

CHAPTER FIVE

RESEARCH METHODOLOGY

5.1 Introduction

The overall aim of this study is to empirically¹⁰ determine the guidelines of knowledge management in law firms in Botswana in the light of the changing legal information environment. Although the literature examined in chapters 3 and 4 revealed the enormous potential for knowledge management in law firms, it was also evident that research in knowledge management seems fragmented with extensive theoretical discussions but little empirical evidence. In fact, very little empirical study has been carried out on knowledge management in general and less still on knowledge management in law firms. This leaves a lot to be done in the form of extending, refining, and empirically validating the models and developing the theories and concepts of knowledge management across specific contexts and locations. The body of research on knowledge management may be established and advanced with confidence only by the rigorous application of appropriate methodologies and methods of research.

This chapter establishes the methodological¹¹ framework of the study. It begins with the philosophical underpinnings governing the different research methods. It then considers the different research methods and the research design chosen for the study. It identifies the target population, discusses the different data collection instruments, validity and reliability issues, ethical considerations and the pilot study. The chapter ends with the techniques of analysis and validation of the empirical data to determine the guidelines of knowledge management in law firms in Botswana.

5.2 Research philosophies

Several long standing epistemological debates such as post-positivism, positivism, interpretive science, critical theory, traditional modernity, postmodernism, and behaviourism have engaged methodologists on how best to conduct research or the appropriate research method (Guba & Lincoln; 1994; Myers, 1997; Mwanje, 2001). The research methods

10 Empirical research is research derived from or relating to experimentation and observation rather than theory. It is research whereby data is gathered to explore and observe rather than to prove or disprove something (Mouton, 2001:144-147).

11 Methodology is the application of scientific procedures towards acquiring answers to a wide variety of research questions (Adam & Schraveldt, 1995).

chosen for this study are centred on the relative value of two fundamentally different and competing schools of thought: positivism (classical), and naturalistic (contextual interpretive school). In order to appreciate the different research methods used, it is crucial to understand these main research paradigms.

Positivists generally assume that reality is external, objective, simple and positive. They describe measurable properties that are independent of the observer. According to the positivists, the truth and reality in nature is that the behaviour of human beings are determined by their social world and are subject to patterns that are empirically observable. Positivist studies focus on facts and generally test theories in an attempt to understanding a phenomenon. Positivism searches for casual explanation and fundamental laws and generally reduces the whole to its simplest possible elements to facilitate analysis. It uses quantitative and experimental methods to test hypothetical-deductive generalisations (Easter by-Smith, 1991; Myers, 1997; Remenyi; 1998 Mwanje, 2001; Amaratunga et al., 2002).

Naturalistic paradigm on the other hand, hold that realities are multiple rather than single, objectivity is a myth, action arises from interactions in circumscribed situations and that meanings ascribed to the words are imperfectly shared at best. They use qualitative approaches to inductively and holistically understand the human experience in the context of specific settings. This approach attempts to understand and explain a phenomenon rather than search for fundamental laws. Naturalistic researchers start out with the assumption that access to reality is only through social construction such as language consciousness and shared meanings. These researchers mostly contribute to hypothesis and theory generation (Easterby-Smith, 1991; Myers, 1997; Remenyi; 1998; Mwanje, 2001; Amaratunga et.al., 2002).

The positivist and naturalistic school of thought seem philosophically different in the sense that whilst the positivists rely on the quantitative research methodology, the naturalistic school of thought uses the qualitative approach to research. However, these distinctions are merely technical in practice. Most often, the choice of a specific method depends more on the underlying philosophical assumptions of the researcher, the purpose of the study, the questions being investigated and the resources available rather than on the underlying philosophical position adopted. Hence, the word qualitative is not synonymous to naturalism nor is positivism synonymous to quantitative. Qualitative and quantitative research may sometimes be both positivist and naturalistic. For example, the research methodology in

this study is informed by both the naturalistic and positivist schools of thought. In order to appreciate the reason behind the philosophical perspectives adopted in this study, it is necessary to understand the different research methods.

5.3 Research methods

A research method is a strategy of inquiry that moves from the underlying philosophical assumption to research and data collection (Myers, 1997). The choice of a research method will influence the way a researcher would collect his/her data and the research skills, assumptions and practices that he/she will adopt. The literature is replete with debate on the qualitative and quantitative research methods.

5.3.1 Qualitative and quantitative research methodology

Quantitative methodology originally developed in the natural science to study natural phenomena is anchored on the positivist philosophy. Amongst the theoretical principles that underlie quantitative research methodologies is the fact that there is only one reality and truth in nature; that reality is objective, simple, and positive, and reflects the fact that human beings are influenced by their social world subject to fixed patterns that are socially observable. Examples of quantitative research methods are survey methods, documentary methods, observations, laboratory experiments, formal methods (econometrics), spatial analytical methods, and numerical methods such as mathematical modelling. Qualitative research methodology on the other hand, developed in the social science to enable researchers study social and cultural phenomenons are informed by the interpretative philosophy. The basic qualitative research principles are openness, communication and the process-nature of the research. Examples of qualitative research are action research, phenomenological study, case study, ethnography and grounded theory (Mwanje, 2001; Powell & Silipigni, 2004). Examples of qualitative research methods are observation, texts interviews, audio and video tapes, participant observation, questionnaires, documents and text analysis, field work, archival research, mechanical recording, photography and researcher's impressions and reaction. A quantitative study investigates the social or human problems based on testing a theory composed of variables measured with numbers and analysed with statistical procedures in order to determine whether the predictive generalisation of the theory holds true. On the other hand, a qualitative study is an inquiry process of understanding a social, cultural or human problem based on building a complex holistic picture formed with words reporting detailed views of informants and conducted in a natural setting (Creswell, 1994).

A number of other distinctions have been drawn between qualitative and quantitative approaches to research which are worth noting. Qualitative approaches are personal and exploratory while quantitative approaches are anonymous and definitive. A qualitative approach provides in-depth understanding and allows insight into behaviour and trends while quantitative approaches measure the level of occurrence and the level of trends and action. Qualitative approaches ask “why” questions, while quantitative studies ask questions such as “how many” and “how often.” Qualitative approaches study motivation while quantitative studies examine action. Qualitative approaches enables discovery while quantitative approaches provide proof (Mwanje, 2001:22).

Quantitative research analysis relies on quantitative techniques revolving around the notions of quantities in numeric form. These techniques add precision to measurement; facilitate economy of description, validate statements, enhance accuracy in predictions and objectivity in social research and are suitable for the decision-making process in society. Examples of quantitative techniques are statistical techniques, programming techniques, descriptive statistical methods, probability theory, univariate analysis and multivariate analysis. Qualitative research analysis on the other hand, focuses on qualitative techniques characterised by modes of gathering data in non numeric character. These techniques enable the researcher to obtain in-depth responses about what people think, do, and feel, gain insight into attitudes, beliefs and motives of the target population, and provide an overall better understanding of the situation.

It is worth noting that qualitative and quantitative research methods tend to overlap. For example, interviews, and questionnaires are techniques for gathering data for both qualitative and quantitative studies. Often, researchers have to make a choice between qualitative and quantitative approach to research. Most often the choice of methodology depends on the insight to be gained in a particular study. However, establishing a clear cut distinction between qualitative and quantitative research methods is often debatable. This is because in some studies, quantitative and qualitative research approaches may be complementary of each other in such a way that the researcher may move towards a middle ground that bridges between the two approaches by developing a different research method and technique in the same study. This technique is known as triangulation- the approach adopted in this study.

5.3.2 Triangulation

Triangulation is the combination of qualitative and quantitative methodologies in the study of the same phenomenon. The effectiveness of triangulation rests on the premise that the weakness in a single method would be compensated for by the counter-balancing strength of the other (Easterby-Smith et al., 1991; Yin, 1994). While qualitative and quantitative research methods have different strength and weaknesses, triangulation provides a bridge between the two. Four different types of triangulation have been identified viz; data triangulation where data is collected at different times and from different sources; investigator triangulation where different investigators independently collect data; methodological triangulation where both qualitative and quantitative technique are employed and; triangulation of theories where theory is taken from one discipline and used to explain a phenomenon in another discipline. When triangulation occurs, the study achieves both depth and generalisation.

5.3.3 Dominant research methodologies in knowledge management studies

Most empirical researches in knowledge management have adopted a qualitative research approach with case study and surveys as research designs. For example, Squier & Snyman (2004) adopted a qualitative case study approach in a study of knowledge management in three financial institutions in South Africa. Questionnaires and interviews were used as methods of data collection. Okunoye & Karsten (2001) in a study of the relationship between information technology infrastructure and knowledge management, adopted an exploratory case study approach. Semi-structured interviews complemented with short term on-site observations, survey with quantified responses, and the analyses of organisational documents were used as methods of data gathering. Ndela & du Toit (2001) conducted an empirical survey in the Eskom Transmission Group Johannesburg, South Africa to investigate an understanding of knowledge management concepts amongst business leaders. In a study of knowledge management and knowledge transfer in the public sector at the Ministry of Entrepreneur Development of Malaysia, a case study qualitative approach was adopted and questionnaires were the sole method of data collection (Syed-Ikhan & Rowland 2004). Forstenlechner (2006) used a case study approach with questionnaires and semi structured-interviews in a study on the effect of knowledge management on law firm performance. Hunter et al. (2002) also adopted a case study approach with semi-structured interviews in a study on knowledge management practices in five Scottish law firms.

Qualitative methods have mostly been adopted in unstudied or under-studied areas due to

the need to expand on the knowledge in those specific areas, generate new theories and gain new insights. The dominance of this approach in knowledge management studies may seem appropriate because it confirms the need to explore and generate new theories in knowledge management. In spite of the fact that the concept of knowledge management has been around as long as one's memory could go, research on knowledge management is fairly new and fragmented with divergent literature and theories across different contexts and locations.

Nonetheless, quantitative research methods and combined methodological approaches are not uncommon in knowledge management studies. Gottschalk in his studies on knowledge management in the law firms adopted a quantitative research approach (Gottschalk, 1999; Gottschalk, 2000; Gottschalk, 2002; Khandelwal & Gottschalk, 2003). Similarly, Okunye & Karsten (2001) in a study of information technology infrastructure and knowledge management in Sub-Saharan Africa adopted a quantitative approach. Also, du Plessis & du Toit (2005) conducted a quantitative survey of knowledge management in South African law firms using questionnaires as a method of data collection.

Beccera-Fernandez et al. (2004) calls for a blending of both quantitative and qualitative research approaches in knowledge management in order to get the most complete picture. They consider qualitative knowledge management assessment most suitable during the early stages of the knowledge management initiative when experience levels are generally low but recommend quantitative assessment measures when a company gains more experience and greater relevance. Grossman & McCarthy (2005) posit that since the intellectual capital of organisations are inherently intangible and influenced by a complex web, the benefits of using a blended approach are obvious due to socio-political and cultural factors. The researcher's choice of methodology therefore seems consistent with the on-going research need for blending qualitative and quantitative methodologies in knowledge management studies.

5.3.4 Justification of methodology adopted for the study

This study builds on the aforementioned methodologies in knowledge management studies, by adopting the triangulation of qualitative and quantitative methods of data collection (descriptive and exploratory surveys, and qualitative interviews) and data analysis (descriptive statistics and content analysis). This is due to the nature of the problem under consideration, the nature of data to be collected and the questions to be addressed. It has been reported that if the questions are related to "how often", then quantitative methodologies

are preferable but if the questions are “why” and “how” questions, then there is the need for qualitative methods (Mwanje, 2001; Babbie, 2003; Powell & Silipigni, 2004). The structure and content of the research questions in this study seek to find answers to both the “how” and “why” questions. Also, the objectives set out in this study (determining the guidelines of knowledge management in law firms in the light of the changing legal information environment) dictates the need for a complementary research method that will provide various dimensions and facet to the problem.

By combining qualitative techniques along with quantitative techniques this study focuses on their relevant strengths in an interrelated and complementary manner. The quantitative data helps with the qualitative side of the study during design by finding representative samples and locating deviant samples while complementing the qualitative data results obtained from analysis based on words and phrases. On the other hand, the qualitative data assist with quantitative side of the study during design by aiding with conceptual development and instrumentation. Both forms of data are integrated in a complementary manner to provide a holistic picture of knowledge management pattern in law firms.

