

THE RELATIONSHIP BETWEEN LEADERSHIP AND KNOWLEDGE MANAGEMENT

The Moderating Effect of Organisational Climate

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Declaration

I, the undersigned, Shaheer Jada, hereby declare that this research is my own, unaided work. It is being submitted in fulfilment of the requirements for the degree of Masters of Commerce by research at the University of Witwatersrand, Johannesburg. It has not been submitted before for any degree or examination in this or any other university.

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Abstract

In their aim to gain the competitive edge, organisations are attempting to leverage off of their individual core competencies by turning towards knowledge management practices (KM). By successfully boosting knowledge management practices, organisations believe that this will aid them in increasing their productivity, achieving innovative solutions and achieving a better level of quality for their services and products to customers. Therefore, the contributions that may be brought by KM practices to the overall success of the firm have been extensively recognised. However past research has shown that both leadership behaviours as well as organisational climate are proven barriers to the organisations leveraging and creating knowledge. The existing body of knowledge posits that in order for knowledge management practices to be effective and implemented efficiently, a diagnostic fit needs to be done between the firm and the proposed knowledge management objectives. Therefore, it is critical to establish how leadership styles and organisational climate affect the firm's capability to apply and create knowledge. Thereafter the firm may focus on relevant strategies that may be used to adjust the climate of the organisation or redesign it in order to support the knowledge management objectives. After critically evaluating the research pertaining to KM and leadership styles research illustrates supporting links. However, research relating to the combination of all three is severely lacking. Therefore, this study will examine this research gap. In precise terms, this study will examine the relationship between KM practices and leadership styles, whilst evaluating the moderating effects of the organisations climate. In order to do this, a conceptual framework will be developed that will comprise of four constructs, namely: transformational leadership, transactional leadership, organisational climate and KM practices. This research study will make use of a post positivist paradigm and will consist of a cross sectional research design. Quantitative data will be collected after evaluating the four main hypotheses in order to conclude if a relationship exists between all three variables. The participants for this study will be from a small and medium sized enterprise within South Africa. It is expected that all three variables bear a positive relationship to each other.

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Chapter One

Introduction

This thesis aims to investigate the relationship between leadership behaviours and organisational climate, and how this affects the knowledge management practices of a small and medium organisation within South Africa. This research study will focus primarily on transformational and transactional leadership styles, whilst discussing its effect on knowledge management. In addition it aims to take an in-depth look into how organisational climate might moderate the above relations. Within this chapter the researcher aims to provide a brief rationale for the study and thereafter, elaborate on its significance and conclude with the layout of the thesis.

1.1 Introduction

In today's times, it is widely recognised that utilising knowledge management practices within the business, will assist the organisation to gain a competitive advantage (Devenport & Volpel, 2001). Organisations are beginning to incorporate knowledge management strategies within their daily practices. Many organisations are now of the notion that the only way that they will successfully utilise their core competencies to achieve a competitive edge is through knowledge management (Arora, 2002; Bhatt, 2001; Demarest, 1997; Hlupic, Pouloudi & Rzevski, 2002). Organisations believe that through knowledge management practices, they will be able to raise the quality of their services, increase their productivity, boost efficiencies and realise innovative solutions and products for their client base. On the other hand, within the community of research, practices of knowledge management is regarded as a facilitator to the understanding of knowledge and its role within organisations (Moffett, McAdam, & Parkinson, 2003).

Through the continuous developments within the field of knowledge management, many other factors that have proven to be critical, have been highlighted within literature. These include factors such as organisational climate, human resource management, activities and processes, information technology and leadership (Davenport, De Long, & Beers, 1998; Holsapple & Joshi,

2000; Horak, 2001). Knowledge management was placed predominantly within the field of information technology, and its emphasis laid primarily within knowledge based systems, techniques and tools (Andreu & Ciborra, 1996; Bansler & Havn, 2003; Koch, 2003). It is for this reason that researchers such as Egbu (2004) postulated that an overwhelming amount of emphasis has been placed on information technology within the field of knowledge management literature. Moreover, it was stated by Hlupic et al., (2002) that knowledge management systems based on information technology is vastly limited as they deal with the handling of data instead of knowledge, because these very IT systems are designed in order to deal with structured data, where this type of information may be categorised in a certain manner or entered directly into specific fields.

It is only fairly recently that researchers and practitioners are beginning to understand the value and importance that needs to be given to the softer elements of knowledge management (KM) (Guzman & Wilson, 2005; Hlupic, et al., 2002). This then brought about the realisation that in order for knowledge management practices to be effective, it must not only be dependent on the technological platform, but should focus more widely on the social ecology of the firm. Moreover it needs to be understood that technology is not the KM system, but rather the facilitator of it (Carillo, Robinson, Al-Ghassani & Anumba, 2004). Knowledge management needs to be articulated as a process that entails a commitment to creating and disseminating knowledge throughout the organisation instead of merely the manipulation and storage of information (Ardichvili, Maurer, Li, Wentling, & Steudemann, 2006; Li, 2006; Nonaka & Knonno, 1998). Furthermore, in order for knowledge management to be effective, great attention needs to be allocated to the cultural as well as human aspects of business, in particular- the experiences of the employees as well as their tacit knowledge. Hlupic et al. (2002) go on to state that problem solving, innovation and intellectual and human capital for learning is only combined and harnessed through the organisation's structures and processes. However it has been recorded in various studies that leadership and organisational climate acts as a major barrier to the effective sharing, creating and leveraging of knowledge assets within the organisation (Corillo, et al., 2004; DeTienne, Dyer, Hoopes, & Harris, 2004; Lakshman, 2005; Park, Ribiere, & William D. Schulte, 2004).

It is widely accepted that the leaders within the organisation bare a huge impact on the knowledge management practices and strategies implemented (Detienne, et al., 2004).. It is the effective leader that creates the environment in which the employee can effectively cultivate and exercise their knowledge manipulation abilities, have fluent access to a knowledge base and further contribute to the organisation's knowledge pool with their own set of knowledge resources. Without effective leaders, that will demonstrate suitable examples of KM practices, employees will find it difficult to be motivated to participate within a knowledge management program (Crawford, 2005, De Long & Fahey, 2000; Ribiere & Sitar, 2003). Subsequently, the rate and speed of which an organisation's climate will be able to change and adapt to an environment that fosters learning and knowledge management depends to a large extent on the leadership that is put in place within the firm (Detienne, et al., 2004). Crawford (2005) and Horak (2001) are among two researchers that noted that it is the leadership within the organisation that further fosters and maintains a climate of learning, whilst implementing knowledge management practices within the organisation. It is the responsibility of the leader to attach a degree of significance to knowledge, to build trust, be a facilitator of experiential learning of tacit knowledge within the organisation and encourage experimentation and questioning through empowering the work force.

Therefore, the question of which leadership style would best promote the above mentioned requirements of instilling knowledge management within the organisation has emerged. After reviewing the literature, it has been postulated that the answer might lie within either transactional or transformational leadership styles (Politis, 2001). After the evaluation of the relationship between self-management, transformational and transactional leadership behaviours, and numerous other knowledge management characteristics, it was found by Politis (2001) that knowledge management bears a significant relation to that of transformational and transactional leadership behaviours, as well as self-management. Based on the empirical and theoretical findings of numerous authors, (Crawford, 2005; Paul, Costley, Howell & Dorfman, 2002; Politis, 2001; Popper & Lipshitz, 2000) transformational leadership is suggested to be the best style of leadership in order to promote a knowledge organisation. This is due to the fact that transformational leader will be willing to sacrifice his own interest, for the

betterment of the organisation, and hence will aim to motivate the workforce to strive to achieve the vision of the firm's future. This leadership style aims to change the interests of the workforce so that they focus instead on the betterment of the organisation. On the other hand, it was found by Vera and Crossan (2004) that by assigning a high level of significance to the rules and procedures, as well as past experiences of the organisation, transactional leaders encourage the flow of learning to the workforce from the organisation. They further provide the workforce with training programs and formal procedures that distribute existing learning that will in turn guide future decisions and actions.

Through all of these findings, a major gap still persists, and that is with the lack of importance given to the effect that organisational climate has on the above mentioned relationships – between knowledge management and leadership styles- especially with regards to small and medium enterprises (Brown, 1992; Fairholm, 1994; Ogbonna & Harris, 2000). Most of the research that has been conducted focused primarily on the decisions or behaviours of a particular leadership style, without fully understanding the motives, needs and values that echo the organisations climate (Brown, 1992; Fairholm, 1994; Ogbonna & Harris, 2000). It is debated by Fairholm (1994) that if the leaders are not supported by the climate of the organisation, their leadership based on common values will not be possible. He goes on to state that to a large extent, how and what a leader does is determined by the organisations climate. However it is the leader that also plays a role in maintaining and creating the climate of the organisation (Kavanagh & Ashkanasy, 2006; Schein, 2004).

Moreover, it is stated by Bass (1985) that a transactional leader will work within the climate of the organisation and sustain consistent rules, norms and procedures. However with regards to transformational leaders, the climate of the organisation will change based on the new vision and on a revision of the shared norms, values and assumptions (Bass, 1985). Within this type of a climate - transformational climate - the organisation resembles a family feeling. An individual will not be precluded from attaining their own personal goals due to the assumptions, norms and values of the organisation. The veterans or seniors within the organisation will aid the newcomers into assimilating within the climate. These leaders as with their follows share a sense of one fate and a mutual interest as well as a high degree of interdependence (Bass &

Avolio, 1993). Therefore, it is imperative to assess how the leadership that is in place will affect the knowledge management activities within different types of organisational climates. Thereafter strategies can be put in place to either support KM goals or adapt to suit the organisational climate.

1.2 Background

Within South Africa the problem lies in the fact that there is evidence that knowledge management has been introduced within South Africa, however what is not evident is whether there has been benefit or substantial progress that has resulted from it. Furthermore, as much as we would like to hope and believe that knowledge management practices are being implemented on a national basis, some national departments have proven to lag behind. This may be happening at various levels, be it implementation or strategy.

In addition it has been reported that 82% of knowledge management initiatives that has been implemented since 2005 have failed for various reasons. It has been stated by Fernandez and Sabherwal (2001) that failure is inevitable but organisations should attempt to learn from others on how to go about implementing knowledge management. This failure may be due to many reasons such as ineffective leadership, too much capital that leaders perceive is needed for knowledge management implementation, and language barriers. Kruger and Snyman (2004) proclaim that “I suspect that most public sector organisations are still mired in the same old problems of lack of understanding of where KM might fit and a lack of appreciation of how best to apply it. Unfortunately, the reality is that most governments have many territorial, organisational and cultural barriers standing in the way of such organisational change” (p. 32). It is further suspected by Kruger and Snyman (2004), that the problem of implementing knowledge management might lie with management and leadership, as he states that it is highly surprising that an enterprise that spends millions on programs that manage knowledge are still noticing that their managers are as inefficient as they were before the implementation.

Moreover, whilst it has been stated that South Africa poses a distinctive environment to implement knowledge management as realised by many researchers such as Kruger & Snyman (2004), these researchers have also observed that the environment of South Africa further imposes challenges that hinder the effective implementation of knowledge management practices and act as barriers. Some of the challenges are:

- A challenge stems from the diversity of its people, as this poses a challenge to the consolidation of the various different climates found within South Africa, in particular- the African cultures/climates and their traditional values, to the Western culture and their own influences.
- Policies created by South African government, such as that of Affirmative Action, whilst having the power to empower one group, can have a negative effect or disadvantaging another. This trickles down to impact people's job security and creates a level of disinclination of knowledge sharing.
- With South Africa being so diverse and having 11 official languages, effective communication becomes a difficult factor to solve. Some people might opt out of sharing knowledge as they cannot understand or communicate with the next person.
- Another point relevant to diversity is that since organisations comprise of Asian, African and European cultures that are used to different styles of leadership; being able to effectively manage and lead all of these cultures under one "roof" proves to be a complex task.

Thus, it is the view of the researcher that this study may aid us in understanding the benefits as well as the challenges that the South African economy is facing with regards to the implementation of knowledge management. Another motivation of this study is that by bringing knowledge management to the attention to most South African organisations, those that have embraced and implemented knowledge management can share the lessons they have learnt with others; this applies to governmental departments as well.

1.3 Statement of the Problem

Even though it has been firmly established that effective leadership is important, a large number of projects (between 66%-90%) fail despite implementing certain strategies (Ellemers, DeGilder, & Haslam, 2004). Within the field of knowledge management, both practitioners and academicians have come to the consensus that there is a need for effective leadership. The research regarding knowledge management leadership is limited as previously stated and additionally that which has been conducted does not specify the style of leadership to use nor does it make mention of the extent to which knowledge management success is influenced by leadership. Furthermore, as stated above, the organisational climate that exists within the firm should be conducive and further aid the leader in implementing effective knowledge management strategies. However, it has been noted that many organisations are yet to even consider climate or culture when considering how to go about implementing knowledge management practices (Crawford, 2005). Lastly the author in conducting research on literature has noted that there has been research that has been conducted within regards to leadership, climate and knowledge management respectively; however there is a limited amount of research that has been done on small to medium enterprises (SME).

1.4 Research Concepts

Regardless of the above-mentioned explicit and implicit relations of organisational climate and leadership in vast areas of organisational literature, a limited amount of empirical research has been done with regards to understanding the relation of these two concepts, and the effect that such a relation could have on knowledge management. In order to address this gap, the following concepts were evaluated:

- The effect that transformational leadership might have on knowledge management.
- The effect that transactional leadership might have on knowledge management.
- The effect that organisational climate has on the relationship between leadership styles and knowledge management

Additionally, this research study was limited to the following scope:

- The thesis was conducted within the context of a small and medium enterprise (SME) within South Africa (within this thesis the terms organisation and enterprise are used interchangeably)
- This study looked at factors that are integral to the organisation and thus external environmental factors were not taken into account.
- Lastly, although the possibility of time lag with regards to leadership, knowledge management and organisational climate is evident, this study utilised a cross sectional research design rather than that of a longitudinal study.

1.5 Definitions

Leadership: Leadership is defined by Gary Yukl (2006) as “the process of influencing others to understand and agree about what needs to be done and how to do it, and the process of facilitating individual and collective efforts to accomplish shared objectives”(p.21). Moreover it is stated by Burns (1978) that leadership is the ability to make strategic decisions and use communication, as well as to further use human resource skills such as interpersonal relations, motivation emotional maturity and decision making in order to organise the team and accomplish the organisations goals.

Transformational Leadership: It is stated by Burns (1978) that this is “when one or more individuals engage with others in such a way that leaders and followers raise one another to a higher level of morality and motivation” (p.20). A leader bearing this type of style would display behaviours such as influencing aspirations and values, whilst attempting to stimulate their high order needs and further encourage them to let go of their own self-interest and to develop their primary interest to the goals of the organisation (Yukl, 2006).

Transactional Leadership: This type of leadership focused on roles of supervision, organisation and group performance (Yukl, 2006). This type of leader looks to create harmony and gain cooperation from the employees through rewarding and punishing them. This type of leader

further focusses on their followers in order to discover deviations and errors in order to rectify them so that task may be completed more efficiently. Lastly and worth noting, through the exchanges between the leader and follower, both are able to reach their goals (Yukl, 2006).

Organisational Climate: Whilst there have been numerous studies on organisational climate, dating all the way back to 1960, a general definition still eludes. Some researchers use the characteristics to describe organisational climate. One of the initial and most commonly acknowledged descriptions (based on citations) of organisational climate (James & Jones, 1974; Johannesson, 1973; Moran & Volkwein, 1992; Woodman & King, 1978) is that of Forehand and Gilmer (1964). They state that organisational climate is defined as a set of characteristics that describe an organisation, is relatively stable over time, differentiates one company from another and may affect the behaviour of the organisation's members.

Organisational Culture: this includes the philosophies, experiences and expectations of the organisation as well as the values that hold the enterprise together. This is expressed through the inner workings, the self-image, the future expectations and goals as well as the outside world interactions that the organisation has (Schein, 1990). This further includes the way that the organisation does business. Denison and Mishra (1995) have stated that organisational climate comprises of four dimensions, namely involvement, mission, adaptability and consistency.

Knowledge Management: this concept may be described as a process that involves using the intangible assets of the organisation to create value for the enterprise. The cornerstone of knowledge management is to create knowledge innovation. It further involves active processes of managing and optimising knowledge for the organisation. Nonaka & Konno (1998) have stated that there are four main practices of knowledge management, namely socialisation, externalisation, internalisation and combination.

Small, Medium Enterprise: This is a term that is convenient for segmentation purposes, of organisations and business that are neither large, nor SOHO 'small office-home office'. Small and medium enterprises are characterised by the European Union to be an independent company that has a maximum of five hundred employees (Arora, 2002).

1.6 Significance of the Study

One of the greatest challenges faced by leaders and practitioners is to effectively maintain, create and establish knowledge management and human capital to the climate of the organisation. This study makes valuable contributions and it differs from other studies in the sense that it does not simply match leadership and knowledge management, but rather discusses different styles of leadership to knowledge management and secondly the climate conditions in which these various types of leadership styles play a role within (Crawford, 2005; Jung, Chow, & Wu, 2003; Politis, 2001). It has been noted that there is a limited amount of research that has illustrated the effects of leadership on knowledge management within different climate contexts.

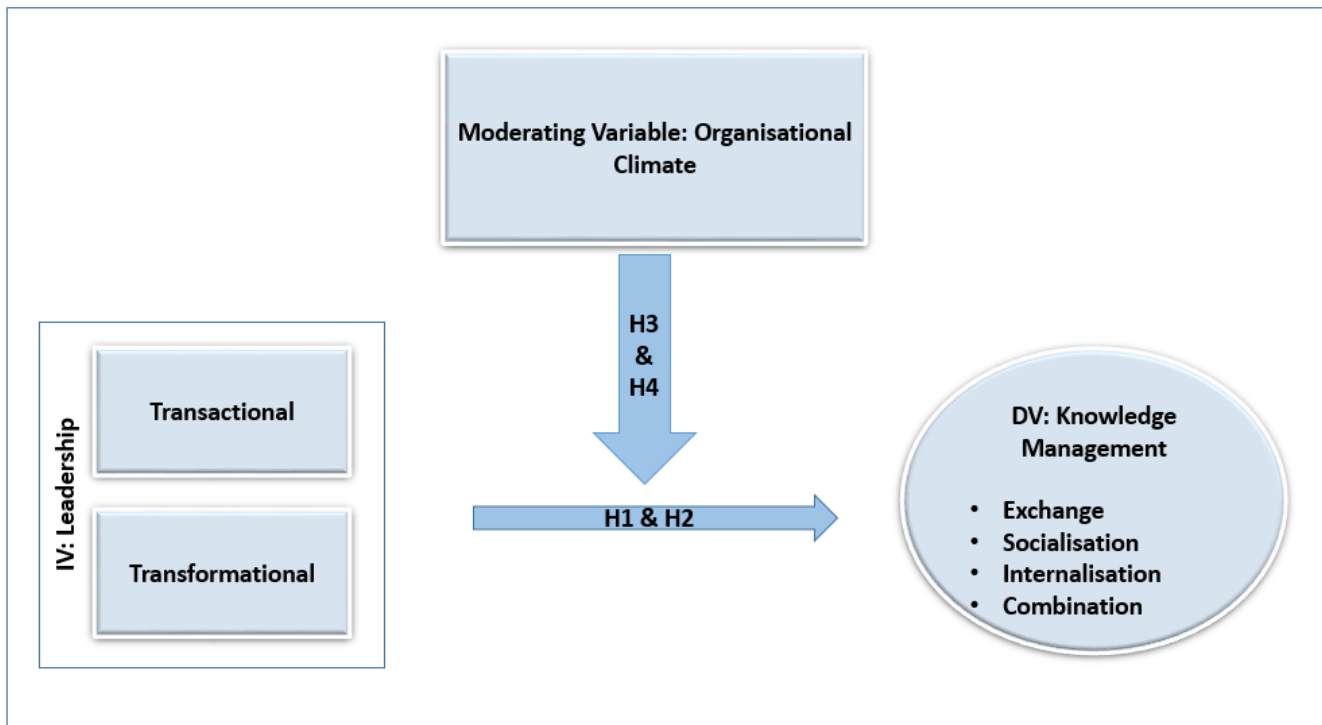
With regards to managerial practices, this study is significant in the sense that it provides managers, practitioners and leaders insights into how to effectively manage knowledge within their organisation. Further what this study does, is to bring to the attention of leaders, the exact leadership style and behaviours that they should possess under different climate contexts in order for them to establish effective knowledge management practices within their firm (Crawford, 2005; Jung, Chow, & Wu, 2003; Politis, 2001). Through the usage of their particular chosen leadership style, these leaders ensure that knowledge activities are integrated fully within daily work. They do this by recognising and rewarding particular behaviours and pay tribute to champions of knowledge by offering bonuses, allocation of resources, promotions, attractive assignment and letters of appreciation. Leaders will clearly set out and state the activities that will be recognised and rewarded and will further ensure that they take part in leveraging and creating knowledge (Crawford, 2005; Jung, Chow, & Wu, 2003; Politis, 2001).

Lastly the literature review on knowledge management (KM) reveals that the bulk of research in this field is focused on large companies. The understanding of the organisational theory and practice considerations of KM has mainly been derived from large company experiences (Crawford, 2005; Jung, Chow, & Wu, 2003; Politis, 2001). This situation has prevailed because large organisations generally have more knowledge assets and intangibles to be managed and hence, a predominant focus on them seems appropriate. Consequently, the potential of KM

seems not fully exploited by small firms and this is reflected in a literature void where little research contributions on this topic have been published. Therefore the author has made the decision to conduct this research study within a South African SME in order to supplement the field and possibly eliminate the void.

1.7 Conceptual framework

Figure 1: Conceptual Framework



The conceptual framework that is proposed is a broad depiction of the possible relations that may connect the four variables of transformational leadership, transactional leadership, knowledge management and organisational climate. In order to confirm the relationship between these four constructs, the researcher conducted a literature search in order to discover the theoretical evidence and underpinnings upon which the hypotheses of this study can be built on. The relations were then projected as a set of hypotheses that are to answer the research questions posed. The means in which the researcher developed the hypotheses is discussed below.

1.8 Research Questions and Hypotheses

Questions

The following questions guide this thesis:

- Is there a relationship between a transformational leadership style and that of knowledge management practices within a South African SME?
- Is there a relationship between a transactional leadership style and that of knowledge management practices within a South African SME?

In addition to the above primary questions, this thesis has two sub questions:

- Does organisational climate moderate the transformational relationship between leadership and knowledge management?
- Does organisational climate moderate the transactional relationship between leadership and knowledge management?

Hypothesis 1: A relationship exists between a transformational leadership style and knowledge management practices.

Sub Hypotheses

- 1.1 A relationship exists between a transformational leadership style and the knowledge management practice of exchange.
- 1.2 A relationship exists between a transformational leadership style and the knowledge management practice of socialisation.
- 1.3 A relationship exists between a transformational leadership style and the knowledge management practice of internalisation.
- 1.4 A relationship exists between a transformational leadership style and the knowledge management practice of combination.

Hypothesis 2: A relationship exists between a transactional leadership style and knowledge management practices.

Sub Hypotheses

2.1 A relationship exists between a transactional leadership style and the knowledge management practice of exchange.

2.2 A relationship exists between a transactional leadership style and the knowledge management practice of socialisation.

2.3 A relationship exists between a transactional leadership style and the knowledge management practice of internalisation.

2.4 A relationship exists between a transactional leadership style and the knowledge management practice of combination.

Hypothesis 3: The strength of the relationship between transactional leadership and knowledge management is moderated by organisational climate.

Sub Hypotheses

3.1 The strength of the relationship between transactional leadership and knowledge management is moderated by a climate of hierarchy.

3.2 The strength of the relationship between transactional leadership and knowledge management is moderated by a mission climate.

3.3 The strength of the relationship between transactional leadership and knowledge management is moderated by a climate of adaptation.

Hypothesis 4: The strength of the relationship between transformational leadership and knowledge management is moderated by organisational climate.

Sub Hypotheses

4.1 The strength of the relationship between transformational leadership and knowledge management is moderated by a climate of hierarchy.

4.2 The strength of the relationship between transformational leadership and knowledge management is moderated by a mission climate.

4.3 The strength of the relationship between transformational leadership and knowledge management is moderated by a climate of adaptation.

1.9 Assumptions

Within this study the following assumptions were made:

1. Knowledge management practices can be influenced by Transformational leadership
2. Knowledge management practices can be influenced by Transactional leadership
3. The success of knowledge management practices can be influenced by managerial and leadership skills of the person(s) in charge
4. The participants that have taken part in this study are familiar with leadership, organisational climate and knowledge management practices and have a background of working within SME's
5. Organisational climate does have an effect on the relationship between knowledge management and transformational leadership.
6. Organisational climate does have an effect on the relationship between knowledge management and transactional leadership.

1.10 Limitations

Firstly it is worth noting that the time given in which to complete this research study is fairly short and thus this poses an initial constraint on the time in which the researcher may put on initially gathering relevant literature and further data needed to strengthen this study. Secondly since the researcher is making use of a positivist paradigm, key insight into the employees perceptions might not be attained as this paradigm is primarily composed of short closed ended questions which limits the details that could be attained. In addition whilst the sample is from different units within one company, they all operate within the Gauteng region which further creates a bias which can affect the generalisability of the study. Lastly respondents that were part of the study were asked and reminded by their manager to complete the questionnaire. This might have led them to completing it, even though they did not want to. It is important to note this bias, however participation was totally voluntary.

1.11 Thesis Layout

This research study is composed of five chapters. Chapter one deals with the rationale of this thesis, the significance of this study, the aims and scope of the study along with a methodological overview, the research questions and hypotheses it aims to test and lastly the theoretical framework upon which this thesis is based.

Chapter two includes an extensive review of relevant literature within the fields of leadership, knowledge management and organisational climate. This chapter begins by critically reviewing various theories and concepts that are part of or influencing knowledge management.

Thereafter theories and concepts of leadership and organisational climate are evaluated. The aim of this chapter is to explore further and identify gaps within the literature that have not previously been covered by researchers and thereafter to evaluate and discover the significant variables influencing the research problem.

Chapter three illustrates that description by the researcher of the research methodology that was used. It further discusses key elements of this pertinent to this study such as the

epistemological approach, the research design, the sample, population, instrumentation and analytical techniques that were utilised with this study.

Within chapter four, the researcher collects and analyses the data using multivariate statistics. This chapter begins with a discussion of the description statistics with regards to the study and thereafter offers a brief discussion into the reliability and validity of the study. It ends off with the multiple regression tests that were run in order to test the various hypotheses.

Chapter five of this study identifies and elaborates on the relationships and offers an in-depth explanation of each. Within this chapter the strengths of the relations will be revealed and explained as to why a relationship is significant or why it is not. The researcher aims to be as critical as possible when evaluating the constructs and relations.

In addition this chapter will discuss and summarise the findings of the study. Within this chapter the researcher will highlight important points made throughout the study after tying it all together. Furthermore the contributions that have been made will be discussed along with any limitations encountered and lastly any future recommendations for further research.

Conclusion

This chapter provides a brief overview with regards to this thesis and why the researcher has chosen to conduct the study within this field. It begins by illustrating and providing some insight into past research that has been conducted within the field of knowledge management. It states and elaborates the gap that exists within the field of knowledge management and explains the importance of filling this gap along with the aims of the study. Thereafter the methodological overview was given and subsequently the theoretical framework was provided in order to provide the reader a better and in depth understanding of the thesis. The researcher then stated a few definitions worth noting and ended off by discussing the hypotheses and limitations that needed to be mentioned. The next chapter will be the literature review and will subsequently contain pertinent literature with regards to the relevant fields as well as empirical findings from past research.

Chapter Two

Literature Review

In specific this chapter provides the reader with a) definitions of the knowledge management along with relevant theory b) a historical synopsis of definitions pertaining to leadership and its theory c) a critical review of all relevant literature that relates to transformational and transactional leadership d) a review of organisational climate literature, e) an evaluation of the potential relation between knowledge management and leadership, f) and an evaluation of the possible moderating effect and impact that organisational climate could have on the relation between leadership and knowledge management.

2.1. Knowledge Management

2.1.1. The Nature of Knowledge

The theory behind learning and in fact knowledge is extremely widespread, with its origins stemming from organisational theory, psychology, cognitions and philosophy. Thus in order for us to effectively discuss knowledge management, we need to be able to root our discussion in knowledge itself.

Nonaka & Takeuchi (1995) are of the belief that the knowledge management concept has been established chronically over time. Various writers (Bhatt, 2001; Davenport & Prusak, 1998; Nonaka & Takeuchi, 1995; Probst, Raub, & Romhardt, 2000; Wiig, 1999) have labelled and defined knowledge differently, however they each have one aspect that is similar, which is that knowledge is process related, and involves a degree of human interaction. The table below offers a few definitions on the concept found within literature.

Knowledge can be viewed as “understanding gained through experience or study” (Awad & Ghaziri, 2003, p. 33), or one can view “knowledge as a dynamic human process of justifying personal belief toward the truth created by the flow of information anchored in the belief and commitments of its holder active and subjective nature represented by such terms as *commitments* and *belief* that are deeply rooted in individuals; thus emphasising that knowledge is essentially related to human actions” (Nonaka and Takeuchi, 1995, p. 58)

Table 1 Definitions of Knowledge

Source	Definition
Wiig (1999, pp. 3-2)	Knowledge consists of truth and beliefs, perspectives, concepts, judgments, expectations, methodologies and “know-how”.
Bhatt (2001, p. 70)	Knowledge is an organised combination of data assimilated with a set of rules, procedures, and operations learnt through experiences and practices.
Davenport & Prusak (1998, p. 5)	Knowledge is a fluid mix of framed experiences, values, contextual information, and expert insights that provide a framework for evaluating and incorporating new experiences and information. It originates and is applied by the middle of knowers. In organisations, it is often becomes embedded not only in documents or repositories but also in organisational routines, processes, practices and norms.
Nonaka & Takeuchi (1995, p. 58)	Knowledge is “justified true belief”. It is a dynamic human process of justifying personal belief toward the “truth”
Beckman (1999, pp. 1-3)	Knowledge is reasoning about information and data to actively enable performance, problem solving, decision making, learning and teaching
Probst, Raub, & Romhardt (2000, p.24)	Knowledge is the whole body of cognitions and skills which individuals use to solve problems. It includes both theories and practical, everyday rules and instructions for action. Knowledge is based on data and information, but unlike these, it is always bound to person. It is constructed by individuals, and represents their beliefs about causalrelationships.
Davenport, De Long, & Beers (1998, p. 43)	Knowledge is information combined with experience, context, interpretation, and reflection.
Awad & Ghaziri (2004, p. 33)	Knowledge as “understanding gained through experience or study”
Sowa (1984)	Knowledge encompasses the implicit and explicit restrictions placed upon objects (entities), operations, relationships, general and specific heuristic as well as inference procedures involved in the modeled.

It is explained by Davenport and Prusak (1998) that knowledge is difficult to define in a simple and neat manner, and they further demonstrate the significance of knowledge. They stated that knowledge is “a fluid mix of frame experience, values, contextual information, and expert insight

that provides a framework for evaluating and incorporating new experiences” (p. 5). Lastly they state that knowledge originates with the knower and is further applied by the knower. Within an organisational setting, knowledge becomes embedded, not only within the repositories and the documentations, but within the norms, practices and routines of the organisation as well. Therefore, knowledge seems to be an amalgam of different elements; it encompasses judgement, rules of thumb, truth and experiences; and it can be structured as well as fluid (Davenport & Prusak, 1998).

One needs to first and foremost distinguish between knowledge, information and data if one hopes to effectively and productively think about the problems surrounding knowledge management (Beckman, 1999; Bhatt, 2001; Davenport, et al., 1998; Davenport & Prusak, 1998; De Long & Fahey, 2000;). Although within a practice setting these three terms are more often than not, used interchangeably, they have three different meanings. Knowledge is effectively information that is mixed with reflection, interpretation, context and experience; through the production of knowledge, value is added to information (Davenport, et al., 1998). Data is more objective and raw so to say; and lastly information is merely data that is structure and organised (Bhatt, 2001). Alternatively knowledge is data that is organised and further integrated with procedures, rules and operations that have been learnt via practice and experience (Bhatt, 2001).

Although there is a widespread consensus that knowledge lay above data and information, there lacks a general consensus on the exact definition of knowledge (Butler, 2003; Hlupic, et al., 2002). Therefore it is the user’s perspective that the definition of knowledge is dependent upon. Whilst information is represented by the movement of messages, knowledge is organised and created from information, and further secured by the beliefs and commitments of any individual concerned with it (Davis, Subrahmanian, & Westerberg, 2005). Therefore knowledge is context dependent as without meaning, knowledge will mere be information or objective data (Bhatt, 2001).

