents were asked about the depth of their research, in other words, did they keep on looking for the specialised detail that would enhance their reports, or not. The answers supplied were that there was insufficient time to do this generally, but if there was a particular need for in-depth analysis of a specific problem, this would be appropriately handled.

Thus, the first research question of where corporate South Africa accesses information has been answered and the results do not entirely confirm the literature surveyed, which maintained that company researchers are active social media users. However, the parsimonious approach to research confirms the literature as discussed in Chapter 2.

These conclusions were confirmed by the company librarians interviewed. Their views are examined in greater depth later in the chapter.

4.4 Results pertaining to Research question 2

The second research question that was examined, queried why corporate South Africa accessed information. The table below illustrates a summary of the interview results:

Table 3: Primary Reasons for Research with companies

Reasons for research:	
Competitive intelligence	8
Innovation	10
Market intelligence	3
Marketing	2
Future investsments	1
General: new projects	10
Expert opinions	7

This table shows that both competitive intelligence and innovation feature high in the research undertaken within companies. New projects can be linked to innovation, as researchers understand innovation and new projects as one concept.



Figure 6: Reasons for research within

This pie-chart, extrapolated from Table 3, demonstrates clearly the reasons research is undertaken within companies as determined by responses to the interviews.

As anticipated, the primary reason for research is competitive intelligence, at 20%, to know what other companies are investigating so that your company does not get left behind, and innovation, at 24%, so that new ideas can be developed and delivered to the market place, before other companies present their ideas. Future investments at 17%, also featured as significant as companies do not want to invest in products that have no financial value to the company. Marketing of the company at 5%, had a lower result than anticipated, but scoping the electronic arena looking for new projects in which to involve the company was seen as significant (24%).

The researcher had anticipated that companies would be engaged in competitive intelligence and innovation in their research, but thought that more attention would be given to marketing of the company, especially within the

consultant arena. This proved not to be the case, however, which contradicts the literature as discussed in Chapter 2. The literature also does not specifically mention browsing as a way of scoping projects or looking for new business leads.

The research, however, highlighted the fact that researchers are actively looking for innovative ways of developing new projects by examining similar scenarios in other countries. Marketing of the company does not feature significantly. The reasons for ignoring the potential of marketing via social media and the Internet, are not clear. It is reasonable to conclude that large organisations have specialised marketing departments which handle marketing, but one would have thought that consultants would be making more use of a free marketing tool in order to expand their businesses.

4.5 Corporate librarians and their clients

The corporate librarians interviewed interacted extensively with the Corporate User Scheme, expressing the view about the way in which company researchers approach research and where they go to find information. They have also experienced the user who maintains that he/she has exhaustively searched Google and there are no results to be found. The corporate librarian then points out the specific targeted database and the user leaves happy, but unconverted to the usefulness of the library. Corporate libraries, according to the librarians interviewed, spend a significant amount of time trying to prove their value to the parent organisation, with limited success. Corporate libraries are often regarded as a cost factor to the organisation and not a benefit, thus their budgets are regularly slashed and the library is often closed down, especially in financially stressed times. Foster (2011, Kesselma et al (2005), Kirk (1999) and Liu (2000) have discussed this difficulty of developing library services under these conditions. When the corporate librarian finds a lack of resources, the next stop is the corporate scheme. According to Cooke, Norris, Busby, Page, Franklin, Gadd and Young (2011) the academic librarian serves as a connection between people and encourages the user of the resources to

ALL potential users wherever they may be found. This finding, however, confirms the perceptions of company researchers in their approach to corporate and academic resources.

4.6 Triangulation of results

In order for the research to be considered credible and trustworthy, there was a need to triangulate the results in some way. The researcher examined the Corporate User Scheme requests over the last year in order to determine the typical type of question received which the requestor has not been able to answer with his own resources. This secondary evidence supported the conclusions drawn from the interviews.

Large businesses in Johannesburg often have corporate libraries or information centres, which are the first port of call for employees within those companies. They usually have the databases that are most relevant and useful to the company, eg, information centres at the head offices of the major banks tend to have all the financial databases, such as Dow Jones, Factiva, Thomson Reuters, Datastream and Bankscope. Occasionally, they have also acquired access to limited parts of other databases, such as Ebsco and Emerald. These databases are considered as academic databases since they contain a significant amount of peer-reviewed articles which are used in academic research. They are also not freely available to the general public and are expensive for companies to buy access to, which puts them (and other similar databases) beyond the financial scope of most companies and all small businesses and consultants. However, company librarians regularly receive requests for information which cannot be completed without using these very specific databases, to which they either have no access or only limited access. At this point, the corporate librarian will generally be asked to try other resources, such as contacting the Corporate User Scheme Librarian at the University of the Witwatersrand, and similar schemes offered by other universities, so that more extensive resources can be accessed.

An examination of recent requests highlights this – typically the requests are similar to these:

- Please send us articles on operational risk…
- Please check for articles/case studies/opinions on regulatory compliance…I found loads on Ebsco, but are you able to check elsewhere for me…
- Are you able to assist me with data on 'offset home loans' in general. We have covered Dow Jones, Ebsco and the Internet?
- Are you able to assist with any other additional information, other than Ebsco,... on psychological assessment in South Africa…?
- Can I please have some information on religion and moral entrepreneurship…
- Do you have anything on social political economics?
- We want to organise a conference around 'secure communities' – can we please have some articles for background reading so that we know how to focus the conference
- How does one establish an ombudsman – what would such a person do?

These requests require an understanding of the company asking for the information, plus a considered and thoughtful response from the Corporate Librarian, who has to carefully check her resources in order to provide the most suitable information drawn for the significant resources at her disposal.

As can be seen from these requests, they usually fall outside of the company operating ambit, and therefore cannot be sourced utilising the existing company resources, for example, the request on entrepreneurship came from an major international bank and the request for religion and moral entrepreneurship from a government department. This type of request enables the Corporate Librarian

to supply additional relevant information as she finds it, and provides an alerting option for the relevant researchers within corporations.

These requests indicate that the researchers within major companies first utilise their own resources (the internet, personal contacts), then approach the company library for further help, who then approaches the university since it has access to considerably more databases than most companies. This path of information retrieval – internet – company library – academic library – confirms the literature cited and highlights an ‘awareness’ problem that company and academic libraries have when trying to alert potential users to advanced resources not necessarily available via the internet and social media. It also indicates that researchers are often using an academic library without being aware of doing so, since they think they have obtained the information requested from the in-house resources. This highlights the value of access to an academic library since several corporate libraries utilise the resources. Unfortunately, many researchers are unaware that the company library is accessing external resources and when approached for this research, denied using academic resources. This request path was confirmed by the respondents who discussed the way they look for information in the interviews undertaken by the author.

Unfortunately, Consultants, who could benefit most from this significant library access, by and large, were not interested in joining the Corporate User Scheme, offered by the University of the Witwatersrand. Consultants provide their clients with information. This information could be more academically credible if they were to use the resources of an academic library.

4.7 Summary of the results

The main research thesis this research sought to answer was to establish the best way in which an academic business library could add value to corporate

South Africa, so that both business and the university could benefit in terms of services offered and savings generated.

Two related research questions were therefore raised in this research:

- Where does corporate South Africa access information?
- Why does corporate South Africa access information?

It was anticipated that answers to these research questions would provide a basis to address the main thesis under discussion.

The first research question to be examined queried where corporate South Africa accesses information. Several sources for information retrieval were checked during the interviews. Libraries, the internet and networking featured prominently. Social media, such as Facebook, Twitter and LinkedIn, did not enjoy significant responses. One can therefore conclude that, contrary to the academic research, social media do not enjoy a high research impact factor locally. The researcher had not considered personal networks and conferences at all in her initial consideration of information sources.

According to the research, the majority of people interviewed either use personal contact, in the form of workshops, conferences, personal networks and social media, in order to find out what they want to know. This would seem to indicate that a lot of research is relatively superficial, almost a ‘quick and dirty’ information need. However, when major projects are developed, people will still use libraries and specialised databases in order to retrieve valid, academically useful information.

This confirms earlier research that said that people only look for information until they have enough sufficient for their current needs. The research indicated that people use the Internet to a significant extent, but stop looking for information as soon as they feel they have enough for their current needs,

whether this is complete information or even accurate information. The interviews confirmed this research.

Thus the first research question which examined where corporate South Africa accesses information, has been answered, with the proviso that some of the literature around this question has not been answered locally, since the majority of responses indicate that people still prefer personal contact to social media.