Triangulation provides a considerable practical advantage in the study of new and understudied areas because rich insight would be generated (Amaratunga et al., 2002). It has been observed that knowledge management is a young discipline from which neither a codified universally accepted framework nor standard methodology have been established (Grover & Davenport, 2001; Rubenstein-Montano et al., 2001; Grossman & McCarthy, 2005). Very little or no research has been carried out on knowledge management in law firms in Botswana and it is hoped that the triangulation technique will generate in-depth knowledge, provide valuable insight on guidelines for knowledge management and validate the findings of the knowledge management patterns in the law firms in general.

5.4 Research design

Having decided on the general approach of the research, the next step was to identify one or more specific research designs that will be adopted to obtain the necessary data. A research design is a logical sequence that connects empirical data to a study’s initial research questions and ultimately to its conclusions. In a sense, the research design is the blueprint of research dealing with at least four problems: what questions to study, what data are relevant, what data to collect, and how to analyse the results (Yin, 1994). Typical examples of research designs that may be employed to gather data are survey research, experimental research, historical research, operational research, system analysis,

Delphi study, content analysis, bibliometric and case study. This study adopts the positivist and naturalistic paradigms and advances the survey research.

A survey research in this case called an environmental scan, is a research strategy where one collects data from all or part of the population to assess the relative incidence, distribution and interrelation of naturally occurring variables (Hafner, 1998; Powell & Silipigni, 2004). It is a data collection technique that is employed to gather data from people by means of interviews and questionnaire after which the results are quantified and amenable to statistical treatment.

The survey research design is considered the most appropriate research design because it is fast and straight forward compared to any other method and tends to be relatively inexpensive. Another key strength of the survey research design is that if properly done, it would enable one to generalise from a small group to the large group from which the subgroup has been selected. Also, surveys have been applied in most knowledge management studies. For example, a review of research in knowledge management identified 59 surveys conducted between 1997 and 2001 (Chauvel & Despres, 2002), with knowledge management turning around six dichotomous dimensions.

Surveys may be explorative, descriptive or explanatory though quite often, most studies have elements of these three (Babbie, 2001). Exploratory surveys, often conducted as qualitative research, are adopted when the subject is fairly new with the aim of developing new insight, increasing the researcher's familiarity with the phenomenon in question, or just out of curiosity. It does not seek to test hypothesis but rather provide answers to the research questions and concepts, provide solutions and formulate problems for more precise investigation (Powell, 1997). Descriptive survey on the other hand, observes and describes a situation, while explanatory survey seeks to answer the "why" questions. This study is mainly an exploratory survey design with traces of descriptive and explanatory survey. The study is descriptive in that it seeks to determine how knowledge management is manifested in law firms in Botswana. An element of explanatory survey emerges as the study examines why knowledge management is crucial for law firms.

One fundamental guideline of a survey research method is to develop the research questions that would form the basis of the inquiry. Considering that this study does not intend to test any hypothesis but rather seeks to provide comprehensive answers to the research questions. The empirical findings of this study are focused on answering the research questions of sub problem four and five.

5.5 Research questions

The main research questions that give direction to the empirical findings are

- ▶ What are the different categories of knowledge existing in the law firms in Botswana?
- ▶ What factors would motivate the adoption of knowledge management in your firm?
- ▶ What are the tools and techniques used for knowledge management in law firms in Botswana?
- ▶ How do law firms in Botswana approach knowledge management?
- ▶ What factors are critical to the success of knowledge management in law firms in Botswana?
- ▶ What factors inhibit the success of knowledge management in law firms in Botswana?
- ▶ What are the benefits of knowledge management for law firms in Botswana?
- ▶ What role do other agents and institutions play in knowledge management in law firms in Botswana?
- ▶ How can knowledge management be implemented successfully in law firms in Botswana?

5.6 Population

Population is an important factor for consideration in survey studies. Population is the group or aggregate that the researcher is dealing with from which one wishes to generalise the results of the research study. The population for this study is lawyers in law firms in Botswana. The other branches of the legal profession in Botswana such as Judges and magistrates, legal academics at the university of Botswana and legal practitioners in the Attorney General's Chambers do not constitute part of the target population. This is because the objective of the study is to determine the knowledge management strategies in law firms that is, private legal practitioners in Botswana. The survey population is the target group of people who participate in the study. The target population of this study is the latest sampling frame¹² requested and obtained from the Botswana Law Society consisting of a list of registered law firms and private practitioners as at 15 October 2007. According to the sampling frame, there are currently 115 registered law firms in Botswana and a total of 217 lawyers represented in the table below.

¹² The sample frame used interchangeably with the population list is the actual list or unit in the population from which the sample or some part of the sample is selected (Hafner, 1998; Powell, 2004).

The table reveals a high concentration of law firms in Gaborone as compared to other parts of the country.

Location	Total Number of Firms	Total number of Lawyers
Gaborone	84	171
Francistown	15	23
Lobatse	2	4
Maun	7	10
Selebi Phikwe	2	2
Palapye	3	4
Jwaneng	2	3
Total	115	217

Source: *Law Society of Botswana, October 2007*

Table 5.1 Distribution of law firms in Botswana

However, as part of the exploratory study; judges, magistrates, law librarians, the Law Society, legal consultants and legal academics were interviewed because they work hand in hand with the law firms and were considered important stakeholders to knowledge management function in law firms.

5.7 Sampling plan or design

The sampling plan design is the plan for selecting a sample from the population. The objective of any sampling plan is to secure a sample which would represent the characteristics of the population. A sample is a selection of units from the total population to be studied that represents a portion of all the elements in a population (Hafner, 1998; Powell & Silipigni, 2004). Generally, two basic types of sampling designs are used namely, non probability sampling and probability sampling. Probability sampling is more scientific and useful. Although non-probability samplings are much cheaper and easier to use, it is often difficult to state the probability of a specific element of the population represented in the sample (Powell & Silipigni, 2004). Examples of probability sampling are simple random sampling, systematic random sampling, stratified sampling and cluster sampling. Examples of non probability sampling are convenience, haphazard, purposive, self-selected, incomplete and quota sampling (Hafner, 1998; Powell & Silipigni, 2004).

The general rule of the thumb when determining a sample size in quantitative studies is that the larger the better and in most cases probability samples less than 100 are considered unlikely to represent the entire population (Babbie, 2001; Hafner, 1998; Powell & Silipigni, 2004). It must however be noted that an unnecessarily large sample size in this case of an exploratory study, may be time consuming and expensive. With regards to qualitative studies, what is critical is the depth of richness and complexity of the data as no formula provides the “correct” sample size. One method in qualitative studies is to gather data until the critical elements of the study have become saturated (Powell & Silipigni; 2004). Be it a qualitative or a quantitative study, there is generally no guarantee that a sample will result in an unbiased representation. Besides, the assumption that the findings of a sample would be replicated in the population is not good enough (Hafner, 1998). Bearing these facts in mind, and the fact that this study has adopted the triangulation technique, and also considering the desire to provide all lawyers a chance to participate in the study coupled with the fact that the sample frame of lawyers in law firms in Botswana is not very large (217 lawyers), a census¹³ of the total population was adopted for the questionnaire survey. By adopting a census one is sure of the representative nature of the population and that the objectives of the study would be attained.

Interviews were held to complement the census. The researcher adopted the purposive sampling technique and limited the interviews to law firms in Gaborone. The researcher deliberately chose Gaborone to administer the interviews because of accessibility and proximity and the fact that a majority of the lawyers are based in Gaborone (table 5.1 and 5.2). According to Taylor & Bogdan (1998), an ideal research setting is one where the observer has easy access, is able to establish immediate rapport with informants and can gather data that is directly related to the research interests. Carrying out studies in law firms require a lot of collaboration, communication and co-ordination because lawyers are always pressed for time. Another reason is the feeling that the law firms in Gaborone are relatively bigger and exposed to more entities and opportunities for knowledge management practices than law firms in other towns. Law firms in Gaborone are a representative sample (tables 5.1 and 5.2) of law firms’ nation-wide and could provide information on a great deal of issues of central importance to the purpose of the research.

Purposive sampling ensures maximum variation within the context of the research question. According to McNeill (1992), purposive sampling occurs when a researcher chooses a particular group or place to study because it is known to be the type that is wanted.

13 A census is a count or survey of all the elements in the population (Powell, 2004:93).

According to Powell & Silipigni (2004), purposive sampling is based on one’s knowledge of the population and the objectives of the research. The researcher also used the purposive sampling technique in the selection of 15 lawyers who were interviewed. The choice of a lawyer to be interviewed depended on the willingness of the lawyer to participate and other insights that had to be gained. Lawyers knowledgeable in knowledge management in the firm were the preferred lawyers of choice because of the assumption that these lawyers are knowledge-rich individuals who understand knowledge management concepts and may provide some additional insights that may not be gained from the questionnaire. To be suitable for interview, the lawyer must have worked in the law firm for a maximum of at least one year. The one year eligibility criteria is due to the assumption that within this period they would have familiarised themselves with the knowledge management activities in the firm.

No. of lawyers	No. of firms in Gaborone	No. of firms in Francistown	No. of firms in Lobatse	No. of firms in Maun	No. of firms in Selebi-Phikwe	No. of firms in Palapye	No. of firms in Jwaneng
Sole practitioners	46	9		4	2	2	2
2 lawyers	17	5	2	3		1	
3 lawyers	10						
4 lawyers	7	1					
5 lawyers	1						
7 lawyers	1						
8 lawyers	1						
12 lawyers	1						
Total number of firms	84	15	2	7	2	3	2

Source: *The Law Society of Botswana October 2007*

Table 5.2 Distribution of law firms in Botswana according to number of lawyers

The above table shows the high concentration of law firms in Gaborone from the sole practitioners to the firms with the highest number of lawyers thus justifying the researchers’ selection of this site for administering the interviews. Gaborone alone has 46 sole practitioners, while the rest of the country (Francistown, Selebi Phikwe, Lobatse,

Mahalapye, Maun, Jwaneng, and Palapye), have just 19. Out of 28 firms in the country with 2 partners, Gaborone has 17. All the firms with three lawyers are based in Gaborone. 7 out of 8 firms in the country with 4 lawyers are based in Gaborone. The only firms with five lawyers are based in Gaborone. It can be seen from the above table that what can be termed as the “relatively big size firms” in Botswana, that is, firms having 7 to 12 lawyers are also based in Gaborone.

5.8 Data collection instruments

The instruments for data collection in this study were literature on the subject and a combination of data sources (data triangulation) such as open and closed-ended questionnaires, and semi-structured interviews. As already noted, the combination of these two instruments will enable the strengths of one method to counteract the weaknesses of the other and it will also help to check the validity of the findings and generate a rich profile on knowledge strategies for the law firms.

The literature on the subject provided secondary data that was supportive of the empirical research conducted in this study (Powell & Silipigni, 2004). Chapters 2, 3, and 4 of this study provide a comprehensive literature review on the changing legal information environment and knowledge management theories and principles. This review shows that most of the research studies originate in the United States, United Kingdom and Canada. Besides a few studies in Nigeria and South Africa there have been no serious studies of knowledge management in other African countries. This study based on the findings of a survey of law firms in Botswana is an attempt to provide insight into knowledge management in an African context. The questionnaires and the interviews were used in the collection and validation of empirical data in order to explore the strategies for knowledge management in law firms.

The questionnaire was constructed with advice and input sought from the researcher’s promoter, expert opinion and colleagues who are knowledgeable in this area. Bearing in mind that the subjects under study are lawyers who are always hard pressed for time and who are usually very sensitive to issues of confidentiality and the security of information, the questions were designed in a way that complete anonymity and confidentiality of the lawyers was ensured. The researcher also ensured that the questions were not unnecessarily long and boring and could be completed within a maximum of ten minutes.

The questionnaire consists of four parts. The first part contains general questions that

determine the demographic information and other necessary information for creating the respondent's profile. The second part was questions on the organisational characteristics of the firm. The third part poses questions that allow the participants to provide information on knowledge management patterns in law firm. The final part of the research questionnaire was to identify the different stakeholder of knowledge management in law firms and their role in facilitating knowledge management in the law firms.