It is accepted that there exists no definition of knowledge that covers all organisations, professional levels and disciplines; nearly each different discipline will have their own unique definition for knowledge (Bhatt, 2001; Von Krogh, Nonaka, & Aben, 2001). Nevertheless after reviewing the definitions two common similarities can be found with regards to the characteristics of knowledge. Firstly it is stated that knowledge is humanistic, due to it being fundamentally related to the actions of humans; as previously mentioned by Nonaka & Takeuchi (1995) that it is a human process that is extremely dynamic and used in order to justify one's personal beliefs concerning truths. What this approach does is recognise the significance of subjective elements, for instance beliefs and the link it has to actions, as well as the comparatively unspoken aspect of knowledge. Secondly it is important to note that knowledge is in fact dependent on the context. As mentioned above, without this context it is merely information or data, not knowledge. Therefore authors have argued that knowledge cannot exist without integrating human experience; rather, it is developed through the social creation of conceptions and meanings (Sabherwal & Becerra-Fernandez, 2003). The context-sensitive and subjective nature of knowledge suggests that its meanings and classes rely on the perceptions of the individual (Davenport & Prusak, 1998).

For this research studies purpose, the definition that will be adopted for knowledge comes from Probst and his colleagues (2000, p. 24):

“Knowledge is the whole body of cognitions and skills which individuals use to solve problems. It includes both theories and practical, everyday rules and instructions for action. Knowledge is based on data and information, but unlike these, it is always bound to person. It is constructed by individuals, and represents their beliefs about causal relationships”

This definition has been chosen by the research due to it encompassing the various definitions of knowledge issued by numerous scholars (Beckman, 1999; Bhatt, 2001; Davenport & Prusak, 1998; Nonaka & Takeuchi, 1995; Wiig, 1999). Therefore it is representative of a commonly

accepted version of what knowledge is. Thus based on the above definition, it is posited by this study that any sort of new knowledge will originate with the individual, and furthermore that it is the individual's personal knowledge that will eventually transform into organisational knowledge which will add value to the enterprise.

2.1.2. Defining Knowledge Management

It is now widely acknowledged that knowledge management offers organisations a competitive advantage and thus more and more enterprises are beginning to incorporate knowledge management practices within their daily strategies (Davenport & Volpel, 2001). More and more organisations are started to realise that the only means by which they can lever off of their core competencies and further gain a competitive edge is through effective knowledge management practices (Arora, 2002; Bhatt, 2001; Demarest, 1997; Hlupic, et al., 2002). Therefore this has raised the interest of organisations to evaluate their knowledge management practices, in order for them to come up with innovative solutions, better deal with clients, increase the quality and production of goods and essentially boost the enterprises efficiency. It is the concern of managers within the organisation to develop knowledge management strategies, in order to tame the knowledge of employees within the enterprise. Within the community of research, scholars view knowledge management as a catalyst in order to understand the role that knowledge plays in an enterprise (Moffett, et al., 2003a). The meaning or definition of knowledge management has subsequently been defined, debated and repeatedly redefined.

The reason for why the dialogue on this topic is often fragmented is because, knowledge management is often seen to be multidisciplinary and multidimensional. Tiwana (2000) states that knowledge management is effectively and simply the management of knowledge. It can however be further extended to the organisation and management of knowledge within the enterprise, in order to create value and attain the organisation a competitive edge.

Tiwana (2000) states that "Knowledge management enables the creation, communication, and

application of knowledge of all kinds to achieve business goals” (p.5). The supposed founder of knowledge management Wigg (1999) defined knowledge management as “the systematic and explicit management of knowledge-related activities, practices, programs, and policies within the enterprise” (p. 3). Quintas, Lefrere, and Jones (1997) state that knowledge management is “the process of continually managing knowledge of all kinds to meet existing and emerging needs, to identify and exploit existing and acquired knowledge assets and to develop new opportunities” (p. 387). On the other hand knowledge management is considered by Martinez (1998) as the encouragement of individuals to share the knowledge they have. This is done through the creation of system sand environments for sharing, organising and capturing knowledge across the organisation. There exists numerous other definitions within literature (Al-Ghassani, Kamara, Anumba, & Carrillo, 2004; Bassi, 1997; Beijerse, 1999; Bhatt, 2001; Darroch, 2003; Davenport & Prusak, 1998; C. Davidson & Voss, 2002; Demarest, 1997; Horwitch & Armacost, 2002; Jones, 2006; Koch, 2003; O'Dell, et al., 1998) as seen in Table 2.

Table 2 Definitions of Knowledge Management

Source	Definition
O'Dell et al. (1998, p. 6)	Knowledge management is a conscious strategy of getting the right knowledge to the right people at the right time and helping people share and put information into action in ways that strive to improve organisational performance.
Quintas, Lefrere, & Jones (1997, p. 387)	Knowledge management is the process of continually managing knowledge of all kinds to meet existing and emerging needs, to identify and exploit existing and acquired knowledge assets and to develop new opportunities.
Bhatt (2001, p. 71)	Knowledge is process of knowledge creation, validation, presentation, distribution and application.
Blake (1998, p. 12)	Knowledge management is the process of capturing a company's collective expertise wherever it resides, and distributing it wherever it can help produce the biggest payoff.
Martinez (1998, p. 89)	Knowledge management is about encouraging individuals to communicate their knowledge by creating environments and systems for capturing, organising and sharing knowledge throughout the company.
Horwitch & Armacost (2002, p. 28)	Knowledge management is the practice of creating, capturing, transferring and accessing the right knowledge and information when needed, to make better decisions, take actions, and delivery results in support of underlying business strategies.
Jones (2006, p. 117)	Knowledge management is a process of acquiring knowledge from the organisation or other sources and turning it into explicit information that employees can use to transform into their own knowledge, allowing them to create and increase organisational knowledge.
Beijerse (1999, p. 102)	Knowledge management is achieving organisational goals through strategy-driven motivation and the facilitation of knowledge workers to develop, enhance and use their capability to interpret data and information (by using available sources of information, experience, skills, culture, characters, personality, feeling, etc.) through a process of giving meaning to these data and information.
Wiig (1999, p. 3)	Knowledge management is the systematic and explicit management of knowledge-related activities, practices, programs, and policies within the enterprise.
Rastogi (2000, p. 40)	Knowledge management is a systematic and integrative process of co-coordinating organisation-wide activities of acquiring, creating, storing, diffusing, developing and deploying knowledge by individuals and groups in pursuit of major organisational goals.

Due to the fact that there is a vast array of definitions surrounding knowledge management, it is evident that those that work within the knowledge management field are from a vast range of disciplines, such as product engineering, organisational science, management science and so on (McAdam & McCreedy, 1999). For instance, within the field of management information systems, practitioners and researchers opt to define knowledge management as an object that may be controlled and recognised within a knowledge system that is computer based (Bassi, 1997; Bennett & Gabriel, 1999; Fowler, 2000; Ruggles, 1998); on the other hand however, management theory researchers, view knowledge as a process that is based on organisational and individual competencies such as know-how, capabilities and skills (Davenport & Prusak, 1998; Kogut & Zander, 1997; Nonaka & Takeuchi, 1995; Quinn, et al., 1996; Wiig, 1997). Therefore knowledge management is viewed as the management of people, however it does not need to accommodate information system capabilities.

There has been multiple attempts to come up with a more a more multi-discipline and inclusive way of researching and understanding the field of knowledge management (Davenport, et al., 1998). It has been suggested by Hlupic et al. (2002) that knowledge management is not just simply a patent methodology for increasing the enterprises economic value, nor is it just a form of technology composed of a set of rigid and explicit systematic activities. Therefore in order to figure out what knowledge management effectively is, Thomas, Kellogg, and Erickson (2001) has posited that knowledge management is effectively a deep social process that takes into account both social and human factors, instead of it being a means through which the enterprise gets the correct information to the right people at a particular time of need. Thus a knowledge management system that is successful will include the knowledge community, in which members can interact and partake in the manipulation, use and discovery of knowledge. To understand that community involves the process of identifying relations and social activities which are operating within a specific context, is essentially the fundamental underpinnings of knowledge management community. In order to do this efficiently. An organisation needs to make drastic changes to its organisational climate and management, moving from one that

prefers information that is explicit, to one that prefers the knowledge of the employee and that issues incentives for them so that they share their knowledge. This has proven to be a challenging task for most managers and leaders to accomplish (Davenport & Prusak, 1998).

Essentially knowledge management can be distinguished and observed from two primary perspectives: the outcome perspective, and the process perspective (Al-Ghassani, et al., 2004). The definition of the process perspective seems to endorse the development of process in order to measure and capture knowledge within the organisation. Information technology does not necessarily need to be involved within these processes. For instance, knowledge management is viewed by Davenport et al. (1998) to be a process of distribution, collection and effective usage of knowledge resources.

On the other hand, the outcome perspective primarily focusses of the competitive advantages and benefits that an enterprise may attain if it handles and manages its knowledge effectively. It involves using a knowledge management strategy in order to make sure that the company manages to get the right information to the appropriate individuals at a suitable time in order for the organisation to benefit through information sharing (O'Dell, et al., 1998). Within this study however, the researcher has suggested that both perspectives be used when considering knowledge management. When looking through the lenses of a process perspective, aspects of the organisation such as management support, availability of resources, organisational leadership, organisational climate and technology will perform as moderating variables which will control the manner in which knowledge management will be implemented. This is done through for instance a supportive organisational climate or information technology facilitating sharing, manipulation and storage of knowledge. When looking through the lenses of an outcome perspective knowledge management must be in line with the nature of the services and products, the organisational strategy and with the focus of the business.

Therefore, knowledge management is generally treated as a means by which knowledge can be leveraged, innovation can be realised in products and process, effective decision making can be achieved and the organisation can adapt more efficiently to the market (Yahya & Goh, 2002). Thus in order for enterprises to achieve these goals, they have started to engage in numerous different strategies in order to store, create and apply knowledge within an organisational context. These strategies can basically be departmentalised into two categories, namely personalisation and codification (Hansen, Nohria, & Tierney, 2005), which reflects a dependence on tacit and explicit knowledge.

The category of codification discusses the approach to knowledge management in which knowledge is essentially codified by using a “people-to-documents” approach; it is a process by which knowledge will be extracted by the developer, thus making it independent of them, and then using this knowledge for numerous other purposes (Hansen, et al., 2005). This type of strategy can be seen as a means by which the company can retain any knowledge within it, by withdrawing the knowledge from the person who has it. This codification process relies extensively on information technology as it is based on collecting, codifying and disseminating information in order for it to manage knowledge that is explicit.

Alternatively, the personalisation strategy has its focus on sharing knowledge through a person-to-person dialogue and contact. The knowledge that a person has remains with them, however human interaction is utilised in order to gain access to such knowledge. A different arrangement of strategies was also posited through O'Dell, Wiig, and Odem (1999) in which they have included knowledge creation, innovation, intellectual asset management, personal responsibility for knowledge, customer-focused knowledge, transfer of knowledge and best practices and business strategies based on their benchmarking study. Thus it is evident that various approaches to knowledge management are developing, each with their own emphasis, however each of them are effective in their own context.

In essence, it has been proven to be quite the challenge to define knowledge management, as the various definitions that do exist, depend on the researchers, their interests, background and experience. As a result, different perspectives of knowledge management can effectively produce various meanings and dimensions (Lopez, Peon, & Ordas, 2004). In the endeavour to fast track this research study, and after having reviewed the literature thoroughly, the researcher suggested that knowledge management can be viewed as an active and formalised method to optimise and manage knowledge resources within the enterprise (Wong & Aspinwall, 2006). Further it is acknowledged that the goal of knowledge management is to be able to leverage the knowledge of the organisation in order to create new forms of knowledge in order for the enterprise to gain and further maintain a competitive edge (Mason & Pauleen, 2003). Thus in order for a knowledge management system to be successful, it needs to include a knowledge community, in which employees are able to have interaction which will lead to the manipulation. Use and discovery of knowledge (Thomas, et al., 2001). What is essential to the community concept within knowledge management is the understanding that identifying relationships and social practices which are functioning within a certain context is involved in community.

In addition to the above, an enterprise might differ from about by virtue of its nature concerning their ownership of knowledge as well as their accumulation vehicle. Despite the fact that organisations are near incapable of managing to create knowledge without the presence of individuals, enterprises provide the environment, and further support creative employees in order for them to create knowledge. This is because the social interaction that takes places between employees, organisations and groups are instrumental to creating knowledge for the organisation (Nonaka, 1994). Therefore the climate of the organisation as well as its structure, play a key aspect in the employees tendency in creating knowledge and thereafter sharing it with others (Demaid & Quintas, 2006; Du Plessis, 2006; Egbu, 2004; Goodale, 2001; Merx-Chermin & Nijhof, 2005; Nonaka, 1994; Politis, 2001). This is known as the personalisation strategy which is an approach to knowledge management in which the organisation relies

primarily on the structure and climate (Hansen, et al., 2005). Therefore in order for the reader to have an understanding of the role that leadership and organisational climate play on knowledge management, the researcher opted to focus this thesis on the personalisation approach instead of codification of knowledge management practices.

2.1.3. Organisational Knowledge

One of the fundamental questions surrounding epistemology is with regards to knowledge, however a universally accepted definition that cut across all fields of study, disciplines, organisations and professional levels still seems to elude us. In a similar fashion, various philosophers have attempted to define what organisational knowledge is through bridging the gap between collective knowledge and individual knowledge; however the reason for why this has failed, is due to the notion that organisational knowledge is not established or created by collation of individual knowledge (Bhatt, 2001). In essence, definitions around organisational knowledge vary from “complex, accumulated expertise that resides individuals and is partly or largely inexpressible” all the way to “much more structured and explicit content” (Davenport & Prusak, 1998, p. 70).

Various classification schemes reflect the types of organisational knowledge to be found. It is suggested by Kogut and Zander (1997), that organisational knowledge is classified into know-how and information. Knowledge as know-how, is an explanation of knowing how one should do something, which implies that know-how needs to be acquired and learnt. On the other hand, knowledge as information simply implies “knowing what something means”.

Furthermore, Kogut and Zander (1997) have identified the equivalent distinction between procedural knowledge which is the way in which one can maximise inventory, and declarative knowledge which are facts. In addition they go on to state that procedural knowledge, much like know-how, which entail statements used to describe processes, is what firms used to describe their current practices. These practices may involve establishing functional and

divisional lines of accountability and authority. Thus know-how, is to effectively understand how to organise an enterprise along both informal and formal lines. It is only through the employee's interactions of complying with implicit and explicit recipes that one may find the context and content of an organisations know-how (Kogut & Zander, 1997).

Within an organisational environment, Nonaka and Takeuchi (1995) distinguish between two different types of knowledge: implicit and explicit knowledge. Knowledge management literature is filled with discussions surround these two concepts literature (Beckman, 1999; Beijerse, 1999; Boiral, 2002; Bollinger & Smith, 2001; Davenport & Prusak, 1998; Nonaka & Konno, 1998; Nonaka & Takeuchi, 1995). Explicit knowledge can be defined as codified or knowledge that is structured. It is systematic and formal, and is further articulated easily in computer programs, scientific formulas and production specifications programs (Nonaka & Konno, 1998). Therefore explicit knowledge can be quickly and easily shared and communicated. On the other hand, tacit knowledge is unconsciously applied and understood, is developed straight from action and experience, and is quite difficult to articulate (Zack, 1999). It is thus difficult to formalise, extremely personal and hard to share or communicate with others.

Based on the difference that has been made amongst tacit and explicit knowledge, it has been suggested by Nonaka and Takeuchi (1995) that there are four fundamental patterns that can be used to create and further transform knowledge, from an implicit form to an explicit one within the organisation. Firstly one may do this through sharing experiences and languages through socialisation –tacit to tacit-. Secondly this can be done through the use of appropriate triggering devices and metaphors which is a process of externalisation (tacit to explicit), of tacitly held knowledge. Thirdly one may reconfigure knowledge that already exists, through categorising, sorting and supplementing this form of knowledge with more explicit knowledge through the process of combination (explicit to explicit). Lastly one may re-contextualise the knowledge by using internalisation (explicit to tacit). In order to demonstrate the flow that exists between these form of knowledge, it has been argued by Nonaka and Takeuchi (1995) that one can

understand organisational knowledge create as the process of transforming tacit knowledge into an explicit form. In addition they make it quite clear that organisational knowledge is not only sum of the individual skills and knowledge that exists within the organisation, but rather the collective capabilities and competencies of the organisation. This is a competitive advantage for the organisation and is distinctive of any other enterprise (Nonaka and Takeuchi, 1995).

It is widely accepted that the dominant conceptualisation in literature surrounding knowledge management, is the distinction between tacit knowledge and explicit knowledge. However there is a general assumption within this field of research, that articulate knowledge can be easily codified and shared (Weiss, 1999). Nevertheless (Weiss, 1999), has argued that the capacity to articulate knowledge may not be associated to its availability for usage by others. Therefore what (Weiss, 1999) has done in professional services enterprises, is to further classify knowledge into two types of knowledge, such as embedded knowledge and rationalised knowledge. (Weiss, 1999) defines embedded knowledge as “specific, context-dependent, unstandardised, narrowly applicable, private, personalised, unofficial, and may be personally or professionally sensitive” (p. 66). This form of knowledge can be viewed as the knowledge workers successful experience and is further connected to its original resources. On the other hand Weiss (1999) states that rationalised knowledge is “general, context-dependent, standardised, widely applicable, public, official, and depersonalised” (p. 66). An example of this form of knowledge would be methodologies for legal references, standard operating procedures and for conducting projects.

It has further been suggested by other scholars such as that organisational knowledge should be divided into three forms, namely structural, organisational and individual knowledge (O'Dell, Grayson, & Essaiades, 1998). Individual knowledge exists only in the mind of the employee. Organisational knowledge is essentially the learning that takes place on a divisional or group level. Lastly structural knowledge, can be defined as the manual, processes and ethical codes that exists within the enterprise. Knowledge can be viewed as either explicit or tacit at any one

of the above states.

It has been suggested by Quinn, Anderson, and Finkelstein (1996) that within an organisation, individual knowledge is actually composed of four other types of knowledge: “know-what” which is often referred to as cognitive knowledge, is the type of knowledge that an employee may acquire from certifications and broad training; “know-how” is subsequently the ability of the individual to apply “know-what” knowledge to real life, dynamic problems; “know-why”, which is also referred to as systems understanding, is extensive knowledge with regards to cause-and-effect relations; and lastly the highly level of knowledge is “self-motivated creativity” which involves adaptability, motivation and will. Quinn et al., (1996) argues that by developing the employee’s self-motivated creativity and enabling them to further leverage this knowledge throughout the firm, the knowledge of the organisation can increase noticeably. An enterprise that develops their employee’s self-motivated creativity will subsequently adapt faster to today’s rapidly changing environment, and moreover be able to renew their advances skills, cognitive knowledge and systems understanding, thus making them more competitive.

Although it can be argued that these definitions surrounding organisational knowledge may be arbitrary, following Boland and Tenkasi (1995), this study views knowledge as subjective as oppose to being objective. What this means is that the knowledge cannot exist without a degree of human experience; rather it is developed from socially interacting and creating concepts and meanings. Thus organisational knowledge can only be fully achieved after the individuals involve keep modifying and changing their knowledge through interacting with other members within the organisation (Bhatt, 2001). Furthermore organisational knowledge can be viewed as knowledge that had been divided and shared between other members within the enterprise; therefore it is managed, created and distributed by employees who act freely in a decision sphere (Gupta & Govindarajan, 2000; Moffett, McAdam, & Parkinson, 2003b; Yahya & Goh, 2002). Subsequently both context and people are involved in organisational knowledge, however the realisation of it depends on people who execute, develop, plan, organise, interpret and use those templates (Guzman & Wilson, 2005). These characteristics often conflict and is

what makes organisational knowledge management so complex. Additionally chances of success are slim, when there is a need to engage in a change of climate, especially when the employees affected do not understand or accept the reasons (Park, Ribiere, & William, Schulte, 2004). It is therefore the prerogative of knowledge management practitioners to fully understand and control the leadership and organisational climate within their enterprise, in order to align the systems of management to the climate of the organisation.

2.1.4. Knowledge Management Processes

It has been witnessed within the literature, that numerous studies have looked at and addressed the process of knowledge management. A few examples are: Darroch's (2003) three-stage model of dissemination, knowledge acquisition and the responsiveness and use of knowledge; Demarest's (1997) process framework of dissemination, knowledge construction and embodiment; and Bhatt's (2001) five processes of application, presentation, distribution, validation and creation of knowledge. These process are not always operating in a linear sequence, although they might often be concurrent (Beckman, 1999; Lee & Choi, 2003).

In addition, as previously mentioned, the researcher stated that the view of this study with regards to knowledge is a subjective view instead of an objective view. This perspective states that it is impossible for knowledge to exist without the human element. It therefore develops through social interaction, in which meanings and concepts are created, thus the loss of a universal objective character (Von Krogh & Roos, 1995). Thus in the process of producing services and goods, the enterprises act as a knowledge- integration system, which incorporates knowledge from various groups and employees (Holtshouse, 1998; Kogut & Zander, 1997; Soo, Devinney, Midgley, & Deering, 2002). Knowledge integration can take place in enterprises through directions, routines of the organisation, or process that might involve sharing tacit and explicit knowledge (Nonaka & Takeuchi, 1995; Zack, 2003). The researcher has opted to focus on the last mentioned aspect, in which knowledge management process can assist in the

sharing of tacit and explicit knowledge within the enterprise.

Unlike with tacit knowledge, it is possible to share explicit knowledge via numerous communication media. On the other, hand tacit knowledge is difficult to communicate with others, hard to formalise, extremely personal and complicated to share (Nonaka & Takeuchi, 1995). It can however be shared through an establishing a shared understanding between the employees (Takeuchi, 2001; Takeuchi & Nonaka, 2004). However, in some instances it is necessary to convert tacit knowledge into an explicit form. Therefore by demonstrating the movement between tacit and explicit knowledge, Nonaka and Takeuchi (1995) posit that one can understand organisational knowledge management as a manner of turning tacit knowledge, explicit.

In order to evacuate the knowledge management process, the researcher opted to draw upon Nonaka's (1994) four knowledge management processes: combination, socialisation, externalisation and internalisation. This framework views knowledge management within the organisation to be a continuous interplay between explicit and tacit dimensions of knowledge, and furthermore as a growing curved movement, as knowledge flows through enterprise levels, groups and employees.

Socialisation

It is stated by Nonaka (1994), that the mode of socialisation discusses the conversion of tacit knowledge into a new version of tacit knowledge. This happens through the process of social interaction or experiences that are shared between members of the organisation. It aids in the exchange of knowledge through cooperative undertakings such as staying in the same environment, spending time together and simply being together, instead of exchanging knowledge through verbal or written instructions (Nonaka, 1994; Nonaka & Konno, 1998). The production of knowledge takes place within a group setting and not only through simply acquiring individuals. Instead when common understandings are shared, individual knowledge

is synergised and this also lends in the production of knowledge (Fiol, 1994). An individual may acquire knowledge within an organisation and gain a level of competence by merely observing behaviours displayed by others. In essence, your typical apprenticeships have incorporated within them a high degree of socialisation, in which the apprentices will learn the tacit knowledge that they require for their craft, through hands-on experience instead of through textbooks and written manuals. Socialisation does not only takes place within the workplace; it can be displayed within informal meetings outside of the enterprise, in which tacit knowledge such as mutual trust, mental models and world views can be created and shared with others within the organisation. Furthermore socialisation can even be found beyond the boundaries of the enterprise, as an organisation may decide to gain an advantage by utilising and acquiring tacit knowledge that is implanted in the minds of suppliers and customers whilst interacting with them. In essence what is important to note is that socialisation involves a great degree of disseminating and capturing knowledge (Nonaka & Konno, 1998).

Externalisation

With regards to knowledge management, externalisation is the way in which tacit knowledge is expressed as explicit knowledge. What is required by externalisation is that tacit knowledge is expressed and translated into a comprehensive forms, so that other can understand it as well (Nonaka, 1994). Two key factors support externalisation in practice. Firstly there is the conversion of tacit knowledge, which is the means by which the articulation of tacit knowledge into explicit knowledge takes places. It involves various techniques through which one may express their through, images or ideas as words, visuals, concepts or figurative languages. Externalisation is strongly supported by dialogue which is “listening and contributing to the benefits of all participants” (Nonaka & Takeuchi, 1995). The second factor involves the translation of expert’s tacit knowledge into easily understandable forms. This may require a degree of creative inference or inductive/deductive reasoning (Nonaka, 1994; Nonaka & Konno, 1998; Nonaka & Takeuchi, 1995).

Combination

Combination involves the way in which explicit knowledge is converted into more systematic and complex sets of explicit knowledge (Nonaka, 1994). The explicit knowledge is initially acquired from inside or outside of the enterprise; thereafter it is combined, edited and lastly it is processed to a new form of explicit knowledge. Combination not only contributes to knowledge at a group level, but does so at an organisational level as well, as its focus lies on integration, diffusion, communication and systemisation of knowledge (Nonaka & Takeuchi, 1995). Although combination aids in the integration of knowledge among group members, the new knowledge that is generated through this process frequently surpasses the group (Nonaka & Konno, 1998). Therefore organisations that are innovation look to develop new concepts; these are then modelled, created and justified at the enterprise level, and often at the inter-organisational level. Furthermore, organisational processes that are complex require various groups to cooperate within the enterprise; these processes are supported by combination by aggregating the knowledge and technologies (Nonaka, 1994).

Internalisation

The process of internalisation is the means to which an organisation converts explicit knowledge, to tacit knowledge. This form of knowledge requires one to isolate knowledge. Within the process of internalisation, the organisations explicit knowledge needs to be exemplified in practice and action, so that the employees that are obtaining the knowledge may re- experience what the other employee's experience. In addition an individual could obtain this tacit knowledge in virtual situations, through reading, vicariously or by listen to others tell stories. Furthermore they can also acquire this knowledge through experiments or simulations (Nonaka, 1994; Nonaka & Konno, 1998). Some of the ways through which employees may gain access to the entire organisations or groups realm of knowledge is through face-to-face meetings, training by observation or learning-by-doing, in which they will further acquire such knowledge (Nonaka, 1994; Nonaka & Konno, 1998).

It is important to note however that the above mentioned modes of management (internalisation, combination, externalisation and socialisation) are not by any means pure, instead they are highly intertwined and interdependent (Alavi & Leidner, 2001), which means that each mode contributes to, benefits from and relies on the other modes. For instance, socialisation may end in the formation of knowledge once an employee gains a new understanding prompted by a communication with others. Alternatively the mode of socialisation may include conveying tacit knowledge from one member to another employee through discussing ideas. Another important aspect to remember is that new enterprise knowledge will not be created, however it will be new to the individual that receives it. The mode of combination most often includes an intermediate step in which employees draw insights from an explicit source (i.e. internalisation) and thereafter code the new found knowledge into an explicit form (externalisation). Ultimately, internalisation involves the process of simply converting explicit knowledge that already exists, to an individual's tacit knowledge, as well as creating new knowledge within the organisation once the explicit source activates a new insight.

2.1.5. Knowledge management in SMEs

The literature review on the field of knowledge management illustrates that predominantly most of the focus of this field has been on larger companies (Wong, 2005). The understanding that has been derived from organisational practice and theory concerning knowledge management has been obtained primarily from these larger organisations experiences (Evangelista, Esposito, Lauro, & Raffa, 2010; McAdam & Reid, 2001; Wong, 2005). This reason for why this situation has lasted so long, is due to the fact that larger organisations more often than not have a greater degree of intangibles and knowledge assets that need to be managed, and therefore a predominant focus on them seems more likely. As a result the potential of knowledge management within small firms is not completely exploited, and this is witnessed in literature wherein there is a limited amount of research pertaining to this topic that has been

published and reviewed. As Frey (2001) has previously stated, although it has been primarily the larger companies that have paved the way in implementing and introducing knowledge management, it is increasingly vital that small and medium enterprises take the initiative to manage their collective knowledge assets. With regards to knowledge management, it is important for small enterprises to note that the issues and challenges that they will face, will not merely be a scaled down replica of their large counterparts (Sparrow, 2001). Desouza and Awazu (2006) have discussed five key characteristics that differentiate practices of knowledge management in large organisations and SME's:

- Within SME's there is a limited amount of explicit knowledge "storage units". Instead, a manager or a leader will take the place of a knowledge repository.
- Common knowledge that the members of the SME's possess is broad and deep
- SME's are quite skilled at avoiding pitfalls of knowledge loss due to their nature and deliberate mechanisms. Due to the close social ties established in SME's, employees less frequently leave the enterprise and hence less loss of knowledge assets.
- Due to the SME having less resources and efforts to create knowledge, they look outside the organisation to find it. Therefore they have developed a knack for exploiting foreign knowledge sources
- Within SMEs it is said that they manage knowledge in a more humanistic way. The utilisation of technology within these SME's is mainly for informative purposes and automation.

Knowledge management in both SME's and larger organisations were compared by McAdam and Reid (2001). The main finding that resulted from the research study was that whilst it was

the larger organisations that were developing knowledge management implementation and understanding, SME's on the other hand were suffering from specific drawbacks. SME's seem to have a much more limited knowledge vocabulary, more mechanistic view, less methodological tactics for sharing and exemplifying knowledge, and lastly the benefit of knowledge management that they perceived were not targeted towards the improvement of internal efficiency but rather towards the market.

Furthermore, Sparrow (2001) in his qualitative study exploring knowledge management features of SME's, discovered that there is a significant need for SME's to realise various mentor models of individuals and to further their own understanding in the growth of knowledge management practices. Sparrow (2001) further went onto state that the development of a knowledge-based system within SME's should be grounded on the central understandings of its intricate principles and roles, and that any work that bears a relation to knowledge management needs to realise the SMEs management's holistic nature.

Management and Leadership: The success of knowledge management is to a large extent influence by the leadership role that management plays (Horak, 2001; Ribiere & Sitar, 2003). Leaders bear a significant importance, in the sense that they act as role models in order to demonstrate the behaviour that is desired for knowledge management. More often than not, within SME's, individuals who are management are also the owners of the business and they oversee all matters within regards to the operation of the business. Therefore the decision making process is often centralised at the top and the power as well as control is within their hands. Furthermore there are fewer layers of decision makers and management within smaller enterprises, which implies that the decision making chain is much shorter (Ghobadian & Gallear, 1997). What this effectively means is that the manager/owner of the organisation can be the driver of change, if however they understand the importance of knowledge management.

In addition, smaller firms bear another advantage over their larger counterparts, concerning their structures and means of implementing knowledge management. SME's have a flatter, simpler and less complex structures, which may simplify the change process across the entire enterprise, since the functional integration –both vertical and horizontal- is much simpler to achieve and enterprise will encounter less complications (Handzic, 2006). It is these very conditions that enable managers and leaders within SME's to act as role models and set a good example for the behaviours that are required in order to share, create and apply knowledge.

However, on the other hand, managers and leaders operating in smaller firms, often lack effective managerial skills as they have limited formal management training (Morrison, 2003). It is no wonder why most managers and leaders of smaller firms do not fully understand the true value and concepts of knowledge management (Frey, 2001; McAdam & Reid, 2001). Therefore this may hinder their ability to understand what is required for KM and how to effectively implement knowledge management. In addition since some of these managers have inadequate skills, they might purposely hamper growth in order for them to remain capable to manage their company (Collinson & Quinn, 2002).

Climate and behaviours: The climate of the organisation and knowledge management is linked within the organisation. Therefore an organisation is effectively a collection of people that share knowledge and information in their daily routine. Thus the biggest challenge that is faced by knowledge management is to changing the work habit if individuals and to enable them to share and articulate knowledge face to face (Davenport & Prusak, 1998). Organisations should strive to set up communities of practices in order to allow employees to participate in the exchange of knowledge which further contributes to social capital development (Nonaka, 2005). According to studies, larger organisations have more bureaucratic climate which means they are less flexible and slower at creating new schemes. SME's on the other hand bear a more fluid and organic climate (Ghobadian & Galleary, 1997). As a result, smaller firms with a more unified climate have

a stronger foundation for the implementation of knowledge management.

Although smaller firms have such advantages, the climate within these firms may be affected and altered by the outlook as well as the personality of the managers/owners of the enterprise, since they bear a strong sense of dominance within the firm (Wong & Aspinwall, 2005). It may be highly problematic for the firm to implement new initiatives, if the owner or manager of the enterprise is not committed and dictatorial (Achanga, Shehab, Roy, & Nelder, 2006). Alternatively, an owner that is a knowledge hoarder, and further attempt to control every aspect of the business, as well as punishes mistakes and discredits trust may hamper the ability of the organisation to effectively build an environment conducive for knowledge sharing. Therefore the manager/owner may well be the primary obstacle in the way of accomplishing knowledge management.

