The Relationship between Leadership and Knowledge Sharing: an Empirical Study of Private Schools in Dubai

Thesis submitted for the degree of Doctor of   Philosophy

at De Montfort University

by

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Dedication

To my parents, my wife, my children who stood by me providing their support and care all along this long journey of over six years. Their ongoing support never ceased. Thank you for your support, guidance and above all your patience and your moral uplifting

Abstract

Purpose

The study empirically examines the relationship between leadership styles (Transformational and Transactional Leadership) and knowledge management processes in context of private schools in Dubai. Knowledge processes and leadership styles have both been central to discussions within the academic literature. While the number of empirical studies looking at the interaction between these dimensions has been limited.

Design /Methodology /Approach

The study has adopted an explanatory design model (Thomas, et al, 2015; Creswell & Clark, 2007; Tashakouri and Teddlie, 2003). An explanatory design is a two-phased mixed methods design that begins with the collection of quantitative data followed by a subsequent qualitative data collection (Bentahar, et al, 2015; Creswell & Clark, 2007). The collection of qualitative data was intended to enrich the data collected during the quantitative phase (Bazeley, 2015; Creswell & Clark, 2007; Miles, et al, 2013; Tashakouri and Teddlie2003). The research methods have included a survey (quantitative Phase 1) that had 223 respondents followed by semi-structured interviews (qualitative Phase2) with 10 school leaders. Within this study structural equation modelling using SMART PLS for the quantitative data analysis was utilised to identify the implications when determining the most effective leadership styles for achieving knowledge transfer in the data analysis for phase 1. Thematic analysis was then used for the qualitative data analysis in phase 2 based on Braun and Clarke (2005) six-stage technique with Nvivo software to elaborate and explain the quantitative findings in order to gain better understanding and insights of the phenomena and the role leaders play to conceptualize knowledge sharing through leaders' emerging themes which represent the core values in their schools such as leading by example, empowerment of teachers, mentoring and culture of care, building cultures of trust, collaboration, and relationship, building cultures of knowledge and knowledge sharing and commonly celebrate success.

Findings and contributions

It was found and learned that a combined leadership approach was the most effective when considering knowledge processes through the SECI model in Dubai private schools. The research study contributes to the literature by allowing us to identify specific leadership style

attributes being matched to specific knowledge process attributes for achieving maximum impact. Further, the study was based on and extends prior research by conceptualizing knowledge sharing in Dubai context. The research study also allowed us to test empirically the suitability and applicability of the leadership and knowledge constructs in the UAE.

Originality/value

This research originally examines the effects of implementing the core values of trust collaboration empowering teachers leading by example, and culture of knowledge and knowledge sharing with the appropriate leaders' attributes to foster knowledge sharing. No prior research has carried out such an integrated analysis. This study will have significant value for private schools trying to implement these core values and concepts coupled with appropriate leadership attributes to enhance knowledge management processes.

Declaration

To the best of my knowledge, I confirm that the work in this thesis is my original work undertaken by me for the degree of Doctor of Philosophy, at the Business & Strategic Management Department at De Montfort University, United Kingdom. I confirm that no material of this thesis has been submitted for any award of any other degree or qualification at any other university. I also declare that part of this thesis has been published in some of my following publications and conferences.

Mondher Chebbi

Publications & Conferences

Bradshaw, R., Chebbi, M. & Oztel, H. (2015)."Leadership and knowledge sharing in Dubai private secondary schools: empirical study. Asian Journal of Business Research ISSN 1178-893, MAG Scholar International, Special Issue.

Mondher Chebbi (2011).'' leadership and knowledge sharing in Dubai context: literature paper'': British Academy of Management. Aston Business School. Birmingham, UK.

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List of Abbreviations

CR	Contingent Reward
KS	Knowledge Sharing
SECI	Socialisation, Externalisation, Combination, Internalisation
IIB	Idealised Influence Behaviour
IIA	Idealised Influence Attribute
IS	Intellectual Stimulation
IM	Inspirational Motivation
IC	Individualised Consideration
MBEA	Management by Exception Active
MBEP	Management by Exception Passive
LF	Laissez-faire
KHDA	Knowledge Human Development Authority

CHAPTER 1: INTRODUCTION

1.1 Chapter introduction

This research study empirically examines the relationship between leadership styles, namely, transformational and transactional leadership and knowledge sharing processes in private secondary schools in Dubai. This research aims to build on the burgeoning literature exploring the link between knowledge management process of sharing and leadership styles (Musa'dah et al, 2017; Tahir et al, 2016; Pervaizi et al, 2016; Lamiaa, 2016; Edu et al, 2016; Zhang et al, 2015; Tse and Mitchel, 2010; Zargozek et al, 2009; Behery, 2008; Singh, 2008; Crawford, 2005; Bryant, 2003; Liang et al, 2016; Jabnoun, 2007; Vera and Crossan, 2004; Politis, 2001, 2002). In their meta-analysis, emerging evidence in the field suggests that types of leadership styles foster different knowledge-based organizations (Tahir et al, 2016; Pervaizi et al, 2016; Edu et al, 2016; Zhang et al, 2015; Certo & Certo, 2006; Tickle et al, 2005; Dessler, 2004), but there is, at this point in time, hardly any empirical evidence in the field of education in Dubai where knowledge management is not only an organizational process, it is also an organizational aim.

1.2 Motivation of the study

The motivation to conduct empirical study on the relationship between leadership and knowledge sharing in the context of private secondary schools in Dubai was the result of many factors. First, the result of my professional experience as a teacher for a number of years. Second, my background knowledge that I have acquired over these years through visiting other schools and interacting with their teachers. Some my main observations were as follows:

1. Dissimilar context, isolation of teachers in schools, absence of culture of knowledge sharing, lack of motivation to share knowledge
2. Hoarding of knowledge, lack of peer observations,
3. Lack of culture of trust and communication,
4. Lack of collaboration in schools, misconception of knowledge as power.

5. There were examples of school principals' instructional leadership style where the emphasis is on students' results rather than the growth of teachers and students' learning. Instructional leadership has received criticisms from some researchers (Mulford, 2008; Stewart, 2006). First, many believed that instructional leadership puts too much focus on the

principal as the Centre of expertise and power (Stewart, 2006). Dimmock (1995), for example, asserted that instructional leadership is too prescriptive and relies on out-dated top-down processes of management. In other cases, the principal is not necessarily the educational expert so they may not have the same level of expertise as the teachers they are supervising (Stewart, 2006). Moreover, many principals may perceive their role as administrative, distancing themselves from classroom environs (Hallinger, 2003; Stewart, 2006). Furthermore, as Hallinger (2005) pointed out, there has been little empirical evidence that school leaders actually spend more time observing, evaluating, and providing feedback than they did in the past. Lastly, Mulford (2008) suggested that principals do not extensively take on leadership responsibilities by themselves, nor do they automatically assume a significant amount of responsibility for instructional leadership. In fact, Mulford argued that many principals are actually seen as doing very little monitoring of teaching performance or providing any significant recognition of outstanding or high-quality teaching.

Fullan (2002) argues that both business organisations and schools are weak in knowledge sharing however the best companies are better than the best school systems. There are structural and normative reasons for this, built in to the history and evolution of schools: structural in that teachers have little time in the course of the day to get together to share ideas and refine their teaching; normatively because teachers do not have habits of giving and receiving information. Indeed, in many cases, the culture of schools discourages such sharing (Fullan, 2002). He concluded that principal leadership is an instrument of transformation of the working conditions of teachers but, more to the point of sustainability (Leithwood, Jantzi, & Steinbach, 1999). He added that knowledge sharing must be seen in relation to the overall development of the intellectual and moral aspects of the teaching profession, and fundamental to the transformation of the profession itself, and the cultures of school systems.

Fullan (2002) argued that the principals are crucial in the quest for continuous improvement. Fullan, (2002) argues that building capacity is critical for schools. However, a range of issues and factors such as lack of collaboration, isolation and great discretion in pedagogical practices of teachers and unfavourable national and organizational culture stand as barriers for schools to underpin the sharing of knowledge and raise student achievement in schools (Carroll, Rosson, Dunlap & Isenhour, 2003). While both businesses and schools have begun to implement strategies such as communities of practice and professional learning communities to advance knowledge sharing, little is known about how knowledge is

facilitated or the role that leadership styles play in this endeavour. We understand even less in the context of schools, where working in isolation is a dominant norm in the professional culture. Moreover, Collinson & Cook (2003) examined the interplay between individual and organizational learning in school, and the factors that motivated and constrained the dissemination of teachers' sharing of knowledge with colleagues. They focussed on the factors that motivated and restrained the dissemination of teachers' sharing and learning in three schools. They identified five major factors influencing teachers' decisions to share their knowledge. These include schools' tradition of professional isolation among teachers' presents a barrier to collegial interactions and dialogue, both of which represent prerequisites for the dissemination of knowledge (Goodlad, 2004; Lortie, 1975).

By contrast, norms of collegiality involve "expectations for shared discussions and shared work" (Little, 1982, p.338). A strong norm of professional autonomy in schools not only limits teachers to share knowledge and learn, it also limits teachers' pedagogical repertoires by depriving them of colleagues' ideas and suggestions. Autonomy encourages constant reinventing of the wheel, while at the same time setting an expectation that even beginning teachers are competent and able to control their classes without help (Lortie, 1975). Moreover, this norm appears to be closely linked to a norm of egalitarianism and a norm of reciprocity. Egalitarianism rules out imposing one's views on others (Lortie, 1975) and discourages teachers from telling a peer to do something different. Added to the norm of egalitarianism is the social norm of reciprocity. People should help those who have helped them. Teachers generally view knowledge as something gained through individual experience. Responsibility for accumulating, evaluating, and disseminating knowledge about teaching and learning has not been invested in teachers (Lortie, 1975).

The lack of time to meet during the school day and the lack of learning forums are major issues for teachers (Fullan, & Ballew, 2001). Other scholars argued that two-thirds of teachers' complaints were related to time erosion or the disruption of work flow (Lortie, 1975). Teachers feel pulled in a million different ways to try to do a good job (Collinson & Cook, 2001). Attitudes and dispositions are also critical in the dissemination and sharing of knowledge. Teachers believe that the value of sharing is a two-way process in which teachers can help others share and learn while at the same time they help themselves by learning from others (Collinson & Cook, 2001). The authors identified 43 factors that motivate dissemination and 35 factors that restrain knowledge sharing. Their findings showed the impact of longstanding school norms on teachers' decisions to learn and disseminate their learning to colleagues. They added that leaders' encouragement to share knowledge was

viewed positively and appeared to envision sharing as a necessary role of leaders (Collinson & Cook, 2001).

Policy makers took on board the critical role of leadership styles to enhance knowledge sharing in schools and to change the school culture of being poor sharers of knowledge (Fullan, 2002). Strategy scholars argued that school leadership makes a difference for reducing teacher isolation and encourage knowledge sharing (Drago-Severson & Pinto, 2006). They added that when a school leader employs practices that facilitate knowledge sharing, collaboration in reducing the problem of teacher isolation, enhance knowledge sharing, and promoting teachers' personal and professional development, the teachers thrive as they are challenged to grow (Fullan, & Ballew, 2001; Leithwood, Jantzi & Steibach, 1999; Drago-Severson, & al, 2006).Other than the above mentioned, there has been no prior empirical study in the literature addressing the relationship between the leadership styles, namely transformational and transactional leadership and the knowledge management process of sharing in the context of the private schools in Dubai.

1.3 Definition of the problem

Managing knowledge and knowledge sharing in particular has been a significant topic of interest and critical to any organizations over the last decade. Organizations perceive knowledge management and knowledge sharing in particular as a way to nurture learning and foster performance. However, while much is being written about knowledge management and knowledge sharing, there is still much to learn. This is particularly true within the context of schools, where isolation of teachers, lack of collaboration, and top-down, bureaucratic, and traditional hierarchical reporting relationships are the norm, and similar other workplace issues compound the problem for school leaders to facilitate and influence knowledge management process of sharing (Leithwood et al, 1990). Fullan, (2002) argues that building capacity is critical for schools. However, a range of issues and factors such as lack of collaboration, isolation and great discretion in pedagogical practices of teachers and unfavorable national and organizational culture stand as barriers for schools to underpin the sharing of knowledge and raise student achievement in schools (Carroll, Rosson, Dunlap & Isenhour, 2005). While both businesses and schools have begun to implement strategies such as communities of practice and professional learning communities to advance knowledge sharing, little is known about how knowledge is facilitated or the role that leadership styles

play in this endeavor. We understand even less in the context of schools, where working in isolation is a dominant norm in the professional culture. Thus, a need to understand how knowledge processes in schools can be facilitated and implemented.