The questions are structured in three different ways. First there are questions that consist of a check list of items where the subject has to respond by indicating a "Yes" or "No," by choosing the best answer or by choosing a particular sub division or category. Second, a majority of the questions are closed ended questions that seek to find the opinion, feelings, experiences, and views of lawyers towards knowledge management. In order to avoid mechanical responses, the questions are stated in alternate forms. The final category of questions are designed as open ended questions known as the "other" category with the intention of allowing the participants to reply freely and share any observations, remarks or elaborate on the knowledge management survey without having to select one of the several fixed responses. The effect of the open and closed ended questions is to enrich the information that can be obtained from the respondents.

Literature abounds with the benefits of questionnaires and interviews as survey instruments (Busher & Harter, 1980; Babbie, 2003; Powell & Silipigni, 2004). The advantages of using the questionnaire as a survey instrument for this study are that it facilitates wider geographic contact. Logistic expediency, and time constraints, necessitates the use of this method. It maintains anonymity and ensures uniformity of measurement from one unit of measurement to another thus also enhancing reliability. The quantitative data obtained from the closed-ended questionnaires are appropriate to assess the behavioural and descriptive components and therefore serve as an opportunity for the respondents to provide frank and honest answers and enhances reliability. On the other hand, the qualitative data from semi-structured interviews and open-end questionnaires generate a range of qualitative data that enables the researcher to develop an in-depth understanding of the situation and complement the results of the quantitative data obtained from the closed ended questions.

The semi-structured interview is a highly flexible qualitative research method for collecting in depth data in an interactive manner. Kvale (1996) describes qualitative research interview as an interview in which the purpose is to gather description of the words of the respondents with respect to interpretations of the meaning of the described phenomena.

The semi-structured interview aims at establishing a conversational partnership between the researcher and the respondent and provides the opportunity for the researcher to follow up on probes provided by the respondents thus enabling the acquisition of additional information not disclosed in the questionnaire. Considering that lawyers are often under time constraints and may not settle down to complete a questionnaire or may even complete it mechanically, interactive discussions from interviews may offer more substantive input. The response rate of interviews is said to be higher than that of a questionnaire (Powell, 1997). Normally it is 100%.

5.9 Construction of instrument

For the most part, the questionnaire (appendix 2) was constructed with modification from extensive review of literature and previously used instruments in order to enhance its reliability. Some of the instruments that have been developed over the years to assess knowledge management and organisational effectiveness are: the knowledge management assessment tool by the American productivity and quality centre; expedient knowledge inventory by strategy 1st, the organisational effectiveness index by human synergistic, and Liebowitz & Chen's (2001) knowledge sharing effectiveness inventory developed in laboratory of knowledge management at the University of Maryland Baltimore (Liebowitz & Chen 2003). A majority of the closed-ended questions consisted of a five point structured pre-coded¹⁴ Likert-type ordinal/ interval scale represented as follows:

- (a) Strongly agree
- (b) Agree
- (c) Neutral
- (d) Disagree
- (e) Strongly disagree

A major strength of the above five point pre-coded Likert scaling is that during analysis, the researcher was able to compile the group of participants with the highest score on the total pool of items (strongly agree, and agree) with respondents with the lowest score (disagree and strongly disagree) while eliminating the middle group (neutral) whose attitude may be inconsistent or unclear. Likert pre-coded scaling was adopted because it has been widely used in instruments measuring opinions, beliefs and attitude and it facilitates the analysis of data referred to as direct data entry.

¹⁴ Numerical scale assigned to recoded responses (Busher & Harter, 1980).

The interview schedule was divided into different sections with relevant questions provided in each section as seen in table 5.3 below.

Section 1: Role and responsibility of the lawyer to the firm	What position do you have in the firm? Are you a sole proprietor, associate lawyer, partner or managing partner?
Section 2: The changing legal information environment	May you indicate some of the changes that you have been experiencing in the legal information environment from when you started practising until present? What are some the factors that have brought about these changes? What are the consequences of these changes to your law firm?
Section 3 Knowledge management in law firms in Botswana	What are the types and categories of knowledge in your firm? What do you understand by knowledge management? Have your firm adopted knowledge management as one of its initiatives? If no, why? What are some of the tools and techniques of knowledge management in your firm? What are some of the knowledge management practices in your firm? What are some of the benefit of knowledge management that you have observed in your firm?
Section 4: Investigating the enablers and barriers to knowledge management in the law firms in Botswana	What are some of the factors that are instrumental to knowledge management in your firm? What do you think are the major barriers to sharing knowledge in your firm?
Section 5: How can knowledge management be implemented effectively in the law firms in Botswana?	What are some of strategies for effective knowledge sharing in your firm? Do you encourage tutoring and mentoring? Are there rewards and other incentives for sharing knowledge in your firm?
Section 6: The role of other agents and institutions in facilitating knowledge management initiatives in law firms in Botswana	What are the different agents and institutions that may assist in facilitating knowledge management in your firm? How do these agents and institutions assist you in knowledge management?

Table 5.3 Semi-structured interview guide

5.10 Validity and reliability issues.

Research is said to be valid when conclusions are true. It determines how good an answer is provided by the research. On the other hand, reliability is the extent to which a test or procedure produces similar results under constant conditions on all occasions (Then, 1996; Powell, & Silipigni, 2004). Reliability is essentially repeatability. It deals with the data collection process to ensure consistency of results. The goal of reliability is to minimise the errors and biases in a study and ensure that if a later investigator follows exactly the same procedure, the same findings and conclusions would be attained. It is worth noting that the

population may change as well as knowledge management in law firm may change within the course of the study. So answers are valid and reliable for a short time. However, it provides enough exploratory information for identifying strategies which are the ultimate goal of the study.

The perspective of validity differs within the context of qualitative and quantitative research methodology. In quantitative methodology, the measure of validity is often considered under internal validity, external validity or constructs validity (Gill & Johnson, 1991; Yin, 1994; Powell & Silipigni, 2004). Internal validity refers to whether or not what are identified as the causes actually produce what has been interpreted as the “effect” or “responses” and checks whether the right cause-and-effect relationships have been established. Thus, internal validity focuses more on the way results support conclusion. External validity is the extent to which any research findings can be generalised beyond the immediate research sample or setting in which the research took place. Construct validity which is similar to face validity and content validity is the extent to which an instrument measures the construct or concept it intends to measure. This validity of measurement is often based on logical judgment and external criteria such as expert opinion. Preliminary interviews to lawyers were conducted after which the questionnaire was critically reviewed to ensure that there is some similarity and complementarities between the interview questions and those in the questionnaire. The questionnaire was modified taking into account the feedback and suggestions from the promoter; and opinion was sought from experts in knowledge management research to evaluate the instrument with regard to comments on language, structure and general presentation and content and any methodological flaws of the instrument before a formal pre-test of the instrument.

While the concepts of internal and external validity and reliability have been very crucial in quantitative studies, qualitative researchers have distanced themselves from the quantitative paradigm by developing the following four criteria in ensuring trustworthiness in qualitative studies: credibility (in preference to internal validity); transferability (in preference to external validity and generalability); dependability (in preference to reliability) and conformability (in preference to objectivity), (Guba, 1981; Easterby-Smith, 1991; Yin, 1994). Some of the strategies that need to be considered in order to meet the above criteria and therefore ensure trustworthiness in qualitative studies are triangulation, interactive questioning with the use of probes, rephrasing of questions to test if the respondent is honest, opportunities to scrutinise the instrument by the promoter and peers, frequent debriefing session between student and promoter to widen the researchers vision, and an in-depth methodological

description provided in the study and examination of previous findings (Shenton, 2004).

Bearing in mind that this study adopted the qualitative and quantitative research methods the above measures were considered in this study in order to ensure the internal and external validity of the quantitative data and the credibility, transferability dependability and conformability of the qualitative data.

5.11 Ethical considerations

Social science researchers have emphasised the importance of observing the necessary ethical principles when dealing with human subjects (Powell, 1997; Mwanje, 2001; Powell & Silipigni, 2004). The responsibility to observe the ethical principles is particularly important in this study because the subjects under considerations are lawyers who by the nature of their profession are very sensitive about the security and confidentiality of information. Therefore, the researcher is compelled to create a “win-win” relationship with the research population by ensuring that the subjects are pleased to participate candidly while convincing the community at large that the conclusions to the study will be constructive.

The following ethical principles were observed. In keeping with the Botswana Government research requirement that permission to conduct research be obtained from the Office of the President, the researcher applied for and obtained a research permit on December 2007 (appendix 5). A covering letter enclosed in the questionnaire and the opening statement for the interview clearly explained the nature and purpose of the study informing the subjects that their participation was voluntary and that the anonymity and confidentiality of every participant was going to be respected. The participants were informed that the results of the findings would be made available to the Botswana Law Society and the University of Botswana library and to each firm on demand so that the subjects could relate with the findings. Finally, upon completion of the research all confidential data such as interview transcripts and list of subject names will be destroyed.

5.12 Pilot study

A pilot study was conducted in preparation for the study. Bell (cited in Naoum, 1998:87) describes a pilot study as getting the bugs out of the instrument so that the subjects in the main study would experience no difficulty in completing the instrument and so that one can carry out preliminary analysis to see if the wording and format of the questions would present any difficulty when the main data is analysed. The pilot study validates

the research method and research approach. It provided a trial run for the questionnaire which involves testing the wording of the questions and identifying ambiguous questions and testing the technique that would be used collect the data. The pilot study provided the researcher a preview of the type of responses to be anticipated and determined the optimum length of time in answering the questionnaire. It also enhances the structure and the interviewing skill of the researcher and assisted in the development of a preliminary protocol for analysing interviews. It also helped to refine the data collection plans with respect to both content and the procedure that was followed.

The piloting procedure involved the administration of the questionnaires and interview to six legal practitioners known to the researcher. Three are legal academics who are practising lawyers while the other three are from three different law firms. The responses to the questions and the various comments were used to improve on the final survey instrument. This process went through a number of stages until the questionnaire and interview was deemed suitable for the research.

5.13 Data collection procedure

Data was collected in three simultaneous phases. The first phase involved the distribution and collection of the questionnaire and the second involved the face-to-face semi-structured interview and telephone interviews with the lawyers in the law firm. A third phase was interviews conducted with other stakeholders of knowledge management in law firms such as the law librarian, legal academics, Law Society, legal consultants and some magistrates and judges.

The letter of introduction to the participants included an explanation of the purpose of the study. The questionnaire was accompanied by a covering letter which described the objectives of the survey, assured the participants of confidentiality of the information, and requested for returns to be forwarded by a deadline. The terms were defined in the covering letter of the questionnaire to provide minimum deviation in participants understanding of the terminologies used. The informed consent of the lawyers was solicited for the interviews; however, the terms were deliberately not defined during the interviews because it intended to explore the subjects' understanding of knowledge management without being influenced by others' ideas.

A copy of the questionnaire was emailed through the Law Society as an official email to all the lawyers in Botswana. The researcher also emailed the questionnaire to all the lawyers

in Botswana. As a follow up to the emailed questionnaires, the researcher personally administered the questionnaires to all the lawyers in Gaborone eliciting their co-operation in completing and returning them. Follow up questionnaires were mailed by post to the lawyers in other parts of the country with a self-addressed and stamped envelope provided for return of completed questionnaire. There was no attempt to coerce participants but rather, the researcher ensured that informed consent was obtained. The researcher paid regular visits at the law firms to remind the lawyers and follow up telephone calls were made and emails resent reminding the lawyers to complete and return the questionnaires.

At the same time that the questionnaires were delivered, the researcher conducted interviews with the aid of a semi-structured interview guides to fifteen lawyers in different law firms in Gaborone firms. The interview was designed to find out the participants understanding of knowledge management and tried to uncover variations in their understanding of the different concepts in the questionnaire. As already noted, the precise number of the interviewees and the choice of the lawyers interviewed were influenced by the specific knowledge management insight to be gained. The researcher gathered data from these lawyers until the critical elements of the study were understood. Field notes were written-up soon after the interviews. Interviews were also conducted with the following stake holders of knowledge management in law firms: the law librarian, legal academics at the Department of law at the University of Botswana, legal consultants and some magistrates and judges. The distribution and collection of questionnaires and interviews took place over a period of three months from 7 December 2007 to 20 March 2008. After the collection, the data was checked for completeness, comprehensibility, consistency and reliability. This is a step referred to as “cleaning” the data in order to eliminate numerous problems that may arise during data analysis (Powell & Silipigni, 2004). This involved reading the results, looking out for surprise responses and verifying the coding of data, after which data analysis was undertaken.