The second research question that was examined queried why corporate South Africa accesses information. The results indicate that information was accessed primarily for competitive intelligence and to investigate new projects. This confirms the bulk of the literature studied, although the literature indicated more use of the internet and social media by small businesses. In the opinion of the writer, South Africa does not appear to have reached that level of sophistication yet, although as the internet and broadband become cheaper, this will probably change. The writer hoped to find that small businesses and consultants utilised libraries extensively, especially services such as that offered by universities, but sadly, this was not the case, and the consultants approached were not interested in this kind of access. This type of response included people who had relatively recently completed Masters degrees at the University and who the researcher thought would appreciate the library resources on offer at the institution. Unfortunately this was not the case and the consultants approached who had not studied locally felt they obtained sufficient information from networking, conferences and the Internet to satisfy their needs.

All the responses obtained from the interviewees, were confirmed in separate interviews held with company librarians. These librarians were open about the use of information within their respective companies, and the steps they had taken to ensure their users were aware of all available resources. They confirmed that libraries, both corporate and academic, are engaged in an up-hill battle against the ubiquity of Google.

As mentioned in the introduction to this research, an academic library should be part of the greater community within which it resides, and as such, has a moral duty to extend its services to those parts of the community that can most benefit from the specialised resources. This corporate outreach is an important part of a Business School's provision of consulting services to the local business environment, and a scheme such as that offered by the University of the Witwatersrand, should be part of the 'package' offered when academics consult to business.

The main thesis that was examined in this research was to consider the best way in which an academic or business library can add value to corporate South Africa, so that both business and the university could benefit in terms of services offered and savings generated and the interview questions were designed to draw relevant and enlightening responses from the interviewees. Unfortunately, it would appear that neither the company library nor the university library enjoys the profile within companies that the librarians would like. It was hoped that the academic literature which emphasises the use of social media within the academic arena would find resonance in the business arena in South Africa. The research partially answered the questions raised, but does not offer any solutions. The researcher hoped that the advantages of access to an academic library by the corporate world would be highlighted by this research, but the respondents who did not already access libraries were fairly dismissive of the advantages to accessing libraries, either in-house corporate libraries, public or university libraries.

In order to understand the questions, five propositions were developed. These will be discussed in subsequent chapters.

CHAPTER 5: DISCUSSION OF THE RESULTS

5.1 Introduction

This chapter will discuss the results obtained from the research in greater detail. It will consider the research questions examined and will link the results back to the literature review in Chapter 2, although a discussion of each proposition is held over to Chapter 6.

5.2 Demographic profile of the respondents

As mentioned in earlier chapters, the respondents were drawn from a cross-section of the research community in an attempt to elicit information from many people working in the field of research within companies. The respondents selected were obtained via a snowballing technique and the result was a mixture of male and female. More men than women were interviewed (17 men and 15 women), but since the method used to obtain participants was a snowballing technique, this is an acceptable difference.

5.3 Discussion pertaining to Research question 1

The first research question considered in the research was:

Where does corporate South Africa access information?

There are several ways of finding information, as mentioned previously, and the following were examined during the research: libraries, social media and the Internet, since these seemed to be the most likely resources utilised by companies in order to obtain work-related information, and this is what the literature maintains are the most used information sources.

Google:

Various responses were obtained during the course of the interviews. These ranged from comments such as '*I have exhausted Google and need to use a library for my research'* to '*I use Google to obtain background information', 'I use Google to scope new projects'* and *'I use Google to find out best practice and current practice in my field'.* Certain respondents mentioned reservations about the reliability of Google and one said that he cross-checks his Google results against Yahoo. Two respondents mentioned that the companies for which they work do not allow the use of Google – that it is in fact a 'dismissible offence' to be caught using Google for work-related information.

Discussion:

In the literature review, the usefulness of Google was highlighted by analysing the sub-products provided by this and similar search engines and the research looked at the usefulness of the resource. It is recognised that Google intends to be *the* information resource for everyone. The federated searching available via Google Scholar has proven itself as a valuable tool for refining searches. Federated search engines provide a search algorithm which moves across multiple databases to retrieve information. It is also known as a 'spider' search. Relevant researchers in this field include Caufield (2004), Brophy and Bawden (2005), Hamilton (2004) and Pleitner (1989). This research confirms the contention raised in the literature that Google is the pre-eminent research tool in the modern world (Haycock, 2008; Keller, 2007; Large et al, 2001). Reservations around the use of Google were mentioned but not enough problems were encountered to affect the conclusion that Google is the place that virtually everyone starts when they are looking for information, be it work-related or personal.

Social Media

Twitter

Very few respondents actually use Twitter to any great extent. One respondent said she was not '*into the rhythm of it'*, another respondent uses Twitter to

check for traffic problems. A respondent who works for a large bank mentioned that the bank had a 'listening centre' which monitors all Twitter traffic that relates to the bank. He himself does not use Twitter, but feels he should catch up. One respondent feels that Twitter is very superficial and he avoids it for this reason.

Another respondent is an avid Twitter user. He only started using the media in July but is a convert – he feels that '*it is possibly the most useful information tool he knows', it is 'the best quick source of information around', 'it provides just enough to know what is happening and I can then read the attached articles if I want to', 'it is a brilliant way to stay in touch with useful information'*. This respondent was most enthusiastic about social media, even though he considers himself a 'technophobe' and feels he has a long way to go to catch up with this environment.

LinkedIn

Not many respondents used LinkedIn to obtain information. A few respondents have LinkedIn profiles but are not actively using the resource as an information tool. One respondent maintains that he is a founder member of LinkedIn, that he is an active user, and is a member of several groups and finds it a useful tool for information retrieval.

Facebook

None of the respondents use Facebook as an information tool. A couple of respondents use it as a way of keeping in contact with family living elsewhere in the world and see it primarily as a casual contact resource. Several respondents actively dislike Facebook and refuse to have anything to do with the resource.

Discussion

Twitter is a relative newcomer to the social media environment, but seems to be growing the fastest. People seem to consider that it has a lot of potential to help them keep in touch with what is happening in their fields. If the very

enthusiastic Twitter user is anything to go by, this is a resource that will grow significantly in the future. This confirms the literature that maintains that Twitter use is increasing. Relevant authors here are Albrechtslund (2008), Anandya (2010),Dimicco et al (2008), Dunning (2011), Kaplan (2010), Loudon et al (2010), Morris et (2010),Van Zyl (2009), Weaver et al (2008), Wirtz et al (2010) and Zhao et al (2009) who all discuss the impact of social networking and the effect of instruments such as Twitter in this environment.

Facebook does not enjoy the high profile as a research instrument that the researcher had anticipated, which indicates that South Africans are not using Facebook in the way it is being utilised internationally (Kaplan et al, 2010, Morris, et al, 2010)

Networking/Conferences/Workshops

Networking, conferences and workshops were repeatedly mentioned as ways of obtaining information. Most respondents mentioned that they network extensively, they refer to people that they have met and know are experts within their fields. These contacts they find via conferences, referrals and workshops. There were, however, a couple of respondents who found conferences a waste of time and superficial. One mentioned that she prefers going to specialised workshops where she can engage with recognised experts.

Discussion

This was an area for the retrieving of information that the researcher had not considered as significant but which is considered very important by all the respondents. This necessitated a review of the literature to see if there was relevant literature to support this view. Two articles had actually been noted during the literature review as mentioning personal networks (Chiware and Dick, 2008; Puffer and McCarthy, 2011), but the researcher had considered that, since the research was undertaken in Namibia and Russia, respectively, it would not apply in South Africa. This assumption that locality affected the results was erroneous. Further research revealed other authors investigating

this phenomenon. Several authors (Fox, Deaney and Wilson 2010, Johannisson 2011, Macek, Scholz, Atzmueller and Stimme 2012, Manolova, Manev and Gyoshav 2010 and Ostgaard and Birley 1996) detail their experiences and research in the area of personal networks and the reasons for their growth. Macek et al (2012) specifically mention the utility of conferences for networking opportunities which lead to co-operation and potential new projects. All these authors mention the formation of communities of practice and mentoring through networking. This research oversight on the writer's part serves as a timely reminder that researchers often miss the obvious because of their own preconceptions, and it is the opinion of this writer that there should be a greater emphasis on potential 'missing pieces' in research and research colloquia might prove beneficial in highlighting these 'missing pieces'.