Similarly, school leaders are central to this process. For example, principals must not only manage instructional leadership and other administrative responsibilities, but are also responsible for managing the development of the school (Leithwood, 1999; Sergiovanni, 1999). While we know that school leaders' support for KM efforts is critical to its success, we do not know enough about how school leaders influence knowledge management process of sharing knowledge in particular. Neither do we know whether leadership styles, namely, transformational nor transactional leadership facilitate and influence the knowledge management process of sharing in their schools. The above contradiction in research findings indicates a necessity for more studies that examine the possible relationships between school leadership and knowledge sharing. In addition, there is scarcity of research on this issue in the Arab world, which is evident in the literature review that draws upon the significant works in Western literature, but has found no work on the Gulf Arab principal's leadership styles. In the United Arab Emirates, the belief is that the school principal's leadership style is connected to school performance (as evidenced by higher academic achievement of students) and more generally to school effectiveness. However, no previous study investigated this assumption; therefore, this study attempted to fill this research gap.

1.4 Research objectives

1. To find out how knowledge sharing by school leaders is conceptualized in the context of Dubai private schools.

2. To examine empirically the relationships between transformational leadership and knowledge sharing in the context of Dubai private schools.

3. To examine empirically the relationship between transactional leadership and knowledge sharing in the context of Dubai private schools.

1.5 Research questions

The following research questions guided this study in exploring the perspectives of school leaders and teachers. The first question is significant as it considers leadership styles as applied in a Dubai context. Questions 2 and 3 both contribute to the overall understanding of

the situation, and provide the empirical understanding of the relationship between leadership and knowledge sharing one; the other questions are secondary questions which support the main question.

1. What role leaders in Dubai play to manifest knowledge sharing in the context of Dubai privates schools?

2. Is there a relationship between transformational leadership and knowledge sharing in the context of Dubai private schools?

3. Is there a relationship between transactional leadership and knowledge sharing in the context of Dubai private schools?

1.6 Purpose and significance of the study

The purpose of this study was to empirically examine the relationship between leadership, namely, transformational and transactional and knowledge sharing in the context of Dubai private secondary schools within this Middle Eastern educational context. In addition, another objective was to investigate teachers' perceptions on their school leaders' style of leadership and the principals 'opinion of how knowledge is manifested in their schools. The study was delimited to the school principals and teachers in Dubai schools. This study aimed to use Bass's full range leadership theory of leadership and Nonaka and Takeuchi's theory for organizational knowledge creation and sharing models as a foundation for measurement (using Bass's Leadership multifactor leadership questionnaire (MLQ) and Nonaka and Takeuchi 's SECI models). First, by collecting data in Dubai, the researcher attempts to extend the theory to a culture that is more collectivist. Second, by focusing on the leadership styles of school leaders in private schools, the researcher aims to further extend to a non-profit and educational setting. In order to alleviate these limitations of the previous research, this study seeks to address this gap. An integrated empirical research model is built by bringing together the two streams of management of leadership styles and knowledge management processes.

The implementation of this study is significant to people in the academia, policymakers, stakeholders, principals, and teachers for several reasons. First, very few studies have been conducted to date in the UAE that examine the relationship between leadership and knowledge sharing in private secondary schools in Dubai. Additionally, the timing of the current study was significant because the UAE is experiencing both internal and external

pressures on its educational system to enact change, with calls to realize educational restructuring and reorganization that emphasize the essential role of effective transformational and transactional school leaders. This research is a useful starting point for further studies into the application and implementation of transformational and transactional leadership models in UAE schools that will undoubtedly provide academics, policy-makers, stakeholders, principals, and teachers with valuable insights into the current state of educational leadership in this country. School leaders can use the data as a baseline for their own reflective purposes, whereas senior education officials can also use it as a baseline for principal evaluations.

On the other hand, senior education officials may also want to use the information in the future when designing processes and programs for recruiting principals. Schools and government leaders may wish to use the data to modify existing curricula or prepare new leadership preparation courses. Another significant aspect of this study is the fact that it has explored the cross-cultural applicability (i.e., universality) of a highly regarded Western leadership and knowledge management models. (FRLT) and (SECI) model for knowledge sharing in the specific UAE educational context. It is expected, therefore, that this research will provide additional valuable cross-cultural data on the overall appropriateness, acceptance, and general usage of this type of leadership model for the purpose of facilitating educational change and innovation in the UAE. It will also set the stage for further studies that may even develop and validate new leadership and knowledge sharing models, scales, traits, and functions that are more applicable in this context and other Arab nations.

1.7 Contributions of the proposed study

This study makes several important contributions to existing knowledge. First, the study aims to examine existing theories of leadership management and knowledge management process in a Middle Eastern context. Second, the study seeks to identify the effective styles of leadership for achieving knowledge sharing attributes. Third, the study was based on and extends prior research, which deepened the understanding of how knowledge sharing is contextualized and manifested and what leaders' attributes appropriate for achieving maximum effectiveness. Fourth, the study integrates two previously relatively disparate fields of knowledge management processes and leadership processes from an empirical perspective. Fifth, the study empirically proves that transformational leadership strongly correlates with knowledge sharing. Sixth, the study also establishes a strong relationship between contingent reward leadership behaviour and knowledge sharing, thus highlighting the importance of such

a type of leadership style for successfully developing a learning organization. Seventh, the study provides empirical confirmation for the contingent perspective towards leadership styles and learning (Vera and Crossan, 2004; Wang and Noe's, 2010) which claims that the most effective strategic leaders are those best able to function in both transformational and transactional mode, depending upon the situation. Moreover, the study expands the scope of empirical research by examining leadership and knowledge sharing in the context of private schools in Dubai. Finally, by testing existing (predominantly Anglo Saxon) theories of leadership and knowledge sharing process in different environment; culturally, hierarchically, economically, and politically. Hence, the study enhances the international generalizability and validity of these theories and constructs.

1.8 Structure of the thesis

FIRST CHAPTER is the introduction Chapter which includes, the motivation of the study, the purpose of this study, the research aims and objectives**,** the contribution of the proposed study, the outline of the thesis, and the structure of the thesis.

SECOND CHAPTER is the context which looks at the context of Dubai and the Education System in United Arab Emirates.

THIRD CHAPTER is the Literature Review which looks at the theoretical framework and consists of the knowledge management process of knowledge creation and sharing process, the leadership management process, and the relationship between leadership and knowledge sharing.

FOURTH CHAPTER is the Methodology which examines the philosophical assumptions, the research design and approach, the sample size and population, the data collection and data analysis, the instrument used for the quantitative part of the study by means of online survey sent to teachers to express their perceptions about their school leaders in order to examine empirically the relationship between leadership and knowledge sharing in context of Dubai private schools. The methodology also looks at the qualitative study and is carried out by semi structured interviews with the school leaders to gain better understanding of the phenomena of how knowledge sharing is manifested in their schools.

FIFTH CHAPTER is the findings of the hypotheses of the study which confirms empirically the relationship between transformational leadership and the contingent leadership of transactional leadership. The findings for the phase one confirms empirically Vera and Crossan's and Bryant's theoretical confirmations that combined leadership of

transformational and transactional leadership is significant with knowledge sharing. The findings of the qualitative study extend prior research by contextualizing the conceptualization of knowledge sharing.

SIXTH CHAPTER is the results chapters for both quantitative and qualitative.

SEVENTH CHAPTER is the discussion chapter.

EIGTH CHAPTER is the conclusion chapter.

CHAPTER 2: CONTEXT

2.1 Leadership in a Dubai context

Transactional and instructional leadership appear to be practiced in Dubai school context. (Al-taneiji, 2006). Dubai school principals exhibited more transactional and instructional leadership attitudes and behaviors (Al-taneiji, 2006). This is particularly true within the context of schools, where isolation of teachers, lack of collaboration, and top-down, bureaucratic, and traditional hierarchical reporting relationships are the norm, and similar other workplace issues compound the problem for school leaders to facilitate and influence knowledge management process of sharing. The researchers postulate that in order for improved school knowledge sharing performance to take place, school principals should not depend solely on being transactional leaders; they should become transformational leaders and work closely with teachers (Fullan, 2003; Lithwood et al, 1990). In fact, the work of teachers is more directly related to student learning and achievement than the work of principals.

Principals should spend more time with teachers providing direction and guidance, assessing and providing needed resources, and observing and evaluating performance than with students. Thus, principal behaviors more directly affect teachers' satisfaction, commitment to work, and working relations with one another and, accordingly, principal leadership styles have stronger relations to outcomes associated with teachers than with students. Therefore, building on transactional and instructional leadership alone will not create the necessary influence to improve knowledge sharing (Fullan, 2003, Bass, 1985; Leithwood, 1990). It should be combined with transformational leadership (Bass, 1985; Leitwood et al, 1999). Dubai educational policymakers should exert more efforts to strengthen transformational and transactional leadership in schools if improvement of knowledge sharing is to be achieved. Transformational leadership can be gradually integrated with the practice of transactional or instructional leadership, with the goal of eventually making transformational leadership equally dominant style of leadership. Professional development and seminars that focus on transformational leadership might also be useful in institutionalizing the leadership style in the UAE school system (Bradshaw et al, 2015). The implication of the results to leadership is that transformational leadership can be applicable in the UAE given that certain modifications are made to take the culture into consideration (Bradshaw et al, 2015).

2.2 Overview

Dubai and the Education System in United Arab Emirates

The seven emirates are governed by a federal system founded on the second of December 1971. Abu Dhabi city is the capital of UAE (Godwin, 2006). The population of the UAE was recorded at 9. 6 million at the end of 2016, and has increased by almost 75 per cent from 1995 to 2005, with the percentage of non-nationals increasing at a much faster rate than national population. The population consists of 11 per cent are UAE Nationals and the remaining 89 percent are expatriate workers and their families (Godwin, 2006; Hokal & Shaw, 1999). The current annual growth rate is estimated at 6.9 per cent. The majority of the population (2.5 million) is urban and lives in the two largest emirates, namely Abu Dhabi and Dubai. The latter has the fastest growing population (2.7 million 2017).

TABLE 2.1: DIAGRAM DEPICTS THE UNITED ARAB EMIRATES.

The education system in the United Arab Emirates has two distinct aspects which are: the government system that provides free education exclusively to UAE nationals; and a private full fee system. The United Arab Emirates government education system was developed by the president Zayed Bin Sultan Al Nahyan who was concerned with the well-being of his people and used the oil wealth of Abu Dhabi for the benefit of all citizens of UAE (Godwin,

2006; Hokal & Shaw, 1999). Education in this region was limited to a few poorly resourced primary schools with no high school or higher education facilities (Godwin, 2006). In 1962 the Gulf region comprising the Trucial States had 20 schools and by federation in 1971 the number of schools had risen to 74 (The Emirates Centre for Strategic Studies and Research, 2004). Modern education as recognized by the West was largely unknown in the Gulf region until federation (Godwin, 2006). This resulted in the building of 1,150 schools by the year 2000, which facilitate the education requirement of 650,000 students. The UAE currently devotes approximately 25 per cent of total federal government spending to education (Godwin, 2006; Hokal & Shaw, 1999).

2.3 Why Dubai?

The researcher has knowledge of the market as they have lived and worked in the educational sector in the United Arab Emirates for well over twenty years. "Dubai school system consists of 79 public schools administered by the federal Ministry of Education and 148 private schools offering a range of different curricula (http:// www.khda.gov.ae). Dubai has one of the most privatised education systems in the world (Godwin, 2006; Shaw et al, 1995; Al Nowais, 2004). Even though the public Ministry schools offer a free education for UAE nationals, more than 50% of all UAE national students are enrolled in private (http:// www.khda.gov.ae). There are 13 different curricula to cater to the diverse needs of the expatriate population. Indian, UK, US and private Ministry of Education curriculum schools dominate the landscape (Goodwin, 2006; Shaw et al, 1995; Al Nowais, 2004). With nearly 200,000 students in private schools, this sector has annual revenues in tuition fees of over three billion dirham's per year (approximately 860 million US dollars)" (http:// www.khda.gov.ae; Shaw et al, 1995; Al Nowais, 2004).