5.14 Data analysis

The main purpose of the data analysis method used was to sum up observations in a way that would provide answers to research questions. The qualitative and quantitative data analysis technique was used to analyse data. The Statistical Package for Social Scientists (SPSS) version 15.0 was used for the analysis of the data collected from the close-ended questionnaires. This software package was chosen because it offers the most comprehensive solution for reporting, modelling and analysis of data (Powell & Silipigni,

2004). It also offers a variety of data formats and programmes that make it easy to edit and transfer data from one programme to another. It is user friendly and easily accessible to the user. Descriptive statistics was used to represent quantitative data. The data was put in spreadsheets and statistical graphics for visual presentation of the results.

On the other hand, qualitative data derived from the open-ended questions and the interviews were coded using thematic content analyses. Content analysis is a systematic, objective, qualitative analysis of the occurrence of words, phrases and concepts in books, journals, videos, and other kinds of materials (Powell, 1997). Qualitative data analysis consists of three concurrent, interactive and cyclical flow of activity known as data reduction (process of selecting, focusing, simplifying, abstracting and transforming data in written-up field notes or transcriptions); data display and conclusion drawing, and verification that feeds back into the research design up to the last moment of data gathering (Miles & Huberman, 1994; Powell & Silipigni, 2004).

Qualitative data may be analysed by pattern matching, explanation building or by time series analysis (Yin, 1994; Amaratunga et al., 2002). The pattern matching logic techniques was adopted for analysing qualitative data. It is known to be one of the most desirable methods for qualitative data analysis. This method uses an a priori theory for analysis by enabling a comparison between empirically-based patterns with the predicted pattern. If similar results occur the evidence is said to describe the same phenomenon and it is known as “literal replication,” if on the other hand, the qualitative analysis produce different results from the theory, it is known as “theoretical replication”. This has the advantage of controlling deviations that occur in the analysis of quantitative and qualitative data. The results of the qualitative and quantitative analysis were summarised, consolidated and presented as the survey findings.

5.15 Problems encountered during data collection

It was not easy to obtain the cooperation of lawyers to fill the questionnaire because they are often very busy and felt that the time spent on completing the questionnaire was wasted time. This was complicated by the fact that data collection started by the end of the year (December 2007), a time when lawyers are under pressure to meet with deadlines and round up files and extended into the beginning of a new year a time when they are trying to settle in. Hence, data collection was extended to a period of three months instead of the initial two month planned.

Some law firms moved offices during this period and the researcher was faced not only with the challenge of tracing these offices but also having to deliver another questionnaire because previous questionnaires were usually misplaced in the course of moving offices.

Notwithstanding the above limitations, the researcher did manage to obtain some useful data from the willing participants that enabled the objectives of the study to be realised.

5.16 Conclusion

This chapter established the methodological framework of the study. The two major schools of thought that anchored the different research methods are classical school (positivist) for quantitative research methods and naturalistic school (interpretive) for qualitative research methods. While positivist belief that the world is external, objective, focuses on facts, and opt for large samples in research, the interpretivist on the other hand, consider the world as socially constructed and opt for small samples that are investigated in depth over time and the researcher is part of what is observed. Nevertheless, the choice of a specific method most often depended more on the philosophical assumptions of the researcher given the research questions, and the resources available rather than uniformly adhering to prescribed canons of positivism or phenomenology. To this effect, this study was informed by both the positivist and naturalistic school of thought.

It was shown that this study is mainly an exploratory survey design having elements of descriptive and explanatory survey. The study advances the use of triangulation in knowledge management studies whereby both quantitative and qualitative research approaches are considered complementary of each other with a dominantly qualitative and less dominantly quantitative emphasis. The nature of data to be collected and the research questions influenced the choice of this research method.

The main population of the study are lawyers in firms in Botswana while the target population consisted of the sampling frame of 217 lawyers obtained from the Botswana Law Society. In order to ensure the representative nature of the population and meet the objectives of the study, a census of the sampling frame was considered as the survey sample. The researcher purposively limited the interviews to lawyers in law firms in Gaborone and also used the purposive sampling technique in determining the lawyers to be interviewed. The law librarian, legal Consultants, some judges and magistrates, legal academics at the Department of Law at the University of Botswana and some members of the Law Society were also interviewed.

The instruments used for data collection were literature review, open and closed-ended questionnaires and semi structured interviews. The questionnaire was constructed with modification from the extensive review of literature and previously used scales.

The following measures were taken to ensure trustworthiness in the study: expert advice, with regard to comments structure and general presentation of the research instrument, positive criticism from peers, triangulation, interactive questioning during interviews with the use of probes. The frequent debriefing sessions between the promoter and the researcher widen the researcher's vision.

To ensure that ethical principles were observed, the anonymity and confidentiality of the respondent was respected and on completion of the study, all confidential data was to be destroyed. The informed consent of the lawyers was solicited for the interviews.

A pilot study conducted before the study validated the research method and approach and provided a trial run for the questionnaire. The questionnaire was only considered suitable for data collection after the questions and comments from the pilot study were integrated into the revised instrument.

Data was collected simultaneously in the following three phases: the distribution and collection of questionnaires, face to face interviews with lawyers in the law firm, and interviews with other stakeholders of knowledge management.

The Statistical Package for Social Scientist (SPSS) version 15.0 was used for analysing data collected from the closed- ended questionnaires. On the other hand, qualitative data such as the open-ended questions and the interviews were coded using thematic content analyses and data was analysed by adopting the pattern matching logic technique. The findings of the qualitative and quantitative data on knowledge management in law firms in Botswana were analysed and summarised and formed the basis for discussions in the next chapter.

CHAPTER SIX

DATA ANALYSIS AND RESULTS OF THE STUDY

6.1 Introduction

Having established the methodological framework for data analysis in the preceding chapter, the purpose of this chapter is to present the analysis of the empirical data that has been collected by the use of survey questionnaires and semi-structured interviews in order to explore the current situation with regards to knowledge management in law firms in Botswana. To avoid the bias and omission inherent in closed-ended questionnaires, the questionnaire had open-ended questions and an “other” category. Though not many of the participants completed the “other” category, the few who responded provided some useful answers that revealed valuable insights into the strategies of knowledge management in law firms in the country. The qualitative data from open ended questions and semi-structured interviews were carefully recorded, analysed and utilised. Out of total 217 questionnaires distributed to the lawyers, 140 completed questionnaires were returned, giving a return rate of 64.5%. Semi-structured interviews were conducted with 15 lawyers from different firms in Gaborone. All the quantitative data was coded and analysed using the Statistical Package for social scientist (SPSS) version 15.0. This statistical package provides the most comprehensive solution for reporting, modelling and analysis of data. Range,¹⁵ mean,¹⁶ frequencies and percentages were used for the analysis and charts and tables were used to present data. Semi-structured interviews were also conducted with lawyers in Gaborone to complement and provide a comprehensive overview on knowledge management in law firms. The data collection instruments were designed to answer the following research questions of sub problem four of the study:

- ▶ What are the different categories of knowledge existing in the law firms in Botswana?
- ▶ What are the tools and techniques used for knowledge management in law firms in Botswana?
- ▶ How do law firms in Botswana approach knowledge management?
- ▶ What factors are critical to the success of knowledge management in law firms in Botswana?

15 It indicates the smallest and greatest value of the response that assist in understanding the diversity of responses.

16 The average count or response calculated by adding all the responses and dividing it by the number of responses.

- ▶ What are the perceived benefits of knowledge management to law firms in Botswana?
- ▶ What factors inhibit the success of knowledge management in law firms in Botswana?
- ▶ What is the role of other institutions and agencies in knowledge management in law firms in Botswana?

The results are presented in the same order that the questions were asked in the questionnaire and the semi-structured interviews. The questionnaire consisted of 20 questions divided into four sections as follows: 1) personal profile 2) organisational characteristics of the firm 3) knowledge management practices and 4) the role of knowledge institutions and agents in the creation, sharing and capturing of knowledge in law firms (appendix 2). The semi-structured interview on the other hand, consisted of 6 sections that complemented the finding of the research questionnaire (appendix 3). Because of the legal context of this study those who participated in the survey are referred to as “participants” rather than “respondents” to avoid confusing the word respondents with respondents (defendants) in legal suits. The purpose of the first section of the survey questionnaire and interview was to analyse the personal profile of the participants.

6.2 Personal profile

This section presents information on the educational background and the longevity of service of participant lawyers. In question 1 of the research questionnaire, participants were asked to tick their level of education in the appropriate box. The frequency distribution of participants as to their level of education revealed that a majority, 116 (83%) have a bachelors degree and 24 (17.1%) have a masters degree (chart 6.1 below). Furthermore, from the results of the “other” category and the interviews, other professional qualifications that participants have are executive masters in sports organisation, post graduate diploma in international law, and diploma in trial advocacy.

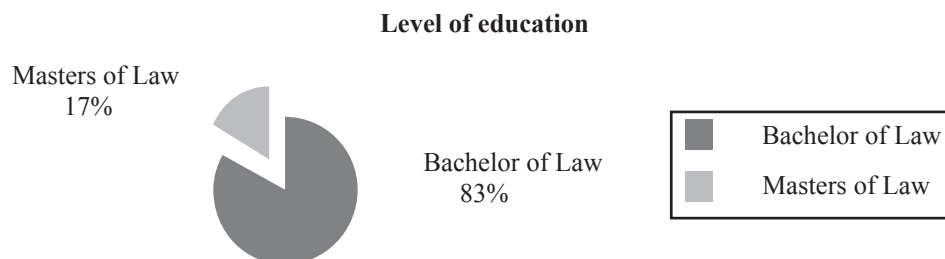
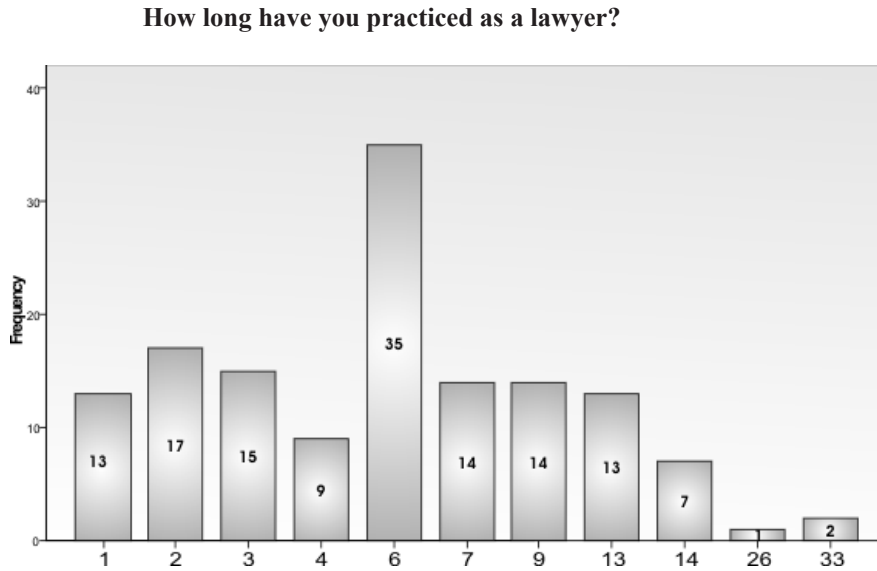


Chart 6.1 Level of education (N=140)

The purpose of question 2 was to establish how long participants have practiced. Chart 6.2 below reveals that the length of practice of participants ranges from 1 to 33 years. The mean number of years of the participant lawyers' practice is 6 years.



How long have you practiced as a lawyer?

Chart 6.2 Longevity of practice as a lawyer (N=140)

The longevity of service of the participant lawyers is represented as follows: 13 (9.3 %) have practiced for 1 year, 17 (12.0%) for 2 years, 15 (10.7%) for 3 years, 9 (6.4%) for 4 years, 35 (25%) for 6 years, 14 (10.0%) for 7 years, another 14 (10.0%) for 9 years, 13 (9.3%) for 13 years, 7 (5.0%) for 14 years, 1 (0.7%) for 26 years and 2 for 33 years.

6.3 Organisational characteristics of the firm

Questions 3, 4, 5 and 6 of the research questionnaire were on data on the organisational characteristic of the law firms. These were collected to determine the total number of lawyers in each law firm, establish the most strategic resource in the firm, assess whether participants have knowledge management systems in place and identify the person responsible for knowledge management. The questions also sought to establish whether the firms have any policy and budget for knowledge management.