Human Resources: it is obvious that SME's have fewer employees than the larger organisations. This means that these smaller enterprises actually have an advantage over their larger counterparts as it will be easier to get all of the employees on board in order to implement change (Beijerse, 2000). Furthermore, these employees have better relations with each other as they maintain face-to-face contact with one another, making it more likely that support for knowledge management will be obtained to a greater extent. Thus employees will have a high degree of collaboration which will make it easier to organise a knowledge management initiative.

However within SME's, a lack of human resources, may act as a barrier to the implementation of knowledge management. Due to a constraint of staff, this means that the possibility of appointing new roles and positions for knowledge management is less practical. Furthermore, SME's also face the problem of retaining specialised employees, as there are limited career opportunities for them; in addition larger organisations can provide these employees with better prospects. Unfortunately for SME's, they are often viewed as a stepping stone for employees in a move to a larger organisation. The loss of these highly knowledgeable

employees may deeply affect SME's unless they are capable of capturing, codifying and transferring the knowledge of these employees throughout the enterprise.

As the discussion above states, leadership/management and organisational climate appear to be the most fundamental factors that influence knowledge management within smaller enterprises. However, there has been a limited amount of research that has been devoted to understanding the impact that these variables have on knowledge management within an SME environment. In order to address this gap, this research aims to provide the reader with a more in-depth understanding of the concepts – leadership, knowledge management and organisational climate - and their links which will be discussed in the following sections.

2.2. Leadership

One of, if not the most extensively studied social process known to the field of behavioural science is the phenomenon of leadership (Yukl, 2006). It is widely accepted that leadership may influence and play an instrumental role within organisations and have a direct effect on group outcomes and processes. This section presents the reader with a critical insight and review into the phenomenon of leadership and the role it plays in attaining successful knowledge management within an enterprise.

2.2.1. Definitions of Leadership

Leadership has proven to be a complicated term to define. This is partly due to the fact that leadership is a word that has been extracted from common vocabulary and thereafter integrated into the technical vocabulary of a scientific field without precisely redefining it (Yukl, 2006). Thus, a consequence of this is that there exist no one definition of leadership that there is a general consensus on. A researcher will often describe the term based on the researchers own perspectives on the phenomenon and any elements of the term that best interests them. After comprehensively reviewing research of leadership, Stogdill (1974, p. 259) determined that

“there are almost as many definitions of leadership as there are persons who have attempted to define the concept”. However, taking into consideration the purpose and aim of this study, the research looks at leadership through the lenses of a knowledge management perspective. Leadership is believed to have a degree of influence on the implementation and facilitation of knowledge management activities within an enterprise (Yukl, 2006).

This matter gets complicated even further, as researchers have defined in terms of interaction role differentiation, goal achievement, persuasion, power, particular behaviours, compliance, personality, influences, group processes as well a combination of two or more of these (Bass, 1990; Northouse, 2001; Yukl, 2006). Within the literature of leadership, most definitions seem to point to the notion that leadership involves a degree of social influence, in which one person will assert a degree of intentional influence over other members in an attempt to create a structure of relationships and activities within an enterprise or group. Unfortunately, the multitude of other definitions pertaining to leadership have little else in common. These definitions differ in terms of outcome of the influence attempt, the manner in which the influence is exerted, the intended purpose of the influence and who exerts the influence (Yukl, 2006). Thus, the various different perspectives that researchers have on leadership have led them, to choose the area of the phenomena to research further as well as the way in which they interpret the results. For instance Hemphill and Coons (as cited in Yukl, 2006, p. 2) define leadership as “the behaviour of an individual when he is directing the activities of a group toward a shared goal”; Robbins (2001) suggest that “leadership as the ability to influence a group toward the achievement of goals” (p. 314). Tosi, Rizzo, and Carroll (1994) advocate that “leadership is interpersonal influence in which one person is able to gain compliance from another in the direction of organisationally desired goals” (p. 550).

Despite the fact that there are a number of ways in which the term leadership has been conceptualised, there does exist a few instrumental leadership elements that are central to the leadership phenomenon within literature (Chelladurai, 2006; Chemers, 1984; Northouse, 2001;

Yukl, 2006). One such central feature is that it is a process of interpersonal influence (Chemers, 1984; Hitt, Black, Porter, & Hanson, 2007). When one defines leadership as a process, they are not referring to the characteristics or traits that the leader might have, but instead, they focus on the transactional event that arises between the followers and their leader. The term “process” refers to the fact that the leader may affect and be affected by the follower. As a result, leader may arise anywhere and anytime within the enterprise. It is true that leadership may be demonstrated by anyone within the organisation and it is not limited to those only in certain positions (Hitt, et al., 2007; Northouse, 2001). Thus leadership does not only have to be displayed by the Chief Executive Officer of the enterprise, but can be illustrated through first line managers who may directly inspire their subordinates as well. Furthermore, a co-worker may also show leadership by seeking ways to improve working conditions and processes.

One of the fundamental aspects of leadership is influence and the way in which the leader affects their followers. The *since qua non* of leadership is Influence, and without it, leadership will cease to exist. DuBrin (1998) states that interpersonal influences is focused through communication and if a leader hopes to successfully complete a task, they need to clearly inform their employees of what the employee’s job entails. Thus leadership involves a great deal of communication and is a vital component (Schermerhorn, 2001). Furthermore a leader may improve communication within an enterprise through structure, changing of the climate, clarifying ideas and actively listening. Part of true communication is to motivate (Ribiere & Sitar, 2003). If a leader wants to get their people to “do” the leader must effectively motivate the employees. Conversely people work in order of them to satisfy their own needs, which is why it is vital that a leader understands the notion that different individuals will be motivated and inspired by different aspects in life. Therefore, various different approaches to motivate employees, needs to be used. This can be done through positive reinforcement, empowering employees, as well as job redesign, rewards, raises, bonuses and pay, thus offering the employees what they seek (Ribiere & Sitar, 2003).

The process of leadership is not apart from the wider situational context in which leadership occurs. It comprises of the leader influencing individuals such as a community group, a small task group or an entire enterprise to bear one united purpose (Chemers, 1984; Northouse, 2001). Thus various facets of the group's assignment, such as its social, cultural and economic characterises in which the enterprise is embedded, as well as the authority systems integrated, all critically influence the nature of the leadership put into place (Chemers, 1984; Northouse, 2001).

Another aspect that is key to leadership is the attainment of goals (Chelladurai, 2006; DuBrin, 1998; Northouse, 2001). Many scholars believe that in order to be an effective leader you need to be able to direct a group of employees towards a common set of objectives. A leader will direct their focus towards a group of employees that are attempting to succeed at a task together. This element of leadership has been posited to be the key difference of leadership from management (Northouse, 2001). It has been argued by DuBrin (1998) that the vital function of leaders is for them to create a vision for the enterprise. The leader will state any goals that are far reaching, as well as the strategy that will be used to attain these goals. In contrast, the key function of management is to implement the vision that the leader creates and they decide how this is to be done (Northouse, 2001).

Within the realm of the social sciences, in general along with many other constructs, the definition that is associated with leadership is extremely subjective and arbitrary. No one definition is seen as being correct, however some definitions might be more useful than the next (Yukl, 2006). In the meantime it might be best for us to make use of these multiple conceptions of leadership as a spring, for various perspectives on the multifaceted and complex phenomenon of leadership. Within research, the operational definition associated to leadership will be based on the purpose that the researcher has (Karmel, 1978). Therefore, after reviewing the

fundamental elements of leadership within the literature and considering the purpose of evaluating the relationship between knowledge management, leadership and organisational climate, the researcher opted to adopt the definition of leadership from Yukl and Van Fleet (1992):

“leadership is a process that includes influencing the task objectives and strategies of a group or organisation, influencing people in the organisation to implement the strategies and achieve the objectives, influencing group maintenance and identification, and influencing the culture of the organisation” (p. 149).

With regards to this definition, the concept of leadership involves maintaining organisational and group climate, shaping organisational objectives and ensuring that people are motivated (Yukl, 2006). Therefore leadership is involved at the organisational level and not only at an individual one. In addition due the fact that within this study, leadership is seen as a behavioural process, the emphasis is not on what a leader is but rather what the leader does (Dierkes, 2001; Ribiere & Sitar, 2003). Hence why whilst an enterprise needs a manager to oversee the daily operations of the enterprise and to construct detail plans, the organisation too needs a leader in order to create a vision of the future, inspire the employees and challenge the status quo (Dierkes, 2001; Ribiere & Sitar, 2003). Thus in essence, a structure assisting the widespread use of group and individual knowledge, a climate that fosters sharing and learning of a mutual knowledge base and a robust enterprise vision and leadership that fosters learning are perceived as elements for forming knowledge-based organisations (Dierkes, 2001; Ribiere & Sitar, 2003).

2.2.2. Review of Leadership Theories

The difference in opinions with regards to the definition of leadership is also linked to the theories behind leadership. This is partly due to the fact that many researchers if not most within the past, studying this concept had a fairly narrow focus, and furthermore, there was a severe lack of broad theories which could integrate and link the findings from various approaches. In the past, a researcher would study this concept based on their methodological preferences as well as what the researchers conception of what leadership was (Bass, 1990; Northouse, 2001; Yukl, 1989, 2006). Subsequently these authors mainly focused on the past actions of the leader as well as their past personality. Consequently, due to environments that are consistently changing, understanding the relation and effectiveness of the enterprise proves to be a huge challenge. However due to recent studies, the orientation of leadership styles have changed. As Figure 2-1 demonstrates, measures of organisational effectiveness can be affected by leaders. Thus, it is apparent that the style of leadership one undertakes can have a vital impact on the group or enterprise. This following discussed describes a few of the many leadership theories that exist within literature.

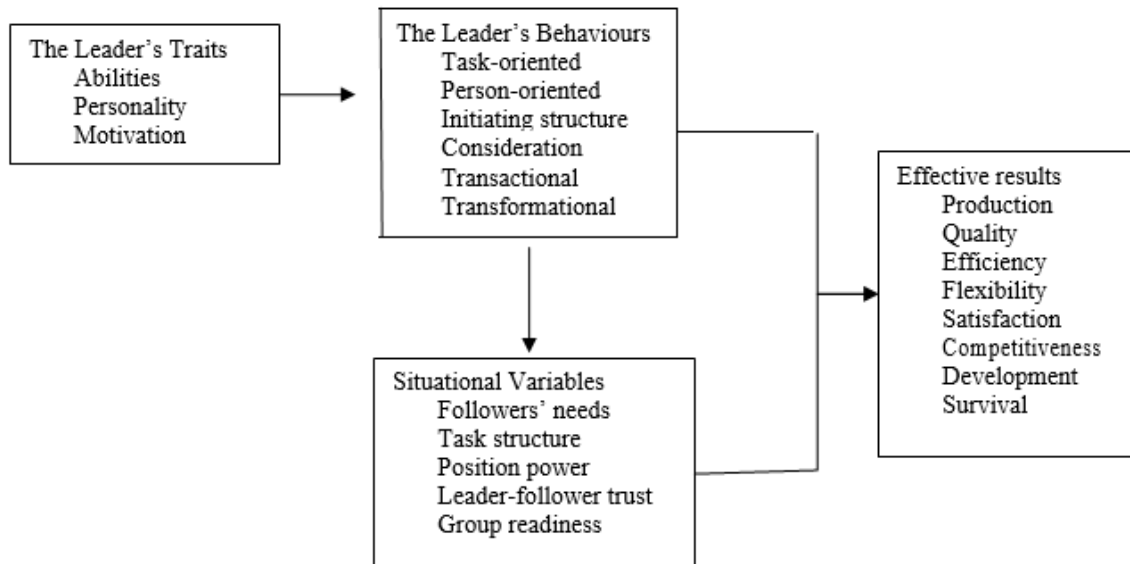
2.2.2.1 Traits Theories

One of the very first attempts in studying the concept of leadership was through the use of a trait approach. This theory assumes that there exists individual traits that could be found within leaders (Dierkes, 2001; Ribiere & Sitar, 2003). Thus this theory attempts to distinguish particular characteristics (personality, mental, physical) that are associated with successful leaders (Northouse, 2001; Yukl & Van Fleet, 1992). Therefore in the past most if not all leaders were assumed to be male and they were assumed to have inherited predisposed characteristics that differentiates them from those that follow them. There was a notion that you were either destined to be a leader or a follower and those destined to lead, possessed) certain qualities that

allowed them to lead and disallowed them to be dominated (Hitt, et al., 2007). The traits of leaders were studied through various methods, such as personnel testing, observation of their actions in group various situations, by nomination or rating by observers, by choice of associates and by analysis of biographical data (Gibson, Donnelly, & Ivancevich, 2003).

However the attempt at finding a particular set of qualities, traits and characteristics that would distinguish effective leaders from others was unfortunately unsuccessful (Bass, 1990; Gibson, et al., 2003; Robbins, 2001). This was due to the fact that as soon as researchers believed that they had found a set of qualities and traits that defined an effective leader, a new leader would emerged; one that possessed a completely new set of traits that was vastly different from what the researchers thought. Various different types of characteristics were researchers, such as those associated with social qualities, task-related skills, intelligence and ability, social background and physical appearance. Figure 2 offers an indication of a few of the various categorisations of leader's qualities through an assortment of researchers (Bass, 1990; Gibson, et al., 2003; Robbins, 2001). After a thorough meta-analysis and literature review, It is apparent that there exist no one set of traits that distinguishes a leader from a follower across numerous situations; a definitive set of qualities or traits that would promised effective leadership could never be confirmed (Robbins, 2001; Yukl, 2006).

Figure 2 A Framework for Studying Leadership (Gibson, et al., 2003, p. 300)



Yet another downfall of the trait theory is that predominantly most of the research that has been conducted personal traits that has been associated with effective leaders has not taken into consideration that effect that a particular situation might have. It has been argued by Northouse (2001) that an individual who assumes a leadership role and is effective in one situation might not be effective in another situation and might not even be a leader; as previously mentioned there exists no one set of traits that illustrates effective leadership cross all situations. Likewise, Robbins (2001) had said that in "...highly formalised organisations and those with strong cultures ... the power of traits to predict leadership in many organisations is probably limited" (p. 315). Subsequently, instead of being a quality that an individual would have, leadership was now reconceptualised as a relation between people within a social situation (Stogdill, 1974). Personal factors are still considered to be important in relation to leadership, however it is argued that these need to be considered in relation to the situational requirements.

Furthermore many scholars have criticised this theory for failing to consider traits in association to successful outcomes of leadership (Northouse, 2001; Robbins, 2001). Although the trait theory have identified and emphasised the possession of particular traits, it fails to address how these traits of leadership impact of members of the group, as well as their work, which is believe to be a central element of leadership. Subsequently in an attempt to establish a universal set of traits for effective leadership, researchers have failed to associate these traits of leadership to other outcomes, such as employee satisfaction or productivity. Therefore an individual may demonstrate traits of a leaders, and other may look at this person as a leader, however this does not mean that this person is a successful leader in terms of influencing the group to achieve their objectives and goals.

Table 3 Studies of Leadership Traits and Characteristics (Northouse, 2001, p. 18)

Stogdill (1948)	Mann (1959)	Stogdill (1974)	Lord, Devader, and Alliger (1986)	Kirkpatrick and Locke (1991)
Intelligence	Intelligence	Achievement	Intelligence	Drive
Alertness Insight Responsibility Initiative Persistence Self-confidence Sociability	Masculinity Adjustment Dominance Extroversion Conservatism	Persistence Insight Initiative Self-confidence Responsibility Cooperativeness Tolerance Influence Sociability	Masculinity Dominance	Motivation Integrity Confidence Cognitive ability Task knowledge

Despite these downfalls and critiques of the trait theory, today it is still alive and well. Within recent years, many authors and researcher have taken up a great interest in this approach- so as to explain how traits may influence leadership (Bryman, 1992). It has been claimed by

Kirkpatrick and Locke (1991) effective and successful leaders actually are particular types of people in certain central facets. They state that “it is unequivocally clear that leaders are not like other people” (p. 59). The notion that is not that certain traits may determine the effectiveness of a leader, but rather that it may increase the likelihood. Researchers argue that an individuals that possess every vital trait and at a high level is extremely rare, if not unheard off. However it is said that if an individual does possess one or more of these central characteristics, the probability of success within leadership will increase. Therefore it can be argued that these traits deliver potential, however whether or not this potential will be realised depends on opportunity, experience, attitude and skill.

It is now generally accepted that is not advisable to use traits alone in explaining leadership (Gibson, et al., 2003; Hogan, Curphy, & Hogan, 1994; Northouse, 2001; Robbins, 2001; Yukl, 2006). Peter Drucker (as cited in DuBrin, 1998) stated that an effective leader cannot be defined by their set of traits, or style or type of their personality; rather an effective leader should be defined through their responsibilities, example setting, results and constituents.

An explanation that is solely based on traits will consequently ignore the interaction that group members might have with their leaders as well as any situational factors that play a role.

Furthermore this approach of the trait theory has not linked leader’s traits with outcomes such as the performance of the organisation. However if an individual does possess one of these traits, it would mean that they are more likely to be an effective leader (DuBrin, 1998; Northouse, 2001; Robbins, 2006). Furthermore the trait theory is not mainly beneficial for training and development, nor professional development or leadership, due to the fact that an individual’s personal attributes and traits are generally not amendable and predominantly fixed.’

Within the study of leadership, work on traits and characteristics of leaders has not produced

definitive results, researchers have now begun to consider the way in which leaders behave in different situations as well as in relation to the leaders followers. This approach has opened new doors, in the exploration within the field of organisational behaviour and social psychology. Robbins (2006) has said that “the need to recognise idiosyncrasy in human behaviour is a part of contemporary theorising upon leadership, giving rise to concepts of personal linkage between individuals and within groups, and personalising the process lying at the heart of successful leadership” (p.26).

2.2.2.2. Behavioural Theories

Within the behavioural theory, researchers attempt to gain an in-depth understanding what a leader really does in their respective position and how these behaviours are related to effective leadership. Up until now the multitude of theory as well as the vast amount of research conducted has been dependent on the notion that a leader must be able to manage with two distinct though interconnected aspects of their situation; they must successfully fulfil their tasks and objectives, and they must be able to do this through their followers (Gibson, et al., 2003). These leadership behaviours may be analysed and studied through observing what a leader does in relation to completing an objective whilst managing the efforts of their followers performing the objectives. Therefore the differentiating factor between the behavioural and trait theory is their underlying assumption; if there was great validity in the trait theory, this would mean that leaders were born and not made, whilst on the other hand, the behavioural theory assumes that if it were able to come up with vital determinants of leadership, a person could be trained to become a leader (Gibson, et al., 2003; Robbins, 2001, 2006).

One of the most extensive, in-depth and comprehensive behavioural theories that has come about, has resulted in the late 1940's from research that has been conducted at the Ohio State University. The focus of this study was the effect of leadership on the performance of the

group. In their findings they have indicated that there are two major leadership behaviour dimensions –initiating structure and consideration-. Initiating structure talk about “...the extent to which a leader is likely to define and structure his or her roles and those of employees in the search for goal attainment” (Robbins, 2001, p. 316). Whilst *initiating structure* behaviours are basically task behaviours, involving such as scheduling work activities, defining role responsibilities, giving structure to the work context and organising work, *consideration* talks about to “...a type of leader behaviour that describes the extent to which a leader is sensitive to subordinates, respect their ideas and feelings, and establishes mutual trust” (Hersey, Blanchard, & Johnson, 2001, p. 93). *Consideration* involves behaviours that look for, help, maintain a good relationship between a leaders and followers, and respect.

Most studies that were conducted, concluded in their findings that initiating structure was usually related to effectiveness and efficiency in task performance, whilst consideration is usually considered to be associated with lower turnover and job satisfaction (Robbins, 2001). Furthermore it has been noted that there is a need to establish a balance between the two dimensions in order to satisfy both the goals of the enterprise and of the individual (Robbins, 2001). Therefore this explained that even though a leader might score high in both initiating structure and consideration, they would not always yield a positive result (Gibson, et al., 2003; Northouse, 2001; Robbins, 2001, 2006). As a result, the central task for many researchers and authors within this approach style, has been to determine how leaders optimally mix relationship and task behaviours.

At the University of Michigan researchers have also evaluated the area under leadership behaviour. They predominant focus was to understand the correlations between measures of group performance, group process and leadership behaviour (Yukl, 2006). Within their study, they attempted to identify type of leadership behaviours that would differentiate between an

effective and ineffective leader. They managed to identify a participative leadership type, a relationship-oriented behaviour and a task-oriented behaviour. Their results were much like those of the Ohio state studies- task oriented behaviours are related to initiating structure, whilst relationship orientated behaviour is related to consideration (Likert, 1967).

Blake & Mouton (1985) proposed another behavioural approach to leadership in which it made use of the eminent Managerial Grid. This managerial grid incorporates two dimension which measures the manager's degree of *concern for production* and *concern for people*. The dimensions bear an extremely similar resemblance to that of initiating structure and consideration from the leadership study at the Ohio State University, as well as the Michigan dimensions of relationship-oriented behaviour and task-oriented (Robbins, 2001).

In essence, in studying the behaviour approach, researchers have determined that leadership is comprised of basically two universal types of behaviour: relationship behaviour and task behaviour. In addition the main point of this type of approach is to understand the way in which a leader combines those two kinds of behaviours in order to complete their objectives whilst influencing their followers to do the same (Northouse, 2001). A few of the advantages that the behavioural theory possesses over the trait theory that has been found in literature is that: behaviour can be more objectively observed, behaviour can be more precisely and accurately measured and behaviour can be taught (Nahavandi, 2006). However within the behaviour theory, this style does not explain how the leader's style is correlated with outcomes of performance (Bryman, 1992; Gibson, et al., 2003; Robbins, 2001, 2006; Yukl, 2006). Yukl (2006) goes on to state that "due to missing the consideration of the situational factors that influence success or failure, researchers have not been able to establish a consistent link between task and relationship behaviours, and outcomes such as morale, job satisfaction, and productivity" (p.21). As a result, with regards to the perspective of knowledge management, in

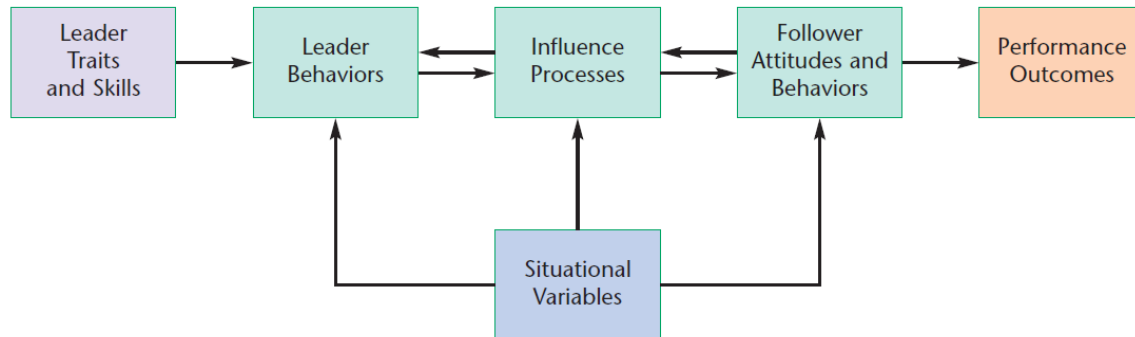
reviewing the literature the author has determined that it is extremely difficult to gain an in-depth understanding of the development of those behaviours that will produce knowledge management initiatives that are successful.

2.2.2.3 Situational Theories

The main underpinning of the situational theory, stems from the notion that a single specific style of leadership that is regarded as been better than all others does not exist (Silverthorne, 2001). The situational leadership theory makes mention of the idea that if a leader hopes to be successful and effective, that leader must be able to adapt and alter their style and approach to leadership to the specific task they are trying to accomplish, as well as the context in which the task is in. Silverthorne (2001) has stated that in order for a leader to be successful they must consider not only the task, but the individuals and group that they are trying to influence as well.

There are a few vital elements that can only function independently, and are instrumental to the understanding and implementation of the situational style of leadership; these include: follower development- which refers to developing the follower in order for them to be capable of managing their own work within the organisation; relationship behaviour- which makes mention of the amount of social and emotional support that a leader may offer to the followers; task behaviour which refers to the amount of guidance as well as direction that the followers can attain from the leader; follower readiness which can be seen within followers or employees that are accomplishing particular tasks (Yukl, 2006). This can be seen in the figure below.

Figure 3: Relationship among Situational Leadership Variables Taken from Yukl, 2006



Hersey and Blanchard (2001) developed a model of situational leadership in which it was included two dimensions, namely supportive and directive. Hersey and Blanchard (2001) stated that these dimensions could be useful according to the context at the time. Essentially they went on to state that the style that the leader would use would be dependent of the maturity level of level of maturity that the workforce possessed; however this term of maturity was changed to “readiness” as maturity was often noted to be an emotionally charged word and resulted in it being misunderstood, thus having other negative implications. These two terms of readiness and maturity are interchangeable as they are equivalent within this context (Silverthorne, 2001).

With regard to situational leadership Hersey and Blanchard (2001) have stated within their seminal work that there exists no one way of leadership and managing employees effectively. In like with their model, they posit that a leader will evaluate multiple factors, starting with the organisation in which they work, the abilities of the employees as well as their degree of readiness and lastly the environment in which the followers are working. The leader will then base on the above factors, decide on a suitable approach to leadership to adopt (Hersey and Blanchard, 2001). Yet another angle to look at this from is that the style of leadership adopted will be determined by the follower, in terms of the fact that the behaviour of the employees will have an impact on the leadership behaviour, enticing the leader to change their behaviour

in order to suit the situation. Thus if for instance an employee has a great degree of uncertainty as to how to go about accomplishing a task or unable to do, the leader will help the employee through task behaviour utilising instructions and training. However on the other hand if the employees capable of completing the task on their own the leader will then allow a degree of independence (Hersey and Blanchard, 2001). Therefore what this essentially means is that the support nature that the leader adopts, would help their followers gain a degree of comfort with their environment and themselves and the directive role that the leader assumes would assist the employees in achieving their objectives, through the leader explaining to the employees means by which tasks should be accomplished, creating time lines and establishing the roles and responsibilities of the employees (Yukl, 1989).

Follower readiness is essentially defined at the level of which a follower is able of accomplishing particular objectives and tasks that are assigned to them. This is a fundamental element is establishing whether a leader will be successful or not in a given situation (Hersey & Blanchard, 2001). In order to establish the level of readiness that is possessed by the follower a leader must evacuate the following two components. The first component is that of psychological readiness, also known as willingness, which talks about the follower's degree of motivation, commitment and confidence that a follower has in completing a task. The next is job readiness, otherwise known as the follower's capabilities. This makes mention of the skill level of the follower, as well as their experience and amount of knowledge that they are able to bring to the table (Mumford, Zaccaro, Johnson, Diana, Gilbert, & Threlfall, 2000).

As it was stated earlier, Hersey and Blanchard (2001) have spoken about the notion that the situational style of leadership, define a leader to work within one of two distinct unrelated directions, which could be either relation motivated behaviour or task motivated behaviour (Vecchio, 1987). Relationship motivated behaviour is when the leader takes time to facilitate, communicate and listen to their followers (Hersey & Blanchard, 1969). With regards to this type of behaviour a leader will rather attempt to work well with others instead of causing conflict,

even at the risk of falling behind in completing a task (Arvidsson, Johansson, Ek, & Akselsson, 2007). In addition communication that takes place is also multidirectional and involves a two way approach in which consulting, facilitating, praising, listening and collaboration takes place, all of which are supportive behaviours (Yukl, 2006). This can even go so far as to the leader failing to reprimand a follower that is disruptive, in order to avoid potentially hurting that followers feelings (Hersey & Blanchard, 1969).

On the other, hand task motivated behaviour talks about the notion of the leader assisting the follower in accomplishing particular tasks that are assigned to them (Arvidsson, Johansson, Ek, & Akselsson, 2007). The main concern that the leader has in this type of behaviour is the completion of the task, and the relation between the leader and follower is not of concern (Arvidsson, Johansson, Ek, & Akselsson, 2007). The leader believes their job to simply be telling the employees what to do, when it should be done, and how to do it. It has been suggested that this type of behaviour may have a negative impact on productivity and job satisfaction (Yukl, 2006). Thus it is evident that the morale of the group is not the leader's top priority (Arvidsson et al., 2007).

That being said, it has been posited that it would be better if the leader opted to use the relationship motivated behaviour, if they have a desire to increase the performance levels of their employees. The benefit of this approach is that it is highly suitable in situations where an impasse persists. There is a belief that an employees will be more productive if their leader is support and attempts to understand any challenges that the employee is facing at the time (Yukl, 2006). However, whilst the author has discussed these two behaviours separately, it is worth mentioning that they can be utilised simultaneously in assisting to define four crucial leadership lines with situational leadership.

Table Four: *leadership styles of Hersey, Blanchard & Johnson's (2006) Situational Leadership*

Style	Level of Task and Relationship Behaviour	Description
Style 4 (Delegate)	Low task and low relationship behaviour	Delegates- Turns over responsibility for decisions and implementation
Style 3 (Participate)	Low task and high relationship behaviour	Supporting- Explains decisions
Style 2 (Sell)	High task and high relationship behaviour	Coaching- Shares ideas
Style 1 (Tell)	High task and low relationship behaviour	Directing- Provide specific instructions

Style 1: Directing – this form of leadership behaviour is best suited towards an employee that demonstrates a low ability level and a low degree of a willingness to accomplish a specific objective (Hersey et al., 2006). Therefore the leader will opt to assume a directive role, due to the probability that the followers fear or are unwilling to attempt the tasks at hand, or that they do not possess the required level of skills in order to complete the objective. In a directive role, it is the leaders responsibility to outline the roles and responsibilities of the followers and to further supervise them when need be (Vecchio, 1987). It is imperative that the leader only rely on themselves when making a decision, and so the means of communication should always be one way so as to avoid any confusion that might arise when completing the tasks (Vecchio, 1987). The leader's primary concern must therefore not be on the relationship they have with the followers but rather the completion of the task. They should always maintain a directive stance and should make sure that not negative consequences arise from a failure in task completion (Hersey et al., 2006).

Style 2: Coaching- this form of leadership behaviour is best suited towards an employee that demonstrates a low ability level and a high degree of a willingness to accomplish a specific objective (Hersey et al., 2006). Similar to that of directing, the leader will assign tasks, define roles and responsibilities and clarify the objectives to the follower. However in addition the

leader will seek out suggestions from the followers as well (Vecchio, 1987). Yet again, as with the directive approach, the leader will still have the degree of power and will make the final decision, however communication is less one way and more multidirectional (Hersey et al., 2006). It should be noted that although these type of followers have a great deal of willingness to achieve, they fall short in terms of experience and would require the leader to not only supervise them, but offer them support, praise and to allow them to participate within the decision making process in order for the followers to sustain a high level of commitment (Hersey et al., 2006). Thus the leader will undertake the role of helping the follower gain the necessary skills and will further listen and advise the follower in order for them to work independently in future (Vecchio, 1987).

Style 3: Supporting- this form of leadership behaviour is best suited towards an employee that demonstrates a high ability level and a low degree of a willingness to accomplish a specific objective (Hersey et al., 2006). A leader should only make use of this style of behaviour when they are certain that their followers are capable of performing the task, however they are unwilling to do so. A leader should then concern themselves with discovering ways to which they can enhance their follower's level of commitment and drive to work (Hersey et al., 2006). Thus it is in the leader's best interest to praise, encourage and listen to their followers in order to foster their desire in completing objectives (Vecchio, 1987).

Style 4: Delegating- this form of leadership behaviour is best suited towards an employee that demonstrates a high ability level and a high degree of a willingness to accomplish a specific objective (Hersey et al., 2006). A leader may decide to use this approach to leadership only when they know that their followers have both the capabilities necessary as well as the commitment for the task at hand (Vecchio, 1987). In this approach, the power to make decision still rests with the leader, however the leader grants a high level of trust to the followers, that the task assigned will be completed. Therefore there is no need for the leader to supervise, instead it is the responsibility of the follower to report up to the leader (Hersey et al., 2006).

Lastly, although these types of followers do not need constant praise, it is always advisable to acknowledge good work (Vecchio, 1987).