Key Education Statistics for Dubai - 2009/10 Academic Year

Total Number of Schools and Students		
Type	Schools	Students
Public	83	28,552
Private	145	181,038
Total:	228	209,590

Students by Type of Curriculum		
Type of School	Schools	Students
Government MoE	80	26,772
Private MoE	15	16,486
UK	54	55,821
US	32	39,430
Indian	21	54,619
IB	6	3,851
French	4	2,949
Iranian	6	2,555
Pakistani	4	3,435
Philippine	2	2,232
German	1	290
Japanese	1	188
Russian	1	249
Institute of Applied Technology	1	713
Total:	228	209,590

Distribution of students in public and private schools

Public 14%
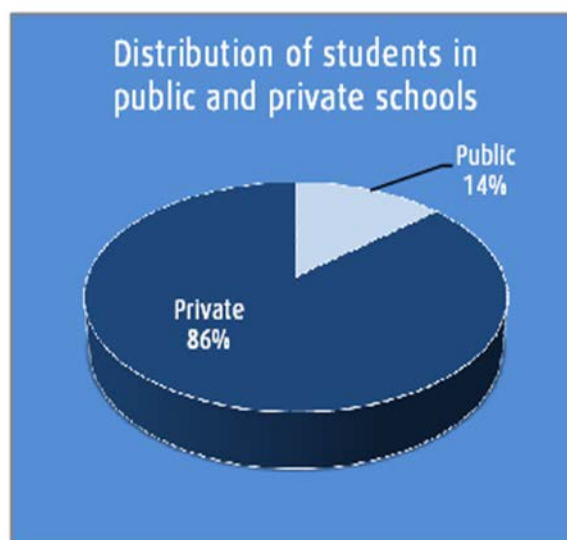
Private 86%

Over the past 5 years, the number of school students in Dubai has increased by 40% in total or 7% on average year on year. The number of students at public schools has fallen while numbers at private schools have increased by around 9% year on year during this time.

There are 13 different types of curriculum on offer in Dubai schools. More than half of the students attend schools following a UK or Indian curriculum. More than 92% of the students attend a UK, US, Indian or Ministry of Education curriculum school.

Source: knowledge and human development authority (KHDA, 2011) online site.

TABLE 2.2: TOTAL OF SCHOOLS AND STUDENTS, STUDENTS BY TYPE OF CURRICULUM, AND DISTRIBUTION OF STUDENTS IN PUBLIC AND PRIVATE SCHOOLS.

2.4 Educational System in the United Arab **Error! Bookmark not defined.**Emirates

The education system is monitored by the Ministry of Education (Gaad, 2001; Godwin, 2006). The governmental schooling system in the United Arab Emirates is divided into five stages: Kindergarten, elementary, middle, secondary, and higher education (www.nqa.gov.ae); (Gaad, Arif, & Scott, F. (2006). At the kindergarten stage, students under the age of four are provided with nursery care and from four to six are given two years of preschool education. Elementary school consists of six years of education learning basic skills and knowledge that cover subject matters such as religion, mathematics, science, social

studies, languages, fine arts. Middle school consists of three years that cover the same subject matter taught in the elementary school, with a great emphasis on the English language. Secondary schooling consists of three years, all students are given the same curriculum, and when they finish the first year, they are offered the opportunity to major either in science or arts for the last two years in secondary school. Secondary school students must pass the National Secondary Examination in order to be awarded a general secondary education certificate at the end of the third year, (Godwin, 2006; Gaad, 2001; Hokal & Shaw, 1999).

2.5 The public and private schools

The UAE government education system has grown rapidly following federation in 1971. The demand for education has continued to increase due to government incentives that support UAE nationals. However, concerns about the UAE Government K-12 education system have raised a series of criticisms (Gaad, 2001; Godwin, 2004); state schools remain disturbingly low, and substantially worse than that of the private schools despite adequate resources (Hokal & Shaw, 1999). Its entire state system of schooling is dominated by the problem of wastage, drop out, non-completion, repetition of years, and a small proportion of each annual cohort of students who enter the system finally completes their studies (Shaw et al, 1995; Hokal & Shaw, 1999). Past researchers have analysed the UAE education system and found that despite adequate funding from the government, the public education system is not adequate (Shaw et al, 1995; Godwin, 2006; Gaad, 2001; Brooks, 2004; Al Nowais, 2004).

The Private educational providers have grown by absorbing the extra students who are moving away from the free government system as the quality of graduates from the government school has been called into question (Brooks, 2004; Godwin, 2006). As a result, UAE mixed nationals have turned to private schools which are perceived as delivering a higher quality education. The parents were in favour of private schools since they thought these schools were better at accommodating their children's needs than were public schools. Parents pointed out that they preferred the arrangement of private schools that provided the entire education. Parents view that school leadership adds to the value and quality of education in the private schools by providing a caring environment, good communication and teacher support (http:// www.khda.gov.ae; Shaw et al, 1995; Godwin, 2006). The literature strongly suggests that the school principal is the key to successful restructuring (Hallinger &

Heck, 1998; Leithwood, 1994; Shaw et al, 1995; Godwin, 2006; Gaad, 2001; Brooks, 2004; Al Nowais, 2004). Leithwood, Jantzi & Steinbach, 1999).

Key Education Statistics for Dubai - 2009/10 Academic Year

Students In Public Schools					
	National		Expat		
Grade	M	F	M	F	Total
KG 1	495	471	34	32	1,032
KG 2	501	574	39	35	1,149
Grade 1	726	862	206	217	2,011
Grade 2	601	844	173	190	1,808
Grade 3	702	888	161	190	1,941
Grade 4	614	800	164	237	1,815
Grade 5	740	837	144	178	1,899
Grade 6	829	980	187	164	2,160
Grade 7	861	947	174	194	2,176
Grade 8	883	1,106	183	208	2,380
Grade 9	909	1,070	200	257	2,436
Grade 10	1156	1,112	306	386	2,960
Grade 11	854	972	251	343	2,420
Grade 12	794	920	316	335	2,365
Total:	10,665	12,383	2,538	2,966	28,552

Students In Private Schools					
	National		Expat		
Grade	M	F	M	F	Total
KG 1	1,416	1,225	6, 784	5,651	15,076
KG 2	1,620	1,335	7,713	6,530	17,198
Grade 1	1,407	1,163	7,881	7,147	17,598
Grade 2	1,310	1,043	7,254	6,783	16,390
Grade 3	1,129	870	6,825	6,218	15,042
Grade 4	1,068	862	6,375	5,838	14,143
Grade 5	961	748	5,873	5,398	12,980
Grade 6	942	714	5,591	5,317	12,564
Grade 7	970	648	5,363	4,898	11,879
Grade 8	934	653	4,956	4,641	11,184
Grade 9	853	586	4,645	4,346	10,430
Grade 10	768	550	4,558	4,048	9,924
Grade 11	644	524	3,887	3,531	8,586
Grade 12	670	439	3,087	3,101	7,297
Grade 13	10	8	380	349	747
Total:	14,702	11,368	81,172	73,796	181,038

TABLE 2.1: KEY EDUCATION STATISTICS FOR DUBAI

Source: knowledge and human development authority. (http:// www.khda.gov.ae).
Summary of Key statistics for the 2009/10 academic year for private schools in Dubai
In 2010/11, 87.7% of students in Dubai were enrolled in one of the private schools.

Teachers In Public Schools					
	National		Expat		
Grade	M	F	M	F	Total
Kindergarten	0	210	0	10	220
Cycle 1 (Gr 1-5)	7	740	47	258	1,052
Cycle 2 (Gr 6-9)	76	405	409	206	1,096
Cycle 3 (Gr 10-12)	40	309	314	123	786
Total:	123	1,664	770	597	3,154

Teachers In Private Schools					
	National		Expat		
Grade	M	F	M	F	Total
Kindergarten	0	19	11	1,860	1,890
Cycle 1 (Gr 1-5)	1	14	461	3,805	4,281
Cycle 2 (Gr 6-9)	0	9	865	2,071	2,945
Cycle 3 (Gr 10-12)	0	4	1,018	1,632	2,654
Total:	1	46	2,355	9,368	11,770

There are lower numbers of students in Grades 1 to 5 at public schools compared with more senior grades. This is due to a trend over the past 10 years for national parents to enroll their children in private schools rather than use the public system.

Public schools in Dubai have a low student-teacher ratio. There are more female teachers than males, especially at the kindergarten and Cycle 1 levels. While 74% of female teachers are nationals, there are just 14% of male teachers that are nationals.

Note: Public schools include UAE Ministry of Education schools, Rashid School for Boys, Latifa School for Girls and the Institute of Applied Technology.

There is a progressive decline in the number of students in private schools in more senior grades. The number of students in Grade 1 is more than twice that in either Grade 11 or Grade 12.

Similar to public schools, there are more female teachers than males, especially at the kindergarten and Cycle 1 levels. Male teachers in Cycle 3 comprise 38% of all teachers while just 11% in Cycle 1. There are very few national teachers in private schools.

TABLE 2.2: TEACHERS IN PUBLIC SCHOOLS AND PRIVATE SCHOOLS

Source: knowledge and human development authority (http:// www.khda.gov.ae).

2.6 Conclusion

With UAE government encouragement private educational providers have grown by absorbing the extra students who are moving away from the free government system or postponing overseas education in favour of attending a local subsidiary of an international university, since the quality of graduates from the government school has been called into question. UAE nationals have turned to private schools which are perceived as delivering a higher quality education (Brooks, 2004; Godwin, 2006; Gaad, 2001). This educational dichotomy is further divided by gender segregation in both the government high school and the higher education system. Moreover, many expatriates opened private schools to meet their religious, cultural and education needs and today both public and private sector schools operate in almost equal numbers in the UAE. These schools have been established to service the demand for expatriate family to educate their children. Although public schools providing a free education are available, more than half of Emirati parents choose to send their children to a private school (KHDA online; Godwin, 2006)

CHAPTER 3: LITERATURE REVIEW

3.1 Chapter Introduction

The purpose of this chapter is to offer the theoretical framework for this chapter. First, it presents and highlights knowledge sharing as well as Nonaka and Takeuchi SECI model (1985) for knowledge sharing. The two models for knowledge sharing, namely Crossan et all (1999) framework for learning and Nonaka and Takeuchi SECI (1985) for knowledge sharing were introduced and discussed. The rationale for opting for Nonaka's model and not Crossan's model was discussed. The attributes of the SECI were highlighted and explained. Second, the Full Range Leadership Theory by Bass (1985) was explained with all the attributes of Transformational and Transactional leadership. Third, the relationship between leadership and knowledge management process of knowledge sharing. A critique of leadership and knowledge sharing was highlighted identifying its gaps and its shortcomings. The research aims and conceptual framework for this study were identified and discussed.

3.2 Theoretical Background and Hypotheses

3.3 Knowledge sharing

Numerous definitions of Knowledge sharing exist. Knowledge Sharing has been defined as "activities of transferring or disseminating knowledge from one person, group, or organization to another" (Al Saifi, et al, 2015; Zu mit Zavan; 2014; Lee, 2001). Nonaka and Takeuchi (1995) argued that the interaction between explicit and tacit knowledge, called the knowledge spiral, is a key source for creating new knowledge. Explaining Polanyi's (1983) philosophical description of knowledge, Nonaka and Takeuchi (1995, p.59) differentiated between tacit and explicit knowledge as follows: "*Tacit knowledge is personal, context-specific, and therefore hard to formalize and communicate and explicit knowledge can be described as knowledge that is transmittable, informal, systematic language*". Knowledge sharing, while significantly depending on explicit procedures and processes, also depends on strategies of personal interaction to address tacit issues of uncertainty and integration (Nonaka and Takeuchi, 1995; Vitor et al, 2015; Holste, 2010; Becker, 2001). "*The circulation of knowledge creates a knowledge flow, that through various processes of transformation creates new knowledge, that when applied creates essential competitive advantage for the*

organization" (Nonaka and Takeuchi, 1995, p.59). *"Knowledge sharing is considered a core component of Knowledge Management process (KM) and effective knowledge sharing is seen as critical to successful Knowledge Management Just as knowledge resides at multiple levels of the organization, so does knowledge sharing occur among individuals''* (Vitor et al, 2015; Holste, 2010; Nonaka and Takeuchi, 1995, p.59; Ipe, 2003), group (Brown & Duguid, 1991a), and organizational perspectives (Park, et al, 2015; Nonaka & Takeuchi, 1995 p.59).

Chu, Kai Wing (2016) examines how schools can kick off the process of KM implementation. This paper also reports what have been done and what should be done in KM implementation better in a school. This can give insights for schools which will try KM in near future. KM implementation was found to be effective through dual approaches: information-based and people-/interaction-based approaches. A knowledge base and a Digital Archive as knowledge repositories and lesson study as platforms for knowledge sharing have been successfully established to facilitate knowledge information / knowledge and nurturing a sharing culture and trust. Challenges faced and the related coping strategies during the process of implementation were shared and reflected. It was also found that building a sharing culture is the critical turning point of the process of KM implementation. Breaking through the barrier of sharing was found to be very essential to KM implementation

The section below discusses two models for knowledge creation, sharing and organisation learning, namely, Crossan et al's 4 I's framework for learning, and Nonaka and Takeuchi's SECI model for knowledge creation and sharing. This study intends to evaluate both frameworks and then select the most appropriate model for creating and sharing knowledge in this study.