In question 3 of the research questionnaire, lawyers were asked to indicate the total number of lawyers in the participants firms. The results are presented in chart 6.3 below.

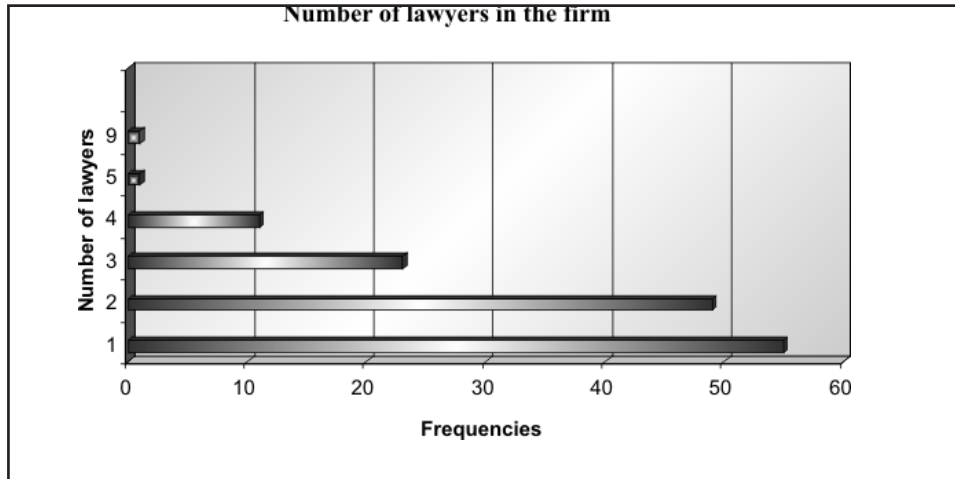


Chart 6.3 *Number of lawyers in the firm (N=140)*

It shows that 55 participants (39.3%) are sole proprietors, 49 (35.0%) had 2 lawyers, 23 (16.4%) had 3 lawyers 11 (7.9%) had 4 lawyers, 1 (0.7%) had 5 lawyers and another 1 (0.7%) had 9 lawyers. The mean number of lawyers in the firm is 2. It emerged from the interview (appendix 3) that law firms in Botswana continue to stay small with an average of two partners due to the fact that every lawyer wants to become a partner rather than just working as a professional assistant because partners get a share of the profit rather than just a fixed salary. As a result there is constant splitting up from firms by lawyers to start off as sole proprietors or to form small partnerships.

The purpose of question 4 of the research questionnaire was to find out whether lawyers appreciate the fact that knowledge was a strategic resource in the law firm. Participants were asked to indicate by ticking from the list of resources provided what they considered as the most strategic resource in the law firm (See chart 6.4 below).

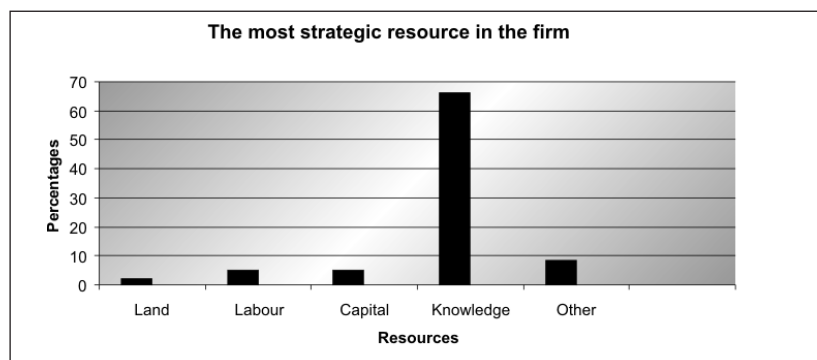


Chart 6.4 *The most strategic resource in the firm (N=140)*

Over half of the participants (66.4%) considered knowledge as the most strategic resource of the firm. 12 (8.6%) indicated others, 7 (5.0%) considered labour, another 7 (5.0%) felt it was capital while 3 (2.1%) felt it was land. Eighteen (12.9%) did not respond to this question. Law is a knowledge intensive profession and therefore one would have thought that the participants would unanimously agree that knowledge is the most strategic resource.

From the responses given by the interviewees (appendix 3) and from the “other” category in the research questionnaire, it emerges that some lawyers considered the quality of clients, client base, and time rather than knowledge as the most strategic resource. An interviewee lamented the fact that today in legal practice the pursuit of knowledge has been sacrificed for the pursuit of money and profit. One noted, “lawyers are just too busy, every one is trying to make money and have very little time to create knowledge.” Another interviewee said that “time is the most important resource because of the feeling that knowledge without time is like having a car with no fuel.”

The purpose of question 5 of the research questionnaire was to establish whether law firms in Botswana had knowledge management in place or had plans to introduce this, and whether these firms had any policy and budget for knowledge management. Participants were asked to indicate by either ticking a “Yes” or “No” to the series of the questions asked. The results are presented in table 6.1 below. With regards to the question referring to whether participants had a knowledge management policy, most of the participants (72.9%) did not have a formal knowledge management programme. Only 38 (27.1%) participants indicated that they had a formal knowledge management programme. As to whether firms had plans to introduce a knowledge management policy, 27.1% planned to introduce this, while 40.0% had no plans and 32.9% did not respond. A question was asked to determine whether the firms have a knowledge officer or any person in similar position, specifically dedicated to gathering, distributing or leveraging the firm’s knowledge. Most of the respondents, 76.4% did not have a knowledge management officer. Only 9.3% of the participants indicated that they had a knowledge management officer, and 20 (14.3%) did not respond. With regards to a knowledge management policy, a majority, (78.6%) did not have, while only 10 (7.1%) indicated that they have a policy for knowledge management and 20 (14.3%) did not respond. As to whether the firm has knowledge management budget, 101 (72.1%) indicated that their firms did not have any knowledge management budget and only 25 (17.9%) had a knowledge management budget while 14 (10.0%) did not respond.

	Yes in %	NO in %	Non response in %
Does your firm have a formal knowledge management programme in place	27.1	72.9	
If no, do you plan to introduce one?	27.1	40.0	32.9
If your answer is in the affirmative, does your firm have a knowledge officer or any person in similar position specifically dedicated to gathering, distributing or leveraging the firm’s knowledge?	99.3	76.4	14.3
Does your firm have a written knowledge management policy?	77.1	78.6	14.3
Does the knowledge management programme in your firm have a dedicated budget?	17.9	72.1	10.0

Table 6.1 Organisational characteristic of the firm (N=140)

In question 6 of the research questionnaire, it was expected that the participants who had previously indicated in question five that they had a knowledge officer or any person in similar position specifically dedicated to gathering, distributing or leveraging the firm’s knowledge should indicate in the appropriate box the person responsible for knowledge management in their firm, or make a suggestion in “other” category. This is shown in chart 6.5 below.

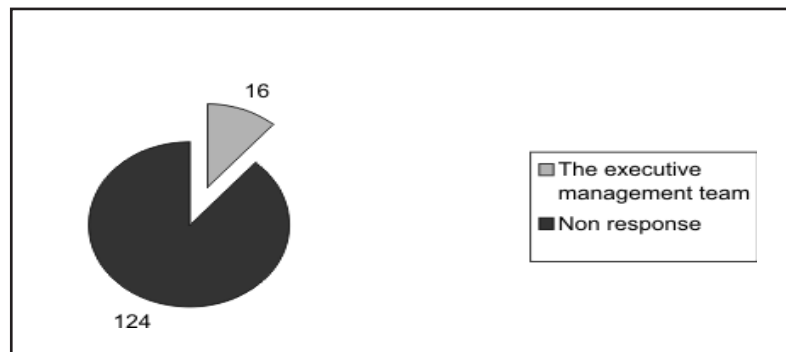


Chart 6.5 Who is responsible for knowledge management in your firm? (N=140)

Sixteen (11.4%) of the participants indicated that the management team was responsible for managing knowledge in the firm while the rest, 124 (88.6%) did not respond to the question. The fact that they did not respond may be interpreted to mean that there was no knowledge management in these firm or they did not understand what knowledge management was about. The results of interviewees (appendix 3) indicated that the managing partner is usually in charge of the overall decisions in the firm and therefore will be the ones to make any decisions concerning knowledge management.

Having established the organisational characteristics of the firm, the subsequent sections focused on answering the different research questions. The first research question seeks to determine the different categories of knowledge that exist in the law firms.

6.4 The different categories of knowledge existing in the law firms in Botswana

One of the objectives of this study was to identify the different types of knowledge that are used in law firms in Botswana. The purpose of question 7 of the research questionnaire and part of section 3 of the research interview was to meet this objective. In this question there is a list of the different types of knowledge identified in the literature as existing in the law firms. Participants were asked to indicate in the appropriate column how frequently these different types of knowledge are used in their firms. The results of the frequency of use give an indication of the different categories of knowledge that exist in law firms in the country. These are presented as percentages in table 6.2 below. For ease of interpretation and analysis of the data, the results of “frequently” and “very frequently” were merged and interpreted as very frequently.

	1 Very Frequently	2 Frequently in %	3 Not at all in %	4 Not Frequently in %	5 Non response in %
Skill and expertise of lawyers and staff	80.7	17.9		1.4	
Lessons learned from past projects	69.3	17.9		11.4	1.4
Analytical knowledge	51.4	23.6	2.9	17.1	5.0
Tips on drafting	38.6	38.6	3.6	14.2	5.0
Procedural knowledge	47.9	47.1	0.7	4.3	
Conversation by the hallways	31.4	29.3	7.9	26.4	5.0
Knowledge of the law	59.3	30.7	5.0	5.0	
Expert opinion	16.4	27.1	7.9	46.3	4.3
Legal text	40.7	39.3	5.0	10.0	5.0
Legislation and case law	57.1	32.9	5.0	5.0	
Standard documents	50.7	44.3		5.0	
Knowledge from judges	13.6	45.0	15.7	25.7	
Court decisions	68.6	19.3		12.1	
Financial information	7.9	30.7	17.1	44.3	
Marketing information	9.3	13.6	33.6	38.6	5.0
Client information	27.1	39.3	12.1	21.4	

Table 6.2 Categories of knowledge in the law firm (N=140)

The following types of knowledge were frequently used in the law firms: skill and expertise of lawyers and staff (98.6%); standard documents (95.8%); procedural knowledge (95.0%); legislation and case law (90.0%); knowledge of the law (90%); court decisions (87.9%); lessons learned from passed projects (86.2%); legal text (80.0%); tips on drafting (hints on creating legal documents), (77.2 %); and analytical knowledge (78.9%).

The following categories of knowledge fell within 50% to 70% range of usage in the law firms: client information (66.4%), conversation by the hall ways (60.7%) and knowledge from the judges (58.6%).

Expert opinion, financial information, marketing information and analytical knowledge were the least used knowledge in the law firms. Sixty one (43.5%) participants used expert opinion frequently, 62 (46.3%) did not use this frequently and 11 (7.9%) did not use it at all. Fifty four (38.8%) use financial information frequently, 62 (44.3%) do not use it frequently and, 24 (17.1%) do not use it at all. Only 32 (22.9%) use marketing information very frequently; 54 (38.6%) do not use it frequently, and 47 (33.6%) do not use it at all.

Other knowledge used in the law firms identified from the findings of the interviews and results from the “other” category (appendix 3) are print text, the general knowledge of the firm and its workers, the general knowledge and attitude of the clients and internet sourced knowledge.

6.5 Factors that would motivate the adoption of knowledge management in lawfirms (N=140)

Against the background of some of the changes in the legal information environment discussed in chapter 2 of this study, question 8 of the research questionnaire listed the possible factors that may motivate a firm to adopt knowledge management. The participants were asked to rate these factors in a five point scale of “neutral,” “disagree” and strongly “disagree”. An “other” option category was provided for participants to indicate any other factors that may motivate the adoption of knowledge management. Section 2 of the research interview (appendix 3) required the interviewees to identify some of the changes they are experiencing in the legal environment. For purposes of analysis, the responses for “strongly agree” and “agree” were considered as “agree,” favourable or positive, while the results of “strongly disagree” and “disagree” were considered as “disagree” or negative. The results from the research questionnaire are presented in table 6.3 below.