Conclusion of discussion pertaining to the Internet and social media

The literature discussed the usefulness of Google by analysing the sub-products provided by this and similar search engines and looked at the usefulness of the mimicking of resources as though these were coming from a traditional library to explain a significant part of Google's success, while simultaneously and co-incidentally pointing out that Yahoo, Copernic, Ask.com, which do not mimic library-type results, did not enjoy the same high profile that Google does. It is recognised that Google intends to be *the* information resource for everyone. The federated searching available via Google Scholar has proven itself as a valuable tool for refining searches. Researchers have run several searches on Google Scholar in order to determine the usefulness of the search engine and conclude that, though there are faults, it is a useful resource that can be recommended to users with professional provisos which point out the shortcomings of the tool. It has also been pointed out that Google Scholar often merely points out that information exists, but that it cannot be retrieved because it resides in a fee-based resource, in other words, it has to be paid for.

Other researchers, in opposition to this, feel that the experience librarians are able to bring to searching for information means that they are able to exploit the technological advances far better than the man in the street. It was recognised

as long ago as 2000 how useful the Internet would be for small businesses and that it would enable them to compete in certain areas with large, well-resourced organizations. The Internet has become so pervasive that it is almost invisible, that everyone considers themselves to be expert searchers, which may not necessarily be the case, and that librarians need to market themselves better to ensure that researchers know that there are real experts to turn to, to help them find information.

Little research has been developed which focuses specifically on the business environment and even less that examines the effect of free search engines on information seeking. However, some research has tried to demonstrate the information problem in small businesses, but this has not been expanded to show information seeking behaviours in large businesses. This section constitutes the primary focus of this research and highlights the importance of selecting relevant sources and processing or understanding the results. This is particularly important in the business environment since an inaccurate understanding of information could have financial implications for the organization. Because of the lack of research on the impact of the internet on small businesses, it seemed important to approach several consultants, who are running their own small and micro businesses in order to gauge the way in which they utilised the free resource of the internet in their quest for information which was relevant to their consultancies. Twelve consultants were approached and their responses noted. Generally speaking, large organizations have significant in-house resources in terms of paid, resource-specific databases. The researcher felt that it was important to test whether the company resources were optimally utilised, or whether these resources were considered only after an internet search had been undertaken and had produced insufficient results. Thirteen researchers within companies were approached and their responses noted.

There is increasing evidence of the role of social media in the information seeking and retrieval activities of businesses (Albrechtslund 2008) Social media embraces all kinds of informal, uncontrolled media that are used to communicate with other people and to engage with people who may be

considered more knowledgeable that the information seeker. Media that fall within this scope are Twitter, Facebook, LinkedIn, YouTube and many other systems commonly used on a daily basis. It has been suggested that a social network can be defined as a brief connection between people who consider other users of the network useful or more knowledgeable than themselves. Other researchers suggest that since people are generally sociably minded, this is just an extension of the sharing that has always existed between friends and acquaintances (Hsiao 2011). Researchers also mention the utility of connecting like-minded people via social networks and microblogging, and the usefulness of collaboration with others in a similar situation.

Some research mentions that the exchange of information via social networks is intangible but increasingly valuable as people build up a connection with other subscribers to the network who could prove useful resources of information at a later date (Mansour 2012: Gorman et al 2011). Early users of social media often want to be seen as thought leaders in their field and as the experts to whom others should refer. Knowledge and the ability to access it speedily is very important in the business environment and research regularly mentions this and underlines an appreciation of the need for both sharing and reusing of information to create new information. This is a common theme that recurs regularly in the literature, since microblogging, such as the use of Twitter, can supply instant information anywhere anytime (Weaver et al 2008). Social media have been considered as research tools, largely favourably, mainly because of the increased amount of information readily retrieved using these tools (Wirtz, et al 2010). It has been proposed that social media should be embraced as yet another tool in the information armoury and used to its fullest potential to find information, link researchers, and provide links to potential and existing customers. Recent research suggests that the use of social media allows companies to increase their market share and to take advantage of new opportunities that may arise, and researchers see an increasing integration of social media into the general work flow of an organization (Anderson etal 2002; Bonomi et al 2010; Loudon et al 2010).

Knowledge and the ability to access it speedily is very important in the business environment and research regularly mentions this and underlines an appreciation of the need for both sharing and reusing of information to create new information. This is a common theme that recurs regularly in the literature, since microblogging, such as the use of Twitter, can supply instant information anywhere anytime. Social media have been considered as research tools, largely favourably, mainly because of the increased amount of information readily retrieved using these tools. It has been proposed that social media should be embraced as yet another tool in the information armoury and used to its fullest potential to find information, link researchers, and provide links to potential and existing customers. Recent research suggests that the use of social media allows companies to increase their market share and to take advantage of new opportunities that may arise, and researchers see an increasing integration of social media into the general work flow of an organization.

This research, however, indicates that South African researchers are not really keen on exploring the opportunities that may exist in social media and prefer to utilise known contacts for information resources.

Libraries

Sadly, most respondents did not use libraries, one respondent actually said that as far as he was concerned *'libraries were superficial, like coffee shops'* and were useless for his needs. Another respondent felt that libraries were inconvenient and access was problematic. A respondent mentioned that if she had access to an e-library (electronic library), she would probably use it, but in the interim, she relied on the resources supplied by her head office. One respondent mentioned that he uses his company library extensively if he has to do in-depth research and '*wants to impress the bosses'*. He is new in the organisation and sees this as a way to make his mark.

The majority of the respondents failed to see libraries, with their specialised products, at 22%, as the first place they should approach when looking for

information. Libraries remain in the queue after the use of internet resources. It is pleasant to note though, that sufficient researchers are aware of, and use, libraries, which will be a comfort to company librarians concerned about the viability of their libraries with the ubiquity of the internet.

Discussion

The literature indicates that libraries have a significant role to play in the retrieval of information. The advantages of both in-house and outsourced libraries are extensively discussed in the literature (vide inter alia, Ridley 2010; Allen 2011; Missingham 2005; Seidler-de Alwis et al 2010). However, in the greater Johannesburg area and the business environment, libraries are not used extensively and their image is one of inconvenience and they are perceived as largely irrelevant. This directly contradicts the literature, but probing on the part of the researcher to elicit further reasons for the non-use of libraries bore little result. The respondents who do not use libraries have no intention of changing their minds, and those who do use libraries are happy to continue doing so, and would like greater access to more resources where possible. Cooke et al (2011) point out that the library is less 'visible' nowadays, since so many resources are now available electronically and the user does not realise the integral part that the library plays in obtaining these resources. They add that libraries need to prove their resources are better than resources found on the Internet. Smith (2011) points out that a library's collection and services are only useful if they are used by the intended community, and suggests that libraries consider themselves as a 'brand' and develop plans to market their 'brand' (i.e. the resources) more effectively to their clients.

Other themes emerging from the research

Several other themes arose during the course of the interviews, which the researcher had not considered, but which make the research more valuable. These include: networking, expert consultants, specialised databases, conference attendance and workshops, and the actual purchasing of books and

subscriptions to relevant journals, all of which are the more traditional ways of obtaining information. Networking, which the researcher had not considered, would appear to be very important in the local business environment, which indicates that people still prefer talking to other people rather than using technology to retrieve their information. This result recognises that modern man remains a social animal, regardless of the technology with which he surrounds himself. This aspect will be further considered in Chapter 6.

Satisficing

The research indicates that people use the Internet to a significant extent, but stop looking for information as soon as they feel they have enough for their current needs, whether this is complete information or even accurate information.

The literature indicates that researchers felt that information is a "commodity" that can be treated as any other commodity, and is thus an ideal candidate for any attempt to limit the amount of information that is necessary in order to accomplish the required task. The argument is that people look for just enough information, and do not continue looking past the "good enough" level. This has been called "satisficing". It is also felt that "satisficing" comes into its own when the researcher has time constraints that do not allow him to spend an optimal amount of time looking for the best possible information. Hepworth (2007), Nahl (2007), Prabha et al (2007) and Swartz et al (2002) all consider satisficing.

Since the advent of free search engines, seekers of information seem to be taking the path of least resistance and are not looking and reading deeply to determine whether the information retrieved is the best possible information, but rather seem to be assuming that if the information is in a search engine, it is good enough to use. This has been called exploratory research as the user is just browsing in a search engine hoping to stumble upon useful information. The ease of access to Internet information was considered as being more important than the reliability of the information found, but by the same token, it has been pointed out how much irrelevant information is found on the Internet and how

frustrating this can be for the information seeker, even though the Internet has been the first point of search for most users. (vide Dunning (2011), Godwin (2006), Melchionda (2007), and Morris et al (2010)).