3.4 Crossan et al's (1999) 4-I Framework Organizational learning

3.4.1 Overview

The authors discuss both the exploration of new learning and exploitation of what has already been learned. Crossan et al (1999) describe four processes that they believe are key for understanding multilevel organizational learning. These are intuiting, interpreting, integrating and institutionalizing. The following subsections highlight below the dimensions of the model:

3.4.2 Intuiting

Crossan et al (1999, p. 528) describes the above as "*Individual intuiting which feeds forward new ideas to groups who in turn interpret and integrate the information, thereby permitting exploration, new learning and coherent collective action. The author defines this "the individual process of converting personal experiences, thoughts and images into insights. He added that Groups combine these individual insights and metaphors in the integrating process into interactive systems and cognitive maps* ".

3.4.3 Interpreting

Crossan et al (1999) describes that '' *through the process of interpreting, individuals develop cognitive maps about the various domains in which they operate"* (Crossan et al, 1999, p.528*).* The authors describe interpreting as, whereas intuiting focuses on the subconscious process of developing insights. He defines this as "Interpreting begins picking up on the

conscious elements of the individual learning process. Interpreting is the explaining, through words or actions, of an insight or idea to one's self and to other

3.4.4 Integrating

In relation to integrating, Crossan et al (1999) state "*Integrating as the process of developing shared understanding among individuals and of taking coordinated action through mutual and judgment. He adds that Groups combine these individual insights and metaphors in the integrating process into interactive systems and cognitive maps "*(Crossan et al, 1999, p.528). It is through the continuing conversation among members of the community and through shared practice (Brown & Duguid, 1991b).

3.4.5 Institutionalizing

Crossan et al(1999) defined "*Institutionalizing as the process of embedding learning that has occurred by individuals and groups into organization, and it includes systems, structures, procedures, and strategy" (*Crossan ,et al,2011;Crossan, et al., 1999, p.525*). He adds that "The process of institutionalizing sets organizational learning apart from individual or ad hoc group learning"*. The author adds that Organizations institutionalize knowledge by actions and turning knowledge into standard operating rules and procedures (Sisson, et al, 2016; Crossan et al, 1999).

3.4.6 Extension of Crossan et al's (1999) Framework for organizational learning Strategy

Crossan, Lane and White (1999) fail to specify the feedback (exploitation) processes from organization-to-group, and from group-to-individual levels (Elliot, et al, 2016; Lawrence, Mauws, Dyck, & Kleysen, 2005a). They added that Crossan's framework has not taken full advantage of insights and findings in the related organizational innovation literature. scholars summed up by demonstrating that the framework proposed by Crossan et al (1999) for organizational learning was incomplete to explain the tension between exploration and exploitation for learning (Goldman, et al, 2014 ; Lawrence, et al., 2005a). They integrated insights by introducing attending processes, to provide a linkage to the environment and thereby enhance the framework's suitability for the domain of strategic renewal. Furthermore, they incorporated championing and coalition-building, key socio-political

processes involved in organizational learning. Finally, they described how encoding and enacting processes provided two missing feedback and exploitation linkages Crossan et al (1999) had identified in their original framework (Ranjbarfard, et al, 2014; Lawrence, et al., 2005a).

TABLE 1.2: A REVISED FRAMEWORK FOR ORGANIZATIONAL LEARNING

3.5 Knowledge Creation and sharing (Nonaka and Takeuchi (1995)

Nonaka and Takeuchi (1995) describe how firms create and share new knowledge through four primary modes that involve the interaction of tacit and explicit knowledge: Socialisation is the process of sharing one's experience with another, thereby creating tacit knowledge in the form of mental models and technical skills. Tacit knowledge is the conversion of tacit knowledge to tacit knowledge. Tacit knowledge is shared among people through modelling and mentoring, conversation, workplace culture, and shared experiences. Externalisation converts tacit knowledge into explicit concepts. Firms do this by using metaphors, analogies, concepts or models. Knowledge created in formal educational settings such as in universities and in MBA programs fits in this category. Externalization is a process among individuals within a group (Vargas et al, 2016; Nezafati, Afrazeh, and Jalali, 2009). Internalisation

involves turning explicit knowledge into tacit knowledge. Knowledge that has been generated by others is absorbed by another individual and internalized.

Experiences through socialisation, externalisation and combination are internalised into individual tacit knowledge bases in the form of shared mental models or technical know-how. The internalisalization process transfers organization and group explicit knowledge across organizations (Lievre et al, 2015; Nezafati et al, 2009). Knowledge in the tacit form is actionable by the owner. (Nonaka, et al, 2014; Nonaka and Takeuchi, 1995). The Combination process creates a new form of knowledge by combining two sources of explicit knowledge. For example, several reports may be integrated into a succinct summary report and entered into a database or knowledge base. Combination allows knowledge transfer among groups across organizations (Brätianu, 2016; Nonaka et al, 2014; Lemon and Sahota, 2004). The subsections highlight the dimensions for SECI model for knowledge creation and sharing for this study. Four forms of transactions of knowledge creation and sharing were identified: tacit to tacit, explicit to explicit, tacit to explicit and explicit to tacit. The SECI model points out the channels for each transaction: Each type of knowledge can be converted. When viewed as a continuous learning process, the model becomes a clockwise spiral.

3.5.1 Overview

Nonaka & Takeuchi (1995) argue how sharing one's experience with another, thereby creating tacit knowledge in the form of mental models and technical skills known as Socialisation. He adds that converting tacit knowledge into explicit concepts is known as Externalisation. Firms do this by using metaphors, analogies, concepts or models. Knowledge created in formal educational settings such as in universities and in MBA programs fits in this category. Furthermore, he describes creating a new form of knowledge by combining two sources of explicit knowledge is known as Combination. For example, several reports may be integrated into a succinct summary report and entered into a database or knowledge base. Moreover, he reports that turning explicit knowledge into tacit knowledge is known as Internalisation. Knowledge that has been generated by others is absorbed by another individual and internalized. The authors argue that firms create and share new knowledge through four primary modes that involve the interaction of tacit and explicit knowledge (Nonaka & Takeuchi, 1995). The four forms of transactions of knowledge creation and sharing: tacit to tacit, explicit to explicit, tacit to explicit and explicit to tacit. They added that

''the SECI model points out the channels for each transaction: Each type of knowledge can be converted. When viewed as a continuous learning process, the model becomes a clockwise spiral'' (Nonaka & Takeuchi, 1995, p.71).

	Tacit knowledge	To	Explicit knowledge
Tacit Knowledge	Socialisation		Externalisation
From			
Explicit Knowledge	Internalisation		Combination
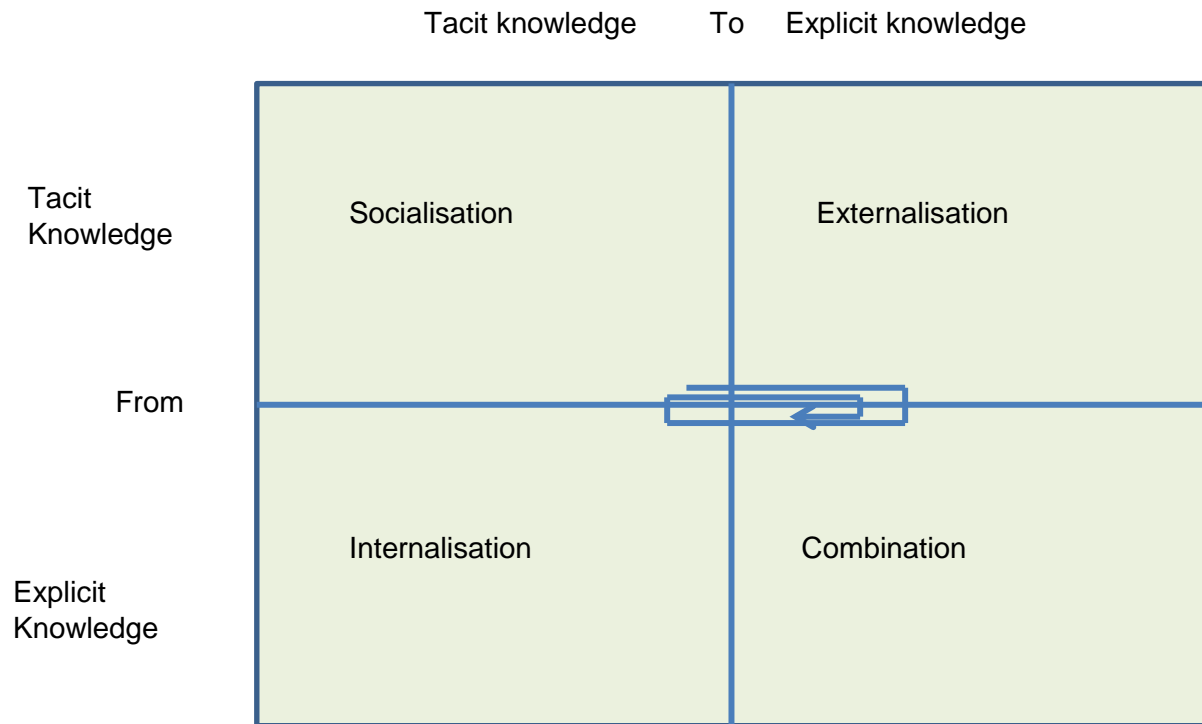
TABLE 2: SECI MODEL FOR KNOWLEDGE CREATION AND SHARING
Source: SECI Model (Nonaka and Takeuchi 1995, pp.71).

3.5.2 Socialisation: From Tacit to Tacit

Nonaka and Takeuchi (1995) argue that tacit knowledge is shared among people through modelling and mentoring, conversation, workplace culture, and shared experiences. The author described socialisation as" *experiential, active and a "living thing" (Nonaka & Takeuchi, 1995, p.71*). The authors argue that "*Socialization is a process of sharing experiences and thereby creating tacit knowledge such as shared mental models and technical skills. An individual can acquire tacit knowledge directly from others without using language*" (Nonaka & Takeuchi, 1995, p.71). Furthermore, they add that this is done by empathizing (Nonaka & Takeuchi, 1995; 2007). Moreover, they report that *"Socialisation is primarily a process between individuals"* (Nonaka & Takeuchi, 1995, p.71).

3.5.3 Externalisation: From Tacit to Explicit

Nonaka & Takeuchi, (1995) argues that tacit knowledge becomes more explicit as concepts undergo refinement. This is done by articulation. The process for making tacit knowledge explicit is externalization. One case is the articulation of one's own tacit knowledge-ideas or images in words, metaphors, analogies. A second case is eliciting and translating the tacit knowledge of others, customers, experts for examples into a readily understandable form, e.g., explicit knowledge. The authors argue that "*Externalisation refers to converting tacit to new explicit knowledge (e.g. articulation of best practices or lessons learned*" Nonaka & Takeuchi, 1995, p.71). Furthermore, they add that "*Externalization is a process among individuals within a group*" (Nonaka and Takeuchi, 1995).

3.5.4 Combination: From Explicit to Explicit

Nonaka & Takeuchi, (1995) argue that once knowledge is explicit, it can be transferred as explicit knowledge through a process calls combination. This mode of knowledge conversion involves combining different bodies of explicit knowledge. Individuals exchange and combine knowledge through such media such as documents, meeting, telephone conversations, or computerized communication networks (Nonaka & Takeuchi, 1995). Moreover, they report that "*Combination is a process of systemizing concepts into a knowledge system. They add that the combination mode refers to the creation of new explicit knowledge by merging, categorising, and synthesising existing explicit knowledge (e.g. literature survey reports)*". (Nonaka & Takeuchi, 1995, p.71).

3.5.5 Internalisation: From Explicit to Tacit

Nonaka & Takeuchi, (1995) argue that when experiences through socialisation, externalisation and combination are internalised into individual tacit knowledge based in the form of shared mental models or technical know-how, they become valuable assets. Knowledge is now once more in the zone of socialisation and a spiral of knowledge cultivation may ensue (tacit to tacit). This is known as embodying (Nonaka & Takeuchi, 1995). The authors argue that "*Internalization is a process of embodying explicit knowledge into tacit knowledge*" (Nonaka & Takeuchi, 1995,). Furthermore, they report that

"Internalization is the process of understanding and absorbing explicit knowledge into tacit knowledge held by the individual". (Nonaka & Takeuchi, 1995, p.69).