	1 Strongly agree in %	2 Agree in %	3 Neutral in %	4 Disagree in %	5 Strongly disagree in %
Advances in information communication technologies	74.3	23.6	2.1		
The shift from paper-based to electronic sources of information	67.9	26.4	5.7		
The Internet	65.7*	30.0*	3.6*	0.7*	
Electronic publishing	67.1	27.9			
Globalisation of legal services	37.1*	28.6*	19.3*	6.4*	3.6*
Competition amongst firms	33.6	36.4	25.7	4.3	
Pressure from clients	20.7	34.3	29.3	15.7	
Information overload	17.9*	23.6*	32.9*	15.7*	
Loss of key personnel and their knowledge	21.4	32.9	15.7	17.9	12.1
The use of knowledge management tools and practices by other competitors	36.4	52.1	3.6	7.9	
An increase in the mobility of lawyers	20.7	25.7	26.4	13.6	13.6
The need to identify and protect strategic knowledge in the firm	50.0	33.6	8.6	6.4	1.4
The desire to promote professional satisfaction	65.0	29.3	5.7		
The desire to support and encourage a learning culture	63.6	31.4	5.0		
The desire to promote team work	65.0	25.7	9.3		
The desire to meet the information and knowledge needs of the lawyer	65.7	30.0	4.3		
Pressure from other professional service firms	25.7	27.9	27.1	14.3	5.0

**Percentages do not add up due to non response*

**Table 6.3 What would motivate the adoption of knowledge management in your firm?
(N=140)**

Lawyers generally responded positively and in some cases were neutral as to the factors that would motivate them to adopt knowledge management. It could be that indeed participants were very conscious that the legal environment in Botswana is experiencing changes or that they just felt it was easy concurring to the question by ticking the first three options. These findings were complemented with the findings from the interview which revealed

that lawyers are indeed overwhelmed by several changes in the legal environment and are looking for alternative ways of improving their practices and were therefore excited to learn more about the concept of knowledge management from the researcher. The results of the findings are discussed in the subsequent paragraphs.

As table 6.3 above shows, the following are the major motivating factors in the adoption of knowledge management in the law firms ranked in order of highest percentage scores: information communication technologies (97.9%); the internet (95.7%); meeting the information and knowledge needs of the lawyer (95.7%); electronic publishing (95.0%); the desire to support and encourage a learning culture (95.0%); the desire to promote professional satisfaction (94.3%); shift from paper-based to electronic source (94.3%); and promoting team work (90.7%). The above factors recorded high percentage score of 90% and above.

The following are other motivating factors to the adoption of knowledge management that recorded a percentage score within the 70 to 80.9 % ranking: the use of knowledge management tools and practices by other competitors (88.5%); the need to identify and protect the knowledge in the firm (83.6%) and competition amongst firms (70.0%). Four items viz, globalisation of legal practice (65.7%); pressure from clients (55.0%); loss of key personnel (54.3 %) and pressure from other professional service firms (53.6% agree); recorded a percentage score within 50%-69 % range.

On the other hand, factors that were regarded as not having a serious motivating influence to knowledge management in law firms included information overload and increases in lawyers' mobility. With regard to increases in lawyers' mobility 65 (46.4%) agreed, 37 (26.4%) were neutral and 38 (27%) disagree. As regards information overload, 58 (41.5 %) agreed, 46 (32.9%) were neutral, 22 (15.7%) disagreed and 14 (10.0%) did not respond.

From the results of the interview (appendix 3) and the "other" category, the following were identified as other factors that may motivate the adoption of knowledge management in a firm: technological changes, the desire to attract new clientele; desire to standardise knowledge; standard set by Law Society the regulating body of the firms, networking with other lawyers within and without the country; pressure from international affiliated law firms to do so; recent technological innovations that require process to be carried out electronically and the desire to standardise knowledge and work emanating there of.

The overall responses show that lawyers acknowledged the need for knowledge management in their firms.

The next research question was designed to identify the tools and techniques for knowledge management in law firms.

6.6 Tools and technologies for knowledge management in law firms in Botswana

In order to establish the tools used for knowledge management in law firms in Botswana it was crucial to first identify the information communication technologies that exist in the law firms. In question 9 of the research questionnaire, a list of information communication technologies was presented to the participants and they were asked to indicate by ticking “Yes” or “No” whether a particular technology is used in their firms. Responses were also sought from the “other” category and through interviews (appendix 3). The results from the research questionnaire are presented in table 6.4 below.

	Yes in %	No in %		Yes in %	No in %
1. Telephones	100	-			
2. Computers	100	-	15. Enterprise information portals (EIP)	-	100
3. Personal networked computer	81.4*	17.9*	16. Calendaring, group scheduling and task list software	16.4*	77.9*
4. Intranet	20.0*	72.1*	17. Artificial intelligence systems	-	100
5. Extranet	9.3*	85.7*	18. Expert systems	-	100
6. Internet	69.3	30.7	19. Content management systems	2.1	97.9
7. Emails	71.4	28.6	20. Publishing systems	13.6*	86.4*
8. Video and text-based conferencing technology	7.1	92.9			
9. Lotus Notes	-	100	21. Data base tools	-	100
10. Electronic Bulletin boards	5.7*	93.6*	22. Record management systems	16.4*	79.3*
11. Legal information systems	40.0*	59.3*	23. Indexing tools	7.1*	92.7*
12. Document management systems	16.4*	82.9*	24. World Wide Web	15.7	84.3
13. Practice management systems	15.0	85.0	25. Case map		100
14. Case management systems	59.3	40.7	26. Automated billing document assembly system	10.7	89.3

*Percentages do not add up due to non response

Table 6.4 Information communication technologies in law firms in Botswana (N=140)

From the above table, the most common information communication technologies used in law firms ranked according to the highest percentage scores are telephones and computers (100%), personal networked computers (81.4%), email (71.4%), the internet (69.3%), case management systems (59.3%) and legal information systems (40.0%). Not many participants had intranet (20.0%). Only 16.4% of the participants had calendaring group scheduling and task list, software, record management systems and documents management system, 15.0 % use practice management systems, 15.7% use the world wide web, 13.6% use publishing systems and 10.7% use automated billing assembly.

Very few participants had video and text based video conferencing and indexing tools (7.1%), electronic bulletin boards (5.7%), and content management systems (2.1%). Enterprise information portals, expert systems data base tools, Lotus Notes and case maps were not used. Other technologies in law firms obtained from the “other” category and from the results of the interview (appendix 3) are electronic package for the firms’ accounts such as law plan and quick book and telephone management systems.

Against the background of the information technologies used in the law firm, the next step was to establish the information technologies used for knowledge management in law firms. The different ways by which technologies are used for knowledge management identified in the literature review were listed in question 10 of the research questionnaire and participants were asked to indicate in the appropriate column whether they “strongly agree,” “agree,” “disagree,” “strongly disagree” or were “neutral” as to how information communication technology was used for knowledge management in their firms. An “other” option category was provided for participants to indicate any other way ways by which technologies are used for knowledge management. The responses for “strongly agree” and “agree” are considered as “agree” while the results of “strongly disagree” and “disagree” are considered as “disagree” The results are presented in table 6.5 below.

	1 Strongly agree in %	2 Agree in %	3 Neutral in %	4 Disagree in %	5 Strongly disagree in %	Non response in %
Lawyers subscribe to online forums, Intranet news groups or email distribution lists	10.0	15.7	18.6	33.6	12.9	9.3
My firm uses communicative tools and technologies such as Lotus Notes to support the knowledge transfer process and to encourage the sharing of ideas and projects	-	-	34.3	33.6	20.7	11.4
My firm uses the Internet/Intranet, Extranet and World Wide Web, for gathering knowledge so that it can be used through out the firm	32.9	22.1	11.4	5.0	28.6	-
My firm uses legal information systems such as LexisNexis, Justastat, Westlaw, and Thomas and Dialog to facilitate legal research	35.7	21.4	12.9	16.4	13.6	
My firm uses “Yellow Pages” containing CVs, competency profiles, and research interest of experts	12.9	13.6	40.7	26.4	2.1	4.3
My firm has knowledge maps that act as electronic intermediaries connecting knowledge seekers to knowledgeable people.	1.4		31.4	40.0	17.9	9.3
My firm uses document and content management systems in managing the content of knowledge	4.3	24.3	33.6	17.9	15.7	4.3
My firm uses indexing tools to organise and cross-reference material by subject and practice area	13.6	7.1	37.9	20.7	14.3	6.4
My firm has an expert system that captures the knowledge of experts		5.0	38.6	28.6	22.1	5.7
My firm uses artificial intelligence to support advanced information searching and retrieval			27.1	38.6	30.0	4.3

Table 6.5 The ways information communication technologies are used for knowledge management in law firms (N=140)

Most responses on the ways information communication technologies are used for knowledge management in law firms from the above batches of questions either fell below a 30% range or were neutral. This may be because as observed from the preceding question, most of the information communication technologies for knowledge management identified have not been adopted in the law firms or because law firms are not aware of these technologies. It

was evident from the findings of the interviews (appendix 3) that participants were excited about the potentials of the technologies for knowledge management in law firms although they were not quite sure as to how information technologies were used for knowledge management.

The only two major ways by which information technologies are used for knowledge management in law firms that recorded a 50% score range are the use of external legal information systems such as Lexis/Nexis, Justastat, Westlaw, and Thomas and Dialog to facilitate legal research (57.1%), and the use of the internet/intranet, extranet and world wide web, for gathering knowledge that can be used throughout the firm (55.0%).

Information communication technologies that were not commonly used for knowledge management arranged in descending order of percentage included: document and content management systems in managing the content of knowledge (28.6%); subscription to online forums; intranet news groups or email distribution lists (25.7%); “Yellow Pages” containing curriculum vitae, competency profiles, and research interest of experts (26.5%); and indexing tools to organise and cross-reference material by subject and practice area (20.7%).

The following are a number of information communication technologies for knowledge management that were not used at all in law firms listed in the order of disagreement expressed by participants: artificial intelligence to support advanced information searching and retrieval (68.6%); expert system that captures the knowledge of experts (55.7%); and Lotus Notes to support the knowledge transfer process and to encourage the sharing of ideas and projects (54.3%). Two (1.4%) participants acknowledged that their firm uses knowledge maps that act as electronic intermediaries connecting knowledge seekers to knowledgeable people.

6.7 Techniques for knowledge management in law firms in Botswana

Like the tools for knowledge management, several techniques for knowledge management were identified in the literature review. Question 11 of the research questionnaire listed several techniques of knowledge management and participants were requested to indicate by ticking a “Yes ” or “No” as to the different techniques of knowledge management applicable in his/her firm. Responses were also sought from the “other” category and from the interviews. The results from the research questionnaire are presented in table 6.6 below.

	2 Yes in %	1 No in %		2 Yes in %	1No in%
1. Precedents	100		13. Office directory and office news letters	47.1	50.0
2. Work product repositories	19.3	80.7	14. Client information and matter	11.4	82.9
3. Professional development programmes	26.4	73.6	15. Know-how systems and info-banks	22.1	77.9
4. Brief banks	12.1	85.0	16. Yellow pages	46.4	53.6
5. Legal research	80.0	20.0	17. Meeting of lawyers with a common interest	46.4	53.6
6. Hiring and training young lawyers	61.4	38.6	18. Litigation strategy	35.0	65.0
7. Best practices	39.3	57.1	19. Client relation management	28.6	71.4
8. Record management	69.3	30.7	20. Conflict checking,	12.9	87.1
9. An excellent staffed knowledge centre	27.9	70.7	21. Knowledge concierge.	1.4	98.6
10. Presentations	15.7	84.3	22. Regular in-house seminars	41.4	58.6
11. Internal publications	5.0	95.0	23. The discussion of major projects with other lawyers after conclusion	21.4	78.6
12. Know-how index	11.4	-	24. Weekly learning report	71.2	29.9
			25. Skills and expertise locator	7.1	-

Table 6.6 The different techniques of knowledge management applicable to the law firms (N=140)

The results reveal that the entire group of participants in the study is using precedents (100%). Other common techniques of knowledge management used by majority of the participants were legal research and development (80.0%), hiring and training of young lawyers (61.4%), record management (69.3%) and weekly learning report (72.1%). Slightly below half of the participants used the following techniques: office directory and office newsletters (47.1%), meeting of lawyers with a common interest (46.4%); regular in-house seminars (41.4%) and Yellow Pages (46.4%). It is worth noting that in the preceding table (table 6.5) on technologies used for knowledge management, only 26.5% acknowledged the use of Yellow Pages. Techniques that are not frequently used are litigation strategy (35%), best practice (39.3%), client relation management (28.6%), professional development programmes (26.4%), discussion of major projects with other lawyers after conclusion (21.4%), brief banks (21.1%), excellent staffed knowledge centre

(27.9%), and know-how systems and info-banks (22.1%). The least used techniques are work product repositories (19.3%), presentations (15.7%), conflict checking (12.9%), know-how index (11.4%), client information and matter (11.4%), skills and expertise locator (7.1%), internal publications (5.0%), and knowledge concierge (individual who keeps track of the lawyer working on a particular issue 1.4%).