In order for a leader to be able to apply the situational style of leader efficiently, they need to make certain that they employ effective leadership actions, select the appropriate leadership style for the given situation, use suitable organisational leadership abilities and account as well as identify the activities that are occurring. In addition it is the responsibility of the leader to influence the organisations climate by motivating the followers, persuading communication and by leading the group towards change (Hersey et al., 2006). The four approaches to leadership behaviour that bare mentioned above occur due to this interaction (see *Table Three: leadership styles of Hersey, Blanchard & Johnson's (2006) Situational Leadership*).

However, although this model developed by Hersey & Blanchard (1969) of situational leadership is employed vastly within the military setting and by various other enterprises, research is yet to have steadily sustained it. This could be seen in one such research study conducted by Silverthorne (2001), in which the researcher attempted to illustrate a relation between the theory of situational leadership and productivity within the organisation. Due to the fact that the global economy is continuously changing, the researcher's primary concern was to evaluate whether a leader would be able to adjust and adapt rapidly to numerous situations. This study was conducted in a number of business contexts in order to allow different impacts from climate and the organisation itself (Silverthorne, 2001). From the findings it could be seen that as the environment changed, so did the style of leadership. In addition other variables also came into play, such as stress which impacted the employee's productivity (Silverthorne, 2001).

Another study made an evaluation into the situational leadership theory that was established by Hambleton & Gumpert (1982). It looked at testing the effect of two fundamental approaches to leadership, specifically adaptive and non-adaptive on the productivity of employees. In

conducting this research, the author measured unit production, turnover, absenteeism and profitability as it was hypothesised that there would be some sort of association between productivity and the leadership style adopted. Silverthorne, (2001) could not demonstrate a strong positive relation, however he mentioned that the situational leadership theory is quite prevalent in such areas as project management and health care.

2.2.2.4. Contingency Leadership Theory

The theory on contingency leadership is by itself its own theory as developed by Fiedler (1974), however in addition to that it all lends itself to the situational theory, in that its model, in addition to dealing with the leaders traits, considers any situational variables that play a role as well. Fiedler (1974) sort to distinguish between leaders by dividing them into two groups- favourable and unfavourable-.He did this by evaluating the leaders least favourable colleague thought he use of the LPC (least preferred co-worker) scale which comprises of 8 bipolar point adjectives. It was that the a leaders effectiveness would be dependent on an interaction that takes places between these two factors – relationship motivated or task motivated- (Fiedler & Chemers, 1984). He went on to state that a leader that scored high on the LPC scale, valued maintaining good relations with their co-worker as opposed to one that scored low that would rather value task completion (Fiedler, 1974)

Fiedler (1974) made mention of his belief that relationship and task motivation were dependent on the ability of the leader to forecast the outcome of the group which is also known as situational favourability. This concept additionally is dependent on three conflicting variables; firstly is that of leader member relations, which makes mention of how the leader views the follower in terms of being cooperative. A good relation would be illustrated by trust, loyalty and likeness as opposed to a follower that would be exhibiting argumentativeness towards the leader. Next is that of follower-task structure, which makes mention of whether or

not, or the degree to which the task that is being completing has a highly standardised procedure set out to it a long with strict performance evaluation measures. A high level of structure would indicate that the leader has a lot of power and that there is little to no room for alternative solutions. This is due to task being set out clearly. Thus the opposite will occur when tasks are vague and thus the power of the leader will diminish. Third and last, is leader-position power which makes mention of how the followers view the leaders authority. This can be in the form of reward or punishment and assesses whether the followers choose to comply with the decisions of the leader (Vroom & Jago, 2007).

The interaction that take place between these three variables in turn create eight situational types that Fiedler (1974) tested the effectiveness of these two types of leadership in. he found that each leadership type would outperform the other four out of the eight times. He continued to state that the characteristic of leadership motivation is not one that can be altered easily and that whether a situation is favourable, unfavourable or even moderately favourable would depend on the situational factors at hand. Thus if the organisation wishes to attain effective groups, the leader needs to be match to the situation (Vroom & Jago, 2007).

A situation in which a leader demonstrates a great deal of power couple with tasks that are clearly defined, along with relationship between the leader and follower that are strong, is viewed as being favourable. On the other hand, a situation in which the leader does not maintain a lot of power, they do need define tasks clearly and they give little concern to the relations they have with their followers will be viewed as unfavourable. Between these two instance lies the middle ground of moderately favourable (Fiedler & Chemers, 1984). As a result, each situation well be best suited to a leader that each scored high or low on the LPC scale.

Although there is a great deal of research and vast mete-analysis that has supported this model and its hypotheses to a certain extent, there is a need that more studies be done in order to

clarify and fix any theoretical and methodological issues with this model that still persist. However whilst this model might have its flaws, it has been regarded by many such as Vroom & Jago, (2007) as a great contribution by Fiedler and his co-workers, that has brought about the consideration of personal as well as situational facets within the theory of leadership.

2.2.3. Transformational and Transactional Leadership Theory

Due to earlier versions of leadership theories, a groundwork has been laid that has helped us understand the concept of leadership better. In addition it has paved the way for the construction of a new versions of effective leadership styles, such as transactional and transformational leadership theory. With regards to the old approaches to leadership, it was viewed as management, with the primary focus of it on learning within the organisation and the leader's vision. However now with regards to the new approach to leadership, its primary focus lies in motivating, inspiring, creating commitment and encouraging followers to exert extra effort in their work. The next section presents the reader with an overview of transactional and transformational leadership theory.

Transformational leadership

Within the past 20 years there has been great innovation and transformation within organisations thus raising immense concern (Bass, Jung, Avolio, & Berson, 2003; Coad & Berry, 1998). Therefore leaders across the globe are frantically attempting to change processes as well as organisational structures in order to cope with this evolution. These efforts involves acts such as re-structuring, refocusing, re- engineering, innovation, and downsizing. All of these acts however require a strong base of leadership. Consequently, leadership had to evolve as well, and it did so, by making a movement from knowledge and information gate keeping, to that of knowledge creation and knowledge sharing for the followers (Politis, 2002). As a results, those leaders who may guide the enterprise towards innovation is more likely to illustrate a

transformational leadership style (Bass & Avolio, 1993; Howell & Avolio, 1993).

Since then, many authors have come up with their own definitions of what transformational leadership is. Many of these definitions differ but are complementary as well. Transformational leadership has been defined by Burns (1978) to be a process in which there is a pursuit for a common goal. This is done through tapping into both the followers and the leader's motive bases in order to achieve the intended change. A follower is more often not driven by moral needs; they seek to be a champion of a specific cause and to focus on taking the higher honourable stance on a topic. Burns (1978) postulates that if a leader focusses on these needs of the follower, they in turn demonstrate accountability for them. It is suggested, that followers prefer to feel like a greater spiritual mission of the organisations is guiding their motives (Tichy & Devanna, 1986). Therefore it is postulated by Bass, Avolio, and Goodheim (1987) that followers are motivated by transformational leadership to work towards achieving transcendental goals as well as a greater level of self-actualising needs instead of simple exchange relationships. These definitions illustrate that by adopting a transformational leadership style, the leader will create a complex vision for the organisation that will in turn alter the cultural values of the employees, thus leading to an eventual greater level of innovation.

Transformational leadership is viewed by Yukl (2006) in terms of the effect that the leaders has on the follower. Yukl (2006) states that if a follower respects the leader, demonstrates loyalty and respect, as well as feels a high level of trust, then this follower will go above and beyond in order to do more than what they were initially expected to do. A transformational leader "seek to raise the consciousness of followers by appealing to higher ideals and moral values such as liberty, justice, equality, peace, not to baser emotions such as fear, greed, jealousy, or hatred" (Yukl & Van Fleet, 1992, p. 176). Such a leader will illustrate inspirational motivation, intellectual stimulation, individualised consideration and idealised influence. The above mention four factors are the fundamental elements of transformational leadership and are

defined (Bass, 1997; Bass & Avolio, 1990) as indicated:

- (a) *Idealised Influence*: these leaders act as firm role models for their employees; they are highly trusted, admired and respected by the employees (Northouse, 2001). Such a leader is highly competent, persistent, self-confident and is often willing to take calculated risks. In addition, these leaders will often illustrate a high degree of moral and ethical conduct and will not use their power and position in order for personal gain (Bass, 1997)
- (b) *Individualised Consideration*: a leader with these type of trait will make an effort to establish a climate that is supportive, and one in which they are able to give employees attention individually. These types of leaders strive to share and listen to the concerns of the followers whilst actively attempting to build the confidence level of the employee (Avolio, Waldman, & Yammarino, 1991; Bass & Avolio, 1990). This type of leader looks at the needs of the employee, and the mission of the organisation and links the two; and further raises the employees needs when it is suitable (Bass, 1985, 1990, 1997).
- (c) *Intellectual Stimulation*: a leader that exhibits this type of trait will inspire the followers to be innovative and creative, and to further experiment with their own values and beliefs as well as the value and beliefs of the organisation and leader (Avolio, et al., 1991; Northouse, 2001). This type of leader will promote careful problem solving, rationality and intelligence (Bass, 1990; Northouse, 2001). Consequently the employees are advised to attempt to find new and innovative ways of deals with any issues within the enterprise.
- (d) *Inspirational Motivation*: a transformational leader will essentially look to motivate and inspire their employees through the promotion of meaning and challenges to their

employees by utilising images, symbols and language (Bass, 1997). This type of leader will attempt to involve the follower in envisioning the future of the enterprise. In addition the leader will set out expectations for the employee that is extremely clear and that the employee actually wants to meet, and the leader will often illustrate their level of commitment to the organisation (Avolio, et al., 1991).

It is quite evident that the point of transformational leadership is to develop the followers and enable them in reaching their full potential (Bass & Avolio, 1993). Bass (1990) states that “transformational leadership as going beyond the focus on the exchange between leaders and followers to a broader view that elevates the interest of employees, stimulates employees to look beyond their own interests to what benefits the group, and encourages employees to accept the organisation’s missions as their own” (p.33). In addition, as opposed to transactional leadership, the transformational style of leadership “originates in the personal values and beliefs of leaders, not in the exchange of commodities between leaders and subordinates” (Podsakoff, MacKenzie, Moorman, & Fetter, 1990, p. 649). It has been contended by Bass (1985) that a leader incorporating the transformational style, will usually function from their value systems that are deeply engrained, such as integrity and justice. These types of leaders are usually highly trusted by their followers as they always demonstrate concern for their organisation and the employees. Furthermore they always attempt to encourage the employees to look for innovative ways of accomplishing their jobs which result in intellectual stimulation as well as inspirational motivation (Bass, 1985). Therefore a transformational leader is capable of generating a higher level of effort, productivity and creativity.

The groundwork of transformational leadership is based on the general discontentment of the current situation. Thus a transformational leader has their focus on establishing a new vision for the enterprise. In addition, as the transformational leader attempts to change the enterprise, they are attempting to build a new and even better organisational climate (Bass & Avolio, 1993;

Masood, Dani, Burns, & Backhouse, 2006). They transformational leaders do this by must gaining an in-depth understanding of the current climate and then re-aligning it to fit in with the new mission and vision of the organisation (Bass, 1985). In a similar contract, it is the belief of Tichy and Devanna (1986), that the power of transformational leadership lies in the leader's ability to visualise the organisation. It enables them to then illustrate the need for change and subsequently transform the enterprise. They are further able to articulate the vision, illustrate assurance in their capability to realise the vision and persuade the followers of the practicability of the vision (Bass & Avolio, 1993; Chelladurai, 2006; Tichy & Devanna, 1986).

By encouraging the employees to seek out creative and innovative means in accomplishing tasks and achieving the vision of the enterprise, the transformational leader fosters a new climate, in which the focus lies in creative change instead of sustaining the current situation (Chelladurai, 2006; Tichy & Devanna, 1986). These leaders make it their personal responsibility to develop their followers (Bass & Avolio, 1990), which is why Tichy and Devanna (1986) have stated that they seek support and resources. Subsequently these leaders often push their employees to participate in educational program, in order for them to enhance their capabilities and achieve their full potential.

However, transformational leadership is often seen more in the higher levels of the organisation. This is also specific to organisations that seek leaders that have the ability to implement to change and improve the organisational units. However a transformational leadership should not be understood to be a replacement for any other leadership style, such as that of transactional leadership (Avolio, et al., 1991). Many authors have stated that it is important to note that transformational leadership does not in any way diminish transactional leadership; instead it builds upon it, widening the leaderships focus on efforts and performance as well (Avolio, et al., 1991; Bass, 1985, 1990; Howell & Avolio, 1993; Robbins, 2006).

Transactional Leadership

Numerous researchers have stated that the most riveting leadership theories, such as that of the path-goal theory, Fielder's model and the Ohio State studies, believe in the perspective that all leaders transact with their team members (Bass, 1985, 1990; Chemers, 1984; Robbins, 2001). In contrast to that of transformational leadership, a leader that adopts a transactional style will base their leader-follower relationships on bargains and exchanges that will allow every follower to achieve their own goal (Bass, 1985, 1990). Within these type of exchanges, the transactional leader will elaborate of the role the follower is supposed to do, as well as the objectives that they must achieve, in order for them to achieve their own goal as well as the mission of the enterprise (Kuhnert & Lewis, 1987). It is postulated by Howell and Avolio (1993) that both the follower as well as the leader will reach a consensus on the reward that the follower will receive provided they achieve the level of performance that was previously agreed upon.

In realm of practice, a transactional leader will communicate to the follower as well as define what they need to do, how they should do it and the rewards that the follower will receive upon completing the specific task successfully. As a result, this means that the followers have a clearer understanding of what is expected of them as it will be set out by the leader. Furthermore the followers will be motivated to accomplish the expectations set as the transactional leader would have clarified the standard of performance that is required as well as the reward that goes along with it (Avolio, et al., 1991). Such rewards may range from better work assignments, praise and recognition, pay increases and satisfactory performance ratings.

According to Bass (1995, 1997) that are numerous sorts of behaviours that are intrinsic to transactional leadership.

- a) Contingent Reward: the leader will issue the follower a reward if the follower

accomplishes certain tasks. The reason behind this is to reinforce positive behaviour and discourage negative performance.

- b) Management by exception: The leader will ensure that the current state of the organisation is sustained and will only intervene if the employee does not perform according to the required standards. This form of behaviour will include a degree of monitoring the employees and the use of corrective measures, in order to ensure that the objectives are always met.
- c) Laissez- Faire: This is the absence or avoidance of leadership. The leader will avoid making decisions or taking any sort of responsibility for their actions.

Burns (1978) was of the notion that leadership could be viewed not only as a transformational process, but a transactional one as well. The transactional leadership style, similarly identified as managerial leadership, has its focus on roles of group performance, organisation and supervision. The leader that adopts this style of leadership is concerned with attaining cooperation from their followers through the means of reward and punishment (Dessler, 1999). In exchanging rewards for cooperation and performance the transactional leader not only manages to have the follower complete the task, but also sustains a positive relationship with the follower (Dvir, Edin, Avolio, & Shamir, 2002). Within this leadership style, leaders will opt to advance the followers needs as well as their own through the exchange of rewards and things of value (Kuhnert, 1994). However, when it best suits the transactional leader, they will gain influence from the follower (Kuhnert & Lewis, 1987). Nevertheless the transactional leader unlike the transformational leader, focuses on followers not with regards to their needs but in order to discover deviations and errors. They do not concern themselves with the development of the follower nor do they individualise the followers needs (Northouse, 2001). Furthermore the transactional leader merely attempts to keep aspects of the organisation the same instead of promoting a change like the transformational leader (Dessler, 1999). Therefore a leader will

adopt this style in situations where a project needs to be implemented in a specified manner or when there is a crisis (Dvir et al., 2002).

In addition, the transactional leader would work at the elementary level of need satisfaction, which is in line with Maslow's (1954) hierarchy of needs, by emphasising particular task performance (Humphreys, 2001). As stated above these leaders would reward positive outcomes that were previously agreed upon, or good work, but could also punish the follower if they performed poorly (Dvir et al., 2002). Therefore through the application of contingent rewards, the leader that is active would define what the goal is that the follower must achieve, and if so, what the reward will consist of (Humphreys 2001). A contingent rewards, similarly referred to as contingent positive reinforcement could be any form of recognition and praise, or could involve a promotion or raise in salary (Pierce & Newstrom, 2006). The follower will receive these when a specific objective is completed in a timely manner. Contingent rewards ensures that the followers work at the required pace. On the other hand, the passive transactional leader would avoid any corrective actions upon goal completion (Humphreys 2001).

With regards to contingent punishment, also referred to as a suspension, it will be put in place when followers fail to meet specific tasks and/or when their performance lacks quality (Dvir et al., 2002). Through the application of management by exception the contingent punishments are put in place (Pierce & Newstrom, 2006). A leader here may also take an active or a passive course. An active leader will supervise the follower throughout the process and correct any deviations during the process (Humphreys 2001). A passive leader on the other hand will wait until problems arise before attempting to fix it (Pierce & Newstrom, 2006). Transactional leadership that's style is more managerial and which is applied to basic level needs is a ground work for transformational leadership that deals more with higher level needs (Dvir et al., 2002). The following subsection will discuss the influence of both transactional leadership and transformational leadership behaviours of practices of knowledge management.

2.2.4. Leadership and Knowledge Management

the author has previously mentioned above that leadership involves a great degree of motivation, maintenance of the organisational and group climate as well shaping the objectives of the organisation. Thus is it commonly understood that it is the leader who has one of the largest impacts on the way in which the organisation deals and approaches knowledge management (DeTienne, et al., 2004). Without a leader that is effective, who will set appropriate examples, the followers will have the motivation to take part in knowledge management related programs (DeTienne, et al., 2004; Lam, 2002). An effective leader will make certain that they create conditions in which their followers will be able to exercise their knowledge manipulation abilities, so that they may contribute to their own knowledge base and thus contribute to the organisations knowledge pool (Crawford, 2005). The discussion below will involve an overview of the way in which leadership behaviours link to practices of knowledge management.

It was predicted more than a decade ago by Drucker (1992) that we would be moving into a society of knowledge which will be accompanied by the knowledge economy and industry. The workforce would migrate into a one that is dominated primarily by knowledge workers and managers would find it increasingly challenging to manage them. Drucker (2002) went on to state that “knowledge workers may have a supervisor, but they are not subordinates. They are associates” (p. 12). These new types of workers do not see themselves as just workers, rather they view themselves as professionals. They require two important needs: firstly they require formal education that will allow them entrance into their desire work place. Secondly they require continued education; the reason for this is for them to keep up to date with their knowledge and the ever changing economy, thus keeping themselves relevant (Drucker, 2003). All this considered, Politis (2002) believes this to be the reason why leader’s roles are changing from mere knowledge and information gate keepers, to an individual that can teach their

employees to create and share knowledge. Thus it is the responsibility of the leader to create or encourage such a climate in which followers will do the above mentioned actions.

The primary impediment to knowledge management practices has been identified to be organisational climate. An effective leader should thus seek to demonstrate the appropriate behaviours so as to shape the climate of the organisation into one that motivates and enables the knowledge workers to leverage, use, transfer, codify and create knowledge (Ribiere & Sitar, 2003). It is stated by Baines (1997) that one of the leader's primary responsibilities is to foster learning, both personally and for the enterprise. As mentioned above it is the effective leader that will create the environment in which the followers are able to enhance their knowledge and thus the organisation's knowledge (Crawford, 2005). Therefore it is the determination and strength of the leader that will determine how effectively an organisation will change in adopting a climate of learning and knowledge sharing and creation (Ribiere & Sitar, 2003). Subsequently it is the responsibility of the leader to ensure that once this climate of learning and knowledge management is created, it is further sustained for future organisational benefit (Bollinger & Smith, 2001; Crawford, 2005; Horak, 2001).

Within this literature review, the author believes there to be a plethora of support for the belief that there is a link between knowledge management and leadership. Eppler and Sukowski (2000) have made certain to place leadership at the very top of the pyramid of tools, processes, norms and platforms that is required for efficient knowledge management; thus they have highlighted the necessity for knowledge managers to ensure that there is a balance that is struck between providing the employees with ample time and opportunity to develop their skills and knowledge, with using urgency to motivate followers to accomplish tasks. Within his research report, Takeuchi (2001) has made mention of three ways in which an effective leader or knowledge manager needs to issue direction to the company for where they are heading with regards to knowledge management; firstly the leader needs to express a comprehensive theory of what organisation should be; secondly a leader needs to ensure that

the vision of knowledge management for the company needs to be incorporated into its objectives as well as the policy statement; lastly the leader must make the decision to which knowledge management efforts should be supported and developed, after which they will follow this strategy. A question that arises, with regards to which specific leadership behaviours would be best suited for the implementation of a successful knowledge management initiative.

Whilst there might be a limited amount of evidence that illustrates a direct relation between transformational leadership and transactional leadership to knowledge management practices, multiple studies have discovered that both transformational and transactional leadership bear a positive relation to job performance, job satisfaction, , organisational commitment, organisational innovation and learning organisation (Awamleh & Gardner, 1999; Bass & Avolio, 1990; Chang & Lee, 2007; Howell & Avolio, 1993; Lam, 2002; Ogbonna & Harris, 2000; Podsakoff, et al., 1990; Tichy & Devanna, 1986).

This can be seen in Lam's (2002) cross-national research which investigates studies of organisational learning and transformational leadership, which has indicated that transformational leadership does bear an impact on the organisations ability to engage in learning initiatives. It is accepted that transformational leader holds a strong positive relation to organisational teamwork, and further encourages involvement (Bollinger & Smith, 2001; Crawford, 2005; Horak, 2001). In essence the transformational leader will motivate the employees to think analytically, question any assumptions, derive creative observations and be inquisitive, thus encouraging these followers to break down any boundaries to learning and then to share their experiences with regards to learning with the rest of the organisational departments (Vera & Crossan, 2004).

There is also a significant relation that can be observed between transactional leadership behaviour and learning. It is believed that an organisation can improve its learning if leaders were to adopt a transactional style of leadership (Bass & Avolio, 1990; Vera & Crossan, 2004).

This is done by transactional leaders through fostering rules based means of operations, and this is done by putting an emphasis on previously instilled routines and values, as well in increasing efficiency within present activities (Bass, 1995; Bass & Avolio, 1993). Vera and Crossan (2004) have went on to state that the transactional leader promotes a degree of learning within their followers as well as the organisation, by assigning a strong value to past experiences, procedures and organisational rules. In addition to the above actions, transactional leaders provide the employees with structured systems and trainings that allow them to circulate previous learnings that will then guide future decisions and actions

The most pertinent studies to the research investigation of this thesis are the recent studies that have been conducted by Politis (2001, 2002) and Crawford (2005), in which they have argued the point that there is a relation between transformational leadership/transactional leadership and knowledge management and knowledge acquisition attributes. Within the study conducted by Politis (2001), five styles of leadership which include, initiating consideration and structure (Stogdill, 1974), transformational and transactional leadership (Bass, 1985) and self-management leadership (Manz, 1986) have been evaluated and tested in order to determine their relation to knowledge acquisition attributes. What was discovered by Politis (2001) was that transactional leadership, transformational leadership and self-management all bear a seemingly strong positive relation to knowledge acquisition attributes. In a similar fashion with particular reference to transactional leadership, Crawford (2005) discovered there to a strong relation between management by exception and contingent reward to that of knowledge management.

Within the literature review above, the author has attempted to highlight that transformational and transactional leadership bear an impact on the implementation on knowledge management practices. The major gap that still remains is the emphasis or lack thereof that has been given to the impact that organisational climate has on transformational and transactional leadership and knowledge management (Block, 2003; Chang & Lee, 2007; Ribiere & Sitar,

2003). As it has been mentioned, the process of leadership cannot be separated from the wider situation in which the organisation and leader operates (Chemers, 1984; Northouse, 2001). If the correct climate that is not in place or supportive, effective leadership will be near impossible as it is the climate that determines to a large extent what the leader will do and how they will do it (Fairholm, 1994). Within the sections to follow, organisational climate as well as its relation to both transformational and transactional leadership as well as to knowledge management will be elaborated on in detail.

2.3 Introduction To and Rationale for Studying Organisational Climate

Organisations that demonstrate high performance have particular measurable characteristics within their climate (Watkin & Hubbard, 2003). They often state that “research has also shown how organisational climate can directly account for up to 30 per cent of the variance in key business performance measures”. This was reinforced by studies that investigated “the relationship between how employees describe their work environments and the relative performance success of those work environments” (Wiley & Brooks, 2000, p. 177). Within this study, one of the findings was that employees would feel more productive and energised within their working environments if certain leadership and organisational practices were present (Wiley & Brooks, 2000, p 177). It was found that in order to attain a better level of customer satisfaction and a stronger long-term business of the organisation, employees need to be more productive and energised (Wiley & Brooks, 2000).

It is postulated by Watkin and Hubbard (2003) that the climate within the organisation does bear an impact to the performance of the organisation because it serves as an indication of how energised the employees are within the environment in which they work within. There is clearly more to an organisation’s performance than an “energised employee” or the presence of certain “organisational and leadership” characteristics. However, the productivity level of an employee is also dependent on their morale, which in turn dictates the level of effort the

employee puts into their work, or their willingness to 'go the extra mile'. This is unlikely to take place if the employees experience a level of insecurity (Wiley & Brooks, 2000).

The concept of organisational climate, as well as its role and value within an organisation as well as its impact on numerous organisational outcomes have been investigated for more than 50 years. An organisation that is able to create an environment in which their employees feel cared for and perceive that they are able to reach their full potential, will be regarded as one that bears a massive competitive advantage (Watkin and Hubbard, 2003). Therefore, it can be stated that organisational climate is a key factor within successful organisations.

Defining organisational climate

The term "climate" has been for the most part, associated with the study of meteorology, and precisely wishes to measure, describe and observe the numerous physical characteristics of the atmosphere such as changes in season, temperature, rainfall and alike (Gelfand, 1972; Gray, 2007; Matulovich, 1978). When this concept of climate is linked to that of organisation, it becomes far more complex due to the fact that it is no longer as simple to measure and observe it as it is changing constantly as such is not necessarily persistent (Gelfand, 1972).

Several researchers define organisational climate on the basis of their perspective on how climates are moulded. There is an evident distinction between researchers that define organisational climate by highlighting its objective characteristics as opposed to those that define it by emphasising its subjective elements. It is described by According to Johannesson (1973) that authors that take an objective frame of reference approach the measurement and definition of organisational climate in terms of objective and actual indices such as employee ratios, organisational rules and levels of authority. On the other hand, many if not most authors operationalise the notion in terms of participant perceptions, in which a participant or employee will indicate the degree to which certain variable describe their work situation.

It is the belief of James and Jones (1974) that if we wish to be able to fully measure and examine this concept; we first need to be able to define it. Definitions of organisational climate from these diverse approaches will now be described. One of the very first and probably most commonly acknowledged definition (based on citations) of organisational climate (James & Jones, 1974; Johannesson, 1973; Moran & Volkwein, 1992; Woodman & King, 1978) comes from that of Forehand and Gilmer (1964) who described the concept as a set of characteristics that defines an organisation, may affect the employee's behaviour, is moderately durable over time and differentiates it from other organisations.

Organisational climate is defined by Gregopoulos (cited in Campbell et al., 1970) as a normative structure of behavioural standards and attitudes that serves as a basis for the interpretation of a situation and further acts as a source of pressure for directing activities. It is stated by Litwin and Stringer (1968), that the organisational climate concept was developed from the application of motivation theories to behaviour in organisations. The purpose of this was in order to explain employee behaviour by describing the effects of organisational life and organisations on the levels of motivation of the employees within the firm. What is highly intriguing is that the individual's level of motivation is actually the perception of that individual's expectancy of achieving a particular goal as well as the incentive attached in achieving that goal.

It is stated by Litwin and Stringer (1968) that the definitions previously mentioned do not take into consideration the role of the perceptions of the individuals of these properties. They go onto describe organisational climate as a set of measurable properties of the working environment which is perceived indirectly or directly by the people who influence their behaviour and motivation. This is built on by Tagiuri and Litwin (1968) who emphasise the degree of importance of perceptions in attempting to define organisational climate. They state that employees of the organisation are the ones that interpret organisational climate and it is

their attitudes that are affected by it. Tagiuri and Litwin (1968, p. 8) define the concept in as such : “Organisational climate is a relatively enduring quality of the internal environment of an organisation that (1) is experienced by its members, (2) influences their behaviour, and (3) can be described in terms of the values of a particular set of characteristics (or attributes) of the organisation.”

It has been described by Friedlander and Margulies (1969) that organisational climate is in fact a dynamic phenomenon that could constrain, facilitate or release the technical or human resources within an organisation. They go onto state that this dynamic phenomenon can be described as mainly interpersonal and social, which has an effect on the employee’s sense of involvement with the technical task they are currently busy with. Thus, it is stated that in order for us to attain a greater and deeper level of understanding of the concept, it is vital that one starts considering the properties pertinent to organisational climate. This in turns means that organisational climate is in fact a set of attributes that is particular to the specific organisation and that it may be brought about from the manner in which the firm deals with their environment and employees. Therefore, Friedlander and Margulies (1969) postulate that, climate defines the organisation in terms of behaviour and static outcome contingencies.

It has been stated by Schneider and Hall (1972) that organisational climate exists within the individual’s perception of what their organisational environment is. The characteristics of the organisation as well as various characteristics of the individuals is what shapes these organisational environmental perceptions. In a similar fashion, Pritchard and Karasick (1973), using previous authors, integrate various definitions of organisational climate and state that it is a moderately durable quality of the organisation’s internal environment, which distinguishes it from other companies, and is a result of the policies and behaviour or the organisational members, specifically the top-level management. The members of the organisation perceive the above as a basis for interpreting situations and furthermore acts as a source of pressure for directing activity.

In line with the above mentioned definition, it has been postulated by Schneider and Snyder (1975) is in fact the summary, overall or global perception that the members of the organisation have regarding their environment. According to Schneider and Snyder (1975) members will perceive their organisation in numerous different ways, which is dependent on the information that is available to them or on their particular situation. In this manner, organisational climate may be defined as personalistic (Schneider, 1975) in which what is most important to the member is the manner in which they perceive the organisation instead of how others describe it.

2.3.1 Assessing Organisational Climate

It has been succinctly summarised by Cloete (2011) that there is a difference that exists between organisational culture and organisational climate. Cloete (2011) has highlighted these differences by stating that organisational climate is described as the experiences and events that represents the member's patterns of behaviour, wherein organisational culture is described as the question of why these patterns of shared values, common assumptions and beliefs exist. Within the literature, there has been a plethora of research that has been conducted on organisational culture as it is deeply rooted in the organisation and is based on employees' assumptions, values and beliefs. This is different to organisational climate in which it is a "snapshot" or a specific moment of time of the organisation and is usually measurable by using different dimensions.

However, that being said, it is important to note that organisational culture and organisational climate are often used interchangeably, within many authors within the field that treat the two concepts as neatly identical. Upon researching both concepts, it can be seen that they are quite similar. Both concepts allow us to better understand the psychological phenomena within

certain organisations, describe employee experiences, issue us with a better understanding of the manner in which organisations influence behaviour, well-being and attitudes of the employees, the reasons of why particular organisations are more successful than others and lastly why and how some organisations are much able to much better adjust to their external environment (Castro & Martins, 2010).

Amongst the numerous conceptual frameworks that evaluate the diverse range of dimensions of organisational climate, Denison and his colleagues (Denison, 1990; Denison, Hooijberg, & Quinn, 1995; Denison & Mishra, 1995; Fey & Denison, 2003), through their sequence of research studies have recognised and authenticated four dimensions of organisational culture that we can be applied to organisational climate (Castro & Martins, 2010), such as consistency, mission, adaptability and involvement. Whilst there has been a limited amount of research that has been conducted with regards to these above mentioned dimensions and knowledge management, after evaluating the literature the author has concluded that does appear as if a general relation does exist between these dimensions and knowledge management within the enterprise. The sub sections below go into detail as to why the author has stated that a relation does exists

Involvement

In order to achieve and level of effective knowledge management within the organisation, there has to be a climate that promotes and rewards the development and usage of knowledge, as well as the sharing of this knowledge amongst the individuals and teams that operate within the enterprise (Davenport, et al., 1998; O'Dell, et al., 1998). However this is rarely seen in reality. More often than not, an enterprise will create an atmosphere in which an individual's expertise will be highly rewarded, however activities of assisting and mentoring are neglected (Leonard & Sensiper, 1998).