3.5.6 Critique of Nonaka and Takeuchi's (1995) SECI Model

The author argues that one of the main criticisms of Nonaka's theory is that in general the evidence supporting is limited, brief, anecdotal and unconvincing. While Nonaka's theory is widely cited, and highly influential, it has also been the subject of a number of criticisms. One of the most extensive critiques of Nonaka's knowledge creation theory has been developed by Gourlay (2006). In substantiating his argument, Gourlay reviews the evidence and examples presented by Nonaka which are argued to provide illustrative and supporting evidence for each of the four modes of knowledge creation. Here, for illustrative purposes, only the evidence supporting socialization is considered. Firstly, the empirical evidence supporting the theory is unconvincing, secondly, the model has conceptual problems, and thirdly, that universal applicability is limited as it is only relevant to companies utilizing Japanese business practices (Bratianu, 2016; Gourlay, 2006).
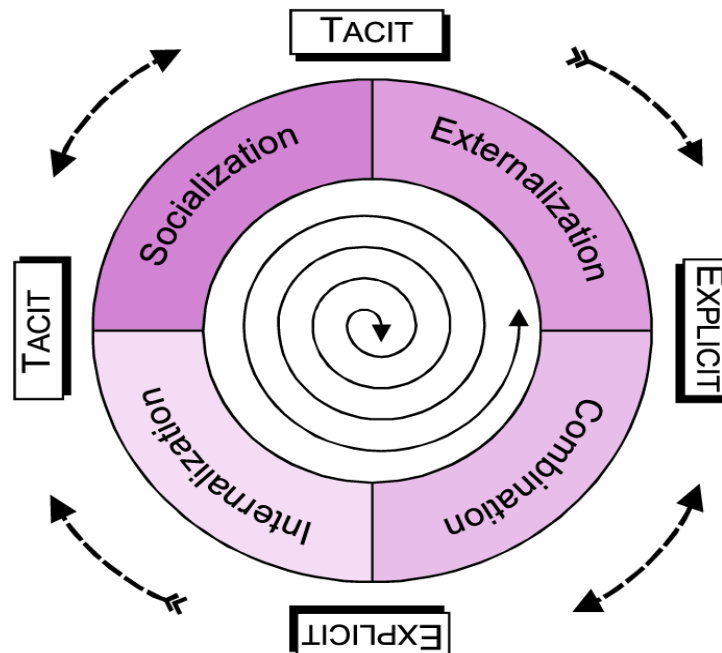
Source: Theorized by Nonaka and Takeuchi (1995)

Gourlay (2006) argues that the process of bread making may represent an example of socialization, he argues that the anecdotal nature of the example and the lack of detailed

evidence make it far from convincing that what has been revealed is an example of socialization. Gourlay (2006) added that that there are a number of conceptual problems not only in the SECI model, but what he argues is a radically subjective definition of knowledge, and the epistemological assumption that it is possible to completely convert tacit knowledge into explicit knowledge. While Nonaka draws on Polanyi in making the distinction between tacit and explicit knowledge, and arguing that tacit knowledge can be converted wholly into an explicit form, Gourlay (2006) argues that Polanyi 's position on these questions is more ambiguous. Furthermore, the author questions the tacit universalistic assumptions it makes. Strategic scholars argue that all knowledge is culturally embedded, and that the universality of Nonaka's knowledge creation model is limited by the fact that it is embedded within and reflects the values and culture of Japanese business (Li et al, 2017; Glisby & Holden, 2003). Thus, its relevance to business cultures which do not share these values is argued to be limited (Brätianu, 2016; Weir & Hutchings, 2005). Similarly, Glisby & Holden (2003) illustrate their argument by considering the way that Nonaka's conceptualization of each of the four modes of knowledge conversion reflects business practices that are common in Japan, but much less frequently utilized elsewhere. In examining processes of socialization, Glisby and Holden distinguish between the internal sharing of tacit knowledge by employees within an organization, and the external sharing of knowledge by people across organizational boundaries. The authors argue that the frequent sharing of tacit knowledge between employees discussed by Nonaka is likely to be shaped by the typically high commitment levels Japanese workers have for the organizations they work for, and that in countries where levels of organizational commitment and loyalty are lower, the sharing of tacit knowledge between employees is also likely to be questionable. Despite its criticisms, Nonaka's (1995) SECI Model remains the model opted for this study. The rationale for such choice is described below:

3.5.8 Rationale for selecting Nonaka and Takeuchi (1995) SECI Model for knowledge creation and sharing

The two models describe how knowledge is managed, created, and shared. However, Crossan et al's model (1999) draws on Nonaka and Takeuchi's (1995) SECI model. While Nonaka's model is widely cited, and highly influential, it has also been the subject of a number of criticisms by (Brätianu, 2015; Gourlay, 2006; Gilesby and Holden, 2003; Weiss & Hutchings,

2006) who argue that only socialisation is somehow convincing while, externalisation, combination, and internalisation are unconvincing because of their anecdotal nature. Despite the researchers' criticism, this study adopts the SECI model (socialization, externalization, combination, and internalization) by Nonaka et al, (2014) for the following reasons. First, the criticisms made by some of the researchers (Von Krogh et al, 2012; Gourlay, 2006; Gilesby and Holden, 2003; Weiss & Hutchings, 2006) are questionable and debatable because of the model's universal applicability and is highly cited and most influential worldwide (Cheng, Eric 2017; Behery, 2008, 2016; Nezafati, et al., 2009; Choi and Lee, 2002, 2003; Lemon & Sahota, 2004). Moreover, the SECI model is dynamic and one of the few knowledge creation theories available that explores the interrelationships between explicit and tacit knowledge (Kawamura, Kristine 2016; Nezafati, et al., 2009; Lee and Choi 2002, 2003; Lemon & Sahota, 2004). Second, the SECI model contains not only knowledge creation but also knowledge sharing (Gueldenberg, et al, 2007; Lee and Choi 2002, 2003). Third, the SECI model has been widely used in many research areas and multiple settings and cultures including educational context(Shongwe, Mzwandile,2013;Behery, 2008; Nezafati, et al., 2009; Choi and Lee, 2002, 2003; Lemon & Sahota, 2004; Koh et al, 1990), such as organizational learning and new product development (Nonaka, Toyama, & Konno, 2000). Hence, the researcher adopted Nonaka's SECI model to test its applicability in the United Arab Emirates educational context. The next section below highlights the leadership process.

3.6 Leadership in the education sector process

This section highlights a brief historical perspective of leadership as well as Bass's (1985) Full-Range Leadership Theory of Transformational, Transactional leadership, and Laissez Faire which is the focus of this present study.

3.7 Types of leadership

Yukl, (1999) reports that Leadership has been a topic of study for social scientists for much of the 20th century, yet the author reports that there is no consensually agreed-upon definition of leadership (Bass, 1990). Researchers report that a variety of definitions have been developed, but almost all have at their core the concept of influence and the role of individuals who are defined as leaders (Yahaya, et al, 2016; Yukl, 1999; Bass, 1990). They argue that Leaders influence others to help accomplish group or organizational objectives.

Researchers define leadership in terms of group, process, traits, and behaviour or as an instrument of goal achievement (Yukl, 1999; Bass, 1990). They argue that inherent to the definition of leadership is the distinction between managers and leaders (Alvesson & Sveningsson, 2003). The authors report that Leadership scholars traditionally associate management with fulfilling organizational goals and processes, whereas leadership definitions include social influence and the leader's role in setting a purpose or a vision of change (Bass, 1985). Strategy scholars examined in detail the difference between Leadership and Management (Abdalla & Al-Homoud, 2001). They argue that the leader differs completely from the manager, the leader is the man who has vision, who makes policies, and the manager is the man for whom within his responsibilities lies the making of a strategic plan, the execution possibilities, and the execution programme, and the selection of the executives of those plans of managers, responsible persons, and heads of departments (Borgmann et al, 2016). They added that a leader can be both leader and a manager but not every manager can be a leader. They report that leaders have special personal characteristics that help the organization to advance and move forward, and they have the ability to deal with abnormal circumstances, and to change the work orientation (Abdalla & Al-Homoud, 2001).

Yukl et al, (2002) described "leadership as a process of influencing and leading others to understand why and how certain activities and goals need to be accomplished". Kim and Maubourgne (1992) stated that leadership is'' the ability to inspire confidence and support among the people who are needed to achieve organizational goals''. Researchers argue that leadership is not only found among people in senior positions, but is needed at all levels in an organization and can be practiced to some extent even by a person not assigned to a formal leadership position (Yukl,2010). Scholars added that leadership style is a leader's combination of attitude and behaviour which leads to certain regularity and predictability in dealing with group members (Dubrin, 2004). The authors reported that there are several styles of leadership such as: autocratic, democratic, laissez-faire, instructional, managerial, charismatic, transactional, and transformational leadership (Mosadeghrad, 2003, 2004). The researchers reported that different styles are needed for different situations and each leader needs to know when to exhibit a particular approach. Furthermore, the scholars claim that no one leadership style is ideal for every situation, since a leader may have knowledge and skills to act effectively in one situation but may not emerge as effective in different situation (Rad & Yarmohammadian 2006). However, a consensus with respect to a universal definition of

organizational leadership emerged during the first GLOBE (Global Leadership and Organizational Behaviour Effectiveness) research. Leadership has been defined as: "the ability of an individual to influence, motivate, and enable others to contribute toward the effectiveness and success of the organizations of which they are members" (GLOBE, 2004).

In the historical development of leadership, much of the research covers leadership traits, behaviours, power and influence, and situational approaches (Yukl, 2010). This perspective suggested that great and successful leaders possess particular personality traits and characteristics which distinguished them from others, such as high levels of charisma (Meuser, et al, 2016). Thus from this perspective, great leaders are people born with particular inherent traits that distinguish them from other people such as charisma, the ability to communicate effectively, emotional intelligence. This theory was discredited as empirical studies found no agreed relationship between particular traits and successful leadership and also was criticized for neglecting context (Uusi-Kakkuri, et al, 2016). Since then a number of different perspectives on leadership were developed, such as, Behaviour-based theories, which focused on what leaders do, attempt to identify behaviours of successful leadership (Anderson, et al, 2017). This theory was developed in 1950s, but still utilized by some researchers (Anderson, et al, 2017). This theory has been criticized for lacking adequate theorization and empirical methodologies used to measure and investigate behaviours. Contingency approach (including Fiedler's contingency theory and path-goal theory), constitute appropriate leadership that is shaped by the nature of the organizational context (Hislop, 2013, 2005b). These theories were developed in late 1960s with general popularity of contingency theory and themselves became subject to a number of criticisms on a number of issues including lack of consistent empirical support (Hislop, 2O10, 2005).

In recent years, scholars have attempted to streamline and integrate these approaches, and many studies are focusing on identifying the characteristics and value of transformational and transactional leadership behaviours (Bass & Avolio, 1994). This study, therefore, focused on these two leadership models, including transformational and transactional leadership theory. This perspective of leadership is most widely supported by many scholars, exemplified in their empirical and theoretical contributions (Al-husseini, et al (2014). This notion is supported by a number of studies such as Sashkin (1988), indicating that leaders who were perceived to be charismatic express their visions through effective communication, are consistent in their actions to support their visions, show respect for others and value their

impact. The section below describes Bass's theory of transformational and transactional leadership drawn from Burn's perspectives (1978), and is the focus of this study. This study, therefore, focused on these two leadership models, including transformational and transactional leadership theory. This perspective of leadership is most widely supported by many scholars, exemplified in their empirical and theoretical contributions (Singh et al. 2016; Crawford 2005; Politis, 2001, 2002; Singh, 2008; Vera & Crossan 2004; Bryant, 2003). This notion is supported by a number of studies such as Sashkin (1988), indicating that leaders who were perceived to be charismatic express their visions through effective communication, are consistent in their actions to support their visions, show respect for others and value their impact.

3.8 Bass's Theory of Transformational Leadership

Burns (1978) defined transformational as "leaders and followers who raise one another to higher levels of morality and motivation". Transformational leadership theory originated with the work of Burns (1978) and was supported by researchers; exemplified in their empirical contributions of (Tichy & Devanna, 1986). Researchers argue that transformational leadership concept was originally proposed by Burns (1978, cited by Bass, 1995) from descriptive research on political leaders, and then expanded by Bass (1985; 1990). However, Bass (1985) was the first to apply transformational leadership theory to business organizations. Other scholars argue that the theory of transformational leadership simultaneously involves leader traits, power, behaviour, and situational variables (Yukl, 1989). They added that transformational leadership theory is viewed as a hybrid approach as it gathers elements from these major elements (Yukl, 1989).

Transformational leadership is ''defined in terms of the leader's effect on followers: Followers feel trust, admiration, loyalty, and respect toward the leader, and they are motivated to do more than they originally expected to do'' (Yukl, 1998; Bass and Avolio, 1994, p.3). Thus," *transformational leaders set more challenging expectations and typically achieve higher performances"* (Bass, 1985; Bass and Avolio, 1994, p.3). Rolls (1995) suggested that transformational leaders build awareness and acceptance of goals and mission and, motivate support among organizational members for organizational goals, and influence others because they create organizational meaning.Transformational leaders have been shown to evoke a range of actions and feelings with subordinates. For instance; they encourage

followers to do more than required (Lamiaa, 2016; Sonic et al, 2002), are proactive and help followers to attain unexpected goals (Antonakis et, 2003), they move followers beyond immediate self-interest (Bass, 1999). The transformational leaders are models of integrity and fairness, set clear goals, have high expectations, provide support and recognition, stir the emotions and passions of people, and encourage people to look beyond their self-interest to reach for the improbable (Pierce & Newstorm, 2008; Bass, 1985). Transformational leaders can create significant organizational change and act as change agents, foster higher level of intrinsic motivation, and loyalty among followers.