Discussion

The majority of people interviewed either use personal contact, in the form of workshops, conferences, personal networks and social media, in order to find out what they want to know. This would seem to indicate that a lot of research is relatively superficial, almost a 'quick and dirty' information need and supply. However, when major projects are developed, people will still use libraries and specialised databases in order to retrieve valid, academically useful information. The responses received during the interviews agree with the literature – people tend to search for 'just enough' information to answer the immediate problem. There were respondents, however, who varied the depth of information retrieval, from superficial to a considerable amount, depending on the person who had requested to information, and whether this person was in a position to affect the career of the respondent. The responses also indicate that researchers in the business world tend to be more focused in their searching than researchers in the academic world. Vague 'trawling' for information in the hope of stumbling serendipitously on something of interest does not occur in the business environment, probably because of the time constraints and the need to operate flexibly and with speed. The interviewees confirmed this opinion.

This confirms earlier research that said that people only look for information until they have enough sufficient for their current needs. The research indicated that people use the Internet to a significant extent, but stop looking for information as soon as they feel they have enough for their current needs, whether this is complete information or even accurate information. The interviews confirmed this research.

Conclusion

The first research question examined was where corporate South Africa accesses information.

The expected resources – libraries, social media, the Internet – were examined. It was found that, indeed, these were primary sources of information, but networking and conferences featured largely in the respondents' responses. These were aspects that the researcher had not initially considered which were significant.

The conclusion to be drawn here is that this question had only been partially answered in that conferences and networking are preferred modes of information retrieval over using libraries, however, the aspect of looking for 'just enough' information, id est, satisficing, has definitely been confirmed by the interviews. Company researchers only look for sufficient information to conclude their current project and do not explore beyond the scope of current needs.

5.4 Discussion pertaining to Research question 2

The second Research question that was examined, queried why corporate South Africa accessed information.

Companies need information for a variety of reasons – those highlighted in this research include competitive intelligence and innovation. Competitive intelligence is important, since an organisation needs to be aware of what the competition is investigating in order to match or improve on the potential new offerings about to be placed in the market. Without this knowledge, or ignoring this knowledge, the company will be left behind, and this will have serious financial implications for the company. Several respondents maintained that a core part of their work involved a complete awareness of what their direct competitors were doing. This was evident in the banking arena, which is highly

competitive in South Africa, with the banks playing ‘catch up’ with the first-to-market ideas.

Other reasons that were highlighted during the interviews were for innovation and to discover best and current practices in specific fields. The respondents all mentioned the need to keep abreast of what the local and international competitive companies were doing so that the companies for which the respondents worked could respond quickly and appropriately. This confirms the literature (Bernhardt 2003; Cronon et al 1994, Shelfer et al 2000, and Wissema 2009) which highlights the primary reasons for the involvement in business research.

Discussion

The researcher was interested to discover that a lot of research is being undertaken to determine whether new projects should be developed, in addition to research into competitive intelligence and innovation. Consultants spend a great deal of time looking for new leads and potential companies to which they can offer specialised consulting services. These consultants also need to be aware of international trends so that they can align their consulting to relevant changes within their specific niches.

It was anticipated that a lot of companies would be using networked media as a marketing tool, which is what the literature indicates happens internationally. However, this is not highlighted by the research, so it would appear that companies in Johannesburg still use traditional media, such as newspapers, radio and television for marketing. This could be because the internet range is not optimal yet in South Africa, and is not utilised by small businesses, though this will change if broadband becomes more widely available, cheaper and faster to use.

The second research question that was examined queried why corporate South Africa accesses information. The results indicate that information was accessed primarily for competitive intelligence and to investigate new projects. This confirms the bulk of the literature studied, although the literature indicated

more use of the internet and social media by small businesses. South Africa does not appear to have reached that level of sophistication yet, although as the internet and broadband become cheaper, this will probably change. The third research question is thus confirmed by the literature.

5.5 Corporate librarians and their clients

As mentioned in chapter 4, corporate librarians have found the same lack of interest expressed in the library by company employees. This is of concern since libraries spend a great deal of money supplying resources which are of use to the company. They supply books, journals and databases in anticipation of a demand, which often is not large enough to justify the financial outlay on these resources. This confirms the findings in academic libraries (Spalding et al 2006; Saalaki et al 2009) that people (students, academics) demand certain resources and then fail to use these when they are supplied. Librarians, both academic and corporate, are concerned that the supply-demand ratio is out of kilter, and that only a small portion of the supplied resources are actually utilised, even though the demand was initially there. This can be illustrated as follows:

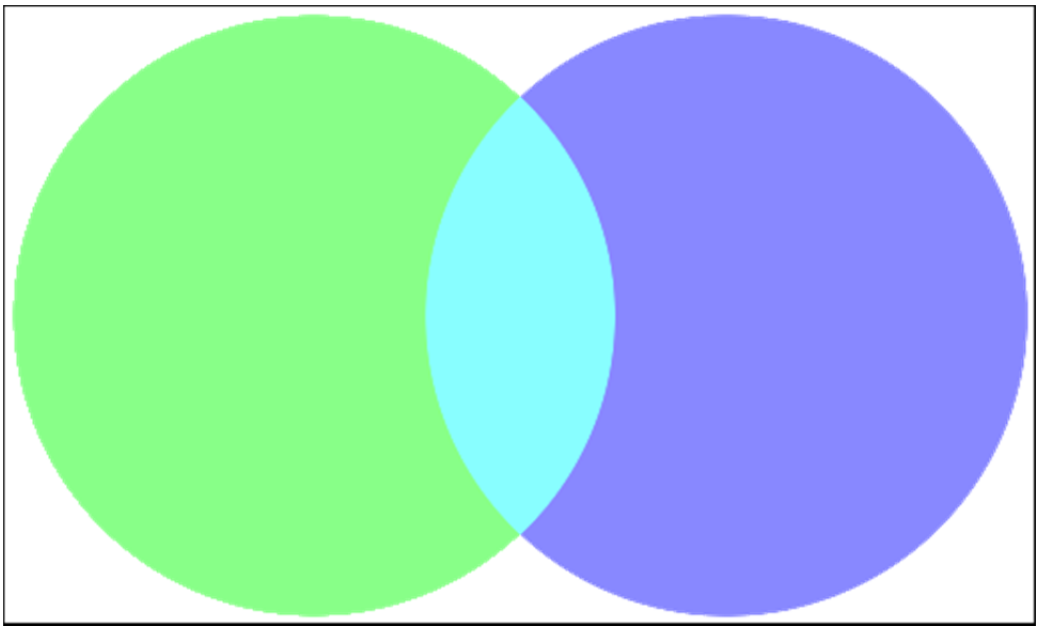


Figure 7: Resources supplied by the library vs demand from users

The library provides resources (green circle) but their clients continue to use their preferred resources (blue circle). There is a small overlap in the middle where some resources supplied by the library are being used, but librarians ideally would like to see this overlap growing to a point where the two circles overlap each other completely.

Libraries do not usually buy access to databases and other resources, unless there has been a request from the client base for these resources (the demand). Budgets are developed and approved before resources are acquired. However, many of these resources, once bought, are not used optimally, and appropriate value is not derived from the resources, however much the librarians market the resource. This was a common complaint received from the librarians interviewed and is a complaint often heard among academic librarians as well. Since the company librarians interviewed represented large organisations in Johannesburg, and the academic librarians represent universities with large student populations, this is a cause for concern. Researchers are happy with their results of their searching i.e. are satisfied, but do not avail themselves of the additional resources librarians are able to offer them.

5.6 Triangulation of results

In order to verify the responses obtained from researchers and consultants, corporate librarians who are members of the Corporate User Scheme at the University of the Witwatersrand were approached for their opinions and experiences and a discussion on the way in which their in-house libraries were utilised. They confirmed the findings that Google (the Internet) was the first port of call by all their researchers. When the Internet failed to deliver the required information, the corporate librarian was approached for additional information. If the in-house resources could not supply the relevant information, the Corporate Scheme librarian was consulted in order to access academic databases. This confirms the findings of the research – that the Internet is the starting point of all research. One corporate librarian from a large bank said she '*feels frustrated because she supplies databases, books and access to the*

Corporate Scheme at Wits to all the staff at the bank' who then, knowing this, continue using Google. Another librarian, from an international bank, felt that '*her users were scared to try new databases and too embarrassed to ask for help*'. She found this amusing, since, she herself, often battles to understand the complexity of, for instance, the financial databases, but once the concepts are understood, the resource becomes a powerful tool in the armoury of the user. A third librarian has found that her older users are happy to have her help them retrieve information, but the younger users '*know it all, and it starts and stops with Google'*. None of the librarians interviewed were aware of an increase in the use of social media, no staff member had mentioned its use in their hearing, not had they been asked for help in setting up access, passwords, or profiles, so they did not feel able to comment on this aspect.