Other techniques of knowledge management obtained from the “other” and from analysing the interviews (appendix 3) are: personal information banked by each attorney; research from University of Botswana library for electronic resources; access of Law Reports on CD such as South African Law Reports, and Online Law Report and judgments such as the Canadian Supreme court judgments and the Australian court judgements.

6.8 The manifestation knowledge management in law firms in Botswana

Having identified the information technologies used for knowledge management and the techniques for knowledge management, the purpose of research questions 12 to 15 was to establish the existing state of the art of knowledge management in law firms. Responses were also sought from the “other” category and from the interviews. Before establishing the state of the art of knowledge management it was necessary to find out from the interviews whether the participants fully understand what knowledge management is all about.

6.8.1 Law firms understanding of knowledge management

The above question was addressed in the semi-structured interview to the interviewees (appendix 3). From the analysis of the responses from the interviews, it emerged that although knowledge management functions are carried out in the law firms, lawyers are yet to fully understand and appreciate the term “knowledge management.” They are not fully informed as to what knowledge management is all about although they are excited about the prospects of knowledge management. Most interviewees defined knowledge management as information management. Their views on the definition of knowledge management included statements such as “how lawyers store information they receive and how they protect information,” “knowledge management is all about file management,” “knowledge management is about trade secrets and the protection of information,” “it is how law firms use information for strategic management” and “knowledge management is the management of information using information communication technologies”

6.8.2 Knowledge generation process in law firms

To fully appreciate the state of the art of knowledge management it was also considered necessary to first investigate how knowledge is generated in the law firms. Question 12 of the research questionnaire consisted of a list of the different ways identified in the literature in which knowledge may be generated in the law firms. Participants were asked to rate how knowledge is generated in their firms in a five point scale of “strongly agree”, “agree”, “neutral”, “disagree” and “strongly disagree.” An “other” option category was provided for participants to indicate other ways by which knowledge is generated in their firms. For ease of interpretation and better appreciation of the significance of the results, the responses for “strongly agree” and “agree” are considered as “agreed”, the result of “strongly disagree” and “disagree” are considered as “disagree”. Responses were also sought from the “other” category and from the interviews. The results are presented in table 6.7 below.

	1 Strongly agree in %	2 Agree in %	3 Neutral in %	4 Disagree in %	5 Strongly disagree in %	Non response in %
Capturing and using knowledge obtained from clients, competitors and suppliers	31.4	37.9	15.0	13.6	-	3
Capturing Knowledge from research institutions and Universities	17.9	34.3	32.9	15.0	-	-
Encouraging lawyers to participate in project teams with other experts	4.3	37.1	55.7	2.9-	-	-
Accessing knowledge from the Internet	32.9	48.6	18.5	-	-	-
Attending conferences	18.6	66.4	6.4	8.6	-	-
Attending workshops	15.0	65.0	10.0	5.0	-	5.0
Writing internal reports	7.9	22.1	33.6	22.9	7.1	6.4
Accessing legal databases	9.3	52.1	14.3	6.4	7.9	10.0

Table 6.7 The different ways by which knowledge is generated in the law firms (N=140)

From the table above it is clear that the most important ways in which knowledge is generated in law firms in Botswana are: attending conferences (85.0% agreed), attending workshops (80% agreed), accessing knowledge from the internet (81.5% agreed), and obtaining knowledge from clients, competitors and suppliers (69.3% agreed). Accessing legal databases (61.4% agreed) and capturing knowledge from research institutions and universities (52.2%) were other ways of generating knowledge in law firms. Not many participants felt that knowledge is created in law firms by encouraging lawyers to participate in project teams (41.4%), and by writing internal reports (30.0%).

From the “other” category and from research interviews (appendix 3) other ways in which knowledge is generated for the law firm are: informal queries directed at external attorneys, reasoned judgments by the judges, subscription to law journals, judgments from superior courts and brainstorming. The interviews further revealed that lawyers attend seminars and workshops on an individual basis. For example, some interviewees indicated that they were members of the International Bar Association of Law Societies across the world, while others were members of the Senior Lawyers’ Association of the United States. Lawyers indicated that from time to time they take part in refresher courses organised by these associations.

6.8.3 Knowledge transfer process in the law firms

An understanding of how knowledge is transferred in the law firm would also enable one to appreciate the state of the art of knowledge management in law firms in Botswana. Several techniques of knowledge transfer identified in the literature were listed in question thirteen of the research questionnaire and participants were asked to indicate whether they “strongly agreed,” “agreed,” “disagreed,” “strongly disagree” or were neutral to the different ways by which knowledge is transferred in their firm. An “other” option category was provided for participants to indicate other ways by which knowledge is generated in their firms. For convenience of analysis, the responses for “strongly agree” and “agree” are considered as “agree,” and the result of “strongly disagree” and “disagree” are considered as “disagree”. The results are presented in table 6.8 below.

	1 Strongly agree in %	2 Agree in %	3 Neutral in %	4 Disagree in %	5 Strongly disagree in %	Non response in %
Through team work	29.3	43.6	16.4	0.7	-	10.0
Through discussions of major projects after conclusion (debriefing)	20.0	48.6	28.6	2.9	-	-
Informal social net working of lawyers to exchange views	10.0	55.7	31.4	0.7	-	2.1
Organising formal meetings	7.1	19.3	48.6	8.6	14.3	2.1
The Intranet	10.4	21.4	18.6	28.6	17.9	3.6
Alliances with professional associations	25.0		48.6	19.3	5.0	2.1

Table 6.8 The different ways by which knowledge is transferred in the firms (N=140)

A majority of the participants either agreed or were neutral to the different way in which knowledge is transferred in the law firms. The most significant way by which knowledge is transferred in the law firms in Botswana ranking from the highest to the lowest percentage score are: team work (72.9% agreed), discussions of major projects after conclusion (debriefing), (68.6%) and informal social networking of lawyers (65.7% agreed). Other ways by which knowledge is transferred within the firm are: intranet (31.8% agreed), organising formal meetings (26.4% agreed) and alliances with professional associations (25.0%) agreed.

From the “other” category and an analysis of the interview (appendix 3) the following were identified as other ways by which knowledge is transferred in the firms: availing materials for other attorneys by fax; instructions given verbally by partners to staff and to junior attorney with clear explanation as to why it is vital to carry out such instructions; face to face discussions; informal chatting at the boardroom; meetings every Tuesdays in the boardroom for debriefing; informal consultation and discussions with other lawyers; discussion with international firms affiliated with local firms and Law Society; and consultation with legal academics or legal consultants.

6.8.4 Knowledge sharing culture in the law firms

Another crucial aspect on the state of the art of knowledge management in law firms is the knowledge sharing culture. The purpose of question 14 of the research questionnaire was to establish if there is a culture of knowledge sharing in law firms in Botswana. The results of the analysis from a list of factors identified in the literature that determines a knowledge sharing culture in law firms was measured in a five point coded scale as “strongly agree”

“agree,” “disagree,” “strongly disagree,” and “neutral” as explained on section 6.8 above are presented in the table 6.9 below.

	1 Strongly agree in %	2 Agree in %	3 Neutral in %	4 Disagree in %	5 Strongly disagree in %
We have a knowledge sharing culture in the firm	41.4	37.1	16.4	-	5.0
My firm conducts events and provides time in which ideas and experiences may be shared	13.6*	17.1*	42.1*	19.3*	2.9*
Colleagues from different areas or offices assist one another on a need basis	27.9	57.1	10.0	5.0	-
I have time to chat informally with other colleagues	29.3	56.4	14.3	-	-
The firm’s lay out and organisational design is conducive for discussing with colleagues	42.9*	31.4*	17.1*	-	-
My firm uses Intranet sites to share knowledge	12.1	5.0	26.4	30.7	25.7
My firm provides opportunities for regular meetings	14.3	22.9	42.9	6.45	13.6
My firm provides opportunities for formal and informal social networking of lawyers	14.3	15.7	52.1	5.0	12.9

Table 6.9 The knowledge sharing culture in the law firms in Botswana (N=140)

**Percentages do not add up due to non response*

Similar to the previous table, most participants’ responses were affirmative or neutral. Most participants (78.5%) agreed they had a knowledge sharing culture. The highest ranking knowledge sharing attribute on the above table is participants agreeing that they have time to chat informally with colleagues (85.7% strongly agree). The second ranking factor is participants’ agreement that colleagues from different areas or offices assist one another on a need basis (85.0% agreed). The firm's layout and organisational design considered conducive for discussing with colleagues was the third ranking attribute of knowledge sharing (74.3% agreed).

The following knowledge sharing attributes were not widely applicable in the law firms with percentage scores ranging from 17.0% to 37.2%: the use of intranet sites to share

knowledge (17.1% agreed), opportunities for formal and informal networking of lawyers (30.0% agreed), firms conduct events and provides time in which ideas and experiences could be shared (30.7% agreed) and opportunities for regular meeting (37.2% agreed).

The responses from the interviewees (appendix 3) and from the “other” category as to whether law firms have a knowledge sharing culture shed further light in understanding the type of knowledge culture in the law firms. It emerged that there is lot of individualism in law firms. The overall observation was that lawyers share knowledge about the general knowledge and principles of the law and exchange but when it comes to very scarce knowledge, knowledge of the clients and any knowledge that would give the lawyer a particular edge over the other, lawyers become very secretive about sharing such knowledge. The transfer of knowledge from firm to firm is rare unless there is a personal relationship between lawyers in these firms or perhaps they were former classmates. It was, however, positive to note that law firms would not share knowledge that could cause them to lose their clients to the other firm or cause the other firm to have a competitive edge over them. A firm that is reputable for listing companies on a stock exchange or in criminal matters would not want to share information that could cause it to lose its dominant position.

6.8.5 The tutoring and mentoring opportunities in the firms

The nature of tutoring and mentoring in the law firms also provide an indication of the state of the art of knowledge management in these firms. Question 15 of the research questionnaire consisted of a series of questions designed to understand the state of tutoring and mentoring in law firms in Botswana. As in the previous sections, the responses for “strongly agree” and “agree” were considered as “agree”, while that for “disagree” and “strongly disagree” considered as “disagree”. The responses are presented in the table 6.10 below.

	1 Strongly agree in %	2 Agree in %	3 Neutral in %	4 Disagree in %	5 Strongly disagree in %
Encouraging employees to continue their education	19.3*	40.7*	25.0*	6.4*	7.1*
Encouraging partners to train associates	23.6	43.6	22.1	7.9	2.9
Providing professional development programmes	9.3	20.7	63.6	6.4	-
Hiring and training of young lawyers	22.9	41.4	26.4	9.3	-

Table 6.10 Tutoring and mentoring opportunities in the law firms (N=140)

**Percentage does not add up due to non response*

Although the overall results reveal that law firms provide tutoring and mentoring opportunities, the percentage scores on each item with regards to participants' agreement to the provision of tutoring and mentoring opportunities in the table above did not exceed 67.2% and a considerable number of participants were neutral. The most popular tutoring and mentoring attribute was the training of associates by partners (67.2% agreed), followed by hiring and training of young lawyers (64.3% agreed) and the firm encouraging employees to continue their education (60% agreed). Most of the participants were neutral (63.6% were neutral) with regards to the provision of professional development programmes in their firms.

Other tutoring and mentoring opportunities in the firm identified from the "other" category and the interview (appendix 3) are retaining students to internship and shadowing attorneys. It was observed that while some firms boast and pride in mentoring pupils there are others who are not interested in mentoring or do not have the time to tutor and mentor young lawyers. The latter do accept students in their firms just as an attachment formality because it is provided for under the Legal Practitioners Act. Sections 18-28 of the Legal Practitioners Act clearly envisage a twelve months professional training period after the law degree. One interviewee, a young pupil undergoing pupillage commented: "you are expected to be a lawyer on the very first day in the firm."