Transformational leadership is comprised of five dimensions which are idealized influence (attribute and behaviour), inspirational motivation, intellectual stimulation, and individualized consideration. Idealized influence describes the degree in which leaders are perceived as an inspiring role model (Moss & Ritossa, 2007). Idealized influence consists of two forms: idealized influence attribute in which leaders receive trust plus respect, and idealized influence behaviour in which leader's exhibit excellent behaviour and might sacrifice their own needs to improve the objectives of their workgroup (Moss & Ritossa, 2007). Inspirational motivation describes the degree in which the leader states a vision that is attractive and encouraging to followers (Judge & Piccolo, 2004). Leaders strengthen followers by viewing the future by optimism (Antonakis et al, 2003), and act in ways that motivate those around them by providing meaning and challenge to their followers' work (Bass, et al, 2003). Intellectual stimulation explains the degree in which the leader stimulates their followers' endeavour to be innovative and creative (Limsilla & Ogunlana, 2008), and consider old organizational problems with a new perspective (Moss & Ritossa, 2007). Individualized consideration refers to the degree in which leaders providing support, encouragement, and coaching to followers (Yukl, 2006). The leaders listen carefully to the individual needs of followers and may delegate certain responsibilities to help followers grow through personal challenges (Bass & Avolio, 1994; Bass et al, 2003; Judge & Piccolo, 2004; Northouse, 2007).

Bass (1985) argues that transformation can be achieved in any of three inter-related ways by: raising their subordinates' level of awareness, their level of consciousness about the importance and value of designated outcomes, and ways of reaching them" "by getting their subordinates to transcend their own self-interest for the sake of the team, organization, or (3) by altering their need level on Maslow's hierarchy or expanding their portfolio of needs and wants." Bass (1985) argues that transformational leadership motivate their subordinates to do

more than they originally expected to do so. Bass (1985) adds that transformational leader's emphasis on mobilization and direction of followers toward expanded, higher, or transcendental objectives. Bass (1985) suggested that workers under certain conditions could rise above their own interests and give extra effort to achieve the organizational objectives. He argued that transformational leadership instil this in them and achieve this extraordinary performance (Bass, 1985).

3. 9 Prior studies on Transformational Leadership

Shamir, House &Arthur (1993); Bass, (1990) looked at the effects of leadership actions that implicate the self-concept of the followers, and engage the related motivations for self-expression, self-esteem, self-worth and self-consistency. Other researchers examined the correlation between transformational and transactional leadership and their positive effect on their followers (Han et al, 2016; Avolio & Howell, 1992). Researchers consider transactional practices to be central in maintaining the organization, getting the day-to-day routines carried out (Uusi-Kakkuri, et al. 2016; Bass, 1985, Vera & Crossan, 2004; Sergiovanni, 1990; Leithwood. 1994). Leithwood et al. (1990) examined schools initiating reforms. Norms of collective responsibility and continuous improvement encourage them to share knowledge and learn how to share (Song et al. 2015; Little 1982). These strategies included involving bureaucratic mechanisms were used to support cultural changes; for example, leaders selected new staff members who were already committed to the school's mission and priorities. These school leaders actively communicated the school's cultural norms, and they also shared power and responsibility with others through delegation of power to school improvement "teams" within the school (Zahra et al.2016; Leithwood and Jantzi, 1999; Little 1982).

3.10 Bass's Transactional leadership Theory

Burns (1978 cited by Bass, 1995) defined transactional leadership as an exchange between leader and follower. Further, Bass and Avolio (1994) point out that transactional leadership emphasizes the transaction or exchange that takes place among leaders, colleagues, and followers. Furthermore, they add that this exchange is based on the leader discussing with others what is required and specifying the conditions and rewards these others will receive if they fulfil those requirements. Howell and Avolio (1993) suggest that both leader and follower reach an agreement concerning what the follower will receive for achieving the

negotiated of performance. Other scholars added that transactional leadership is an exchange process based on the fulfilment of contractual obligations and is typically represented as setting objectives and monitoring and controlling outcomes (Bass, 1985). Researchers report that the basis of this theory is the relationship between leaders and followers, which is supported by exchanges or contingent rewards defined by the leader to praise accomplishments (Whittington, Goodwin, & Murray, 2004).

Transactional leadership forms the second part of transformational leadership theory. Transactional leadership concentrates on the exchanges that occur between leaders and their followers (Zhen et al., 2017; Northouse, 2007), which helps follower to fulfil their own interests (Bass, 1999). Transactional leaders clarify followers' responsibilities, their performance objectives, and their tasks that must be completed (Eptropaki & Martin, 2005). This type of leadership deals with maintaining the current situation and motivating people through contractual agreement (Bass, 1985; Jung et al, 2008). Transactional leaders direct followers to achieve established goals by explaining goals, role and task requirements (Armandi et al, 2003). This leadership style tends to emphasize extrinsic rewards, such as monetary incentives and promotion (Jung et al, 2008). Transactional leaders prefer to avoid risk, and focus on efficiency (Levy et al, 2002).

Transactional leadership is comprised of three dimensions which are contingent reward, management-by-exception active, and management-by-exception passive. Contingent reward describes the degree in which the leader determines rewards in exchange with followers' efforts to satisfy organizational goals. It includes clarification of the work required to obtain rewards and the use of incentives to influence motivation. Leaders must clarify the expectations and present recognition when goals are accomplished (Limsila & Ogunlana, 2008; Yukl, 2006). Management-by-exception active explains the degree in which a leader watches followers closely for mistakes or role violations (Northouse, 2007). Active leaders check follower behaviour, predict problems, and take corrective actions before the behaviour makes severe difficulties (Judge & Piccolo, 2004). Management-by-exception passive explains the degree in which leaders wait for deviances, mistakes, and errors to happen and then take corrective actions (Franco, et al, 2016). They do not actively seek out deviations from desired performance and only take corrective action when problems occur (Pounder, 2001). This type of leader avoids describing agreements, explaining expectations and standards to be achieved by subordinates, but will intervene after particular problems become apparent.

Bass (1985) focuses on the relationship between superiors and subordinates. He considers that leaders carry out both transactional and transformational leadership, but in different combinations. He adds that satisfaction of employees' needs and wants by transactional leaders involves existing rewards, while transformational leaders tailor or create new stimuli to satisfy staff needs. Bass (1985) reports that transactional leaders adapt to existing organizational culture while transformational leaders adapt the culture to the external environment. He contrasts transformational leadership with transactional leaders. The author reports that transformational and charismatic leaders inspire exceptional performance. They add that transactional leaders aspire to achieve solid and consistent performance that meets agreed goals and objectives. Furthermore, he adds that transactional leaders give rewards and punishments to encourage performance, making leaders and workers relationship an economic transaction (Mittal, et al, 2015; Bass, 1985).

The author adds that the transactional leader's emphasis on exchange with followers of benefits for compliance. Conger & Kanungo (1998) contrast charismatic leaders with non-charismatic leaders. They argue that while transformational leaders inspire exceptional performance. Transactional or non-charismatic aspire to achieve solid and consistent performance that meets agreed goals and objectives. Researchers report that transactional leaders give rewards and punishments to encourage performance, making leaders/ workers relationship an economic transaction (Bass, 1985). The author adds that the transactional leader's emphasis on exchange with followers of benefits for compliance. The other argues that transactional leaders adapt to existing organizational culture while transformational leaders adapt the culture to the external environment. Bass, (1985) contrasts transformational leadership with transactional leaders.

3.11 Prior studies on Transactional Leadership

Burns (1978) distinguishes between transactional and transformational leadership. He argues that transactional leaders motivate followers through exchange for rewards or preferences. While transformational leaders pay great attention to interacting with followers to create organizational collectively. They attempt to understand followers' needs and stimulate followers to achieve goals. *" Transactional leadership practices help people recognize what needs to be done in order to reach a desired outcome and may also increase their confidence and motivation"* (sergiovanni,1992a, p.9). Researchers argue that transactional leadership is

an exchange process based on the fulfilment of contractual obligations and is typically represented as setting objectives and monitoring and controlling outcomes (Bass, 1985). Scholars added that the basis of this theory is the relationship between leaders and followers, which is supported by exchanges or contingent rewards defined by the leader to praise accomplishments (Bass, 1985; Bass & Avolio; Whittington, 2004).

3.12 Critical evaluation of Transformational leadership

Tracey & Hinkin (1998) has shown substantial overlap between each of the four I's (idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration), suggesting that the dimensions are not clearly delimited. Furthermore, the parameters of transformational leadership often overlap with similar conceptualizations of leadership (Tracey & Hinkin, 1998). Andersen, et al (2015) illustrate that the magnitude of interest in and of enthusiasm for transformational leadership is out of proportion with its weaknesses. He claims that the theory has some grave problems: there are conceptual limitations; managerial leadership is conflated with political leadership; the theory is presented as a universal as well as a contingency theory; the claim that transformational leaders are more effective is not empirically supported; and the use of the term "followers" rather than "subordinates" creates confusion in the study of formal organizations. Finally, and perhaps most fundamentally, does transformational leadership theory qualify as a managerial leadership theory? Yukl (2010) has concluded that the theory does not provide a good explanation for a strong effect of CEO behavior on the financial performance of a company. Survey studies on leader use of transformational behaviors (as perceived by the subordinates) have found only weak and inconsistent correlations. When effectiveness is measuring as a ratio and objectively, it cannot be claimed that transformational leaders are more effective than transactional ones.

Similarly, other researchers (Bryman, 1992; Tracey & Hinkin, 1998) have pointed out that transformational leadership and charismatic leadership often are treated synonymously even though in some models of leadership charisma are only one component of transformational leadership. A further criticism some have made is that transformational leadership is elitist and antidemocratic (Bass & Avolio, 1994; Yukl, 1999). They argued that transformational leaders often play a direct role in creating changes, establishing a vision, and advocating new directions. This gives the strong impression that the leader is acting independently of the

followers and putting himself or herself above the followers' needs. Related to this criticism, some have argued that transformational leadership suffers from a "heroic leadership" bias. Transformational leadership stresses that it is the leader who moves followers to do exceptional things.

 A further criticism of transformational leadership is that it has the potential to be abused. Transformational leadership is concerned with changing with people's values and moving them to a new vision (Tracey & Hinkin , 1998; Tejeda, et al., 2001). But who is to determine whether the new directions are good and more affirming? (Tracey & Hinkin, 1998). However, the dynamics of how followers challenge leaders or respond to their vision is not fully understood. There is also a need to understand how transformational leaders affect followers psychologically and how leaders respond to followers' reactions. The charismatic nature of transformational leadership presents significant risks for organizations because it can be used for destructive purposes (Conger, 1999; Howell & Avolio, 1993; Tracey & Hinkin, 1998).

3.13 Critical evaluation of Transactional leadership

Miller & Miller, (2001) argues that the major limitation of such a process is that it does not engage staff beyond the immediate gains arising from the transaction. For example, Miller and Miller's definition implies, transactional leadership does not produce long term commitment to the values and vision being promoted by school leaders. For example, Miller & Miller, (2001) define: "Transactional leadership is leadership in which relationships with teachers are based upon an exchange for some valued resource. To the teacher, interaction between administrators and teachers is usually short lived and limited to the exchange transaction. While transformational leadership *provides followers with a cause around which they can rally "*(Bass, 1995. p.4).

3.14 Development of the Multifactor Leadership Questionnaire (MLQ (Bass & Avolio, 1995).

The Multifactor Leadership Questionnaire (MLQ), was conceptually developed and empirically validated to reflect the complementary dimensions of transformational and transactional leadership with sub-scales to further differentiate leader behaviour. Bass &

Avolio (1995) developed an instrument to measure both transactional and transformational leader behaviour and to investigate the nature of the relationship between these styles and work unit effectiveness and satisfaction.