The term involvement is described as the degree of participation that members of the enterprise other than leadership, has in the decision making process (Denison, 1990; Denison & Mishra, 1995). It is more often than not viewed as a highly desirable trait of the enterprise. An organisation that displays this trait is viewed as having a “clan” like characteristic other than your usual bureaucracy (Ouchi, 1980). Employees look for this trait within organisations as it gives them a sense of responsibility and ownership (Ouchi, 1980). From this sense of ownership, the employee is said to grow a greater degree of commitment towards the organisation and thus there is a lower requirement for an overt system of control (Denison, 1990). Hence why knowledge creation and sharing is highly encouraged (Kayworth & Leidner, 2004). In addition it was found in a study on intranet adoption by Ruppel and Harrington (2001) that within an enterprise that displays a high concern for other people as well as knowledge sharing, the use of intranet is much more prevalent.

Moreover, studies have shown that when there is a high level of interaction among members of the organisation, innovation is positively impacted (Davenport & Prusak, 1998; De la Mothe & Foray, 2001; Nonaka, 1994). The basis of idea development and creation is dialogue, hence why interaction amongst members can be seen as having great potential for knowledge creation (Gold, Malhotra, & Segars, 2001). Interaction between employees within high involvement climates, both informally and formally is highly encouraged, so that perspectives, contacts and relations can be shared by those that do not work side-by-side (O'Dell, et al., 1998).

In essence, involvement is an essential element of knowledge management at every step, due to the notion that the primary objective of knowledge management is to turn one's personal knowledge to organisational knowledge, in which a precondition is individual involvement. To state in other words, in order to achieve effective knowledge management within the enterprise, there has to be a high degree of involvement. Managers should make certain that they understand this concept as it should be used in shaping the climate of the enterprise.

Consistency

It is accepted quite widely that a knowledge community is included within the phenomenon of knowledge management and involves the interaction of people in the manipulation, use and discovery of knowledge (Thomas, et al., 2001). Therefore in order to achieve effective initiatives of knowledge management, the organisation requires behaviours from members that is parallel to its values. The concept of consistency is referred to as the degree to which expectations, values and beliefs are held by members in a consistent manner (Denison & Mishra, 1995). The notion of climate consistency runs parallel to the notion of a strong climate in which it is characterised by how consistent its members are in sharing the values of the organisation (Denison & Mishra, 1995).

In an enterprise with a strong corporate climate, the members of the organisation, work from a mutual framework for beliefs and values that form the foundation through which they interact. Due to the notion that communication is essential the act of symbol manipulation, “a high level of agreement about the meaning of each symbol greatly enhances the encoding-decoding process necessary for communication” (Berger & Luckmann 1967, as cited in Denison, 1990, p. 9). Therefore a strong corporate climate will ensure that there is greater potential for control of behaviour and implicit coordination and it further facilitates information exchange (Denison, 1990).

Adaptability

In order to maintain a competitive advantage, means that an enterprise is not only open to the idea, but rather goes and seeks various means of competitive advantage, doing so quickly whilst also incorporating them successfully into its own repertoire. Adaptability refers to the level in which the enterprise has the capability to change its member's behaviour, as well as the systems and structure of the organisation in hopes of staying afloat in the face of

environmental alternations (Denison & Mishra, 1995).

The notion of adaptability is much like that of change friendliness, flexibility and entrepreneurship. It has been detected by Brockman and Morgan (2003) that there exists a strong relation between innovation and entrepreneurship. It is perceived that entrepreneurship is a climate characteristic that incorporates the need to favour change and innovation in order to gain a competitive advantage, to be proactive with regards to competition and the inclination to take business related risks. In a similar fashion, a study conducted by, Young, Sapienza and Baumer's (2003) illustrated that an enterprises ability to transfer knowledge from its sellers and buyers can be enhanced by the organisations flexibility. They also noted organisational flexibility can enhance the production of knowledge.

It is posited by Deshpande and Webster (1989) that in an organisational climate that is change-friendly, the sharing of knowledge as well as the gathering of information is highly encouraged. In contrast, an organisation attempting to establish knowledge management practiced, may experience difficulty if the climate within their enterprise is highly formalised and is dependent on templates, regulations, rules and procedures for decision making (De Long & Fahey, 2000). These types of may hinder the creation of new knowledge as organisational members endeavour to address unusual issues with patterns of thinking that is fixed and might not be appropriate any longer. Lastly it is the view of Kotter and Heskett (1992) that a non-adaptive climate will be surpassed by an adaptive climate in terms of innovation, enthusiasm and problem solving.

Mission

A shared definition of the purpose of the enterprise is often referred to as the organisations mission (Denison & Mishra, 1995). What a mission actually does is to define an external goal or the organisation as well as defining social roles or its members. In addition to those mentioned,

a mission will define the role of an individual with regards to the role of the institution. From this process, behaviour is given spiritual or even intrinsic meaning that surpasses bureaucratic roles that are functionally characteristic. This process of identification and internalisation adds to the long term and short term commitment as well as leading to better performance within the organisation (Denison, 1990; Denison & Mishra, 1995).

A vision that effectively infiltrates the organisation may ensure that members have that needed sense of purpose that will transcend into the daily operations (Gold, et al., 2001). The reason for why an overall vision is needed is in order to produce a strong and clear purpose and to further prompt the changes needed within the enterprise in order for it to be successful in achieving its goals and objectives (Nonaka & Takeuchi, 1995). Not only does the vision include a statement that issues the members of the organisation an explicit and clear statement for the current and future headings of the organisation, but it also includes a system of values for the enterprise. Through a vision that is communicated and articulated correctly, it is vital to produce a sense of contribution and involvement amongst the members of the organisation (O'Dell, et al., 1998).

It has been noted by Davenport and Pruskas's (1998) that language and clarity are both vital factors of knowledge management. It is their argument that it is extremely important to be specific and make certain the terms and objectives being used with regards to a knowledge management project as the terms learning, information and knowledge can be interpreted in many ways, and one's energy and attention may end up dissipating if there exist no clear language and vision for the knowledge management project. Within Denison's mission dimension, a clear language and purpose is incorporated for an enterprises overall objectives and goals; therefore it can offer a general objective and direction for knowledge efforts.

In essence, a context for social interaction is created through organisational climate, therefore determining the process through which organisational knowledge is distributed, legitimated

and created (De Long & Fahey, 2000). A literature review that was conducted on the four climate dimensions created by Denison, illustrated the positive effect that each dimension of organisational climate had on knowledge management. It is then hypothesised that organisational climate and its dimensions of mission, involvement, consistency and adaptability will have a positive impact on the influence that transactional and transformation leadership and has on knowledge management.

2.4. Summary of Literature Review

Within this chapter, the researcher reviewed relevant literature to the field being studied in this thesis in order to form a basis for the research. The author divided this chapter into three parts. Within the first section, the concepts of knowledge management and knowledge were discussed. As mentioned above, the term knowledge has more often than not been distinguished into tacit and explicit knowledge. One is able to share explicit knowledge through the usage of media communication, but this is not the case with regards to tacit knowledge; tacit knowledge is extremely personal, difficult to communicate with others and is often difficult to formalise (Nonaka & Takeuchi, 1995). With regards to the study conducted by Nonaka and Takeuchi's (1995), in which they stated that knowledge management is essentially the process by which tacit knowledge is converted into explicit knowledge and which also includes the processes of combination, socialisation, externalisation and internalisation.

Within regards to the second part of this research study, the author made mention of approaches and the relevant definitions to the study of leadership. In general, the concept of leadership is been defined as constructing commitment, value, trust and a working environment as well as an activity that involves influencing members to achieve the goals of the organisation. When considering the historical development of leadership, the research on leadership has primarily covered traits of leadership, influence, power, behaviour and situational approaches. However with regards to this study the author wanted to focus on

transactional and transformational leadership. After having reviewed that literature the author has discovered that the literature illustrates a positive relation between leadership and knowledge management. The researcher also noted that although there has been much research on the relation between leadership and organisational climate, there has been a limited amount of research conducted on the impact of this relation on knowledge management.

Lastly the third part of this chapter evaluated the concept of organisational climate. Whilst there might not exist one universal definition of organisational climate, there is a general consensus with regards to the significance of shared values, beliefs and perception of the employees environment in a specific moment. The difference between organisational culture and climate has been briefly touched on, however it is important to note that many authors choose to use the two concepts interchangeably. In light of the organisational climate model developed by Denison, this study sees climate to have four dimensions; mission, involvement, consistency and adaptability.

The following chapter will provide this study with the groundwork in order to conduct the research and gain the necessary data. Subsequently it will comprise of discussions with regards to the measures, sample and population, ethical considerations, recommendations for future research, limitations, and research design used.

The next chapter will provide the groundwork for the research study and will subsequently include discussions relating to research design used, population and sample, measures, data analysis, reliability and validity, ethical considerations, limitations and recommendation for future research.

Chapter Three

Methodology

This chapter comprises of a description of the research methodology that was used in order to conduct this study and to further evaluate the hypotheses and rationale behind it. It was postulated by various researchers that if a research study is to sustain its purpose, it is imperative that it be able to uncover answers to the research questions that were posed (Sellitz, Johoda, Deutsch, & Cook, 1965). Therefore, this chapter is used as a means to describe the methodology that was utilised to uncover those answers. In addition, an all-encompassing description that involves the research paradigm, research design, population, data collection, data analysis techniques, instrumentation and finally a closing paragraph on ethical considerations is elaborated on.

3.1. Research Paradigm

Guba and Lincoln (1994) have stated that a paradigm is essentially a set of “basic beliefs”, and that a researcher needs to be able to identify the relations between constructs, specify suitable method for conducting certain studies and understand the nature of reality. Within the field of social sciences, there are numerous paradigms that one may adopt, such as, Positivism, Post-Positivism, Realism, Constructivism and Critical theory (Gray, 2004).

Positivism which is often referred to as “science research”, or more commonly “scientific method”, and is “based on the rationalistic, empiricist philosophy” (Mertens, 1998, p. 8) and “reflect[s] a deterministic philosophy in which cause probably determine[s] effects or outcomes” (Creswell, 2003, p. 7). This particular paradigm is of the notion that universal laws and truths govern one reality. Thus, a research study that incorporates this paradigm assumes itself to be independent and objective. The approach this paradigm takes to solving a problem

is to formulate a hypothesis that is subjected to empirical testing by means of a quantitative approach (Buttery & Buttery, 1991). A researcher opting to use a positivist paradigm will look at reality to be measurable with no error and apprehensible as well as making use of rigorous and exact measures (Neuman, 2006). It is for this reason that this paradigm was not utilised as it is believed that it is not suitable for a study that involves constructs within a real life, social and complex experience.

Another paradigm often used in the social sciences field is the post-positivist paradigm. It was developed in response to the disadvantages posed by the positivist's paradigm (Guba & Lincoln, 1994). It argued that even though a real world needs to be discovered, this very real world is independent of the researchers and is furthermore exposed to various perceptions (Easton, 1998). In addition these various perceptions are not reality, instead they are merely lenses through which a better image of that reality may be obtained. In other words, the emphasis of post positivism lies in that multiple observations and measures are important, and each of these might hold various forms of errors. Across these numerous erroneous sources, triangulation should be applied, so that a better image of what is truly happening within the reality may be seen (Godfrey & Hill, 1995).

Within the post positivist paradigm, deductive logic is emphasised by the researcher, in which the research study is influenced by hypotheses, theory and literature which is most often illustrated in formal writing style (Onwuegbuzie, 2002). Furthermore within this paradigm, objectivity is emphasised, as the researcher fully acknowledges the possibility of bias, whilst simultaneously triangulating through various fallible perspectives (Guba & Lincoln, 1994). Based on the above mentioned description of post positivism, it may be claimed that the thesis follows this particular paradigm as it is most suitable given the context of this research study.

3.2 Research Design

In order to evaluate whether a relationship exists between transformational and transactional leadership to knowledge management, as well as if any relations exists between these above mention variables and the moderating variable of organisational climate, the researcher opted to make use of theory testing which is essentially the investigation of a theory in order to confirm or refute the theory. Creswell (2002) has stated in his research that if a researcher looks to achieve meaningful outcomes from their research, they need to be able to take into consideration the research context as well as the desired results. Therefore the research found it suitable to embark on a quantitative approach as this would allow the researcher to establish and evaluate the relationships between the two independent variables, the dependent variable and the moderating variable of the study through testing them via hypotheses (Gall, Gall & Borg, 2007).

This study comprised of four main hypotheses and various sub hypotheses in total. The relationship of transformational leadership and knowledge management involved four of these hypotheses; transactional leadership and knowledge management involved another four. An additional two hypotheses involved the relation between the above mentioned variables to the moderating variable of organisational climate. The subsequent results that were produced from the research, were used to address the hypotheses as well as any positions that were uncertain with regards to relations within the theoretical constructs that were instigated from the research questions.

Thies (2000) has noted that within research studies that have a degree of social or behavioural content, the problem with utilising a qualitative approach is that it allows an element of human persuasion to come through and thus research bias may creep into the study and compromise it. However, on the other hand, it can be seen that by using a quantitative approach to research, the research might actually be minimising the potential of bias to creep in, as this type of approach does not make use of subjective interpretation. It should however be noted

that a quantitative study does not eradicate all types of bias (Creswell & Plano Clark, 2007). What a quantitative approach actually does, is utilise numerical methods and in data collection, attempts to be objective, thus effectively distancing the researcher from the sample or respondent and thereby managing to decrease the amount of potential human influence (Cook & Reichardt, 1979, Neuman, 2003). Thus, this thesis made use of quantitative methodology that is a result of research that was conducted by well-established researchers and scholars (Bass, 1990; Bass & Avolio, 1997; Becerra-Fernandez & Sabherwal, 2001; Denison, 1990; Denison & Mishra, 1995; Fey & Denison, 2003).

Therefore, ultimately the researcher has chosen to select a cross sectional research design in which the respondents within the study were administered questionnaires (Bryman & Bell, 2011). Rousseau (1990) has mentioned that whilst the survey approach to research does bear some conceptual and methodological challenges, it is presumed that the quality of information that will be received from this comprehensive exploratory analysis will overshadow the limitations suggested that is associated with this type of methodology.

The benefit of this type of research design is that it was firstly quite inexpensive to administer, it allowed for short turnaround results and lastly created the opportunity by which the researcher could administer various surveys within the limited time frame. It has been stated that the purpose of collecting data is to disprove or prove that patterns of associations exist (Bryman & Bell, 2011). Therefore, after collecting the data, the researcher had quantified it, which allowed for the exploration of hypotheses and variables in addition to its role of minimising the potential bias to the study.

3.3 Research Questions

An essential background was provided within the literature review of chapter two of this thesis, with regards to transformational and transactional leadership, knowledge management and organisational climate. It has been noted after having evaluated various studies that leadership

proves to act as a barrier to the effective implementation and creation of knowledge management (Fairholm, 1994). In addition organisational climate, too plays a role as it creates the context for social interaction and thereby, to quite an extent is a determinant of how and what leaders do with regards to knowledge management (Fairholm, 1994). Therefore, how effective a leader proves to be depends on the organisational climate that is put into place.

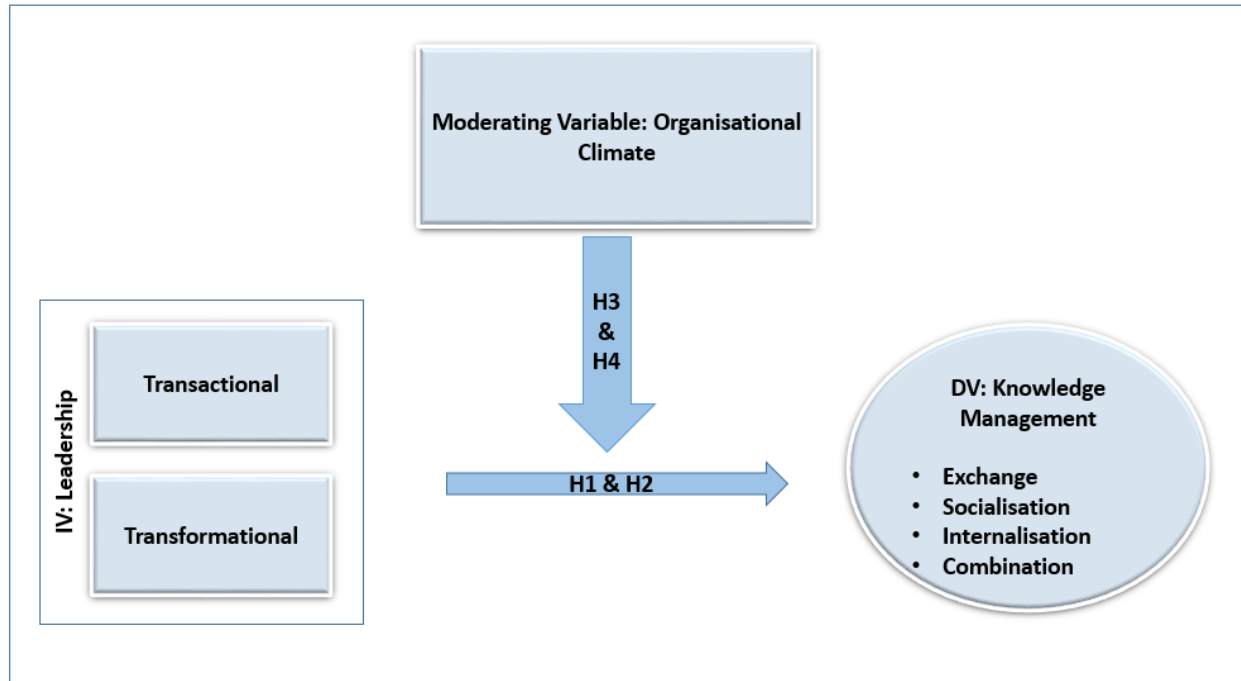
After doing an extensive background evaluation in the fields of knowledge management, organisational climate and leadership (transformational and transactional), there is evidence that supports the relation of leadership and knowledge management as well as knowledge management and organisational climate. However, it seems that evidence of a relation with regards to the combination of all three is limited and lacking. In order to fulfil this research gap, the following research questions were proposed:

- Is there a relationship between a transformational leadership style and that of knowledge management practices within a South African SME?
- Is there a relationship between a transactional leadership style and that of knowledge management practices within a South African SME?

In addition to the above primary questions, this thesis has two sub questions:

- Does organisational climate moderate the transformational relationship between leadership and knowledge management?
- Does organisational climate moderate the transactional relationship between leadership and knowledge management?

3.4 Conceptual Framework



The conceptual framework that is proposed is a broad depiction of the possible relations that may connect the four variables of transformational leadership, transactional leadership, knowledge management and organisational climate. In order to confirm the relationship between these four constructs a literature search was conducted in order to discover the theoretical evidence and underpinnings upon which the hypotheses of this study can be built on. The relations were then projected as a set of hypotheses that then answered the research questions posed. The means in which the hypotheses were developed are discussed below.

3.5 Hypotheses Development

3.5.1. Relationship between Leadership Behaviours and KM Practices

As mentioned above, the conceptual model indicates that transformational leadership and transactional leadership bear a relationship to knowledge management. However it should be

noted that this relationship is backed up by theoretical evidence, but with limited empirical evidence.

The constructs of transformational leadership, transactional leadership, organisational commitment, organisational learning, job performance and job satisfaction and their potential relations amongst each other have all been well evaluated (Crawford, 2005; Lam, 2002; Ogbonna & Harris, 2000; Vera & Crossan, 2004; Vincent, 2006; Xenikou & Simosi, 2006). In addition, a more recent study conducted by Crawford (2005) and Politis (2001, 2002) has established the groundwork for an argument in which they have stated that transformational leadership and transactional leadership behaviours are related to knowledge management and knowledge acquisition. Their studies prove to be the most relevant studies that support the researcher's hypotheses that are proposed.

In his research, Politis (2001) discovered that transformational leadership and transactional leadership bear a positive relation to certain attributes of knowledge acquisition dimensions. On the other hand, Politis (2001) uncovered that initiating structure and consideration did not have a relation to the above mentioned leadership variables and are further negatively related to knowledge acquisition attributes. Lastly it was noted that behaviours of charismatic leadership demonstrated a significant relationship of a positive nature to that of knowledge acquisition of knowledge employees. In essence, it is the charismatic leader that provides the employees with a shared vision and energy needed to share knowledge and sustain an environment for effective knowledge management practices and process (Politis, 2001)

Amongst the most explicit of Crawford's (2005) finding of his research study was that transformational leadership resembled a significantly strong and positive relationship to that of knowledge management behaviours. On the other hand, with regards to transactional leadership and knowledge management, Crawford (2005) had also discovered strong relations between contingent rewards and knowledge management, and furthermore had uncovered

that knowledge management bears a significantly negative relation to management by exception. Nonaka & Konno (1998) have stated that there are four main practices of knowledge management, namely socialisation, externalisation, internalisation and combination and it was with these practices that Crawford (2005) proved the hypotheses. These findings led to the formulation of the first set of hypotheses that relates to the relation between leadership and knowledge management.

The first two hypotheses are as following:

Hypothesis 1: A relationship exists between a transformational leadership style and knowledge management practices.

Sub Hypotheses

- 1.1 A relationship exists between a transformational leadership style and the knowledge management practice of exchange.
- 1.2 A relationship exists between a transformational leadership style and the knowledge management practice of socialisation.
- 1.3 A relationship exists between a transformational leadership style and the knowledge management practice of internalisation.
- 1.4 A relationship exists between a transformational leadership style and the knowledge management practice of combination.

Hypothesis 2: A relationship exists between a transactional leadership style and knowledge management practices.

Sub Hypotheses

- 2.1 A relationship exists between a transactional leadership style and the knowledge management practice of exchange.

2.2 A relationship exists between a transactional leadership style and the knowledge management practice of socialisation.

2.3 A relationship exists between a transactional leadership style and the knowledge management practice of internalisation.

2.4 A relationship exists between a transactional leadership style and the knowledge management practice of combination.

Although there is a limited amount of empirical work that illustrates that organisational climate has an impact on the influence that transactional leadership and transformational leadership has on knowledge management; since literature reveals there is a relation between leadership and organisational climate, it's safe to assume that organisational climate through its moderating effect can have an effect on knowledge management (Avolio & Bass, 1995; Block, 2003; Howell & Avolio, 1993; Ogbonna & Harris, 2000). It was contended by Howell and Avolio (1993) that a leader within an organisation that supports high levels of innovation, which is characterised by risk taking and openness to creative suggestions, will demonstrate a high level of performance. From their study, they deduced that a transformational leader is more likely to display a higher level of performance if they were to work within an environment that their followers described to be innovative. On the other hand, Howell and Block (2003) stated that it is imperative that these leaders be attentive to any sort of conservativeness that might be reflected in ceremonies, rites, assumptions, values and beliefs possibly embedded within the climate that may hinder change efforts within the enterprise. It is thus the duty of the transformational leader to modify certain elements of the climate and inspire the followers to follow the new direction of the enterprise that is desired by leadership.

Likewise, in a study conducted by Ogbonna and Harris's (2000), empirical evidence was produced that demonstrated the combined effect that leadership and organisational climate

has on the performance of the organisation. Ogbonna and Harris (2000) found that participative and supportive leadership has a positive but indirect link to organisational performance, through the complete and innovative type of climate. Conversely transactional or task orientated leadership has a negative but indirect effect on performance. From these findings it was deduced by Ogbonna and Harris (2000) that their findings offered support for the relationship between organisational performance and leadership, and that this relationship can be mediated through the form and nature of the organisational climate that is put into place.

Thus after reviewing the literature pertaining to these variables, it can be postulated that the degree to which a leader is effective, will depend to what extent the leader is able to create climate that supports a wide variety of strategic, stabilising and adaptive activities. What this implies is that a leader who does not have in-depth insight into the organisations climate, will not be able to lead effectively. Therefore based on the above arguments, the researcher postulates that the degree to which leadership, be it transactional or transformational leadership, has on knowledge management is dependent on the type and form of organisational climate. This presumption has thus led to the formulation of the third and fourth hypotheses:

Hypothesis 3: The strength of the relationship between transactional leadership and knowledge management is moderated by organisational climate.

Sub Hypotheses

3.4 The strength of the relationship between transactional leadership and knowledge management is moderated by a climate of hierarchy.

3.5 The strength of the relationship between transactional leadership and knowledge management is moderated by a mission climate.

3.6 The strength of the relationship between transactional leadership and knowledge management is moderated by a climate of adaptation.

Hypothesis 4: The strength of the relationship between transformational leadership and knowledge management is moderated by organisational climate.

Sub Hypotheses

1.10 The strength of the relationship between transformational leadership and knowledge management is moderated by a climate of hierarchy.

1.11 The strength of the relationship between transformational leadership and knowledge management is moderated by a mission climate.

1.12 The strength of the relationship between leadership and knowledge management is moderated by a climate of adaptation.

3.6 Research Setting

The purpose of this study is to collect the perceptions that employees of the enterprise have on the leadership, knowledge management, organisational climate that is in place. The research setting that this study is based in, is a small to medium enterprise (SME) with various offices within South Africa. Whilst there might not be a universal or official definition for SME that is widely accepted, according to the Organisation for Economic Co-operation and Development (OECD), a small to medium enterprise can be characterised as one that has less than five hundred employees (Ayyagari, Beck, & Demircuc-Kunt, 2007).

Within a small to medium enterprise, one characteristic worth noting is that decision making is often centralised at the top/owner level and additionally the hierarchy put in place may be contracted. Furthermore, formalisation of the organisational chart is very rare (Egbu, Hari, & Renukappa, 2005). Therefore, within an SME, the owner's behaviour, attitude, responsibilities, skills and personality is extremely important as it will have a significant impact on the strategy

of the organisation since the size of the enterprise is limited. Subsequently the leader of the organisation will have a critical impact in the knowledge management practices and programs that the organisation incorporates (Egbu, et al., 2005; Humphreys, McAdam, & Leckey, 2005).

Furthermore, within SMEs, since there is a lower amount of employees working, face-to-face relationships makes the people dimension easier to tackle (Temtime, 2003). In comparisons to larger organisations, the communication that takes place within SMEs business is much more informal and oral in nature (Dalley & Hamilton, 2000). Accordingly, due to the limited size of the SME, Schmidt (1990) argues that climate fit and climate in general seem to be significantly prominent and more important as they might be totally enveloped within a climate, as opposed to larger organisations where multiple climates may exist.

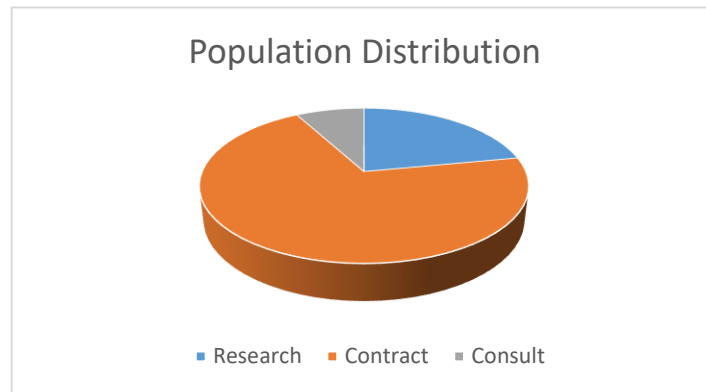
More significantly, the progress of the field of knowledge management has led to the identification of numerous factors that prove to be critical for the success of knowledge management. However, previous empirical research has focused its efforts on exploring these factors from the perspective of a large company (Wong & Aspinwall, 2005). Thus there are numerous studies that describe how larger companies are currently, successfully practicing knowledge management, whilst there are limited studies focusing on knowledge management in SME's; it is for this reason that the researcher opted to conduct this study within an SME setting.

3.7 Population

The population is a company which is an SME that was divided into three strata based on the business unit distribution in different geographical areas (namely the research, consulting, and contracting units). A random sample was drawn from each of the strata. Dividing the population into a series of relevant strata means that the sample is more likely to be representative, and each of the strata will be represented proportionally within the sample. The total population is the sum of all the business units working in within the enterprise

Shoppersconnexion otherwise stated, in units research, consulting and contracting. The total number of the employees is 500; 110 employees in research; 350 in consulting; and 40 employees in contracting.

Figure Four: *Population Distribution*



The calculation assumed that the data will be collected from all cases in the sample and is based on Saunders, Lewis, and Thornhill, (2007).

- The level of confidence in the estimate
- The margin of error that can be tolerated
- The proportion of responses that are expected to have some particular attributes

The minimum sample size $(n) = p\% \times q\% \times \left[\frac{z}{e\%} \right]^2$

Where n is the minimum sample size required

- p% is the proportion belonging to the specified category
- q% is the proportion not belonging to the specified category
- z is the z value corresponding to the level of confidence required
- e% is the margin of error required

Table 5- Population

#	Unit	Population	Required
1	Research	150	86
2	Contract	420	184
3	Consult	75	40
	Total	645	310

3.8 Sample and Sampling Method

It has been stated by Neuman (2006) that sampling methods, such as that of random assignment, comprises of a process of systematically choosing cases to include within a research study. A researcher makes use of elements, cases or samples, which are more cost effective and manageable to work with instead of a pool of all the potential samples (Zikmund, 2003). Therefore, by sampling, the researcher manages to gather vital information quickly, reduces labour requirements and cuts costs. A case or sampling element is a unit of analysis within the population. The sample that is used within this study included employees from a small to medium enterprise –Shoppersconnexion- and have worked within an organisation setting at some level. The sampling technique that was used is that of a random sampling technique which enabled this study to gain a fairly representative sample given the time frame and resources to this study. The researcher used a sample size calculator and concluded that a minimum of 310 participants needed to be involved in the study, since there are approximately 645 employees in Shoppersconnexion and the researcher wishes to maintain a 95% confidence level with a 5% margin for error. Consecutive numbers from 1-645 was assigned to every employee and thereafter using a random numbers table the employees that were required to take part in the research were selected. Since a minimum of 310 employees were needed, the researcher opted to select a higher number of candidates in the event that some were unable to complete the survey or if it were rendered invalid. A total of 450 surveys were issued, 411 surveys were received of which 405 could be used. Within this study, it is imperative that the participants have some knowledge with regards to the characteristics of the organisation and the knowledge management practices out into place.

3.9 Pilot Study Results

In order to test for reliability, validity and consistency of the survey instrument being used, the researcher opted to conduct a pilot study. An invitation was sent to the organisation Twelve Owls, via email, where employees were asked to complete a survey. Out of 50 respondents that were contacted, 18 responses were received. The email that was sent to the respondents contained a link that led them to a survey created and posted on Qualtrics.com. After having analysed the results that were generated from the pilot study, the researcher concluded that no changes had to be made to the questionnaire as there were no issues with the clarity or wording of the questionnaire. On average it took the respondent 22 minutes to complete the survey, with a range of 12 minutes to 33 minutes long.

Respondents that took part in the pilot study ranged from top level managers and workers, to IT managers and marketers as well as employees that may have had long term relations with the organisation by means of contracting. However it needs to be noted that the final study will mainly comprise of lower level employees. Thereafter the statistical programme SPSS was used to upload the data on, and test for Cronbach coefficient alpha scores. The results of the pilot study produced a Cronbach Alpha of 0.82 for the multifactor leadership questionnaire, a 0.76 score for the knowledge management survey and a 0.81 score for the organisational climate survey which confirms good reliability scores for the questionnaire. It was therefore concluded that no changes needed to be made to the questionnaire.

Table 6- Reliability Statistics of Pilot Study

Case Processing Summary

	N	%
Valid	18	100
Excluded	0	.0
Total	18	100

Reliability Statistics

Cronbach Alpha	N of Responses
0.799	18

3.10 Data Collection Method

Due to the fact that the unit of analysis within this research is the organisation- in actual fact what is being measured in the participant's perceptions of the enterprise; therefore a single form approach is seen to be the most suitable for this study. On the one hand the single form approach provides the researcher with smaller pools of participants, however on the other hand, it eradicates the possibility of skewness and bias in the results obtained, as opposed to multiform approach that's subjected to an uneven amount of returned throughout the enterprise (Thiagarajan & Zairi, 1998). Furthermore what a single form approach does is to allow for precise and accurate demographic analysis to be carried out. Therefore face-to-face deliverance and pick up of the surveys was the method of data collected used as the primary data collection method.

The actual process of collecting data commenced only after having received consent from the

organisation and ethical clearance from the university. The researcher personally delivered the questionnaires to the organisation –Shoppersconnexion. The primary method of data collection as stated above was utilised, because it allowed the researcher to oversee matters such as anonymity, confidentiality and maintain a high response rate. A total of 450 surveys was issued to the enterprise and the researcher required a minimum of 310 to be returned within the time frame that was allocated for data collection, which means a response rate of 69%. Due to the researcher having a long-term relation with the owner of the company, the data collection process took place in a time frame of two weeks. . A total of 411 surveys were received of which 405 could be used. This then gave the researcher time to verify and enter the data into the statistical programme- SPSS.

In addition to the above method of data delivery and collection, the researcher opted to email employees within the organisation in order to remind them to complete the survey before the deadline that was conveyed.