Discussion

It is the considered opinion of the Corporate User Scheme librarian, and discussion with the corporate librarians consulted confirms this opinion, that researchers within organisations that have in-house libraries are often completely unaware that the information they have received from the in-house library actually was sourced from the local academic library. They are thus using academic resources without acknowledging this fact. The Corporate User Scheme remains an under-utilised resource since a significant number of researchers feel they obtain sufficient information from Google and their own networks to obviate the need to track down and use academic literature. This indicates a certain lack of depth to research in South Africa which may affect profitability and innovation in businesses, especially consulting businesses in the future.

5.7 Conclusion

The main research thesis this research sought to answer was to establish the best way in which an academic business library could add value to corporate South Africa, so that both business and the university could benefit in terms of services offered and savings generated.

Two research questions were raised in this research in an attempt to understand the thesis:

- Where does corporate South Africa access information?
- Why does corporate South Africa access information?

It was expected that answers to these two research questions would provide an answer to the main research thesis under discussion, and enable the researcher to evaluation the propositions derived from the literature review. This will be done in the following chapter.

CHAPTER 6: CONCLUSIONS AND RECOMMENDATIONS

6.1 Introduction

This chapter considers the responses obtained in the interviews, as discussed in Chapter 5, and drew conclusions therefrom. This is followed by the demonstration of a model which was developed based on the conclusions of the research. There will then be a section on recommendations arising from the research and suggestions for further research.

The research was a qualitative research study which involved interviews with researchers in the corporate environment in the greater Johannesburg area. This research was triangulated by referring to the existing filed queries received by the Corporate User Scheme librarian at the University of the Witwatersrand. Typical queries were extracted from the files and considered against the responses elicited from the interviewees.

The thesis that was examined in this research was to establish the best way in which a business library could add value to corporate South Africa, and the interviews were designed to draw relevant and enlightening responses from the interviewees in order to evaluation the research propositions.

Conclusions drawn will be elaborated upon in the next section.

6.2 Conclusions of the study

6.2.1 Proposition One

The first proposition was: Corporate users access the following sources of information in order to add value to the organisation:

- Libraries – as shown in the literature, there has been extensive research into the way that businesses approach their in-house resources and

potential external resources, as there is a concern around the cost of information

- Free search engines – the literature confirms that Google and the Internet in general, remain the preferred first choice information resource, which is freely and quickly accessed,
- Social media – the library literature asserts that social media is a quick information resource which is growing in popularity because of its ease of access.

The first research question which was posed in order to provide information to address this proposition queried where corporate South Africa accesses information. Several sources for information retrieval were checked during the interviews. Libraries, the internet and networking featured prominently. Social media, such as Facebook, Twitter and LinkedIn, did not enjoy significant responses. One can therefore conclude that, contrary to the academic research, social media do not enjoy a high research impact factor locally. The researcher had not considered personal networks and conferences at all in her initial consideration of information sources, but these are significant information resources employed by the respondents.

The researched results of the first research question which asked where corporate South Africa finds information indicate that the literature around this question has not been answered locally, since the majority of responses indicate that people still prefer personal contact to social media and the Internet. Libraries, unfortunately, are not an important information resource for the majority of people interviewed.

According to the research, the majority of people interviewed either use personal contact, in the form of workshops, conferences, personal networks and social media, in order to find out what they want to know. This would seem to indicate that a lot of research is relatively superficial, with little in-depth research being undertaken. However, when major projects are developed, people will still

use libraries and specialised databases in order to retrieve valid, academically useful information.

This confirms earlier research that said that people only look for information until they have sufficient for their current needs. The research indicated that people use the Internet to a significant extent, but stop looking for information as soon as they feel they have enough for their current needs, whether this is complete information or even accurate information. The interviews confirmed this research.

The research confirmed that company researchers generally tend to use Google as their first information resource, followed by networking, either at conferences, or by using personal contacts. This differs from the literature which maintained that social media were significant sources of information. Interviewees were, by and large, ambivalent towards social media, and were not really interested in using this tool. This may change as social media become more accepted as information sources, but there is no local evidence to support this contention.

Communities of practice

Brown and Duguid (2000) lay great stress on what they call the social periphery of information – the conversations around information, the people and the organizations involved in the development and dissemination of information. According to Wenger, McDermott and Snyder (2002), this periphery is often known as communities of practice. The concept of a community of practice has been around for centuries, although not provided with a convenient label. Here one can consider apprenticeships, artisan training schemes, team development and training schemes within companies (Green 2006; Johnson 2007; McDermott & Archibald 2010; Oborn & Dawson 2010; Wenger et al 2002). These communities of practice can be distributed internationally or located locally, but they all include people who are passionate about what they do and who want to share this passion with as many people as possible. Green (2006, p. 170) mentions a ‘common purpose’ behind the establishment of a community

of practice. Johnson (2007, p. 278) considers the community as an ‘action learning space’ and Oborn and Dawson (2010) consider the aspect of a result or conclusion discovered together by the community as being essential for a community of practice to be successful. Manolova, Manev and Gyoshev (2010) feel that international networks will be vital to the success of economies which are still trying to develop, such as South Africa’s

This research highlighted the fact that researchers in the corporate community tend to use personal networks or conferences as a way of finding information they lack. These networks and conferences can be considered as informal or casual communities of practice since they are constituted to meet a present need and then disband once that need has been met. These communities are both virtual, operating by means of email and telephonic communication, and actual, where members meet on a regular basis to compare notes and develop ideas.

The intention of this research was to establish the best way in which an academic business library can add value to corporate South Africa, so that both business and the university can benefit in terms of services offered and savings generated. The researcher hoped that the advantages of access to an academic library by the corporate world would be highlighted by this research, by asking the respondents there preferred information resources, but the respondents who did not already access libraries were fairly dismissive of the advantages to accessing libraries, either in-house corporate libraries, public or university libraries. The majority of the interviewees did not see any added value in accessing an academic library and chose to stick to the resources with which they were familiar, the Internet in the form of Google, being pre-eminent here. Judging by the responses obtained in the interviews, the majority of researchers in the business world in Johannesburg feel that the academic library cannot meet their current information requirements, although they freely admit that they have not explored this option recently so are unaware of the current database strength of the academic library. The corporate librarians who were interviewed, however, are very aware of these resources, and rely extensively on the academic library to support their in-house resources.

The responses to the research question raised some interesting points which the author had not initially considered.

This proposition is partially confirmed by the research, since researchers do use libraries but prefer personal contact via networks and conferences.

6.2.2 Proposition Two:

Libraries are able to add value when providing information to corporate users because they already have in stock, or can easily locate virtually any requirement a user has in the information field. It is often difficult to track down obscure information, but the company and academic librarian, working together, can usually source these needed items.

As mentioned in the introduction, a business library should add value to its local business community, either by the use of a system such as the Corporate User Scheme at the University of the Witwatersrand, or by being part of the package that academics can draw on when they consult to businesses. The main research question examined in this research was to establish the best way in which a business library could add value to corporate South Africa, and the interviews were designed to draw relevant and enlightening responses from the interviewees. Unfortunately, it would appear that neither the company library nor the university library enjoys the profile within companies that the librarians would like. It was hoped that the academic literature which emphasises the use of social media within the academic arena would find resonance in the business arena in South Africa. The research partially confirms the problems raised, but does not offer any solutions.

The author anticipated that researchers used the Internet, social media and libraries, to obtain information, since this is what the current library literature indicates happens in the academic world. However, the author was surprised to discover that this is not entirely the case – company researchers use personal networks, conferences and workshops as their primary means of obtaining

information. This is contrary to the bulk of the library literature, and the author is of the opinion that this is the local situation because the business community is, relatively speaking, quite small in the Johannesburg area, people have done undergraduate and advanced degrees together and so are personally familiar with the expertise of their acquaintances. In addition, libraries are seen as old-fashioned and that they have not kept up with modern trends. This is not correct, but this is the perception.