In spite of the conclusions drawn from the questionnaire, during the interviews, the researcher was frequently told that many of the law firms do not really encourage employees to go for further studies because of the feeling that time taken to make money for the firm is being wasted. In fact, many do not think it is even necessary to acquire any further education. As one interviewee opined: "the bachelor's degree is a license to a Mercedes Benz." Those who therefore undertake to study do so on their own time and mostly after working hours or even have to resign their positions to do so.

6. 8.6 The factors that may facilitate knowledge management in the firms

In order to further understand the state of the art of knowledge management, it was necessary to also establish whether the law firms in Botswana function in conditions that facilitate knowledge management. A list of possible factors identified in the literature was presented in question 16 of the research questionnaire. As in previous questions, participants were asked to tick the category on the column that best described the degree of agreement or disagreement with respect to the factors that may encourage knowledge management in the firm. An "other" option category was provided for participants to indicate any other

ways by which knowledge management may be encouraged in the firm. In the analysis the responses for “strongly agree” and “agree” were considered as “agree” and that for “disagree” and “strongly disagree” as “disagree.” The results are presented in table 6.11 below.

	1 Strongly agree in %	2 Agree in %	3 Neutral in %	4 Disagree in %	5 Strongly disagree in %
There is monetary and non-monetary rewards for sharing knowledge	11.4	41.4	30.7	7.9	8.6
Promotions are based on the ability to share knowledge	5.7	-	52.9	35.7	5.7
There is special recognition of staff for the time spent in knowledge creation sharing and distribution	6.4	24.3	40.0	18.6	10.7
Mutual respect, trust, care and concern amongst lawyers	22.1	56.4	21.4	-	-

Table 6.11 Factors that facilitate knowledge management in the firms (N=140)

Participants’ responses on the factors that promote knowledge management in the law firm were mostly negative and neutral. Most participants were not certain that promotion in the law firm was based on the ability to share knowledge (52.9% were neutral, and 41.4% disagreed) and very few acknowledge that there is special recognition of staff for the time spent in knowledge creation, sharing and distribution (30.7% agreed, 40.0% were neutral and 29.3% disagreed). The only overwhelming positive response was participants’ acknowledgement that there is mutual respect, trust, care and concern amongst individuals where 78.5% agreed and 21.4% were neutral. This was followed a 52.8% acknowledgment that there is monetary and non-monetary rewards for sharing knowledge.

6.9 The perceived benefits of knowledge management for the law firms

The purpose of question 17 was to determine whether lawyers perceive any benefits from knowledge management. The question listed some of the perceived benefits of knowledge management examined in the literature. Each list was ranked in the usual five point coded scale used in the study. The responses for “strongly agree,” and “agree” would be considered as “agree” or “favourable”, while the result of “strongly disagree,” and “disagree” are considered as “disagree” or “unfavourable.” The results are presented in table 6.12 below.

	1 Strongly agree in %	2 Agree in %	3 Neutral in %	4 Disagree in %	5 Strongly disagree in %
Improve knowledge sharing	60.7	39.3	-	-	-
Improve lawyers efficiency and productivity	63.6	31.4	5.0	-	-
Improve lawyers' relationship vis-à-vis clients and customers	57.1	27.9	15.0	-	-
Prevent duplication in research	60.0	31.4	8.6	-	-
Increase flexibility amongst lawyers	51.4	35.7	7.1	5.7	-
Protect the firm's loss of knowledge	70.0	22.9	7.1	-	-
Result in competitive advantage	52.9	26.4	20.7	-	-
Integrate knowledge within the firm	60.7	31.4	6.4	-	1.4
Improve retention rate of lawyers in the firm	46.4	28.6	20.	5.0	-
Improve the sharing and transfer of knowledge with partners and strategic alliances	58.6	31.4	10.0	-	-
Enhance economic profitability	60.7	29.3	10.0		

Table 6.12 The perceived benefits of knowledge management in law firms in Botswana (N=140)

The participants generally recognised the potential benefits of knowledge management in the law firms with 75%-100% agreement. The following are percentage ranking of the different perceived benefits of knowledge management from highest to the lowest: improve knowledge sharing (100%); improve lawyers' efficiency and productivity (95.0%) helps to integrate knowledge within the firm (92.1%), enhances economic profitability (90.0%), improves the sharing and transfer of knowledge with partners and strategic alliances (90.0%), improve the lawyers' relationship vis-à-vis clients and customers (85.0%), increases flexibility amongst lawyers (87.1%), provides competitive advantage (79.3%), and improves the retention rate of lawyers (75.0%).

Responses from the “other” category and from the interviews indicated that the perceived benefits of knowledge management in law firms would result in general and overall efficiency, improvement of quality of output and improvement in the quality of the clients. In a nutshell, almost all the participants acknowledged the importance of knowledge management to their firms.

6.10 Factors that inhibit knowledge management in the law firms

The purpose of question 18 of the research questionnaire was to investigate the factors that may inhibit knowledge management in the law firms. It consisted of a list of the different possible factors that inhibit knowledge management in law firms identified in the literature. These were ranked into the usual five point coded scale. The participants were asked to tick the category of the column that best described their degree of agreement or disagreement with the factors that inhibit knowledge sharing in their firm. An “other” option category was provided for participants. The responses for “strongly agree” and “agree” are considered as “agree” or “positive”, while the results of “strongly disagree” and “disagree” are considered as “disagree” or “negative” The results are presented in the table 6.13 below.

	1 Strongly agree in %	2 Agree in %	3 Neutral%	4 Disagree%	5 Strongly disagree in %-	Non response in %
Lawyers' view of knowledge as a source of power	5.7	15.0	23.6	31.4	22.1	2.1
The perception that knowledge management is an additional workload	12.9	23.6	42.9	17.1	1.4	2.1
The feeling that it puts pressure on billable hours	14.3	20.7	40.0	20.7		4.3
The feeling that the firm size is too small	23.6	22.9	26.4	22.9	-	4.3
Limited financial resources	21.4	33.6	40.0	5.0	-	-
Inadequate technological infrastructure	24.3	42.9	27.8	5.0	-	-
The inability of the firm's leadership to enforce knowledge management	11.4	23.6	53.6	7.1	-	4.3

Table 6.13 The factors that inhibit knowledge management in law firms in Botswana (N=140)

There were some differences amongst the participants with respect to their views on the factors that were considered to inhibit knowledge management. Whilst a majority considered technological infrastructure (67.2% agreed) and limited financial resources (55.0% agreed) as inhibiting knowledge management, there was less than 50% agreement on the other factors identified in the literature as being inhibitors to knowledge management. The

only other item which scored close to 50% was the size of the firm (46.5% agreed). Most participants did not view knowledge as a source of power (53.5% disagreed).

It was interesting to note that participants did not perceive knowledge management as an additional work load (42.9% were neutral, 35.0% agreed, 18.5% disagreed and 2.1% did not respond), or feel that knowledge management puts pressure on billable hours (40.0% were neutral, 35.0% agreed, 20.7% disagreed and 4.3% did not respond) or that there was an inability of the firm's leadership to implement knowledge management (53.6% were neutral, 35.0% agreed, 7.1% disagreed and 4.3% did not respond). However, the results of the interviews (appendix 3) contradicted these findings. First, it revealed that lack of initiative and perception of the value of knowledge management by management and managing partners was a major barrier to knowledge management. Interviewees commented that managing partners or leadership do not take any initiatives on knowledge management nor do they seem to appreciate the benefit of knowledge management. An interviewee said that "management does not delegate any one to take care of knowledge management."

Second, although participants did not feel that knowledge management will put pressure on billable hours (40.0% were neutral, 35.0% agreed, 20.7% disagreed and 4.3% did not respond), interviewees considered work pressure and the pressure to meet targets as major barriers to knowledge management. Lawyers refer to work pressure as the urge to finish and bill a client on a particular matter and attend to the next. Interviewees reported that time spent on any other activity other than trying to generate profit for the firm is considered as time wasted. Meeting targets refers to different ways of generating income in the firm. It was revealed that the different ways by which revenue is generated in law firms in Botswana put the law firms under pressure to generate income. In some firms, lawyers work according to departments, for example, conveyancing department, corporate law department, and family law department, and the lawyers' revenue depends strictly on the department in which he/she belongs in the firm. The fact that income generated by each department in a firm, the conveyancing department for example, would be shared only by lawyers in that department puts every lawyer in such firms under the pressure to generate money for his/her department and will therefore have little time for knowledge management.

The interviews also revealed that professional assistants are often under considerable pressure to meet targets by bringing in additional profit to the firm in order to earn a bonus salary. Professional assistants are trained lawyers employed on a fixed salary and

are entitled to a certain commission above their fixed salary if they bring in a certain percentage of profits into the firm (meet a target). As a result, these professional assistants have no time for any other activity but are under pressure to meet the target of bringing additional profit to the firm. Technological infrastructure, firm size and limited financial sources were identified as other inhibiting factors to knowledge management.

6.11 The role of knowledge institutions and agents in the creation, sharing and capturing of knowledge in law firms

As a result of the multidisciplinary nature of knowledge management, the effective knowledge management can only result from collaboration across multiple streams, expertise, agents and institutions. The purpose of the last research question of the study was to identify these agents and institutions responsible for facilitating knowledge management in the law firms in Botswana. A list of the different possible agents were identified and participants were asked to tick from the different categories of responses ranked as “strongly agree”, “agree”, “neutral”, “disagree” and “strongly disagree” the column that best described their degree of agreement as to whether these institutions and agents actually facilitate knowledge management in their firms. An “other” option category was provided for participants to indicate any other institutions that may facilitate the sharing of knowledge. As in previous sections, the responses for “strongly agree” and “agree” are considered as “agree” while the response of “strongly disagree” and “disagree” are considered as disagree. The results are presented in table 6.14 below.

	1 Strongly agree%	2 Agree%	3 Neutral%	4 Disagree in %	5 Strongly disagree %	Non response %
Legal secretaries	22.1	54.3	19.3			4.3
Law librarians	14.3	22.9	45.7	7.9		9.3
The Courts	15.7	52.9	27.1			4.3
Legal academics at the Law Faculty	9.3	55.7	30.7			4.3
Law Society	18.6	50.0	16.4	7.9	2.9	4.3
Professional Associations	10.0	37.1	25.7	22.9		4.3

Table 6.14 Agents and institutions responsible for knowledge management in law firms in Botswana. (N=140)

Most participants see the legal secretaries as the most important agent of knowledge management in the law firms (76.4 %). It could be because in the law firms in Botswana the legal secretaries and the lawyers work very closely together. Interestingly the Law Society (68.6 % agreed) and the courts (68.6 % agreed) were both rated second. One does not doubt this response because the Law Society oversees all the affairs of the law firms in the country while the courts are the next most important institution outside the law office where the lawyers spend most of their time. Participants also acknowledged that legal academics were essential in knowledge management in the law firms (65.0% agreed). Legal academics are responsible for educating the lawyers and thus imparting legal knowledge. It is not surprising that many participants did not significantly appreciate the role of the law librarian in the knowledge management (37.2% agreed, and 45.7% were neutral). This is because law firms do not have established libraries that require the services of the law librarian.

Other agents and institutions for knowledge management identified from the results of the interviews (appendix 4) and responses from the “other” category include: other colleagues, legal consultants, legal academics at the law faculty, professional book shops, information technology consultants, Land tribunal and other quasi judicial bodies like labour arbitrator, International firms affiliated with local firms, and publishers like Juta and LexisNexis.

6.12 Conclusion

In this chapter the questionnaire and semi-structure interviews were analysed to present the results of the empirical study of the state of the art of knowledge management in law firms in Botswana. The methods used for analysis are the descriptive statistics from the Statistical Package for Social Scientist and the content analysis of the interview and the secondary research from the literature review.

Relevant information on the profile of the participants and the organisational characteristics of the firm was obtained from the analysis. The different categories of knowledge existing in law firm and the tools and technologies for knowledge management in lawfirms in Botswana were identified. The analyses revealed the different the different ways by which knowledge management is manifested in law firms in Botswana. It identified the factors critical to the success of knowledge management, the tools and techniques for knowledge management, its perceived benefits as well as some barriers to knowledge management. It also identified and examined the role of other agents and institutions in facilitating

knowledge management in the law firms. The results of the analysis in this chapter provide an empirical overview of knowledge management in law firms in Botswana, and hence the background for the discussions in the next chapter.