Lastly the reason for why the researcher opted to only focus on primary data was due to the belief that various employees will hold different perception's on the leadership, knowledge management and organisational climate within the organisation. Primary data eliminates this by making sure the researcher is able to assess original perceptions of the employees.

3.11 Research Instrumentation

A quantitative research design was employed for this research. As a result of research that was conducted by well-established researchers and scholars (Bass, 1990; Bass & Avolio, 1997; Becerra-Fernandez & Sabherwal, 2001; Denison, 1990; Denison & Mishra, 1995; Fey & Denison, 2003). With regards to the time requirements and time frame, this type of approach produced minimal disruption to the functioning of the organisation. Whilst using this approach the researcher may not be able to analyse the deepest levels of the organisations climate, as

explained by Schein (1992); it will however be able to allow the researcher to analyse the respondent's perceptual realities. In addition, since attitudes and behaviours are determined by the perceptions of the actors reality and not actual objective reality (Ashkanasy, Broadfoot, et al., 2000), it would make more sense to focus on the perception instead of the reality, which is what this approach does. Lastly it is the assumption of the researcher that by using measurements tools that are well known, the researcher will have a greater opportunity to supplement the exist body of literature.

Therefore, self-administered questionnaires were used to gather data on four variables: transactional leadership, transformational leadership, organisational climate and knowledge management. The items used within the survey were adopted and adapted from instrumentation that was used in previous studies. The questionnaire also received ethical clearance from the University of Witwatersrand and the ethical committee. The survey compromises of four sections:

- (1) Multifactor Leadership Questionnaire (MLQ – 5X Short Form) (Bass & Avolio, 1997).
- (2) Denison Organisational Climate Survey (DOCS) (Fey & Denison, 2003).
- (3) Knowledge Management Practices: An Assessment Questionnaire (Sabherwal & Becerra-Fernandez, 2003).
- (4) Background information pertaining to the enterprise and participants.

3.11.1. Multifactor Leadership Questionnaire (MLQ – 5X Short Form)

Within this study the independent variable(s) are transactional leadership and transformational leadership, which is being measured by the Multifactor Leadership Questionnaire (MLQ- Form 5X). The Multifactor Leadership Questionnaire was developed in order to capture wider ranges of leadership behaviours and styles, such as transactional, transformational, situational, laissez-

faire and non-transactional leadership (Northouse, 2001).

The Multifactor Leadership Questionnaire is able to assess leadership behaviours in both non-business and business environments. Within the past two decades this instrumentation has undergone many criticisms with regards to psychometric properties and component factors, such as multi-collinearity with regards to transformational leadership scales and the instability of the Multifactor Leadership Questionnaire (Antonakis, Avolio, & Sivasubramaniam, 2003), and so it have been revised several times in order to counteract these (Avolio & Bass, 1995). Using various statistical methods, extensive psychometric testing was performed. Therefore the original developer of the instrumentation has deleted and added which finally led to the development of this Multifactor Leadership Questionnaire (Antonakis, et al., 2003).

Currently the Multifactor Leadership Questionnaire comprises of 45 items of which 36 of those present nine leadership factors and a further nine items that represent three leadership outcomes. Within this study only a total of 20 items were used which assessed transformational and transactional leadership. Transformational leadership behaviours that are measured by the Multifactor Leadership Questionnaire are the: individualised consideration, the intellectual stimulation, the inspirational motivation, the idealised influence behaviour and the idealised influence attributed. Transactional leadership behaviours measured by the Multifactor Leadership Questionnaire are: laissez-faire, passive management by exception, active management by exception and contingent reward. The Multifactor Leadership Questionnaire uses a 5 point Likert that ranges from 0-4 with 0 standing for “not at all” , 1 standing for “once in a while”, 2 standing for “sometimes”, 3 standing for “fairly often”, and 4 standing for “frequently”, if not “always” (Bass & Avolio, 1997).

With regard to the scales utilised in the Multifactor Leadership Questionnaire, researcher have found these to be valid and reliable (Avolio, Bass, & Jung, 1999; Bass, et al., 2003; Bycio, Hackett, & Allen, 1995; Gellis, 2001; Howell & Hall-Merenda, 1999; Lowe, Kroeck, &

Sivasubramaniam, 1996). With regards to Bass and Avolio (1997), they based their assessment on proving the reliability of this instrument on the review of an empirically based study that utilised the MLQ Form 5X. The scales of reliability demonstrated high results, even those for measuring outcomes. In a meta-analytic studies involving 16 unpublished studies and a total of 22 published studies, it was found that a strong relation seems to exist between transformational and transactional styles to that of leadership factors (Bass & Avolio, 1997). It was concluded by Avolio, et al. (1999) that the discriminant and convergent validity of the Multifactor Leadership Questionnaire was confirmed by the psychometric properties pertinent to the questionnaire. The discriminant validity of the questionnaire validated that the indicators within the questionnaire discriminated the measuring concept, whilst the convergent validity demonstrated that the scales are reliable with regards to the concepts and intent sought after. The reliabilities of the sum of items and the goodness of fit index, for each separate factor, ranged from 0.74 to 0.93 (Avolio, et al., 1999). It was noted by Bass and Avolio (1999) that the reliability scores within each individual set of data from the Multifactor Leadership Questionnaire Form 5X were in fact reliable and strong for that particular factor of leadership style. Based on the scores of validity and reliability, this instrument was noted to be appropriate for this thesis.

3.11.2. Measuring Organisational Climate

Within this study the moderating variable is organisational climate. In order to measure this construct, this study uses Denison's Organisational Climate Survey (DOCS), which is adapted from Fey and Denison (2003). This survey of organisational climate measures what the employee's perceptions of climate is within the enterprise. It is developed from a theoretical model of climate characteristics which integrates concepts of external adaptation and internal integration (Schein, 1992).

It is believed by Denison and his colleagues (Denison, 1990, 1996, 2001; Denison, Haaland, & Goelzer, 2004; Denison, et al., 1995; Denison & Mishra, 1995), that items which capture the general properties of organisational climate are: adaptability, mission, consistency and involvement.

They describe involvement to be the ability of the organisation to develop the skills of the employee, create a committed team-based workforce that seeks success and to engender ownership. Furthermore they described consistency as the behaviour in which the employee would act according to a set of core values rooted within them, and furthermore as a place where followers and leaders are able to reach agreements- even though a diverse point might exist-, and lastly as a place in which business functions and units work in unity. The construct of mission was defined as the ability of the organisation to provide its followers with a long term direction that is meaningful and that will further issue its employees with a common vision for the enterprises future. Lastly, adaptability is referred to as the ability of the enterprise to turn the demands posed by the business environment into actions which are positive (i.e. having the ability to create change, risk-taking and learning from mistakes). Denison (1990; 1996) places the espoused values of the organisation, the marketplace, its people and the employee's beliefs and assumptions with regards to the enterprise, at the models core and states these produce the groundwork for observed actions and behaviours.

The initial organisational climate survey is a 60 item survey in which participants are invited to rate their organisation with regards to its climate on a 5 point Likert Scale, with a range of 1-5; 1 being strongly agree, 2 being agree, 3 being neutral, 4 being somewhat agree, and 5 being strongly agree. Every individual climate train comprises of three indices which further includes five items. For the proposed of this study the 36 items were adapted to 20 items that assess three traits. When Fey and Denison (2003) assessed the construct validity of the questionnaire they found that the factor loadings ranged from 0.67 – 0.89 which demonstrated acceptable scores for validity.

3.11.3 Knowledge Management Processes: An Assessment Questionnaire

Within this research study the respondents used the Knowledge Management Processes: An assessment questionnaire to describe their company's knowledge management practices. This questionnaire was created by Becerra-Fernandez and Sabherwal (2001; 2003) as is derived from feedback from pre-tests conducted at the Kennedy Space Centre (KSC) Chief Information Office as well as being derived from previous literature.

The reason for why this type of questionnaire was developed and used, is to analyse the uses and types of knowledge management that is needed to develop an extensive list of recommendations regards knowledge management practices within organisations. It was the view of Becerra-Fernandez and Sabherwal (2001; 2003) that knowledge encompassed two broad dimensions, namely: tacit knowledge and explicit knowledge.

After Becerra-Fernandez and Sabherwal (2001; 2003) had analysed their transcripts and notes of the qualitative interview, they managed to identify 37 tools of management used in the KSC. Many of these management tools were subsequently highlighted by authors with literature (Nonaka & Konno, 1998) and were further analysed by Becerra-Fernandez and Sabherwal (2001; 2003) in order to uncover which of these management tools were the keys to every individual process of knowledge management. In order to reduce the potential of overloading respondents, the total number of management tools were reduced to 25. Furthermore on a 5 point Likert scale, a question was built-in in order to assess the use of these knowledge management tools.

For the purpose of this study the participants will be requested to state how often each of the knowledge management tools and process mentioned were used to manage knowledge with the organisation (Sabherwal & Becerra-Fernandez, 2003). The scale for the 13 items that needed to be answered was a 5 point Likert scale ranging from 1-5, with 1 being "very

infrequently”, through 3 being “moderate frequency”, to 5 being “very frequently”.

In conducting an exploratory factor analysis, it was found that six of the 25 items loaded upon multiple dimensions (Becerra-Fernandez & Sabherwal, 2001). The rest of the items loaded formed four factors, each inside the estimated set of items. The reliability scores for the measures of socialisation, combination, externalisation and internalisation were 0.66, 0.8, 0.85, and 0.74 respectfully.

Lastly, Becerra-Fernandez and Sabherwal (2001) conducted a confirmatory analysis using LISREL 7.20 in order to analyse the general measurement model compromising of 13 indicators of the KM process. They therefore divided the questionnaire into four classifications: combination, socialisation, internalisation and externalisation

3.11.4. Background Information

It is believed that an employee will be more attracted to an organisation which is similar to the employee’s personal values (O'Reilly, Chatman & Caldwell, 1991). Moreover it is argued by, (Alexander, Nuchols, Bloom & Lee, 1995) that the climate of the organisation is associated with the organisations demographics.

For this reason, the researcher has asked questions concerning background information, in order to profile the participants and further sum up pertinent information concerning the enterprise. The seven measures regarding demographics assess the participant’s gender, the size of their last team, the unit in which they currently work, the size of their immediate unit, the number of years of organisational experience they have, how they would describe their position and determining if they are in any leadership type roles.

The demographics questions that researcher has proposed will assess if the participants are representative of diverse organisational climates, leadership styles and knowledge processes.

Testing will not confirm any relations of a causal nature between the variables being studied and the demographics. However, the data that will be received will provide the researcher with additional information and perspective on the participants and the enterprise (Golding, 2003).

3.12 Data Analysis

As this study employs a deductive approach to research, the hypotheses were assessed and tested in order to evaluate if a relation subsists between the variables – transformational and transactional leadership to knowledge management- as well as if the relation also exists between the independent variables and the moderating variable – organisational climate.

Cooper and Schindler (2003) have postulated that the statistical insignificance or significance of the data needs to be revised as each sample may diverge a particular amount away from the population. For the purposes of this study, there exists a single population from which one sample will be drawn. For this reason, the researcher has opted to use a one-sample parametric significance test, in which Pearson r correlation and linear regression will be utilised, in order to evaluate the statistical significance between the expected distribution that will be centred on the null hypotheses and the observed distribution.

In order to test the effect that organisational climate has on the independent variable a moderation model is used which tests whether the prediction of a dependent variable, Y, from an independent variable, X, differs across levels of a third variable, Z. Moderator variables affect the strength and/or direction of the relation between a predictor and an outcome: enhancing, reducing, or changing the influence of the predictor. Moderation effects are typically discussed as an interaction between factors or variables, where the effects of one variable depend on levels of the other variable in analysis. Moderation effects are tested with multiple regression analysis, where all predictor variables and their interaction term are centred prior to model estimation to improve interpretation of regression coefficients (Cooper & Schindler, 2003).

Lastly, the researcher opted to ensure a lower risk of being incorrect and so went with a 0.05 level of significance. The variables that were being assessed as previously mentioned are the independent variables of transformational and transactional leadership, the dependent variable of knowledge management, and a moderating variable of organisational climate. Ultimately, the data will be loaded onto the statistical programme- SPSS, and thereafter the researcher will be able to calculate the significance of the relations.

3.13 Ethical Considerations

According to the Belmont Report (1979), three fundamental principles were outlined with regards to the ethical issues of research that made use of human participants. These were justice, beneficence and respect of persons. In conducting the study, the researcher will ensure that he is familiar with and understands any regulations in relation to the field in which the study will be conducted. A major point of concern within this type of research is that the rights of the participants are protected. It was argued by Cooper & Schindler (2003) that in designing the research, the researcher should ensure that no harm would come to the participants whether it be physical, embarrassment, pain, discomfort or loss of privacy. Ensuring the participants' right to privacy, anonymity, confidentiality and informed consent from the participant and organisation are a few of the measures that are utilised in order to ensure that the three principles of justice, beneficence and respect were upheld. Respondents were given a basic outline of the research that was attached to the questionnaire. They were not asked to include their names and it was explained that all responses are anonymous. Participation was also voluntary and participants could have opted out at any stage. Lastly, individual responses were only seen by the researcher.

In addition, the University of Witwatersrand bears its own ethical clearance process that the researcher had to follow. In order to achieve ethical clearance, an ethical clearance application

form had to be submitted by the researcher. All details pertaining to the study were included in this application and checked by the researcher's supervisor prior to submission. After submission the researcher was issued feedback regarding the success of the ethical clearance application. In this circumstance, no changes had to be made and ethical clearance was granted which then allowed the researcher to begin data collection.

Conclusion

In conclusion, this chapter has made mention of the research design and paradigm that it has incorporated, as well as the means by which it has collected and analysed the data. Moreover the research questions as well as the hypotheses with additional descriptions of theory pertinent to the hypotheses were stated. This chapter also spoke of the population, as well as the sample of the study, and the means by which the sample was selected. It further looked at the questionnaire and how it was adapted and derived, and this chapter evaluated the reliability and validity scores to assess if the instrument was eligible. Lastly the research concluded this chapter with discussing ethical considerations. The next chapter will deal with the actual testing and evaluation of the relations between the variables.

Chapter Four

Results

Chapters, one two and three, the researcher extensively discussed the various variables of this study, including, transformational and transactional leadership, organisational climate and knowledge management, with regards to current and past literature. In addition, the type of tests, population, the means why which the primary data would be collected and ultimately the means by which this study would be conducted were mentioned. Within this chapter, the data that was collected will be analysed, in hopes of determining if there is a relationship between transformational leadership and knowledge management, transactional leadership and knowledge management, and if the moderating variable of organisational climate may affect the strength of the relationships between transformational leadership and knowledge management, as well as between transactional leadership and knowledge management.

The data will be presented through the use of tables and figures and will be segmented into three categories. Category number one will be used to discuss the background and demographic information, which describes the population. Category number two will be used to discuss and analyse the data that will answer the research questions; this section makes use of correlations and multiple regression. Lastly category three of this chapter will involve a summary and conclusion of the data that has been mentioned.

In order for the researcher to validate and determine if the instrumentation used within this researcher study is consistent, a reliability analysis was conducted. The table below illustrates the scores. The values obtained illustrate that the instrumentation demonstrates consistency.

Table 7 Reliability of Constructs

Construct's Measurement Scale	Cronbach's Alpha
Transformational Leadership Behaviours (MLQ – 5X Short Form) (10 items)	N of cases = 405 Cronbach's Alpha = 0.925
Transactional Leadership Behaviours (MLQ – 5X Short Form) (10 items)	N of cases = 405 Cronbach's Alpha = 0.799
Denison Organisational Climate Survey Questionnaire (DOCS) (20items)	N of cases = 405 Cronbach's Alpha = 0.971
Knowledge Management Practices: An Assessment Questionnaire (13 items)	N of cases = 405 Cronbach's Alpha = 0.886

Corrected item-total or item-total correlation has been used to a phenomenal extent in marketing and psychology literature in order to develop uni-dimensional scales. According to Nunnally (1978) he has postulated that “the variables that correlate most highly with total scores are the best items for a general-purpose test” (p. 274). It is for this reason that Briggs & Cheek (1986) suggested that by performing this analysis, the measure would be purified as ‘garbage items’ and would be identified and could be eliminated. According to Pallant (2007) any value of an inter-total correlation that is less than 0.30 should be eliminated. The tables below demonstrate the item-total correlations and demonstrate that no item in the instrumentation needs to be eliminated.

4.1 General Description of Sample Demographics and Description

The sample population that were involved within this study, are individuals that are working for the company- Shoppersconnexion and that worked for that particular company for more than a year. As a result, the researcher delivered 450 surveys and received 411 surveys. Of the 411 surveys, 405 could were eligible for usage which meant a response rate of 90%. The six

questionnaires that could not have not been used were due to respondents having ticked more than one box per answer on a few occasions, which meant rendering that survey ineligible.

This descriptive/background questions that were assessed at the end of the survey were intended to gather data regarding the participants in seven different regions, pertaining to their gender and organisation to name a few

Demographics

Table 12.1 Overall Statistics

	Gender	Size	Years	No. of People	Function	Positions	Team	Budget
N Valid	405	405	405	405	405	405	405	405
Missing	0	0	0	0	0	0	0	0

The statistics show that all background categories have been answered and are eligible for data analysis.

Frequency Table**Table 12.2 Gender**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	188	46.4	46.4	46.4
	Female	217	53.6	53.6	100.0
	Total	405	100.0	100.0	

The assessment of the distribution of participants with regards to gender, showed that there is a predominantly equal distribution, with a slight skewness towards the male gender which represents 53.6% of the population and females representing 46.4% of the population.

Table 12.3 Team Size

		Percent	Valid Percent	Cumulative Percent
Valid	<5	17.5	17.5	17.5
	5-10	23.2	23.2	40.8
	11-20	31.8	31.8	72.5
	21-50	16.1	16.1	88.6
	51-100	9.5	9.5	98.1
	>100	1.9	1.9	100.0
	Total	100.0	100.0	

In order to assess the size of the teams which the respondents last worked within, 6 categories were defined, namely, - <5, 5 – 10, 11 – 20, 21– 50, 51-100 and > 100 members. The data demonstrated that 17.5% of the population worked within teams that had less than 5 members, 23.2% worked in teams that had between 5 and 10 members, 31.8% of participants

worked in teams with 11-20 members which was the majority, followed by 16.1% in groups of 21-50, 9.5% in groups of 51-100 and lastly the minority of 1.9% of respondents worked in groups of more than 100.

Table 12.4 Department

		Percent	Valid Percent	Cumulative Percent
Valid	Finance	16.1	16.1	16.1
	HR	32.2	32.2	48.3
	Marketing	35.1	35.1	83.4
	Education	9.5	9.5	92.9
	IT	2.8	2.8	95.7
	Other	4.2	4.2	100
	Total	100.0	100.0	

35.1% of participants worked in a marketing function, which is closely followed by 32.2% of the population that work in a HR- learning and training function. The minority of the respondents state that none of the categories apply to them; this is a percentage of 0.9. Besides these figures 16.1% of respondents work in the finance field, 9.5% in the education field, 4.2 % in a variety of other fields such as research etc. and lastly 2.8% in the information technology field.

Table 12.5 No. of People

		Percent	Valid Percent	Cumulative Percent
Valid	<20	17.5	17.5	17.5
	21-50	23.2	23.2	40.8
	51-100	31.8	31.8	72.5
	101-200	16.1	16.1	88.6
	201-500	9.5	9.5	98.1
	>500	1.9	1.9	100.0
	Total	100.0	100.0	

Majority of respondents 31.8% said that there are 51-100 employees in their unit, followed by 23.2% for 21-50 employees, then 17.5% for less than 20 employees, then 16,1% with 101-200 employees, then 9.5% with 201-500 employees and lastly 1.9% with more than 500 employees.

Table 12.6 Years of Experience

		Percent	Valid Percent	Cumulative Percent
Valid	1-5	35.1	35.1	35.1
	6-10	45.5	45.5	80.6
	11-20	19.0	19.0	99.5
	>21	.5	.5	100.0
	Total	100.0	100.0	

Next the researcher wanted to determine the number of years the employees had worked for the organisation in order to evaluate whether employees demonstrated a difference with regards to the perceptions of the variables being assessed. 45.5% of the respondents had worked for the organisation for 6-10 years, 35.1% for 1-5 years, 19 & for 11-20 and lastly 0.5% for more than 20 years. The researcher concluded that the respondent's perceptions were not

affected by the number of years of organisational experience due to each employee having unique perceptions.

Table 12. 7 Position

		Percent	Valid Percent	Cumulative Percent
Valid	Senior Manager	10	10	10
	Middle Manager	7	7	17
	Line Manager	12.0	12.0	29
	Contractor	7.4	7.4	36.4
	Consultant	38.5	38.5	74.9
	Analyst	25.1	25.1	100
	Total	100.0	100.0	

The position that the respondent works in gives a further understanding of where the participant's answers come from. 38.5% of respondents were consultants (lower level employees), 25.1% were analysts (lower level employees), 12% line managers, 10% are senior managers and 7.4% were contractors and 7% were middle managers.

Table 12.8 Team Role

		Percent	Valid Percent	Cumulative Percent
Valid	Team Leader	32.2	32.2	32.2
	Team Member	17.1	17.1	49.3
	Supervisor	29.0	29.0	78.3
	Other	21.7	21.7	100.0
	Total	100.0	100.0	

Moreover following the above table, it would be beneficial to understand what role the participants take with regards to team structures. 32.2% of the respondents were team leads, 17.1 % described themselves as mere team members, 29% were supervisors and lastly 21.7% of respondents believed that none of the categories applied to the role they assume.

4.2 Details of Results and Analysis

This section of chapter four is aimed at discussing the details with regards to the analysis and results of the study that was formulated around the main questions and hypotheses. All of the methodological protocols were checked, since a parametric test was used. The assumptions of the parametric tests were checked, which included assumptions of normality, homogeneity and variance. In addition any questionnaires that were incomplete or rendered ineligible were omitted. A Kolmogorov- Smirnov test of normality was conducted and discovered that the data was normally distributed as all levels of significance were greater than 0.05. Therefore in summary the researcher was able to verify the assumptions of the parametric data for all tests used.

Hypothesis 1: A relationship exists between a **transformational leadership style** and **knowledge management practices**

In order to determine whether a relation if any exists between a transformational leadership style and knowledge management practices, a simple regression analysis was conducted. The researcher used the average of 10 items extracted from section one (Multi Factor Leadership) of the survey in order to operationalise knowledge management. Knowledge management is comprised of four dimensions – exchange, socialisation internalisation and combination- which will each be evaluated separately within the sub hypotheses section of hypothesis one

Table 13.1.1
Model Summary of transformational leadership style
and knowledge management practices

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.955 ^a	.913	.912	.1681761

a. Predictors: (Constant), Transformation

Once having run the regression analysis for the overall model, testing the relationship between Transformational leadership (IND) and Knowledge management (DEP), the results illustrated that transformational leadership can account for 91.3% ($R^2=0.913$) of the variation in knowledge management

Table 13.1.2**Coefficients of transformational leadership style and knowledge management practices**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	.233	.087		2.689	.008
Transformation	.918	.025	.955	36.885	.000

a. Dependent Variable: KnowledgeManagement

After having run the correlation analysis on the overall model, the results illustrated that for each unit that transformational leadership changes, knowledge management will increase by 0.918. Furthermore it was indicated by the t value for the overall model that this model demonstrates significance as $0.000 < 0.05$. Therefore this model proves that transformational leadership has an effect on knowledge management.

Table 13.1.3**ANOVA of transformational leadership style and knowledge management practices**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	38.480	1	38.480	1360.539	.000 ^a
	Residual	3.677	403	.028		
	Total	42.157	404			

a. Predictors: (Constant), Transformation

b. Dependent Variable: KnowledgeManagement

The regression analysis also indicates that the F-ratio is 1360.539 which attests to be significant at $p < 0.05$. Therefore the researcher has determined that with an F-ratio of this size, there is less than a 0.05 chance that the null hypothesis will not be rejected. Therefore knowledge management is predicted well by the overall model.

Sub Hypotheses

1.1 A relationship exists between a Transformational leadership style and the knowledge management practice of Exchange within a South African SME.

Table 13.2.1
Model Summary between a Transformational leadership style and the knowledge management practice of Exchange

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.820 ^a	.672	.670	.524

a. Predictors: (Constant), Transformation

Once having run the regression analysis for the this model, testing the relationship between Transformational leadership (IND) and the Knowledge management dimension- Exchange (DEP), the results illustrated that transformational leadership can account for 67.2% ($R^2=0.670$) of the variation in knowledge management- exchange

Table 13.2.2
ANOVA^b between a Transformational leadership style and the knowledge management practice of Exchange

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	73.140	1	73.140	266.561	.000 ^a
	Residual	35.670	403	.274		
	Total	108.811	404			

a. Predictors: (Constant), Transformation

b. Dependent Variable: Exchange

The regression analysis also indicates that the F-ratio is 266.561 which attests to be significant at $p < 0.05$. Therefore the researcher has determined that with an F-ratio of this size, there is less than a 0.05 chance that the null hypothesis will not be rejected. Therefore knowledge management-exchange is predicted well by the overall model.

Table 13.2.3

Coefficients^a between a Transformational leadership style and the knowledge management practice of Exchange

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	-1.314	.270		-4.859	.000
Transformation	1.265	.078	.820	16.327	.000

a. Dependent Variable: Exchange

After having run the correlation analysis on the overall model, the results illustrated that for each unit that transformational leadership changes, knowledge management- exchange will increase by 1.265. Furthermore it was indicated by the t value for the overall model that this model demonstrates significance as $0.000 < 0.05$. Therefore this model proves that transformational leadership has an effect on knowledge management- exchange.

1.2 A relationship exists between a Transformational leadership style and the knowledge management practice of Socialisation within a South African SME.

Table 13.3.1

Model Summary between a Transformational leadership style and the knowledge management practice of Socialisation

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.841 ^a	.707	.704	.500

a. Predictors: (Constant), Transformation

Once having run the regression analysis for the this model, testing the relationship between Transformational leadership (IND) and the Knowledge management dimension- Socialisation (DEP), the results illustrated that transformational leadership can account for 70.7% ($R^2=0.705$) of the variation in knowledge management- socialisation

Table 13.3.2 ANOVA^b between a Transformational leadership style and the knowledge management practice of Socialisation

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	78.170	1	78.170	313.083	.000 ^a
	Residual	32.458	130	.250		
	Total	110.629	131			

a. Predictors: (Constant), Transformation

b. Dependent Variable: Socialisation

The regression analysis also indicates that the F-ratio is 313.083 which attests to be significant at $p < 0.05$. Therefore the researcher has determined that with an F-ratio of this size, there is less than a 0.05 chance that the null hypothesis will not be rejected. Therefore knowledge management- Socialisation is predicted well by the overall model.

Table 13.3.3 Coefficients^a between a Transformational leadership style and the knowledge management practice of Socialisation

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-1.279	.258		-4.960	.000
	Transformation	1.308	.074	.841	17.694	.000

a. Dependent Variable: Socialisation

After having run the correlation analysis on the overall model, the results illustrated that for each unit that transformational leadership changes, knowledge management- Socialisation will increase by 1.308. Furthermore it was indicated by the t value for the overall model that this model demonstrates significance as $0.000 < 0.05$. Therefore this model proves that transformational leadership has an effect on knowledge management- Socialisation.

1.3 A relationship exists between a Transformational leadership style and the knowledge management practice of Internalisation within a South African SME.

Table 13.4.1 Model Summary between a Transformational leadership style and the knowledge management practice of Internalisation

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.564 ^a	.318	.313	.608

a. Predictors: (Constant), Transformation

Once having run the regression analysis for the this model, testing the relationship between Transformational leadership (IND) and the Knowledge management dimension- Socialisation (DEP), the results illustrated that transformational leadership can account for 31.8% ($R^2=0.318$) of the variation in knowledge management- Internalisation

Table 13.4.2 ANOVA^b between a Transformational leadership style and the knowledge management practice of Internalisation

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	22.437	1	22.437	60.669	.000 ^a
	Residual	48.078	40	.370		
	Total	70.515	404			

a. Predictors: (Constant), Transformation

b. Dependent Variable: Internalisation

The regression analysis also indicates that the F-ratio is 60.669 which attests to be significant at $p < 0.05$. Therefore the researcher has determined that with an F-ratio of this size, there is less than a 0.05 chance that the null hypothesis will not be rejected. Therefore knowledge management- Internalisation is predicted well by the overall model.

Table 13.4.3 Coefficients^a between a Transformational leadership style and the knowledge management practice of Internalisation

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	1.696	.314		5.401	.000
Transformation	.701	.090	.564	7.789	.000

a. Dependent Variable: Internalisation

After having run the correlation analysis on the overall model, the results illustrated that for each unit that transformational leadership changes, knowledge management- Internalisation will increase by 0.701. Furthermore it was indicated by the t value for the overall model that this model demonstrates significance as $0.000 < 0.05$. Therefore this model proves that transformational leadership has an effect on knowledge management- Internalisation.

1.4 A relationship exists between a Transformational leadership style and the knowledge management practice of combination within a South African SME.

Table 13.5.1 Model Summary between a Transformational leadership style and the knowledge management practice of combination

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.695 ^a	.482	.479	.575

a. Predictors: (Constant), Transformation

Once having run the regression analysis for the this model, testing the relationship between Transformational leadership (IND) and the Knowledge management dimension- Socialisation (DEP), the results illustrated that transformational leadership can account for 48.2% ($R^2=0.482$) of the variation in knowledge management- combination

Table 13.5.2 ANOVA^b between a Transformational leadership style and the knowledge management practice of combination

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	40.134	1	40.134	121.201	.000 ^a
	Residual	43.048	403	.331		
	Total	83.182	404			

a. Predictors: (Constant), Transformation

b. Dependent Variable: Combination

The regression analysis also indicates that the F-ratio is 121.201 which attests to be significant at $p < 0.05$. Therefore the researcher has determined that with an F-ratio of this size, there is less than a 0.05 chance that the null hypothesis will not be rejected. Therefore knowledge management- combination is predicted well by the overall model.

Table 13.5.3 Coefficients^a between a Transformational leadership style and the knowledge management practice of combination

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.003	.297		.012	.991
	Transformation	.937	.085	.695	11.009	.000

a. Dependent Variable: Combination

After having run the correlation analysis on the overall model, the results illustrated that for each unit that transformational leadership changes, knowledge management- Internalisation will increase by 0.937. Furthermore it was indicated by the t value for the overall model that this model demonstrates significance as $0.000 < 0.05$. Therefore this model proves that transformational leadership has an effect on knowledge management- combination.

Hypothesis 2: A relationship exists between a Transactional leadership style and knowledge management practices within a South African SME.

In order to determine whether a relation if any exists between a transformational leadership style and knowledge management practices, a simple regression analysis was conducted. The researcher used the average of 10 items extracted from section one (Multi Factor Leadership) of the survey in order to operationalise knowledge management. Knowledge management is comprised of four dimensions – exchange, socialisation internalisation and combination- which

Table 14.1.1 Model Summary between a Transactional leadership style and knowledge management practices

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.866 ^a	.750	.748	.2847927

a. Predictors: (Constant), Transactional

Once having run the regression analysis for the this model, testing the relationship between transactional leadership (IND) and Knowledge management (DEP), the results illustrated that transactional leadership can account for 75% ($R^2=0.75$) of the variation in knowledge management

Table 14.1.2 ANOVA^b between a Transactional leadership style and knowledge management practices

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	31.613	1	31.613	389.773	.000 ^a
	Residual	10.544	130	.081		
	Total	42.157	131			

a. Predictors: (Constant), Transactional

b. Dependent Variable: KnowledgeManagement

The regression analysis also indicates that the F-ratio is 389.773 which attests to be significant at $p < 0.05$. Therefore the researcher has determined that with an F-ratio of this size, there is less than a 0.05 chance that the null hypothesis will not be rejected. Therefore knowledge management is predicted well by the overall model.

Table 14.1.3 Coefficients^a between a Transactional leadership style and knowledge management practices

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	.035	.172		.204	.839
Transactional	.633	.049	.566	19.743	.000

a. Dependent Variable: KnowledgeManagement

After having run the correlation analysis on the overall model, the results illustrated that for each unit that transactional leadership changes, knowledge will increase by 0.633. Furthermore it was indicated by the t value for the overall model that this model demonstrates significance as $0.000 < 0.05$. Therefore this model proves that transactional leadership has an effect on knowledge management

Sub Hypotheses

2.1 A relationship exists between a Transactional leadership style and the knowledge management practice of Exchange within a South African SME.