Knowledge management

Although the intention at the outset of this research was to consider 'information' as a discrete concept, as mentioned in Chapter 1, one is ineluctably drawn to the conclusion that 'information' cannot be considered by itself as it is completely enmeshed in the knowledge environment and the way in which knowledge is managed and utilised. Grant (2012) mentions four areas that feed into knowledge management - the importance of the intellectual assets of the organization; the idea that the modern business should be a place of continuous learning; communities of practice; data storage and sharing – all of which should enhance the business strategy of the organization. Given the reliance of personal networks raised in this research, the concept of communities of practice will be further discussed, since this particular aspect seems pertinent to this research. By the same token, it seems fair to conclude, based on the interviews, that researchers do not 'label' their activities. They do not separate the acquisition of information from the use and storage of this information. Information is part of the work flow and not a separate item to be considered in any special way. The creation of knowledge cannot be divided up into 'bits' but has to be seen in its entirety and needs to be treated as a whole. This flies in the face of the library view which tends to classify and categorise everything. This counterpoint could be developed as one of the reasons why libraries have a low profile in the corporate world.

This proposition is confirmed by the research.

6.2.3 Propositions Three:

When using free engines and social media, the value of the information may be compromised by satisficing behaviour and a lack of reliability.

Several authors have discussed the validity of free sources of information, and are generally not in favour of these sources as it is difficult to check the validity. It is generally agreed in the literature that a professional librarian adds weight to the credibility of the research (Brophy & Bawden 2005; Daly 2000; Dunning 2011; Gardner & Eng 2005; Godwin 2006). Following extensive discussion with corporate librarians, both during the formal interviews, and in general, during informal conversations at association meetings and visits to libraries, librarians are aware of superficiality of social media, that it is not necessarily reliable, and that superior products are accessible via libraries, but that they have not yet convinced their users of this fact.

This proposition is confirmed by the research.

6.2.4 Proposition Four

As demonstrated in the literature, corporate users seek information outside the organisation for the following purposes:

- Competitive intelligence
- Innovation .

There were several motivations for the reason why people look for information, the primary motivation being to see what other companies were doing, in other words, for competitive intelligence. The research also revealed that researchers are constantly looking for the innovative product which will give their company the ‘edge’ in the market place. This is often investigated using personal networks and social media. The researcher anticipated that social media and the Internet would be used for company marketing, but this was not the case. As an awareness of the advantages of social media develops in South Africa, this will probably change and the local profile of usage will grow to meet

that experienced internationally. At the moment, the literature and the research gathered diverge on this point, but this will probably change in the future.

This proposition is thus confirmed by the research.

6.2.5 Proposition Five

Libraries are able to add value to corporate users by providing competitive intelligence and innovation that they would not otherwise be able to access.

Based on the interviews, researchers in the business world do not, by and large, perceive the value of libraries, even when they utilise the resources to stay current with activities intheir individual spheres of business. However, there are researchers who regularly defer to the library and its resources, especially when serious research is undertaken for large projects.

This proposition is thus partially confirmed by the results, since the researchers who regularly use libraries value their services and resources, but those who are not active users see no point in access to libraries.

Information seeking behaviour in Gauteng

Researchers in the business world are focused on their research needs and tend not to do a great deal of peripheral research. This confirms the literature which states that researchers only search to fill their basic needs and do not continue past this point. Thus, the second research question confirms the literature and agrees with what the researcher anticipated the result would be.

The literature, especially Kuhlthau (1991, 1993) and Wilson (1999, 2000) maintains that information seeking behaviour is iterative and models have been developed to demonstrate this circular behaviour. Most of these models were developed prior to the explosion of Internet resources, so are limited in that they do not show this activity. Some models indicate a ‘storage’ aspect to

information. This aspect is fairly complicated, since it involves servers accessed internationally via electronic and cloud methods, physical item storage as in libraries and archives and portable storage on tablets, electronic readers and laptops. This aspect was not considered for this research and will not be elaborated on here.

However, based on the conclusions reached in this research, it is possible to construct a different model (figure 8) which more nearly applies to the situation in Johannesburg. The researcher has attempted to show the iterative aspect of information, that there is a significant amount of ‘to-ing and fro-ing’ in the information world, between friends, personal networks, libraries and conferences, and Google sits like a spider in its web, in the middle – the place where information starts and often ends. Storage is noted as needed but not crucial to the information research requirement. It would appear that, outside of official information repositories, information will only be stored if it has been useful and relevant, and then it will be stored where it can be easilt retrieved by the researcher.

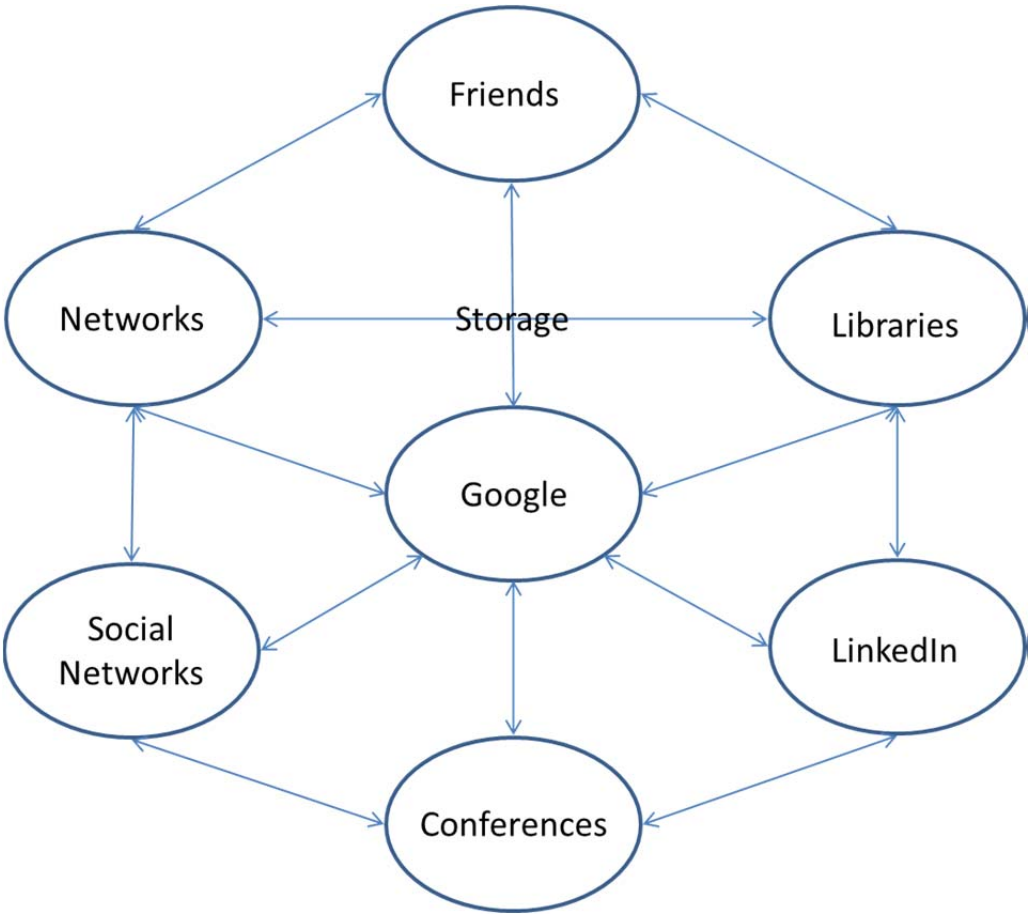


Figure 8: Model of Information Sources used

This model has been developed by the researcher as an exemplar model of the way in which information is sourced in Johannesburg.

This demonstrates that Google sits at the centre of research, and researchers find themselves consulting other sources, but returning to Google to continue fulfilling their information needs. This is a rather superficial way of finding information and it would be interesting to replicate this study in a different country to see if similar results obtain. It also confirms the circularity of information – that it tends to go away from the requestor and back again in a constant loop. This is similar to the established models of information seeking behaviour found in the library literature, but highlights the significant use of Google and other internet resources by researchers in the local community.

There are diagrams (infographics) that clearly demonstrate the ubiquity of the internet in the modern world. These graphic displays demonstrate clearly the

ubiquity of electronic resources internationally, and yet, besides Google, they are not optimised locally. These are shown in Appendix D.