3.15 Characteristics of Full- Range Leadership Theory (FRLT) (Bass, 1994).
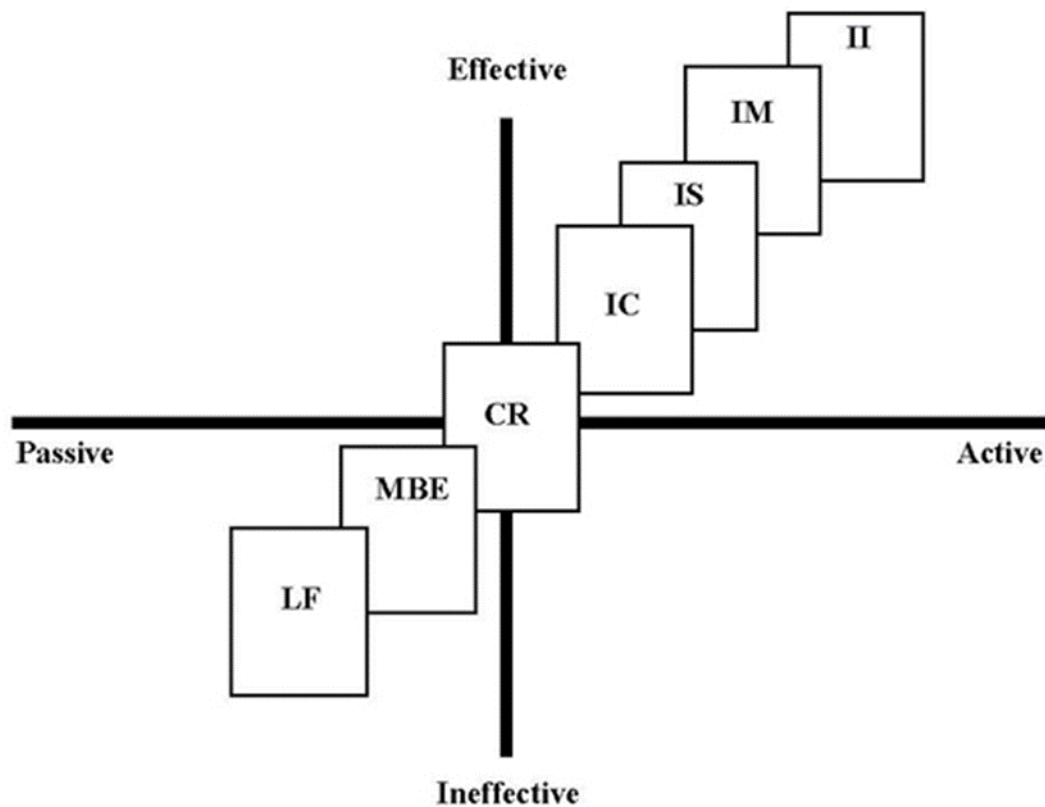
Source: Adapted from Bass, 1994

3.16 Introduction

Bass (1995) conceptualizes the Full-Range Leadership Theory (FRLT) transformational and transactional leadership along seven dimensions: Transformational leadership consists of (1) idealized influence (attributes and behaviour), (2) inspirational motivation, (3) intellectual stimulation and (4) individualized consideration. Transactional leadership consists of (4) contingent reward, (5) management by exception (active and passive), (7) laissez-faire. The

Full-Range Leadership Theory (FRLT) covers the whole spectrum of transformational and transactional leadership characteristics.

3.17 Transformational leadership dimensions

Based upon prior research, Armstrong (2001) summarizes the characteristics of transformational leadership as follows: They emphasize ethical behaviour, develop leadership among team members, share a vision and goals, improve performance through charismatic leadership, leading by example, and use encouragement and praise effectively. Thus, transformational leaders *"set more challenching expectations and typically achieve higher performances"* (Bass and Avolio, 1994, p.3). Tichy and Devanna, (1998) believed that the power of transformational leadership is the visualisation of the organization. They argue that Followers feel trust, admiration, loyalty, and respect toward the leader, and they are motivated to do more than they originally expected to do (Yukl, 1998). Scholars added that such leaders always show concerns for the organization and followers (Podsakoff et al, 1990). Other scholars reported that they encourage followers to seek new ways to approach their jobs resulting from inspirational motivation and intellectual stimulation (Bass, 1985, 1990; Bass & Avolio, 1989). The authors argue that transformational leaders are those who stimulate and inspire followers to both achieve extraordinary outcomes (Bass, 1985; Bass & Avolio, 1989). Thus, they claim that such leaders are able to generate greater creativity, productivity, and effort exceeding expectations (Bass, 1995). Kuhnert and Lewis (1987) stated that transformational leadership *"originates in the personal values and beliefs of leaders, not in an exchange of commodities between leaders and subordinates"* (p.649).

3.18 Idealized influence

Bass (1985) argues that Idealized influence is the extent of pride, faith and respect leaders encourages their workers to have in them, and followers idealized and emulate the behaviours of their trusted leader (Brusca et al, 2013; Bass, 1985; Conger, 1999). Bass (1985) added that Leaders provide vision and a sense of mission. They extol the virtues of the mission and display total commitment, emphasize trust; they take a stand on difficult issues, present their own most central values, and point out the ethical consequences of their decisions (Brown,et al. 2017; Bass,1985; Conger, 1999). Bono & Judge (2004) stated that Idealized influence is about building confidence and trust and providing a foundation for accepting organizational

change, followers identify with and want to emulate their leaders and will be less likely to resist proposals for change. Idealized influence is linked to charisma (Jain et al, 2016; Gellis, 2001). Bass (1985) describes Idealized influence both: (a) Idealized Influence (attributed) which refers to the socialized charisma of the leader, whether the leader is perceived as being confident and powerful, and whether the leader is viewed as focusing on higher-order ideals and ethics; (b) Idealized influence (behaviour) which refers to charismatic actions of the leader that are centred on values, beliefs, and a sense of mission (Bass, 1985; Den Hartog, Van Muijen, & Koopman, 1997; Kelly, 2003).

3.19 Inspirational Motivation

Bass (1985) describes inspirational leader behaviour as one who: stimulates enthusiasm among subordinates for the work of the group and says things to build their confidence in their ability to successfully attain group perform assignments and attain group objective. The scholars add that such leaders encourage subordinates to envision, and take ownership of, attractive future states (Tichy and Devanna, 1986; Bass, 1985; Avolio and Bass, 1989). Leaders of this attribute are able to have followers involved in envisioning attractive futures with the company; they create clearly communicated an awareness of problems, recognition of their own beliefs and values, and an awareness of their own thoughts and imagination (Bass, 1985). Bass (1985) stated that Leaders exhibiting this trait act as role models for subordinates, communicating a vision in an appealing way and use symbols to focus efforts. They communicate high performance expectations to followers, talk optimistically and with enthusiasm and provide encouragement and meaning for what has to be done. Yukl & Van Fleet, (1982); Bycio, Hackett, & Allen (1995) describe such leaders as inspiring and motivating in the eyes of their subordinates by providing meaning and challenge to their followers' work. They are able to energize employees' responses.

3.20 Intellectual stimulation

Bass (1985) argues that Intellectual stimulation is the frequency with which leaders encourage employees to be innovative in their problem solving and solutions (Bass, 1985; Avolio et al, 1999). Bass (1985) argue that Leaders stimulate followers to rethink old ways of doing things and to reassess their old values and beliefs. They empower *''followers by persuading them to propose new and controversial ideas without fear of punishment''* (Stone,

Russell, & Patterson, 2003,p.3). They stimulate their follower's effort to be innovative and creative by questioning assumptions, reframing problems, and approaching old situations in new ways. Hence, followers are encouraged to break away from old ways of thinking and are motivated to question their values, beliefs, and expectations. Intellectual stimulation refers to leader actions that appeal to followers' sense of logic and analysis by challenging followers to think creatively and find solutions to difficult problems (Bass, 1985; Avolio et al, 1999; Den Hartog, Van Muijen, & Koopman, 1997). The author argues that leader's intellectual stimulation involves" *the arousal and change in followers of problem awareness and problem solving, of thought and imagination, and of beliefs and values, rather than arousal and change in immediate action"* (Bass, 1985, p.99).

3.21 Individualized consideration

Bass (1985) argue that such leaders coach, mentor, provide continuous feedback, and link organizational members' needs to the organization's mission. Leaders provide continuous follow-up and feedback and perhaps more importantly, link an employee's current needs to the organizations' mission and elevate those needs when it is appointed to do so. (Yammarino et al, 1993; Bass and Avolio, 1994; Bycio et al., 1995; Den Hartog, Van Muijen, & Koopman, 1997). People are treated individually and differently on the basis of their talents and knowledge (Shin & Zhou, 2003) and with the intention of allowing them to reach higher levels of achievement than might otherwise have been achieved (Russell & Patterson, 2003, p.3). Individualized consideration can take many forms. Expression of appreciation for a job well done will be most important. Leaders respond to the specific, unique needs of followers to ensure they are included in the transformation process of the organization. The transformation is triggered by these five behaviours that "raise followers' awareness of the significance of designated outcomes, and gets them to transcend their self-interests for the good of the organization" (Whittington, 2004) provoking a dual effect on behaviour and performance. On the one hand, there is consideration revealed in regular group meetings, in consultation with subordinates as a group, in treating all subordinates alike, and in consensual decision-making. On the other hand, consideration can be individualized. Each subordinate will be treated differently according to each subordinate's needs and capabilities (Miller, 1973).

3.22 Transactional leadership dimensions

Burns (1978) considered the transformational leader to be distinct from the transactional leader, where the latter is viewed as a leader who initiates contact with subordinates in an effort to exchange something of value, such as rewards for performance, mutual support, or bilateral disclosure. At the other pole of the leadership style dimension, Burns viewed the transformational leader as one who engages with others in such a way that the leader and the follower raise one another to a higher level of motivation and morality (Kuhnert & Lewis, 1987). Burns (1978) identified two types of leadership styles, transformational and transactional leadership. The transformational leader construct was suggested by Burns based on a qualitative analysis of the biographies of various political leaders. The notion of a transformational leadership style as a construct has also been addressed in the works of several scholars (Bass, 1985; Conger, 1999; House, 1977; Podsakoff, McKenzie, Moorman, & Fetter, 1990; Tichy & Devanna, 1986; Yukl, 1989). The transformational leader has been characterized as one who articulates a vision of the future that can be shared with peers and subordinates, intellectually stimulates subordinates, and pays high attention to individual differences among people (Yammarino & Bass, 1990). This transformational leader was posited as a contrast to the transactional leader who exchanges rewards contingent upon a display of desired behaviours (Burns, 1978; Waldman, Bass, & Einstein, 1987)

3.23 Contingent reward

Bass (1985) argues that contingent reward leadership involves a focus on transactions, exchanges, and contingent rewards and punishments. Such leadership often describes person and task oriented leader behaviours that are instrumental to effective follower performance (Bass, 1985). Bass (1985) argues that contingent reward refers to ways the leader assigns or obtains agreement on what needs to be done by promising rewards or actually rewarding others in exchange for satisfactorily carrying out the assignment. Bass (1985) argues that rewards are for good effort, good performance, and to recognize accomplishments. Leaders reward followers on the basis of the achievement of specified performance levels. Such leaders engage in clarifying expectations, exchanging promises and resources, and constructing agreements. They exchange assistance for effort and provide rewards for

successful follower performance (Avolio et al, 1999). Bass added that the leader and follower agree on what the follower needs to be rewarded or to avoid punishment (1985).

3.24 Management by exception

Bass (1985) refers to management by exception as the vigilance of the leader whose goal is to ensure fulfilment of the standards. He adds that management by exception (passive) behaviour involves intervening only if standards are not met. Leaders only intervene after noncompliance has occurred or when mistakes have already happened. This behaviour involves monitoring subordinates and correcting actions, when necessary, to ensure the work is carried out effectively (Bass, 1985; Bass and Avolio, 1994). Bass (1985) describes management by exception as the corrective transaction and consists of both management by exception (active) and management by exception (passive). In active management by exception, leaders monitor and actively seek out deviations from desired performance on the part of the subordinates with a view to taking corrective action. They enforce rules to avoid mistakes (Bass and Avolio, 1994; Bass, 1985; Avolio et al, 1999; Den Hartog, Van Muijen, & Koopman, 1997).

3.25 Laissez-faire leadership

Bass (1985) argues that this leadership style is considered active to the extent that the leader "chooses" to avoid taking action. He added that it is conceptually distinct from the other leadership characteristics; laissez-faire leaders do not exercise in any meaningful sense but actually abrogate their leadership responsibility. This is the avoidance or absence of leadership (Bass, 1985; Bass and Avolio, 1994). Bass argues (1985) that Laissez-faire leadership refers to the absence of leadership in which the leader avoids making decisions, abdicates responsibility, and does not use his or her authority (Bass and Avolio, 1999; Avolio et al, 1999).

3.26 Leadership in the educational sector

3.27 Overview

In response to globalisation and rapidly changing marketplace, major businesses sought to quickly respond to the new demands. Strategy scholars argued that these businesses must engage in systems thinking and organizational learning in order to meet these new demands (Senge et al., 1999). To assist schools in choosing and training leaders capable of managing large scale change, Leithwood et al. applied to schools these well-developed and researched tenets from the business world in development of their model of transformational leadership (Leithwood, 1994, 1999). A renewed drive to develop and improve school leadership is currently under way, and has been so for some time in many countries. Initiatives aimed at improving school leadership have taken place in previous decades, especially in the USA and in the UK. The current drive takes into account the global and international nature on one hand, and the broader approach to the concept of leadership on the other. Governments, worldwide are encouraging reciprocal visitation and exchanges between principals (Bush & MyiLibrary, 2008). With regard to the broadening concept of leadership development three aspects need to be considered. The first concerns the connectivity between leadership and key processes such as activities and goals in schools and learning and teaching (Bush, 2008). The second recognises leadership as a distributed phenomenon in schools and its emergence at teacher and middle management levels, with the traditional conceptions centring on senior management and the principal-ship. The third distinguishes senior or principal leadership in term of phases: aspiring, newly appointed and experienced (Bush, 2008).