Table 14.2.1 Model Summary between a Transactional leadership style and the knowledge management practice of Exchange

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.814 ^a	.662	.659	.532

a. Predictors: (Constant), Transactional

Once having run the regression analysis for the this model, testing the relationship between Transactional leadership (IND) and the Knowledge management dimension- Exchange (DEP), the results illustrated that Transactional leadership can account for 66.2% ($R^2=0.662$) of the variation in knowledge management- exchange

Table 14.2.2 ANOVA^b between a Transactional leadership style and the knowledge management practice of Exchange

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	72.011	1	72.011	254.391	.000 ^a
	Residual	36.799	403	.283		
	Total	108.811	404			

a. Predictors: (Constant), Transactional

b. Dependent Variable: Exchange

The regression analysis also indicates that the F-ratio is 254.391 which attests to be significant at $p < 0.05$. Therefore the researcher has determined that with an F-ratio of this size, there is less than a 0.05 chance that the null hypothesis will not be rejected. Therefore knowledge management-exchange is predicted well by the overall model.

Table 14.2.3 Coefficients^a between a Transactional leadership style and the knowledge management practice of Exchange

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-2.026	.321		-6.314	.000
	Transactional	1.460	.092	.814	15.950	.000

a. Dependent Variable: Exchange

After having run the correlation analysis on the overall model, the results illustrated that for each unit that Transactional leadership changes, knowledge management- exchange will increase by 1.460. Furthermore it was indicated by the t value for the overall model that this model demonstrates significance as $0.000 < 0.05$. Therefore this model proves that Transactional leadership has an effect on knowledge management- exchange.

2.2 A relationship exists between a Transactional leadership style and the knowledge management practice of Socialisation within a South African SME.

Table 14.3.1 Model Summary between a Transactional leadership style and the knowledge management practice of Socialisation within a South African SME

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.797 ^a	.636	.633	.557

a. Predictors: (Constant), Transactional

Once having run the regression analysis for the this model, testing the relationship between Transactional leadership (IND) and the Knowledge management dimension- Socialisation (DEP), the results illustrated that Transactional leadership can account for 63.6% ($R^2=0.636$) of the variation in knowledge management- Socialisation

Table 14.3.2 ANOVA^b between a Transactional leadership style and the knowledge management practice of Socialisation within a South African SME

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	70.340	1	70.340	226.964	.000 ^a
	Residual	40.289	403	.310		
	Total	110.629	404			

a. Predictors: (Constant), Transactional

b. Dependent Variable: Socialisation

The regression analysis also indicates that the F-ratio is 226.964 which attests to be significant at $p < 0.05$. Therefore the researcher has determined that with an F-ratio of this size, there is less than a 0.05 chance that the null hypothesis will not be rejected. Therefore knowledge management- Socialisation is predicted well by the overall model.

Table 14.3.3 Coefficients^a between a Transactional leadership style and the knowledge management practice of Socialisation within a South African SME

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	-1.785	.336		-5.317	.000
Transactional	1.443	.096	.797	15.065	.000

a. Dependent Variable: Socialisation

After having run the correlation analysis on the overall model, the results illustrated that for each unit that Transactional leadership changes, knowledge management- Socialisation will increase by 1.443. Furthermore it was indicated by the t value for the overall model that this model demonstrates significance as $0.000 < 0.05$. Therefore this model proves that Transactional leadership has an effect on knowledge management- Socialisation.

2.3 A relationship exists between a Transactional leadership style and the knowledge management practice of Internalisation within a South African SME.

Table 14.4.1 Model Summary between a Transactional leadership style and the knowledge management practice of Internalisation

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.555 ^a	.308	.303	.612

a. Predictors: (Constant), Transactional

Once having run the regression analysis for the this model, testing the relationship between Transactional leadership (IND) and the Knowledge management dimension- Socialisation (DEP), the results illustrated that Transactional leadership can account for 30.8 % ($R^2=0.308$) of the variation in knowledge management- Internalisation

Table 14.4.2 ANOVA^b between a Transactional leadership style and the knowledge management practice of Internalisation

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	21.751	1	21.751	57.988	.000 ^a
	Residual	48.764	403	.375		
	Total	70.515	404			

a. Predictors: (Constant), Transactional

b. Dependent Variable: Internalisation

The regression analysis also indicates that the F-ratio is 57.988 which attests to be significant at $p < 0.05$. Therefore the researcher has determined that with an F-ratio of this size, there is less than a 0.05 chance that the null hypothesis will not be rejected. Therefore knowledge management- Internalisation is predicted well by the overall model.

Table 14.4.3 Coefficients^a between a Transactional leadership style and the knowledge management practice of Internalisation

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.323	.369		3.582	.000
	Transactional	.802	.105	.555	7.615	.000

a. Dependent Variable: Internalisation

After having run the correlation analysis on the overall model, the results illustrated that for each unit that Transactional leadership changes, knowledge management- Internalisation will increase by 0.802. Furthermore it was indicated by the t value for the overall model that this model demonstrates significance as $0.000 < 0.05$. Therefore this model proves that Transactional leadership has an effect on knowledge management- Internalisation.

2.4 A relationship exists between a transactional leadership style and the knowledge management practice of combination within a South African SME.

Table 14.5.1 Model Summary between a transactional leadership style and the knowledge management practice of combination

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.511 ^a	.262	.256	.687

a. Predictors: (Constant), Transactional

Once having run the regression analysis for the this model, testing the relationship between transactional leadership (IND) and the Knowledge management dimension- Socialisation (DEP), the results illustrated that transactional leadership can account for 26.2% ($R^2=0.262$) of the variation in knowledge management- combination

Table 14.5.2 ANOVA^b between a transactional leadership style and the knowledge management practice of combination

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	21.760	1	21.760	46.054	.000 ^a
	Residual	61.422	403	.472		
	Total	83.182	404			

a. Predictors: (Constant), Transactional

b. Dependent Variable: Combination

The regression analysis also indicates that the F-ratio is 46.054 which attests to be significant at $p < 0.05$. Therefore the researcher has determined that with an F-ratio of this size, there is less than a 0.05 chance that the null hypothesis will not be rejected. Therefore knowledge management- combination is predicted well by the overall model.

Table 14.5.3 Coefficients^a between a transactional leadership style and the knowledge management practice of combination

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	.444	.415		1.071	.286
Transactional	.803	.118	.511	6.786	.000

a. Dependent Variable: Combination

After having run the correlation analysis on the overall model, the results illustrated that for each unit that transactional leadership changes, knowledge management- Internalisation will increase by 0.803. Furthermore it was indicated by the t value for the overall model that this model demonstrates significance as $0.000 < 0.05$. Therefore this model shows that transactional leadership has an effect on knowledge management- combination.

Hypothesis 3: The strength of the relationship between transactional leadership and knowledge management is moderated by organisational climate

Table 15.1.1 Model Summary^b of the relationship between transactional leadership and knowledge management is moderated by organisational climate

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.931 ^a	.868	.865	.2080807

a. Predictors: (Constant), Transactional, Organisational Climate

b. Dependent Variable: KnowledgeManagement

In this model it is evident that the interaction between transactional leadership and organisational climate accounted for significantly more variance than just transactional leadership alone, $R^2 = .868$ compared to $R^2 = .750$ indicating that there is potentially a significant moderation on the relationship between transactional leadership and knowledge management by organisational climate.

Table 15.1.2 ANOVA^b of the relationship between transactional leadership and knowledge management is moderated by organisational climate

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	36.572	2	18.286	422.331	.000 ^a
	Residual	5.585	402	.043		
	Total	42.157	404			

a. Predictors: (Constant), Transactional, Organisational Climate

b. Dependent Variable: KnowledgeManagement

The multiple regression analysis also indicates that the F-ratio is 422.331 which attests to be significant at $p < 0.05$. Therefore, the researcher has determined that with an F-ratio of this size, there is less than a 0.05 chance that the null hypothesis will not be rejected. Therefore, the moderating variable of organisational climate is significant, and has an effect on the relationship between transactional leadership and knowledge management.

Table 15.1.3 Coefficients^a of the relationship between transactional leadership and knowledge management is moderated by organisational climate

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.067	.126		.536	.593
	Organisational Climate	.288	.064	.690	10.701	.000
	Transactional	.967	.072	.268	4.153	.000

a. Dependent Variable: KnowledgeManagement

After having run the correlation analysis on the overall model, the results illustrated that for each unit that transactional leadership changes, knowledge management will now increase by 0.967 as opposed to 0.633. Furthermore it was indicated by the t value for the overall model that this model demonstrates significance as $0.000 < 0.05$. Therefore, this model proves that the effect that transactional leadership has an effect on knowledge management has increased due to organisational climate.

Sub Hypotheses

3.1 The strength of the relationship between transactional leadership and knowledge management is moderated by a climate of hierarchy.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.894 ^a	.800	.797	.2558570

a. Predictors: (Constant), Hierarchy, Transactional

b. Dependent Variable: KnowledgeManagement

In this model it is evident that the interaction between transactional leadership and organisational climate (hierarchy) accounted for significantly more variance in knowledge management than just transactional leadership alone, $R^2 = .800$ compared to $R^2 = .750$ indicating that there is potentially a significant moderation on the relationship between transactional leadership and knowledge management by organisational climate (hierarchy).

Table 15.2.2 ANOVA^b of the relationship between transactional leadership and knowledge management is moderated by a climate of hierarchy

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	33.712	2	16.856	257.494	.000 ^a
	Residual	8.445	402	.065		
	Total	42.157	404			

a. Predictors: (Constant), Hierarchy, Transactional

b. Dependent Variable: KnowledgeManagement

The multiple regression analysis also indicates that the F-ratio is 257.494 which attests to be significant at $p < 0.05$. Therefore the researcher has determined that with an F-ratio of this size, there is less than a 0.05 chance that the null hypothesis will not be rejected. Therefore, the moderating variable of organisational climate (hierarchy) is significant, and has an effect on the relationship between transactional leadership and knowledge management.

Table 15.2.3 Coefficients^a of the relationship between transactional leadership and knowledge management is moderated by a climate of hierarchy

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	.442	.170		2.599	.010
Transactional	.638	.073	.571	8.746	.000
Hierarchy	.228	.040	.370	5.663	.000

a. Dependent Variable: KnowledgeManagement

After having run the correlation analysis on the overall model, the results illustrated that for each unit that transactional leadership changes, knowledge management will now increase by 0.638 as opposed to 0.633. Furthermore it was indicated by the t value for the overall model that this model demonstrates significance as $0.000 < 0.05$. Therefore, this model proves that the effect that transformational leadership has an effect on knowledge management, has increased due to organisational climate (hierarchy).

3.2. The strength of the relationship between transactional leadership and knowledge management is moderated by a mission climate.

Table 15.3.1 Model Summary^b of the relationship between transactional leadership and knowledge management is moderated by a mission climate.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.868 ^a	.753	.749	.2841769

a. Predictors: (Constant), Mission, Transactional

b. Dependent Variable: KnowledgeManagement

In this model it is evident that the interaction between transactional leadership and organisational climate (mission) accounted for significantly more variance than just transactional leadership alone, $R^2 = .753$ compared to $R^2 = .750$ indicating that there is potentially a significant moderation on the relationship between transactional leadership and knowledge management by organisational climate (mission).

Table 15.3.2 ANOVA^b of the relationship between transactional leadership and knowledge management is moderated by a mission climate.

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	31.740	2	15.870	196.514	.000 ^a
	Residual	10.418	402	.081		
	Total	42.157	404			

a. Predictors: (Constant), Mission, Transactional

b. Dependent Variable: KnowledgeManagement

The multiple regression analysis also indicates that the F-ratio is 196.514 which attests to be significant at $p < 0.05$. Therefore the researcher has determined that with an F-ratio of this size, there is less than a 0.05 chance that the null hypothesis will not be rejected. Therefore, the moderating variable of organisational climate (mission) is significant, and has an affect on the relationship between transactional leadership and knowledge management.

Table 15.3.3 Coefficients^a of the relationship between transactional leadership and knowledge management is moderated by a mission climate.

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.032	.180		-.180	.858
	Transactional	.926	.059	.829	15.759	.000
	Mission	.051	.041	.066	1.251	.213

a. Dependent Variable: KnowledgeManagement

After having run the correlation analysis on the overall model, the results illustrated that for each unit that Transformational leadership changes, knowledge management will now increase by 0.926 as opposed to 0.755. Furthermore it was indicated by the t value for the overall model that this model demonstrates significance as $0.000 < 0.05$. Therefore this model proves that the effect that transformational leadership has an effect on knowledge management, has increased due to organisational climate (mission).

3.3 The strength of the relationship between transactional leadership and knowledge management is moderated by a climate of adaptation.

Table 15.4.1 Model Summary^b of the relationship between transactional leadership and knowledge management is moderated by a climate of adaptation

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.871 ^a	.758	.755	.2810695

a. Predictors: (Constant), Adaptation, Transactional

b. Dependent Variable: KnowledgeManagement

In this model it is evident that the interaction between transactional leadership and organisational climate (adaptation) accounted for significantly more variance than just transactional leadership alone, $R^2 = .758$ compared to $R^2 = .750$ indicating that there is potentially a significant moderation on the relationship between transactional leadership and knowledge management by organisational climate (adaptation).

Table 15.4.2 ANOVA^b of the relationship between transactional leadership and knowledge management is moderated by a climate of adaptation

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	31.966	2	15.983	202.318	.000 ^a
	Residual	10.191	402	.079		
	Total	42.157	404			

a. Predictors: (Constant), Adaptation, Transactional

b. Dependent Variable: KnowledgeManagement

The multiple regression analysis also indicates that the F-ratio is 202.318 which attests to be significant at $p < 0.05$. Therefore the researcher has determined that with an F-ratio of this size, there is less than a 0.05 chance that the null hypothesis will not be rejected. Therefore, the moderating variable of organisational climate (adaptation) is significant, and has an effect on the relationship between transactional leadership and knowledge management.

Table 15.4.3 Coefficients^a of the relationship between transactional leadership and knowledge management is moderated by a climate of adaptation

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	.039	.170		.231	.818
Transactional	1.050	.062	.940	16.902	.000
Adaptation	.086	.041	.118	2.114	.036

a. Dependent Variable: KnowledgeManagement

After having run the correlation analysis on the overall model, the results illustrated that for each unit that Transformational leadership changes, knowledge management will now increase by 1.050 as opposed to 0.755. Furthermore it was indicated by the t value for the overall model that this model demonstrates significance as $0.000 < 0.05$. Therefore, this model proves that the effect that transformational leadership has an effect on knowledge management, has increased due to organisational climate (adaptation).

Hypothesis 4: The strength of the relationship between transformational leadership and knowledge management is moderated by organisational climate.

Table 16.1.1 Model Summary of the relationship between transformational leadership and knowledge management is moderated by organisational climate

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.960 ^a	.922	.920	.1599513

a. Predictors: (Constant), Organisational Climate, Transformation

In this model it is evident that the interaction between transformational leadership and organisational climate accounted for significantly more variance than just transformational leadership alone, $R^2 = .922$ compared to $R^2 = .913$ indicating that there is potentially a significant moderation on the relationship between transformational leadership and knowledge management by organisational climate.

Table 16.1.2 ANOVA^b of the relationship between transformational leadership and knowledge management is moderated by organisational climate

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	38.857	2	19.428	759.384	.000 ^a
	Residual	3.300	402	.026		
	Total	42.157	404			

a. Predictors: (Constant), Organisational Climate, Transformation

b. Dependent Variable: KnowledgeManagement

The multiple regression analysis also indicates that the F-ratio is 759.384 which attests to be significant at $p < 0.05$. Therefore the researcher has determined that with an F-ratio of this size, there is less than a 0.05 chance that the null hypothesis will not be rejected. Therefore, the moderating variable of organisational is significant, and has an effect on the relationship between transformational leadership and knowledge management.

Table 16.1.3 Coefficients^a of the relationship between transformational leadership and knowledge management is moderated by organisational climate

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.368	.090		4.105	.000
	Transformation	1.404	.129	1.462	10.886	.000
	Organisational Climate	.514	.134	.515	3.836	.000

a. Dependent Variable: KnowledgeManagement

After having run the correlation analysis on the overall model, the results illustrated that for each unit that Transformational leadership changes, knowledge management will now increase by 1.404 as opposed to 0.918. Furthermore it was indicated by the t value for the overall model that this model demonstrates significance as $0.000 < 0.05$. Therefore, this model proves that the effect that transformational leadership has an effect on knowledge management, has increased due to organisational climate.

Sub Hypotheses

4.1 The strength of the relationship between transformational leadership and knowledge management is moderated by a climate of hierarchy.

Table 16.2.1 Model Summary of the relationship between transformational leadership and knowledge management is moderated by a climate of hierarchy.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.956 ^a	.914	.913	.1672131

a. Predictors: (Constant), Hierarchy, Transformation

In this model it is evident that the interaction between transformational leadership and organisational climate (adaptation) accounted for significantly more variance than just transformational leadership alone, $R^2 = .914$ compared to $R^2 = .913$ indicating that there is potentially a significant moderation on the relationship between transformational leadership and knowledge management by organisational climate (hierarchy).

Table 16.2.2 ANOVA^b of the relationship between transformational leadership and knowledge management is moderated by a climate of hierarchy.

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	38.550	2	19.275	689.378	.000 ^a
	Residual	3.607	402	.028		
	Total	42.157	404			

a. Predictors: (Constant), Hierarchy, Transformation

b. Dependent Variable: KnowledgeManagement

The multiple regression analysis also indicates that the F-ratio is 689.378 which attests to be significant at $p < 0.05$. Therefore the researcher has determined that with an F-ratio of this size, there is less than a 0.05 chance that the null hypothesis will not be rejected. Therefore, the moderating variable of organisational climate (hierarchy) is significant, and has an effect on the relationship between transformational leadership and knowledge management.

Table 16.2.3 Coefficients^a of the relationship between transformational leadership and knowledge management is moderated by a climate of hierarchy.

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	.293	.094		3.111	.002
Transformation	.919	.046	.935	18.765	.000
Hierarchy	.046	.029	.075	1.582	.116

a. Dependent Variable: KnowledgeManagement

After having run the correlation analysis on the overall model, the results illustrated that for each unit that transformational leadership changes, knowledge management will now increase by 0.919 as opposed to 0.918. Furthermore it was indicated by the t value for the overall model that this model demonstrates significance as $0.000 < 0.05$. Therefore, this model proves that the effect that transformational leadership has an effect on knowledge management, has increased due to organisational climate (hierarchy).

4.1 The strength of the relationship between transformational leadership and knowledge management is moderated by a mission climate.

Table 16.3.1 Model Summary of the relationship between transformational leadership and knowledge management is moderated by a mission climate

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.956 ^a	.913	.912	.1686064

a. Predictors: (Constant), Mission, Transformation

In this model it is evident that the interaction between transformational leadership and organisational climate (mission) accounted for significantly more variance than just transformational leadership alone, $R^2 = .913$ compared to $R^2 = .913$ indicating that there is potentially a significant moderation on the relationship between transformational leadership and knowledge management by organisational climate (mission).

Table 16.3.2 ANOVA^b of the relationship between transformational leadership and knowledge management is moderated by a mission climate

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	38.490	2	19.245	676.970	.000 ^a
	Residual	3.667	402	.028		
	Total	42.157	404			

a. Predictors: (Constant), Mission, Transformation

b. Dependent Variable: KnowledgeManagement

The multiple regression analysis also indicates that the F-ratio is 676.970 which attests to be significant at $p < 0.05$. Therefore the researcher has determined that with an F-ratio of this size, there is less than a 0.05 chance that the null hypothesis will not be rejected. Therefore, the moderating variable of organisational climate (mission) is significant, and has an effect on the relationship between transformational leadership and knowledge management.

Table 16.3.3 Coefficients^a of the relationship between transformational leadership and knowledge management is moderated by a mission climate

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.257	.096		2.673	.008
	Transformation	.928	.030	.966	30.707	.000
	Mission	.014	.024	.018	.581	.562

a. Dependent Variable: KnowledgeManagement

After having run the correlation analysis on the overall model, the results illustrated that for each unit that transformational leadership changes, knowledge management will now increase by .928 as opposed to .918. Furthermore it was indicated by the t value for the overall model that this model demonstrates significance as $0.000 < 0.05$. Therefore, this model proves that the effect that transformational leadership has an effect on knowledge management, has increased due to organisational climate (mission).

4.3 The strength of the relationship between leadership and knowledge management is affected by a moderated of adaptation.

Table 16.4.1 Model Summary of the relationship between leadership and knowledge management is affected by a moderated of adaptation

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.956 ^a	.914	.912	.1678802

a. Predictors: (Constant), Adaptation, Transformation

In this model it is evident that the interaction between transformational leadership and organisational climate (adaptation) accounted for significantly more variance than just transformational leadership alone, $R^2 = .914$ compared to $R^2 = .913$ indicating that there is potentially a significant moderation on the relationship between transformational leadership and knowledge management by organisational climate (adaptation).

Table 16.4.2 ANOVA^b of the relationship between leadership and knowledge management is affected by a moderated of adaptation

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	38.521	2	19.261	683.398	.000 ^a
	Residual	3.636	402	.028		
	Total	42.157	404			

a. Predictors: (Constant), Adaptation, Transformation

b. Dependent Variable: KnowledgeManagement

The multiple regression analysis also indicates that the F-ratio is 683.398 which attests to be significant at $p < 0.05$. Therefore the researcher has determined that with an F-ratio of this size, there is less than a 0.05 chance that the null hypothesis will not be rejected. Therefore, the moderating variable of organisational climate (adaptation) is significant, and has an effect on the relationship between transformational leadership and knowledge management.

Table 16.4.3 Coefficients^a of the relationship between leadership and knowledge management is affected by a moderated of adaptation

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	.233	.087		2.693	.008
Transformation	.889	.035	.925	25.743	.000
Adaptation	.031	.026	.043	1.208	.229

a. Dependent Variable: KnowledgeManagement

After having run the correlation analysis on the overall model, the results illustrated that for each unit that transformational leadership changes, knowledge management will now increase by 0.899. Furthermore it was indicated by the t value for the overall model that this model demonstrates significance as $0.000 < 0.05$. Therefore, this model proves that the effect that transformational leadership has an effect on knowledge management, has increased due to organisational climate (adaptation).

Conclusion

This chapter contained the details of the data analysis surrounding the research questions and hypotheses. Thus this chapter illustrated the results that were pertinent to the hypotheses and the sub hypotheses.

The results concerning hypothesis one with regards to the whether a relation exists between transformational leadership and knowledge management, illustrated that there is a significant relation between these two variables. With regards to the knowledge management dimensions, socialisation seems to be most affected by transformational leadership.

The results concerning hypothesis two with regards to the whether a relation exists between transactional leadership and knowledge management, illustrated that there is a significant

relation between these two variables. With regards to the knowledge management dimensions, socialisation seems to be most affected by transactional leadership.

The results with regards to whether organisational climate moderates the relation between transactional leadership and knowledge management, demonstrate that there is a significant relation between these two variables. With regards to organisational climate, 'adaptation' seems to have the greatest moderating effect.

The results with regards to whether organisational climate moderates the relation between transformational leadership and knowledge management, demonstrate that there is a significant relation between these two variables. With regards to organisational climate, 'mission' seems to have the greatest moderating effect.

CHAPTER 5

DISCUSSION & CONCLUSION

The literature review that was presented earlier in this thesis in chapter two highlighted and elaborated on various studies which included: (1) research pertaining to the relationship between knowledge management and leadership behaviours; and (2) the effect that organisational climate has on the relationship between leadership and knowledge management. However up until now, there has been a limited amount of research that has been conducted on the impact that organisational climate has on the relationship between knowledge management and leadership behaviours. Therefore the author has included in this chapter the discussion of the major findings of this thesis. Subsequently limitations experienced and recommendations for future research are also elaborated upon in this chapter. Ultimately, this chapter will conclude with the author providing a closing statement.

5.1. Revisiting the Research Objectives and Research Questions

It was decided that it will be useful to initially revisit that main objectives for this research study as well as the research questions before making mention of the study's major findings. The fundamental objective of this study was to essentially elaborate on the relationship between knowledge management and leadership behaviours whilst determining the impact if any that organisational climate has on this relationship.

5.2 Major Research Findings Discussion

Whilst both transactional and transformational leadership have been identified to be having links to organisational innovation, learning and knowledge management practices in various settings (Castiglione, 2006; Chang & Lee, 2007; Crawford, 2005; Politis, 2005, 2006), previous research has

not explored in detail the interactive effects that organisational climate and context could have on the relationship between leadership and knowledge management. Therefore this study incorporated this element to evaluate the way in which leadership and knowledge management interact in different types of organisational climate.

Ultimately, the proposed relationships of this study were able to be supported by the results. In specific it was found that both transformational leadership and transactional leadership behaviours, had a relationship to knowledge management practices within the enterprise. The results also illustrated that the relationship between transformational leadership and knowledge management was moderated by organisational climate. This was also the case with regards to transactional leadership and knowledge management.

5.2.1 Relationship between Transformational Leadership Behaviours and Knowledge Management Practices

Hypothesis 1: A relationship exists between a transformational leadership style and knowledge management practices within a South African SME.

This hypothesis sort to determine whether a relationship exists between a leader demonstrating effective transformational leadership behaviours and the attainment of successful knowledge management practices. In empirically analysing the data, the research rejected the null hypothesis in favour of the alternate, in which a relation does exist between a leader demonstrating effective transformational leadership behaviours and the attainment of successful knowledge management practices.

The data that generated these results came from the totality of ten questions that are related to transformational leadership and an additional thirteen questions related to knowledge management practices within the questionnaire. The total of these twenty three questions concerning the manager's ability to demonstrate effective transformational leadership and with regards to knowledge management practices were adopted from (Bass & Avolio, 1997) and (Sabherwal & Becerra-Fernandez, 2003) respectfully.

Furthermore, the results that were generated out of this analysis, demonstrate a positive correlation with that of knowledge management practices, so it is safe to conclude that the use of the transformational leadership will increase the chances of achieving successful knowledge management practices

One of the most important objectives of this thesis was to evaluate if there was a relation between leadership behaviours and practices of knowledge management within the enterprise setting. Numerous authors have noted in their studies that organisational learning and innovation had been significantly and positively impacted by transformational leadership (Chang & Lee, 2007; Howell & Boies, 2004; Politis, 2002). Thus it had been reasonable to conclude that leadership behaviours would bear a positive impact to knowledge management practices within an organisation. The results that have been gathered and compiled within this thesis provide abundant support for such a proposal at both the factor and the construct level, therefore confirming hypothesis H1.

As illustrated in chapter four, the statistical analysis has demonstrated that transformational leadership has a positive and statistically significant correlation to that of knowledge management. In addition, after having conducted a regression analysis, the author noted that transformational leadership accounted for a considerable amount of variance in knowledge management (as shown in chapter four). These results support the contentions from Politis's (2001, 2002) and Crawford (2005) in which they have stated that knowledge management inventory and knowledge acquisition attributes bear a positive relation to transformational leadership. What Politis (2001, 2002) had noted was that transformational leadership and self-management had a positive correlation to certain knowledge acquisition attribute dimensions (behavioural skills and traits). In a similar sense, one of Crawford's (2005) major findings was that there exists significantly strong relations between knowledge management behaviours such as applications, information creation and information acquisition to transformational leadership.

Furthermore, when comparing the results to those obtained of prior studies, the author noted that charismatic leadership behaviours bear a significant and positive correlation to the three knowledge management practice dimensions, namely knowledge exchange, internalisation and knowledge socialisation. The regression analysis that was conducted provide this thesis with strong

evidence needed to establish a causal link between the variables. The R^2 values linked with these relations point to the notion that transformational leadership accounts for a substantial amount of variance in all of the knowledge management practices. The above mentioned findings are in line with those obtained from prior studies within the field of organisational innovation and knowledge management (Chang & Lee, 2007; Coad & Berry, 1998; Lam, 2002). What these studies have suggested is that transformational leadership contributes to the creation of knowledge within the organisation and to a managerial mind-set which then in turn facilitates the flow of knowledge through the enterprise. It is for this reason that transformational leader plays a vital role in providing energy and vision for the sharing of knowledge and it further sustains effective knowledge management within the organisation.

After having reviewed the literature the author was of the notion that although transformational leadership behaviours would provide substantial support for knowledge management practices, that would not be the case for knowledge internalisation, as very few organisations are able to involve their employees in exemplifying explicit knowledge into tacit personal knowledge (personal learning). However the results from the thesis proved to be consistent with Vera and Crossans's (2004) notion, that through the inspiration of members of the organisation, a transformational leader is able to promote growth with regards to learning in the enterprise. As mentioned, the author originally thought otherwise. One possible explanation for this, is that in contrast to the emphasis that Vera and Crossan (2004) put on organisational learning, the notion of knowledge internalisation is more focused on the individual level. It is stated by Nonaka (1994) that through internalisation, individuals practice and read explicit knowledge and broaden the learning curve of knowledge creation. "Charisma is usually a single-minded dedication to the firm's vision and purpose – a trait that could negatively influence individual-level learning (Nahavandi, 1993, pg.12), thus a charismatic/transformational leader might have a limited impact on knowledge internalisation. The above explanation has also been substantiated by Rafferty & Griffin's (2004) in a study within the Australian public sector of 1 398 employees, in which they discovered that at an individual level, a transformational leader did not always positively influence the followers of the enterprise.

However, the findings in this study are rather interesting and fascinating with regards to the field of knowledge management and leadership theories as not only does it provide support for the notion that an enterprise is able to “diagnose” a possible leader with transformational leadership behaviours, but it also provides support for the idea that these behaviours might be the stimulus that is needed to move enterprise learning at the individual level forward. It also gives rise to the suggestion that while a transformational leader might play a vital role with regards to learning at an organisational level, they may too have a good degree of influence as to what an individual views as knowledge.

5.2.2 Relationship between Transactional Leadership Behaviours and KM Practices

Hypothesis 2: A relationship exists between a transactional leadership style and knowledge management practices within a South African SME.

This hypothesis sort to determine whether a relationship exists between a leader demonstrating effective transactional leadership behaviours and the attainment of successful knowledge management practices. In empirically analysing the data, the research rejected the null hypothesis in favour of the alternate, in which a relation does exist between a leader demonstrating effective transactional leadership behaviours and the attainment of successful knowledge management practices.

The data that generated these results came from the totality of ten questions that are related to transactional leadership and an additional thirteen questions related to knowledge management practices within the questionnaire. The total of these twenty three questions concerning the manager’s ability to demonstrate effective transactional leadership and with regards to knowledge management practices were adopted from (Bass & Avolio, 1997) and (Sabherwal & Becerra-Fernandez, 2003) respectfully.

Furthermore, the results that were generated out of this analysis, demonstrate a positive correlation with that of knowledge management practices, so it is safe to conclude that the use

of the transactional leadership will increase the chances of achieving successful knowledge management practices

The role of that transactional leadership behaviours plays in developing and fostering innovation, organisational learning and commitment within the organisation has been well established by past literature (Bass & Avolio, 1990; Chen, 2004; Chen & Barnes, 2003; Howell & Avolio, 1993). Thus one may make a reasonable deduction in stating that transactional leadership behaviours will enhance the organisations knowledge management practices. This deduction is support by the results of this study, therefore confirming the research hypothesis H2.

After having reviewed the results from the regression analysis, it has indicated that transactional leadership behaviours and knowledge management are significantly related to one another. In specific, the R^2 value that is linked to this relation, illustrates that transactional leadership accounts for a substantial portion of the variance in knowledge management (as mentioned in chapter four). The results of this study therefore lends to support to the contention made by Vera and Crossan (2004) in which they stated that behaviours of transactional leadership will effectively assign to the employees, a strong value for past experiences, procedures and rules of the organisation; and then in turn stimulate the flow of learning from the enterprise to the groups and individuals. In a study conducted by Chang and Lee (2007), in which they assessed 1000 top companies in Taiwan, discovered that through the provision of training programs and formal systems, transactional leaders were able to disseminate existing learning. In a similar fashion, a study done by Zagorsek, Dimovski, and Skerlavaj, (2009) confirmed that a significant relationship exists between the operation of learning within the enterprise and transactional leadership.

Notably, when comparing the findings in this study to similar studies done in the past, one possible reason for the significant relation between knowledge management and transactional leadership could be due to the contingent reward component that is associated with Bass's (1985) transactional leadership model. There are several explanations for this. More often than not, many believe that knowledge is power and therefore people often have this feeling of ownership over their knowledge, thus tending to hoard it (Andreas, 2005). What this then does is create more competition amongst employees and may be further heightened by the thought of recognition or

reward. When there is a contingent reward system that is put into place by a transactional leader, the employees feel directed and motivated to achieve and meet the required performance standards, in hopes of gaining or attaining a reward for their efforts. These rewards may come in the form of pay increases, recognitions, praise or better projects (Yukl, 2006); this then leads to the improvement of knowledge creation and organisational learning. However it should also be noted that through this type of system and behaviour, many negative consequences could arise through increased competition amongst employees (Coad & Berry, 1998).