The researcher started this research with the aim of demonstrating that access to academic resources would enhance the research conducted in the business environment. This would prove the value that these resources would add to the company bottom line and justify the cost of the provision of these resources, either in-house or out-sourced. As demonstrated in Chapter 4, several researchers do make use of the company library or a public library, but there were insufficient positive responses to be able to infer that researchers are aware of the value of information. The researcher is disappointed to note that she has not proved the value of academic information to business. Possibly a different set of respondents would have produced different results. As noted in the literature review, information is very difficult to quantify financially, since it seems so amorphous, and this could be the reason that researchers have never considered the cost both to themselves in time wasted looking for information, and to the company, in the provision of incomplete or inaccurate information.

Researchers have access to a large collection of free resources via Google Scholar and there is a growing collection of academically credible research available via this database, so the need to access any kind of library is diminishing as people become aware of these resources. Consequently, libraries, and specifically, units such as a Corporate Scheme, see a lessening of patrons physically visiting the library or accessing the online resources. Kesselman et al (2005) and Godwin (2006), among other researchers, have raised this as a concern for library staff. Company libraries are also vulnerable to the financial exigencies of the parent company – another company library is to be closed in 2013.

Libraries, both corporate and academic, spend a considerable amount of money in order to supply needed and relevant information to their clients. They ‘push’ the information towards the clients, and hope that the clients ‘pull’ the information they need, as they need it. There does seem to be a discontinuity between the supply-side and the demand-side in this sector, though, which

could be addressed by additional awareness/marketing campaigns on the part of the libraries, together with senior staff motivation of junior staff to use the resources available. The return on investment in library resources has been debated, with various methods suggested in an attempt to quantify the financial value of resources (book stock, databases), but it is very difficult to place a monetary value on the knowledge that library staff have internalised and are able to bring to all their work (Matthews 2008; McIntosh 2013), and this is where the value of both corporate and academic libraries often resides – implicit company specific knowledge which should be seen as a significant and valuable item in any company's balance sheet.

Sadly, the initial intention of this research – establishing the best way in which an academic library can add value to corporate South Africa, so that both business and the university can benefit in terms of services offered and savings generated – has not been achieved. Most respondents are content with their current information sources and have no desire to explore other options. Respondents who do use libraries are often not aware that they are accessing academic resources via the company library and tend to dismiss the value of these resources. The willing services that librarians, both in-house and external, supply to their users, masks the cost of these services and fails to emphasise the value of the information supplied to the company and the way it could potentially affect the financial bottom line.

6.3 Summary of the Research

Proposition One

Corporate users access the following sources of information in order to add value to the organisation:

- Libraries – as shown in the literature, there has been extensive research into the way that businesses approach their in-house resources and potential external resources, as there is a concern around the cost of information

- Free search engines – the literature confirms that Google and the Internet in general, remain the preferred first choice information resource, which is freely and quickly accessed,
- Social media – the library literature asserts that social media is a quick information resource which is growing in popularity because of its ease of access.

This proposition has been confirmed by the literature, but only partially by the research, as researchers in Gauteng prefer to use personal networks and conferences as primary sources of information, as demonstrated by the research.

Proposition Two

Libraries are able to add value when providing information to corporate users because they already have in stock, or can easily locate virtually any requirement a user has in the information field. It is often difficult to track down obscure information, but the company and academic librarian, working together, can usually source these needed items.

This proposition has been confirmed by the research.

Proposition Three

When using free engines and social media, the value of the information may be compromised by satisficing behaviour and a lack of reliability, This problem has been explored, as mentioned in the literature, the problem has been acknowledged and accepted, but no solutons have been offered (Auditore 2012; Bonomi et al 2010; Bronstein 2008; Chatman 1991; Prabha et al 2007; Schwartz et al 2002; Sober 1981; Ward 1992; Warwick et al 2009).

This proposition has been confirmed by the literature and the research.

Proposition Four

As demonstrated in the literature, corporate users seek information outside the organisation for the following purposes:

- Competitive intelligence

- Innovation .

This proposition has been confirmed by the research.

Proposition Five

Libraries are able to add value to corporate users by providing competitive intelligence and innovation that they would not otherwise be able to access.
This proposition has been confirmed by the literature with the proviso that researchers do not use libraries at the outset of their research, but defer to libraries at a later stage when they have not been successful with their informal sources.

6.4 Recommendations

Mi and Nesta (2006) point out that marketing in the library and information field relies on improved service and efficiency, given that Google operates as a direct competitor. Libraries need to point out that they are pre-eminent managers of knowledge and stress the fact that their expertise provides better, more reliable resources than Google does, since the human interaction always leads to better retrieved results from information resources. This is an area that libraries have been reluctant to address since they collectively see themselves as gatekeepers to knowledge rather than its manager. The profession needs to more actively present itself as knowledge workers and information scientists than little old ladies who issue books and tell patrons to keep quiet.

As has become obvious in the research, libraries, and specifically, academic libraries, do not enjoy a high profile in the business world and, in order for their very expensive resources to be optimally utilised, this profile needs to change. There needs to be on-going marketing of libraries and their resources to the business community. This can be undertaken in several ways :

- advertising in newspapers – this is expensive and libraries are chronically underfunded,

- marketing at conferences/workshops since this is the preferred information source for many researchers,
- articles in targeted trade journals, such as the Financial Mail and FinWeek
- articles in online targeted resources such as MBAConnect
- word of mouth
- embedded librarians

The concept of embedding librarians within teams started in hospitals and has since been expanded to other research facilities (Hoffman 2011; Kesselman & Watstein 2009). The researcher has herself moved into the Business School at the University of the Witwatersrand in an attempt to bring information services closer to both academics and students with the School. This has proved a successful move, and is possibly something that could be replicated within the business environment. If the librarian picks her researchers carefully, and establishes a good relationship with them, she could develop a system where she is the 'embedded' virtual librarian with the organization. This would be beneficial to researchers as they would discover the advantages of professional library services, to the corporates since the research would have a deeper, more academic basis, and to the Corporate Scheme, since this would grow to meet demand.

In order to achieve any of these recommendations, the Corporate Scheme would have to establish an extensive network so that the profile of the Scheme could be raised. Since the research discusses social media, and points out that use is slowly increasing in South Africa, this could prove a relatively cheap way of alerting the research community to the availability of the Corporate Scheme. This could start with the development of the Corporate Librarian's LinkedIn profile to emphasize the services offered by the Scheme. This could be followed by a profile article in both MBAConnect and the WBS Journal.

6.5 SUGGESTIONS FOR FURTHER RESEARCH

Several very interesting studies could be developed from this research.

1 – an examination of the best and most effective ways to market libraries and their resources to the non-traditional, non-academic, community, in other words, to the business researcher. There is a significant body of literature on proven ways to market library services from which ideas can be developed (Mi & Nesta, 2006; Spalding & Wang, 2006; Varaprasad, Paul & Kua, 2006). Spalding and Wang (2006) actually discuss the problems of marketing academic resources, which have proved, internationally, to be difficult to market.

2 – a replication study in five years' time, to see whether the conclusions reached here, have changed. By this time, the data connectivity charges should have decreased and there should have been a corresponding increase in connectivity speed, and new researchers will have moved into companies, who have used library resources during their studies and still want the availability of academic databases to inform their work reports.

3 – a replication study using different respondents, either in Johannesburg, or in another large city within South Africa, to see whether these results are generalizable to the rest of the country.

4 – a study on the changes within libraries themselves, which would make them more user friendly to the corporate researcher. There is a great deal of research into the library of the future, and this will hopefully mean that libraries will return to being all things to all people, and their resources will be acknowledged and used to the fullest extent. Researchers who are currently considering the future of libraries include Berndtson (2012), Connell (2012), Hanlon and Ramirez (2011), Hendrix (2010), Law (2011), Levien (2011). Much of this discussion centres around the concept of a virtual, i.e. bookless, entirely electronic, library, versus the more traditional book based library. The researchers mentioned here see libraries as moving towards community centres that are developed with the immediate community in mind, and offering services that are tailored to the local community. They do not see potential for one branch library model being rolled out across the city, which is the current offering, but rather, one type of library in financially depressed areas which offer internet/homework

services, another elsewhere offering do-it-yourself music and video opportunities, the whole concept customised to the direct needs of the community and the community being consulted all along the way. These changes will ripple into the academic community and represent new challenges to academic libraries as they try to remain relevant to the student body and the local community.

5 – a further study developing this model created by the researcher and testing whether it is more applicable in the 21st Century in the academic and business environments, than the existing models, as developed by, inter alia, Kuhlthau (1991, 1993) and Wilson (1999, 2000) which were largely developed before the advent of the Internet, electronic databases and social media.