It is important to note that the effectiveness of the leadership style will vary according to the organisational context (Bass, 1985). Within an SME setting, it is the leader that is also the owner of the business, who will oversee the entire operation of the business. Therefore decision making is quite centralised and most of the power lies in the hands of the owner. In addition, SME's are often believed to be having an advantage over their larger counterparts when it comes to the knowledge management implementation, due to their structure (Handzic, 2006). This is partly due to the fact that SME's have simpler, less complex and flatter structures, which will in turn enable a change indicative throughout the enterprise since functional integration, both vertically and horizontally is much more easily achievable and less complications will arise (Handzic, 2006). Therefore, this gives rise to the notion that transactional leaders/managers within an SME setting have a great opportunity of exemplifying the behaviours they want to be present within the enterprise, such as sharing, creating and knowledge application.

It is contended by Vera and Crossan (2004) that whilst a transformational leader might promote group and individual learning within a change context, the leader that exhibits a transactional leadership style does so in a context of stability. The author has noted that the enterprise that was surveyed has a strong emphasis on continuity, safety and efficiency, instead of on punctuated change, risk taking and experimentation; therefore the type of predictable behaviours indicated by contingent reward leadership may be somewhat more operational and efficient. A leader that exhibits a contingent reward component will clarify the tasks of the individual, their expectations and responsibilities, as well as discovering what is fair and will issue a reward only on the completion of a task; they put a strong emphasis on conditions, clarify structure, give instructions and goal setting. The above explanation may also serve as an

explanation for the effects of mission, adaptation and hierarchy dimensions of organisational climate on that of the effectiveness of transactional leadership (to be discussed in the next section).

Another fascinating and possible explanation to explain the relationship between knowledge management practices and transactional leadership might be due to management-by exception behaviours, which form a huge component of transactional leadership. As it has been noted, knowledge management practices often involve a high level of technicality and therefore it can be reasonably argued that an effective leaders might find it useful to adopt some transactional behaviours- in specific, management by exception. However it is important to note that this might not always be the case. Due to the nature of management by exception leadership behaviours, it is better suited in operating within environments that have more defined constraints, and these behaviours often focus on maintaining a stable organisation (Bass, 1985). What this then means is that creativity might be stifled by these leadership behaviours within the organisation.

On the other hand, and in addition to the point mentioned above, it is suggested by Avolio, et al. (1999) that the behaviour of management by exception might be more relevant and viewed positively in an environment which is high risk and the need to identify and correct mistakes is of vital importance as the enterprises survival depends on it. However the author seeks to point out that this type of context was not too prevalent with regards to the company evaluated in this thesis, and therefore management by exception might not have been overtly used. It is thus necessary to warrant further research into the impact that contextual factors have on leadership effectiveness.

5.2.3. Moderating Effects of Organisational Climate

Hypothesis 3: The strength of the relationship between transformational leadership and knowledge management is moderated by organisational climate.

These hypotheses sort to determine whether organisational climate has an impact on a leader's ability in demonstrating effective transformational or transactional leadership behaviours in the attainment of successful knowledge management practices. In empirically analysing the data, the research rejected the null hypotheses in favour of the alternate, in which organisational climate has an impact on a leader's ability in demonstrating effective transformational or transactional leadership behaviours in the attainment of successful knowledge management practices

The data that generated these results came from the totality of 20 questions that are related to transformational and transactional leadership and an additional 20 questions related to organisational climate within the questionnaire. The total of these 40 questions concerning the impact that organisational climate has on the manager's ability to demonstrate effective leadership and with regards to attaining successful knowledge management practices were adopted from (Bass & Avolio, 1997) and (Fey & Denison, 2003) respectfully.

Furthermore the results that were generated out of this analysis, demonstrate a positive correlation between organisational climate and leadership, so it is safe to conclude that organisational climate does impact on both leadership styles and thus impacts the chances of achieving successful knowledge management practices.

Within the literature review, it was noted that organisational climate to a large extent is developed through the leadership that is in place, whilst on the other hand, leadership is too affect by the climate of the organisation leadership (Bass & Avolio, 1993; Block, 2003; Brazier, 2005). Therefore as stated above, the third and fourth hypotheses of this thesis proposes that the relation between transactional and transformational leadership to knowledge management is moderated by organisational climate. The results of this thesis was able to support both the hypotheses, thus it being in line with past studies within this field. It was found that

organisational climate had an impact on transformational leadership at all levels and with regards to transactional leadership, organisational climate had the most prevalent effect in between transactional leadership and hierarchy.

In specific with regards to the moderating relation that was tested between organisational climate and transformational leadership, the regression analysis demonstrated that there was a statistical level of significance between the two variables (as can be seen in chapter four). These results pointed out that depending on the dimension of organisational climate (mission, adaptability or hierarchy) the effect that transformational leadership would have on knowledge management practices within the organisation would vary. Whilst there has been a limited amount of research conducted within regards to the impact that organisational climate has on the relationship between knowledge management practices and transformational leadership, the results of this study are in line with studies conducted within the field of organisational climate and leadership. One such study was that conducted by Bass and Avolio (1993) in which they stated that the effectiveness of a transformational leader would be dependent on the climate that is implemented. Another such study was conducted by Howell and Avolio's (1993) in which they went on to find that a transformational leader would perform better in a climate within the enterprise that the followers described as innovative.

In order to explain the above findings, the author firstly turns to the regression analysis that was conducted in which this revealed that more than 91.4% of the variation in knowledge management was explained by transformational leadership and organisational climate (as can be seen in chapter four). It can thus be deduced that transformational leadership may adjust the climate or entirely create a new climate in order to support the knowledge management practices, instead of merely having a direct impact on knowledge management itself. This notion is supported by other researcher such as Jung's, et al. (2003) in which he contended that a transformational leadership has the ability to indirectly and directly alter the level of innovation within an enterprise through the creation of a supportive organisational climate. With regards to climate, it is proposed by Lim (1995) that organisational performance is impacted by leadership, however this happens whilst organisational climate acts as a filter. Lastly in a similar fashion, it was reported by Ensari and Murphy (2003) that organisational commitment and organisational

climate had a substantial impact on the performance of the followers within the organisation through its impact on variables such as leadership.

Secondly, the author noted that according to the social cognitive theory, the perceptions that the follower has towards the charisma attributes of the leader may be the result of the usage of leadership prototypes (Ensari & Murphy, 2003). According to research within this field, in a collectivist climate, the followers perceptions towards leadership charisma are based on the degree to which the enterprise or the followers experience a positive outcome with regards to performance; on the other hand, in an individualistic cultural context, “perceptions of leadership charisma are based on a comparison of the behaviours that employees observe with these leadership prototypes”- (Lord, Foti, & DeVader, 1984, pg. 23). These results were mirrored by Avolio and Bass (1995) in which they argued that what one person might view as charisma, might be seen by another as paternalistic or interference. Thus it is safe to assume that the perceptions of charismatic attributes of leaders within an organisation will be dependent on the climate within that enterprise that they experience or the work environment present (Avolio & Bass, 1995). In addition it is noted in a study conducted by Testa (2009) that a follower’s perception of a leader will be influenced through climate congruence. Thus the perceptions that the followers have towards the transformational leader will be biased and dependent on the performance of the enterprise as well as its climate.

However, it should be noted that whilst this study found that organisational climate does impact the relation between transformational leadership and knowledge management practices, it is important to note that secondary cultural embedding mechanisms such as the physical arrangement of work space, existing procedures and systems, as well as organisational structure were not taken into consideration within this thesis. It was noted in the literature review of this thesis, that knowledge management practices may be negatively affected by a climate within the organisation that is highly dependent on regulations, rules, procedures and that is highly formalized (De Long & Fahey, 2000; Schein, 2004). In addition to the above mentioned point, in a study conducted by Lam (2002), it was found that the effectiveness of a transformational leader will depend on the contextual factors put in place such as the degree of power sharing, formal

arrangement of works and organisational structure. However it is difficult for the author to gauge the impact that these secondary influences might have on the outcome, as they were not considered within this study. It should be noted that the significantly strong moderating relation discovered in this present study, might be due to, or could have been impacted due to the absence of considering these secondary influences.

Notably, the results and arguments made in this study contributes to literature in the sense that it suggests that further research be conducted into the complex relation between organisational climate and transformational leadership within the knowledge management fields. This is also partly due to the arising argument that the impact that climate has on the transformational leadership effectiveness might be due to the follower's perceptions about the leader's behaviours and not due to the organisational climate itself. In addition it seems as if the perceptions of transformational leadership and organisational climate are not independently related to one another, but rather bear a contingent relation. All in all the author has noted that more variables have to be taken into consideration in order to firmly deduce that this relation exists.

Hypothesis 4: The strength of the relationship between transactional leadership and knowledge management is moderated by organisational climate.

Moving on to transactional leadership, the results that were generated in chapter four on this study provide support for the hypothesis that organisational climate does have an effect on the relationship between transactional leadership and knowledge management within a South African SME. There has been a limited amount of research conducted with regard to this hypothesis and to the author's knowledge, this link had not yet been previously tested. Once having run the regression analysis for this model, testing the relationship between Transactional leadership (IND), organisational climate (IND), and knowledge management (DEP) the results illustrated that transactional leadership and organisational climate can account for 86.8 % ($R^2=0.868$) of the variation in knowledge management. This variation varies slightly when considering the different organisational climate dimensions, however it does provide this thesis

with substantial evidence that supports the above mentioned hypothesis. The author has thus concluded that H4 has been supported.

The findings of this study, as, mentioned above, are in line with the propositions confirmed by Bass's (1985) and Howell and Avolio's (1993), in which they have stated that the effectiveness of a transactional leader is dependent on the organisational climate that is put into place at an enterprise. However what differs in the present study in comparison the above authors is that in Bass's (1985) and Howell and Avolio's (1993) studies, they noted that mission and hierarchy climate would have a negatively impact on leadership, whilst this study found that not to be true. Their findings are in contrary to Burns and Stalker's (1961) who, like the author of this study believe that highly standardised, formalised and centralised organisational climate are in actual fact, preferred by a transactional leader. Bass and Avolio (1993) however believe that an enterprise with a strong organisational climate, that has values and internal guides that ensure that lower levels have more autonomy, may prevent a transactional leader from increasing their own impact the employees. In line with this notion, it is the positon of Kwantes and Boglarsky (2007), that certain aspect of an organisational climate, in specific, those that promote competition and control may actually negatively affect the effectiveness of a transactional leader. The author also discovered that Masood, et al. (2006) believed that market type and hierarchical climate would negatively affect a transactional leader.

Within the spectrum of knowledge management and organisational learning, the results that have been generated out of this study further extend the discovery of Politis (2001, 2002) and Crawford (2005) by coming up with a broader picture regarding the relation between that of knowledge management and transactional leadership. Through this study it was discovered that whilst all of the types of organisational climate had an impact on the relationship between knowledge management and that of transactional leadership, they varied by a certain degree with regards to the effect it has. Thus it is imperative for a leader to take note of this if they wish to influence their followers in successfully achieving an effective knowledge management system, as this may be dependent on the type of climate within the enterprise that is currently being practiced.

In addition, after having conducted a correlation analysis, it was found the transactional leadership behaviours along with organisational climate, were significant predictors of knowledge management (as can be seen in chapter four). In addition to the finding mentioned earlier, this finding further confirms that with regards to the relation between transactional leadership and organisational climate, the behaviour of the leader could critically impact the climate. Therefore as mentioned by Crawford (2005) “leaders should, therefore, use this mechanism appropriately in order to establish the forms of thinking and the levels of motivation and behaviours that are important for their organisations” (p.23). When one of the primary focusses of the enterprise is its knowledge management practices, it is vital for the leader to set out time and attention to issues and activities surrounding knowledge management; this can be done through every day activities that in turn send out clear messages that the leader wishes to get across. Therefore in a knowledge organisation it is evident that one of the fundamental priorities that should be on a leaders list, is the shaping and grooming of the organisations climate, in order to promote knowledge sharing and learning.

In concluding this section, it is quite evident that with regards to the relation between knowledge management and leadership, and the association the organisational climate has to this relation, the study found there to be a strong positive relation; it is therefore real and thus lays the groundwork upon which the evaluation of the impact that contextual contingencies might have on the relation between knowledge management and leadership, which could further extend the line of research. Currently with regards to knowledge management, research is focused on the internal organisational factors that have been affecting its processes. However these knowledge management processes may also be impacted through variations within different enterprises. In addition this is the case too, when it comes to the strategy of a firm- for example, a firm pursuing wither a differentiation or low cost strategy will have its knowledge management practices impacted. Another aspect that would also seem to affect knowledge management practices in the firm is that of the organisational environment, which includes elements such as technology, rate of exchange, government regulation, the level of competition and the type of business (Boisot, 1998). Research to be conducted in the future should then take a deeper look at the

connection between external and internal factors within the enterprise and the way in which they impact the knowledge management practices. Finally, it is important to state that future research needs to make mention of and examine how external factors impact the need for transactional and transformational leaders if the organisation is to focus on knowledge management. This is due to the concern that within certain industries, their needs may differ, such as one might be facing high competition levels and regulation levels, whilst another has the concern of maintaining a high rate of technological change. It can be reasonably assumed that these external factors will impact the effectiveness of the leader within the enterprise.

5.3. Study Contributions

While evaluating the concepts of leadership, knowledge management and organisational climate, it was quite evident that there was a wealth of research that had been conducted within each of the respective fields. However what was lacking what studies pertaining to the combination of these elements. After having researched leadership and organisational climate extensively, the author thought it would be likely that climate could act as a moderating variable in the relation between leadership and knowledge management. However as stated above, evidence of prior studies evaluating this type of interaction was seemingly limited or non-existent. In an attempt to redress such an imbalance the author undertook this study, and issued a survey which was then analysed and evaluated in order to empirically test the hypotheses.

It can be seen from the results of this thesis, that transactional and transformational leadership behaviours does have a significant and positive impact to knowledge management practices in an enterprise setting. In addition to the above, it was also noted that the impact that leadership behaviours have on knowledge management practices, is also dependent on the type of organisational climate. Thus, the findings and results that have been generated form this these, make numerous contributions to the knowledge management, organisational climate and leadership with regards to research and practice.

5.3.1. Recommendation for Academics

Each and every aspect of our daily interactions with humans involve to an extent a component of leadership, whether it has to do with industry, education, government, politics or social interaction. Therefore it is imperative for academics to fully understand the antecedents of leadership in order for them to understand and explore the way in which leadership may enhance a particular domain, such as knowledge management. This also proves important when we look at applying leadership to other areas and domains, and furthermore in teaching the concept of leadership and all its elements to others.

Academia and researchers are implored to take into consideration the results and analysis of this study when looking to teach these concepts or further explore elements related to this thesis –with regards to leadership and knowledge management-. Due to the fact that the author could only find these variables being studied independently and not in conjunction with one another, many academics have not yet taken into consideration and have thus not taught it within the classroom. However since the author has undertaken to do this type of study, in which measures have been validated and empirical data has been collected and is practical, the actual affect that leadership has on knowledge management practices in SME's can now actually be analysed further.

Before the advent of this study, whilst there might have been a plethora of research conducted on leadership, which has thus generated numerous assumption as to the role of leadership in attaining successful knowledge management within an SME (Bryant, 2003; Lam, 2002; Sarin & McDermott, 2003; Vera & Crossan, 2004), researchers have yet to pin point the mechanisms and particular leadership behaviours through which a leader may have an impact on the organisations knowledge management practices. However, what this study is then able to do is offer new insight and further issue the research and other researcher empirical evidence as to which leadership behaviours may best promote and facilitate effective knowledge management practices within the enterprise. In particular, what this study has discovered is that the leaders who are most effective in ensuring successful knowledge management practices within the organisations are those which are capable of utilising both contingent reward and charisma

behaviours. These leadership behaviours are most effective in the promotion and facilitation of knowledge exchange and knowledge facilitation within the enterprise.

Lastly unlike previous studies, this study did not only match transactional and transformational leadership to that of knowledge management (Crawford, 2005; Jung, et al., 2003; Politis, 2001, 2002). What it also considered and further discussed was the climate conditions through which knowledge management is affected by leadership behaviours. The results that were generated out of this study bear a very close resemblance to those studies conducted previously with regards to the impact that organisational climate has on the relation between knowledge management and leadership (Bass & Avolio, 1993; Gilley, McMillan, & Gilley, 2009; Yiing & Ahmad, 2009), and further makes numerous contributions within this field. Firstly both transactional and transformational leadership theories have undergone immense criticism from researchers for not taking into consideration organisational context (Conger & Kanungo, 1994; Yukl, 2006; Yukl & Van Fleet, 1992). However in utilising organisational climate as a moderating variable within this study, this limitation has been addressed. Secondly, in conducting this investigation the author has incorporated the call for evaluating context with studying leadership and knowledge management. After having reviewed the results of this study, the author implores others to further extend and consider other cultural and contextual factors when studying leadership behaviours as well as when studying the effect that these behaviours have on knowledge management practices within an enterprise. The identification of contextual factors that affect the manner in which followers perceive their leader as well as the climate within the enterprise appears to be a hopeful exploration area.

5.3.2. Implications for Managerial Practices

Numerous imperative implications originate out of this thesis for organisations. The results that were generated out of this thesis indicate that both types of leadership –transactional and transformational- are vital if an organisations hopes to achieve successful knowledge management practices. However it is important to note that the success of the knowledge management system is dependent on how well the leader within the enterprise can juggle and strike and balance between transactional and transformational behaviours, relationship and

task orientation as well as participative and authoritarian systems. A leader that opts to make use of a transactional leadership style will operate in the current climate and will follow procedures, values and norms that already exist within the enterprise. Therefore current knowledge management practices will thus be reinforced through transactional leadership. In contrast to the above, transformational leadership behaviours will allow the top management to change and alter the climate of the organisation in order to realign it to the new vision when required.

In addition, two leadership behaviours that were noted to being highly instrumental in achieving effective knowledge management practices, are that of charisma and contingent rewards. Therefore depending on the situation a leader should focus on harnessing these leadership behaviours. These leaders should be able to build a foundation of trust and respect on working with individuals, issuing rewards for the effective achievement of objectives, on clarifying expectations and forming and defining agreements in order to attain precise objectives. It should be noted that only once a leader has formed a firm transactional foundation that can inspire employees can they then extend them by adding other charisma behaviours. Once this is done, the leader can finally seek to attain a common vision of knowledge management. Another important point that has been made by Bass (1985) is that transactional and transformation behaviours can be learnt through effective training programs. This carries a very important message for managers. It is important for them to put in place training program in order for leaders to learn the required behaviours which will then in turn have a positive impact on knowledge management.

Lastly organisational climate was also a key element that was highlighted within this study. The findings of this study demonstrated that the effectiveness of a leader is dependent on the type of climate within the organisation. On the opposite side of the spectrum, it was discovered that the leader too has an impact of the climate. Therefore it is imperative that the leader use this instrument in the correct manner and form the levels of motivations and required thinking and behaviours that are vital for the enterprise. When the aspect of knowledge management is a key focus for the organisation, a leader needs to ensure that time and attention is devoted to knowledge issues and activities. This can be done through every day behaviours that will send

clear messages to the followers, such as knowledge sharing and partaking in knowledge creation.

5.4. Limitations and Future Directions

Despite the fact that the author of this study followed a rigorous analysis procedure and an exhaustive research method, the findings that were generated out of this study, need to be examined and analysed whilst keeping in mind several limitations that have been identified during the conduction of this thesis. The limitations that were identified along with recommendations for future researched are outlined below.

As previously mentioned this study was based on a positivist paradigm and in doing so, the research study could have missed key employee insights that would have otherwise been obtained if a different paradigm was used.

Another limitation that is evident is due to the cross-sectional nature of the thesis. There is a possibility that at least some components of organisational climate and leadership, and their relation to knowledge management will appear with a degree of time lag. In order to attain some more insight with regards to the impact of leadership and organisational climate, the author has noted that future research should include an element of a longitudinal treatment of the data. This thesis has also failed to actually observe the interaction of followers and managers. It has been recommended by experts that in order to get a better understand of a relationship, the survey measures should be supplemented with observational data (Howell & Avolio, 1993). It is a common belief that such a method would be best in order to gain an understanding of complex leadership forms within various contexts (Bass & Avolio, 1990). Nonetheless it should be noted that the findings that have originated from this thesis are in line with theoretical predictions and prior research.

Lastly although this study examined the relation and impact that organisational climate has on the link between knowledge management and leadership, there might be other moderating variables such as contextual factors, strategies and organisational structures that could alter

the results of the study. What should be done then in future research is to “extend the understanding of leadership behaviours as antecedent to knowledge management practices by involving these moderating and mediating variables” - (Bass & Avolio, 1990, pg.23).

5.5. Closure

Knowledge management, organisational climate and leadership are and have been for quite some time, major contemporary business topics. They have been regarded as vital factors for the survival of businesses within a global competitive market atmosphere. There has been a plethora of research that has been conducted on each of these three variables, however studies pertaining to the combination of these variables have been limited if not, non-existent.

Therefore this study is useful in filling that gap. In particular, this study looked to examine that relation that exists between different leadership styles and knowledge management practices; additionally it looked at the impact that organisational climate has on that relationship. In order for the author to achieve the objectives of this thesis, a research model was developed in which it comprised of four concepts: knowledge management, organisational climate, transactional leadership and transformational leadership. A series of different quantitative techniques were used in order to test and assess the research model and the formulated hypotheses; these were regression analysis and Pearson r correlation tests. The analysis was conducted using data that was gathered through the use of a questionnaire survey from a SME with South Africa.

Reinforced by the findings of this research study, this thesis provides additional information with regards to knowledge management, organisational climate and leadership through the gathering and providing of empirical evidence with regards to the relation between knowledge management and leadership and the impact that climate has on this link. However in particular, the results that were generated out of this study indicate that both transactional and transformational leader bear a positive relation to that of knowledge management. In addition after having examine the effect that organisational climate has on this relation, the author

stated that organisational climate would attenuate the effectiveness of both styles of leadership. It is also important to note however that the results also pointed to the notion that leadership also plays an instrumental role in the creation and maintenance of climate. These findings then have an important practical implication for managers in which it provides them with the knowledge of which organisational mechanisms and leadership behaviours will be best if the focus of the enterprise is on knowledge management practices. It is recommended that an effective leader must facilitate experimental learning of knowledge, build trust, experiment through empowerment, encourage questioning and ascribe a high degree of importance to knowledge. Ultimately this thesis draws to a close with stating the limitations faced by this study and some recommendation on how to overcome them in order to further enhance the findings of this thesis.

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Appendix A – Ethical Clearance



HUMAN RESEARCH ETHICS COMMITTEE (NON-MEDICAL)
R14/49 Jada

CLEARANCE CERTIFICATE

PROTOCOL NUMBER: H16/11/13

PROJECT TITLE

The impact of leadership on culture and knowledge management practices

INVESTIGATOR(S)

Mr S Jada

SCHOOL/DEPARTMENT

Economics and Business Science/

DATE CONSIDERED

18 November 2016

DECISION OF THE COMMITTEE

Approved

EXPIRY DATE

29 November 2019

DATE

30 November 2016

CHAIRPERSON


(Professor J Knight)

cc: Supervisor : Mrs A Moodley

DECLARATION OF INVESTIGATOR(S)

To be completed in duplicate and **ONE COPY** returned to the Secretary at Room 10004, 10th Floor, Senate House, University. Unreported changes to the application may invalidate the clearance given by the HREC (Non-Medical)

I/We fully understand the conditions under which I am/we are authorized to carry out the abovementioned research and I/we guarantee to ensure compliance with these conditions. Should any departure to be contemplated from the research procedure as approved I/we undertake to resubmit the protocol to the Committee. **I agree to completion of a yearly progress report.**

Signature _____

Date ____/____/____

PLEASE QUOTE THE PROTOCOL NUMBER ON ALL ENQUIRIES

Appendix B- Organisational Consent



Company Name: Shoppersconnexion

Date: 01 September 2016

We hereby support Mr. Shaheer Jada's application, a Masters by Research student from the University of Witwatersrand, to conduct a survey with our staff for a period of 3 months from the 1st of October until the 1st of January

Permission is granted to Mr. Shaheer Jada subject to him obtaining ethical clearance to conduct research from the Ethics Committee of the University of Witwatersrand, Johannesburg and by abiding to its terms.

I have been informed of Mr. Shaheer Jada's line of research and the nature of the intervention (Employees filling out questionnaires)

Name: Razia Haffejee

Email: Shoppersconnexion@gmail.com

Signature:

A handwritten signature in blue ink, appearing to read 'Razia Haffejee', is written over a horizontal line.

Appendix C: Participation Letter



Date: 10 November, 2016

Good Day

My name is Shaheer Jada and I am a Masters student in the Human Resource Management Division at the University of Witwatersrand, Johannesburg. I am conducting research on an issue of whether there is a relationship between leadership and knowledge management and whether organisational climate will moderate this relationship. Two leadership styles will be assessed – Transformational and Transactional. It is believed that these two styles are the most effective in gaining employee results.

As employees that have had some sort of involvement within SMEs at some level, you are **invited** to take part in this survey. The purpose of this survey is to find out the extent to which these leadership styles (Transactional and Transformational) contribute towards knowledge management success.

Your response is important and there are no right or wrong answers. This survey is both confidential and anonymous. Anonymity and confidentiality are guaranteed by not needing to enter your name on the questionnaire. Your participation is completely voluntary and involves no risk, penalty, or loss of benefits whether or not you participate. You may withdraw from the survey at any stage.

The first part of the survey comprises 53 multiple choice questions. Please indicate your answer by circling one of the options available. The second part of the survey comprises of 7 questions and captures demographic data. Please tick whichever boxes are applicable. The entire survey should take between 10 to 15 minutes to complete. The survey was approved unconditionally by the Wits University Research Ethics Committee (Non-Medical), Protocol Number: H16/11/13.

Thank you for considering participating. Should you have any questions, or should you wish to obtain a copy of the results of the survey, please contact me on (011) 421-9025 or at 683323@students.wits.ac.za

My contact details: 683323@students.wits.ac.za Cell- 0786222884

My supervisor's contact details: Althea- althea.jansen@wits.ac.za Cell- 0716739471

HREC (NON-MEDICAL) contact details: Lucille.Mooragan@wits.ac.za or 0117171408 for queries

Kind regards

Shaheer Jada

Masters Student: Division of Human Resource Management

School of Economic and Business Sciences

University of the Witwatersrand, Johannesburg

A handwritten signature in blue ink that reads 'SJada'. Below the signature is a horizontal line.

Appendix D: Participation Consent



Dear Participant,

As part of the requirements to complete my Masters at University of Witwatersrand, I am performing the research project component of my degree program. Your participation in this study is requested.

Title of research project: The relationship between leadership and knowledge management. The moderating effect of organisational climate.

Nature of the research: Conducting an investigation to test if there is a relationship between of Leadership behaviours and Organizational Culture on Knowledge Management Practices

Participant's involvement: Completion of a questionnaire that will provide data to enable one to conduct the investigation

What's involved: Each employee will complete an assessment consisting of 53 Likert-type questions and 7 demographic-type questions. (One Survey per participant).

Risks:

Confidentiality: The records of this study will be kept private. In any sort of report we might publish, we will not include any information that will make it possible to identify. Research records will be stored securely and only researchers will have access to the records.

Voluntary Participation: Participation in this study is voluntary. You may opt to withdraw at any time.

Benefits: An opportunity to build on the knowledge with regards to Leadership and Organisational Climate as well as establish means by which successful knowledge management can be achieved.

I acknowledge the following:

- I agree to participate in this research project.
- I have read this consent form and the information it contains and had the opportunity to ask questions about them.
- I agree to my responses being used for education and research on condition that my privacy is respected, subject to the following:
 - I understand that my personal details will not / may be included in the research / will be used in aggregate form only, so that I will not be personally identifiable (delete as applicable.)
 - I understand I have the right to withdraw from this project at any stage.

Name of principal researcher	Shaheer Jada
Department	School of Economic and Business Sciences
Telephone	011 421 9025
Email:	683323@students.wits.ac.za
Name of Participant	
Signature of person who sought consent	
Name of person who sought consent	
Date	

Appendix E- Instrumentation

Research Questionnaire

Section 1: Multifactor Leadership Questionnaire- Form 5X- Short

Using the following scale, please rate your immediate supervisor/team leader by placing an X on your choice of the following statements

Not at all	Once in a while	Sometimes	Fairly Often	Always
0	1	2	3	4

My team leader/supervisor.....

		0	1	2	3	4
a	Provides me with assistance in exchange for my efforts					
b	Re-examines critical assumptions to question whether they are appropriate					
c	Fails to interfere until problems become serious					
d	Talks about their most important values					
e	Focusses attention on mistakes and deviations from standards					
f	Seeks different perspectives when solving problems					
g	Avoids getting involved when important issues arise					
h	Talks opportunistically about the future					
i	Is absent when needed					
j	Instills pride in me for beings associated with them					
k	Discusses in specific terms who is responsible for achieving performance targets					
l	Talks enthusiastically about what needs to be achieved					
m	Waits for things to go wrong until taking actions					
n	Specifies the importance of having a strong sense of purpose					
o	Makes clear what one can expect upon achieving objectives					
p	Spends time coaching					
q	Shows that they are a firm believer of "if it's not broke, don't fix it"					

r	Goes beyond self-interest for the good of the group					
s	Demonstrates that problems must be chronic before taking action					
t	Treats me as an individual instead of just another group member					

Section 2: Measuring Organisational Climate- Denison Organisational Climate Survey

Using the following scale, *please indicate the extent to which you agree with the following statement about your organisational climate and the way in which it operates*

Not at all	Once in a while	Sometimes	Fairly Often	Always
0	1	2	3	4

In my organisation.....

		0	1	2	3	4
a	Decisions are usually made at a level where the best information is available					
b	Information is widely shared so that everyone can access it					
c	Everyone believes that they can have a positive impact					
d	Working is like being part of a team					
e	We rely on coordination to get work done					
f	Teams are the primary building block of the organisation					
g	We are very responsive					
h	We respond well to competitors					
i	We continually adopt new ways to do work					
j	Customer comments often lead to changes					
k	Customer input directly influences our decisions					
l	We view failure as an opportunity to learn					
m	We encourage and reward those who take risks					

n	There is a long term purpose and direction					
o	There is a clear mission that gives direction to our work					
p	There is a clear strategy for the future					
q	There is a widespread agreement about goals of the organisation					
r	Leaders of the organisation set goals that are ambitious but realistic					
s	We have a shared vision of what the organisation will be like in the future					
t	Leaders of the organisation have a long term orientation					

Section 3: Measuring Knowledge Management Processes

Using the following scale, *please indicate how frequently each of the following processes and tools are used to manage knowledge within the organisation*

<u>Not at all</u>	<u>Once in a while</u>	<u>Sometimes</u>	<u>Fairly Often</u>	<u>Always</u>
<u>0</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>

		0	1	2	3	4
a	On the job training					
b	Learning by observation					
c	Face-to-face meeting					
d	Brainstorming retreats or camps					
e	Employee rotation across all areas					
f	Cooperative projects across directorates					
g	Respositories of information, best practices and lessons learned					
h	Web pages (Intranet and Internet)					
i	Databases					

j	Modelling based on analogies					
k	Capture and transfer of experts knowledge					
l	Decision support systems					
m	Pointers to expertise (skill “yellow pages”)					

Section 4: Background Information

- Gender: ☐ Male ☐ Female
- Size of last team you have been a part of:
☐ <5 ☐ 5 – 10 ☐ 11 – 20 ☐ 21– 50 ☐ 51-100 ☐ > 100
- The department in which I work in:
☐ Finance ☐ HR ☐ Marketing ☐ Education
☐ Information Technology ☐ Other _____
- The number of people in my organisation unit:
☐ 20 or less ☐ 21 – 50 ☐ 51-100 ☐ 101-200
☐ 201-500 ☐ 501 or more
- Number or years of organizational experience:
☐ 1-5 ☐ 6-10 ☐ 11-20 ☐ 21 or more

6. What best describes my position:

☐ Senior Management ☐ Middle Management ☐ Line Management

☐ Contractor ☐ Consultant ☐ Analyst

7. In my organisation I mainly work as:

☐ Team Leader ☐ Team Member ☐ Supervisor ☐ Other

End of Questionnaire

Thank You for your participation

If you have any questions or comments please write them behind this page.