6 – a study on the potential of a 'virtual' business library, which is available all the time, and can be easily accessed via an 'app' such as those developed by Apple. Judging by comments received during this research, people would be prepared to pay for access to such a resource. The current legal model applying to academic databases does not allow for this type of resource, but this may well change in the future. The concept of 'apps' for libraries is current in the library literature (Barile, 2011; Bishop, 2012; Kim, 2012) and could be an exciting way of meeting users wherever they are, whenever they want information. Expanding this idea, an 'app' could be developed highlighting the free resources available and the 'app' could be supplied on payment of the subscription to the Corporate Scheme.

7 – the marketing of the 'embedded librarian' concept mentioned above to the companies and consultants interviewed for this research, and using word-of-mouth and mini-marketing campaigns to organically alert researchers to the utility of libraries.

If libraries market themselves properly, and embrace all opportunities that become available, they will remain relevant in the future, and this research has served to highlight the fact that library patrons are fickle and need to be enticed back into the library 'fold' with services that appeal to the business community.

Image needs to be modified and service delivered at the touch of a button. However, the initial thesis of this research – that libraries can add value to corporate users has not been supported by this research, because so few researchers actually use libraries as their initial starting point for research. This report has highlighted the fact that researchers in companies prefer using personal contacts and Google in order to answer their queries. It is only after these sources have been utilised, that they turn to the library and indirectly to the academic library. As mentioned, information is amorphous and difficult to quantify and cost and proving value seems to be a moving target. (McIntosh 2013). This research does, however, verify the fact that people who are serious about finding quality information still revert to libraries, albeit, not obviously academic libraries.

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APPENDIX A

Corporate User Scheme Brochure/Information

An Untapped Asset: The Library of Management:

Instead of spending hundreds or thousands of rands on expensive books and journals, why not join our library as a corporate user?

The Library of Management offers a good service, professionalism, creative online searching and tailored information delivery. All of these invaluable contributions will enhance your company's access to information.

The objective of the Corporate User Scheme is to allow the wider business community more meaningful interaction with the University so they may benefit from our extensive research collection and electronic databases.

Income from the Scheme is used to expand information services and library resources.

Potential Users:

Organisations where a group of employees require access to a University library for company research purposes.

Benefits:

Access and borrowing privileges to all Wits libraries except the Short Loan Library and the Wits Health Sciences Library.

2 loans per membership card

Library cards can be used by any member of the company

Additional charges will be made for the following services:

- Online searches on national and international databases at reasonable rates
- Photocopies upon request
- Photocopies from contents pages of selected journals
- Full text articles
- Monthly list of new books in the Library of Management

Conditions

An application form must be completed and returned to the Corporate User Development Officer. The managing director or authorised employee must sign the application form on behalf of the company.

Companies will need to nominate a liaison person for continued contact with the Library. This person will be responsible for keeping the library cards and will record the names of those persons to whom they are issued. Should the liaison person leave the company, it is the company's responsibility to nominate a successor and to notify the library. The loan period of items will be one week and fines are charged for overdue items. If using other campus libraries, please be aware that loan periods may vary from one library to another.

APPENDIX B

Interview questionnaire

1. Disclaimer and thanks
2. Please let me know if you feel uncomfortable answering any questions.
3. Please tell me how you look for information?
4. What sources do you generally use when you want to find out something for work?
5. Typically, why are you looking for information at work?
6. Do you use libraries to help you find out this information?
7. Does your company have an official resource centre?
8. What do you think will happen in the future to the way in which you find information?
9. Thank you for allowing me to interview you and for being so generous with your time.

APPENDIX C

Participant's guide

Good day,

My name is Jenny Croll.

I have been referred to you by…

I am involved in research as part of a Masters of Management at the Wits Business School.

I am investigating the way in which people in the business world look for information and why they typically need this information. I am trying to determine the extent to which people use libraries, the Internet, and social media. I should also appreciate some thoughts on what you think will happen to your research methods in the future.

I should appreciate it if you could allow me to ask you a few questions around your information needs.

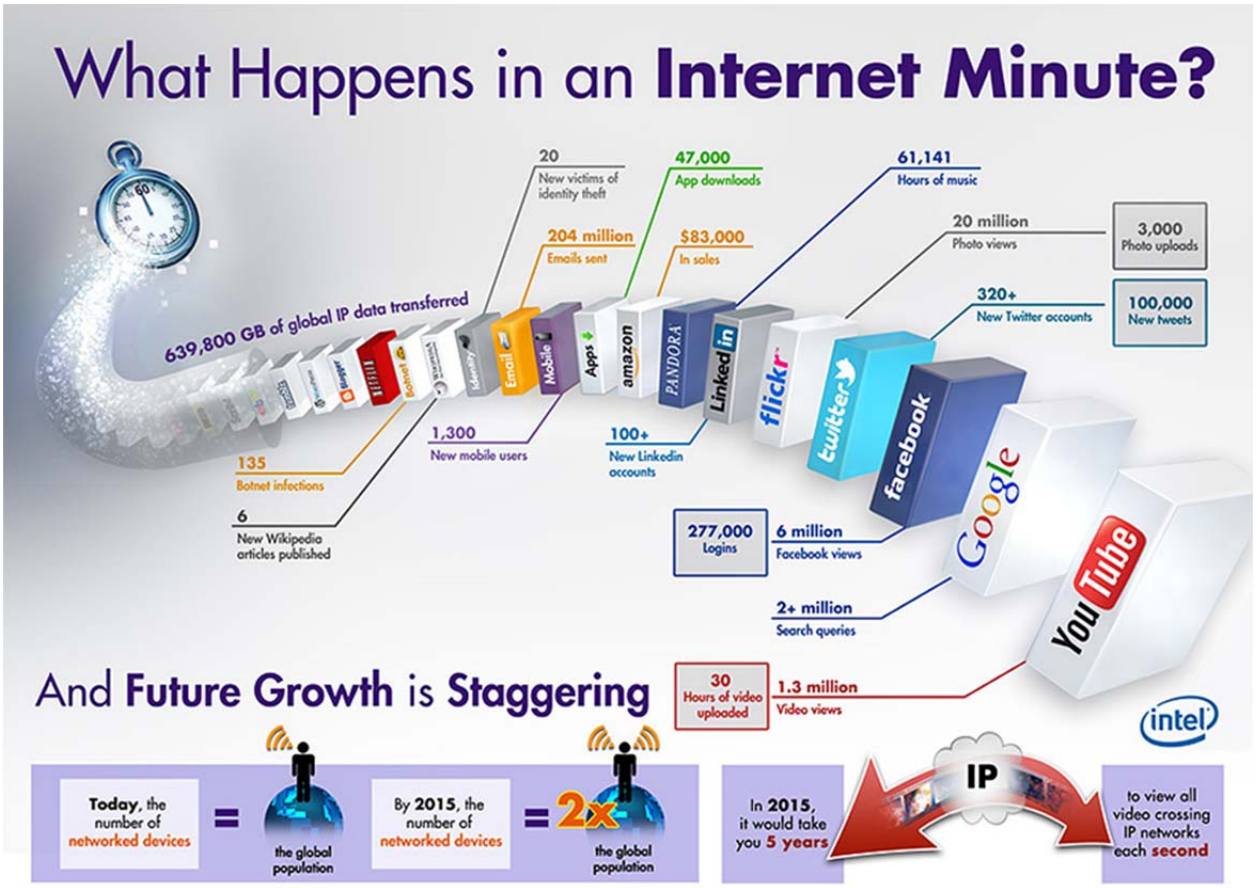
Any thoughts you share with me will remain strictly confidential, will only be used as part of this research and will not be disclosed to any outside party.

Thank you very much for taking part in this research. I appreciate the time you have spent with me.

APPENDIX D

Infographics




What Happens in an Internet Minute?
639,800 GB of global IP data transferred
20
New victims of identity theft
204 million
Emails sent
47,000
App downloads
$83,000
In sales
61,141
Hours of music
20 million
Photo views
3,000
Photo uploads
320+
New Twitter accounts
100,000
New tweets
1,300
New mobile users
100+
New Linkedin accounts
135
Botnet infections
6
New Wikipedia articles published
277,000
Logins
6 million
Facebook views
2+ million
Search queries
30
Hours of video uploaded
1.3 million
Video views
And Future Growth is Staggering
Today, the number of networked devices
=
the global population
By 2015, the number of networked devices
=
2x
the global population
In 2015, it would take you 5 years
IP
to view all video crossing IP networks each second
intel