Strategy scholars examined organizations undergoing large scale change (Fullan, 1999, 2001). He determined that to successfully reculture a school in a sustainable manner, the principal and teachers must collaborate in learning communities (Mitchell, Sackney, & Walker, 1996). They argue that effective school leaders must focus on relationships. The benefit of organizational learning concept is well documented in non-school settings; however, its documentation is sparse in education establishments. Leithwood & Leonard (1998) synthesized three studies to examine leadership and other conditions that fostered or inhibited organizational learning in schools. These three qualitative studies used the same theoretical framework and methodology, but were conducted in different contexts. The studies revealed that school leadership and school culture most influenced the school's

capacity to act as a learning organization. As expected, transformational leadership practices revealed strong associations with school conditions fostering organizational learning (Leithwood, 1991, 1992, 1993). Other studies using different methods and measures all found transformational leadership practices positively related to desirable climate and culture (Leithwood & Jantzi, 1990; King, 1989). Stone (1992) used the Multifactor Leadership Questionnaire to survey 482 teachers from schools governed by principals who had previously been identified as top performing by teachers, supervisors.

3.28 Development of the Leithwood Model

Leithwood (1994), Leithwood, Jantzi & Steinberg (1999) conducted 34 large-scale studies examining each of the dimensions of the Bass & Avolio (2000) model with the Multifactor Leadership Questionnaire (MLQ) and other instruments. They aligned those dimensions with a set of Transformational behaviours identified by Podsakoff, Mackenzie, Moorman, and Fetter (1990) from a comprehensive review of organizational research. The Podsakoff behaviours have three sets of categories, namely, Setting Directions, Helping People, and Redesigning the Organisation, and include building a vision, demonstrating high performance expectations, establishing goals, offering individualized support, providing intellectual stimulation, modelling best practices and important organizational values, creating a culture, developing structures for participative decision-making. They are more fully described in the table below. The dimensions and behaviours that proved effective in schools were grouped into three sets by Leithwood et al, (1994, and 1999) to form their model. Leithwood & Jantzi (2000) conceptualise transformational leadership along six dimensions described below:

Setting directions	Helping people	Redesigning the organization
Vision/charisma inspirational; motivation	Individualized consideration/ support	Helping to build collaborative cultures
Group Goals	Intellectual stimulation	Creating structures to foster collaboration
High-performance Expectations	Modelling key values/ Idealized influence	Building productive relations with parents and the community

TABLE 3.1: LEITHWOOD'S MODEL OF SCHOOL TRANSFORMATIONAL LEADERSHIP

Transformational Leadership characteristics and behaviours have been grouped into three main categories:

1.Setting Direction-developing and articulating a school vision; identifying new opportunities for the school; inspiring others with vision of the future; demonstrating high performance expectations; and establishing school goals; and 2.Developing people-offering individualised support; demonstrating concern about feelings and needs of others; providing intellectual stimulation; challenging staff to re-examine some assumptions about their work; challenging staff to rethink how their work can be performed; modelling best practices and important organizational values; setting examples, and providing appropriate role models;3. Redesigning the organization- creating a productive school culture; reinforcing beliefs, norms and values; promoting the value of continuous development learning; promoting collaborative problem solving; developing structures to foster participation in school decisions; promoting cooperation between among staff; assisting them to work together toward common goals; and accepting of group goals. The interview questions can be found in Appendix C.

3.30 Rationale for selecting Bass's Model as opposed to Leithwood's Model of transformational leadership

The following section describes the two models of transformational leadership styles as conceptualized by Leithwood & Jantzi's six of Educational Leadership Theory and Bass's four common I's Models are set out in this table as well as the constructs of Bass's Full-Range of Leadership Theory. This study adopts the work of Bass (1985) for the following reasons: First, Bass's work has been widely accepted in a variety of management and educational fields (Koh and Steer, 1995; Leithwood, 1994), and has been widely researched including a series of qualitative studies of prominent leaders and CEOs in large, well-known organizations, and has also been the focal point for a large body of leadership research since its introduction in the 1970s. Second, the MLQ has been examined in over 75 research studies, appearing in journals, dissertations, book chapters, conference papers, and technical reports. The instrument has been used to study leaders in a variety of organizational settings such as manufacturing, the military, educational and religious institutions, and at various levels in the organization including first line supervisors, middle managers, and senior

managers (Al-Sada, Maryam et al ,2017; Wubbena, Zane et al, 2016; Lowe, Kroeck & Sivasubramuniam; Yukl, 1999). The section below describes two reasons for adopting Bass's model as opposed to Leithwood's model:

3.31 Universality.

Bass (1997) argues that numerous reasons bolster the universality argument: First, the author argues that leadership, as such, is a universal phenomenon. The globalisation of industry and the media has made the task easier to spread systematic approaches (Bass, 1997). Second, Bass adds that knowledge work requires" *envisioning, enabling, and empowering leadership are central to the transformational leadership"* (Bass, 1997, p.131). Third, the socially oriented transformational leader engages in moral uplifting of followers (Bass, 1997). Fourth, he adds that pop culture and its fads sweep across the world. Worldwide webs of communications, trade, and travel and the international transfer of technology contribute to the convergence of requirements and role model for leadership (Bass, 1997). Furthermore, he adds that organizations are continually seeking benchmarks to see what they can do to become closer in practice to the best of their counterparts. They learn, change, and become more alike, so cultures (Bass, 1987). Fifth, Bass argues that the United States provides important sources of communalities in the post industrialized world. English has become the world's language of Business, American practices of management, and the master of administration program have been adopted universally (Bass, 1987). The section below describes the complementarity of transformational and transactional leadership.

3.32 Complementarity

Bass (1985) argues that transformational leadership thus augments transactional management to achieve higher levels of subordinate performance. Bass (1985) characterized the transactional leader as one who operates within the existing system or culture, has presence for risk avoidance, and pays attention to time constraints and efficiency. Bass argues that a skilful transactional leader is likely to be effective in stable, predictable environments where charting activity against prior performance is the most successful strategy (Bass, 1985). Bass (1985) viewed the transformational/transactional leadership paradigm as being comprised of complementary rather than polar constructs. He integrated the transformational and transactional styles by recognizing that both styles may be linked to the achievement of

desired goals and objectives (Bass, 1985, 1990; House, 1997; House & Podsakoff, 1994; Kuhnert & Lewis, 1987; Podsakoff, et al, 1990). He argues that transformational leadership style is complementary to the transactional style and likely to be ineffective in total absence of a transactional relationship between leaders and subordinates (Lowe, Kroeck, & Sivasubramaniam, 1996). In line with this reasoning, a given manager may be both transformational and transactional. Strategy scholars noted that supporting every charismatic leader is someone with the ability to manage the mundane, day-to-day events that consume the agendas of many (Tosi, 1991).

3.32 The relationship between Leadership and knowledge sharing

3.33 Introduction

Chen, et al., (2006) examined the relationship between leadership behaviours and knowledge sharing in professional service firms in Taiwan and the United States. The results showed transformational leadership behaviours as a significant predictor of internal knowledge sharing, and Contingent reward leadership behaviours are significantly and positively correlated with both internal and external knowledge sharing. Bock and Kim (2002) examined the factors that support or constrain the individual's knowledge sharing behaviour in the organizational context, and how they eventually influence the knowledge sharing behaviour. Their research results from the field survey of 467 employees of four large, public organizations show that expected rewards, expected associations, and expected contribution as the major determinants of the individual's knowledge sharing attitude, and this attitude as a determinant of the knowledge sharing behaviour.

 Kim (2002) argued from a theoretical perspective, economic exchange theory also suggests that a person behaves after calculating the expected rewards and costs incurred by his or her behaviour. However, they argue that contrary to many researchers' expectations, their study shows that the attitude toward knowledge sharing is negatively related to the expected rewards. They add that expected rewards discourage the formation of a positive attitude toward knowledge sharing. Constant et al. (1994) argued that experienced workers learned that they should share their knowledge which was acquired from their work and training. Therefore, the author argues that workers may have a negative attitude toward receiving extrinsic benefits in return for knowledge sharing behaviour which they perceive as a normal business activity. Researchers in the field have explored in detail a range of studies linking

leadership and knowledge management and sharing knowledge (Politis, 2001, 2002; Crawford, 2005; Singh, 2008; Behery, 2005).   The empirical evidence, although scarce, generally supports these assertions.

For example, De Vries et al (2010) examined the relations between leaders' communication styles and charismatic leadership, human-oriented leadership (leader's consideration), task-oriented leadership (leader's initiating structure), and leadership outcomes. Their survey was conducted among 279 employees of a governmental organization. They operationalized six main communication styles: verbal aggressiveness, expressiveness, preciseness, assuredness, supportiveness, and argumentativeness. Regression analyses were employed to test their main hypotheses. The significant findings of their study are that charismatic and human-oriented leadership are mainly communicative, while task-oriented leadership is less communicative. The communication styles were strongly and differentially related to knowledge sharing behaviours, perceived leader performance, satisfaction with the leader, and subordinate's team commitment. De vries et al (2006) examined the relationships between team communication styles and job related cognitions on one hand and knowledge-sharing attitudes and behaviours on the other. They used 424 members of different work-related teams. They argued that both eagerness and willingness to share are positively related to knowledge sharing-both donating and collecting knowledge. They further argued that these attitudes mediate the relationships of communication styles, job satisfaction, and performance beliefs with knowledge-collecting and donating behaviours. They added that in terms of team communication styles, an agreeable style is positively related to team members' willingness to share their knowledge, whereas an extravert communication style of a team is positively related to both eagerness and willingness to share. Moreover, the authors argue that performance beliefs and job satisfaction are both related to willingness and eagerness to share knowledge.

Behery (2008) examined the relationships between transformational and transactional leadership, knowledge sharing, and organizational benefits in Dubai. A survey of 560 managers at different levels working in a variety of service organizations in Dubai was performed using anonymous questionnaires. His participants were from different business sectors were studied utilizing quantitative methodology. After identifying the independent variable and the dependent variables, his study intended to test his first and second research hypotheses of whether transactional and transformational leadership had a significant positive

effect upon knowledge sharing. He administered two instruments: (1) Transformational Leadership Measurement to measure the transactional and transformational leadership behaviour, Multifactor Leadership Questionnaire (MLQ- 5X short form) (Bass & Avolio, 2000) was used. This short form includes 36 elements answered on five points from 1(strongly disagree) to 5 (strongly agree). The study employs a short form of the (Nonaka, 1994) model of knowledge creation and sharing. This short form includes five items measured by a five-point Likert-type scale ranging from 1 (strongly disagree) to 5 (strongly agree). The significant findings of his study are that transactional and transformational leadership were positively related to knowledge sharing in these Organisational settings.

Nonaka, Toyama, and Konno (2000) argue that leaders are critical in the process of facilitating the knowledge-creating process. Senge (1990) argues that in a learning organization, the critical roles of leadership to build a shared vision and yet challenge prevailing mental models. Other scholars examine how team leaders who facilitate knowledge sharing and engender trust contribute to team effectiveness (P. Lee, Gillespie, Mann, & Wearing, 2010). Their surveys were drawn from 34 engineering project teams (n: 166 team members, 30 team leaders) and 18 managers in a large automotive organization. Their findings show that by building the team's expertise, leaders enhance team members' willingness to rely on and disclose information in the team, which in turn increases team knowledge sharing. Furthermore,

Bryant (2003) argues that leaders play central role in the process of managing organisational knowledge as they provide vision, motivation, systems and structure at all levels of organisation that facilitate the conversion of knowledge into competitive advantages. They add that managing knowledge requires a conscious efforts on the part of leaders at all levels of the organisation to manage knowledge. Zagorsek, Dimovski, and Skerlavaj (2009) argued that leaders have a strong influence on the acquisition and distribution of information. Their study empirically proves that transformational leadership strongly affects organisational learning. Their study also establishes a strong relationship between contingent reward leadership and organisational learning (Zagorsek, Dimovski, & Skerlavaj, 2009). Fullan (2002) stated that "*knowledge creation and sharing is central to effective leadership*" (p.415). Crawford (2005) examines the relationship between transformational leadership, organisational position, and knowledge management. He argues that knowledge management behaviours were significantly predicted by transformational leadership. He added that Transformational leaders are better suited to handle even the most technical aspects of the

modern workplace than are transactional or laissez-faire. Additionally, as individual leaders move up in an organisation they are better suited to engage in knowledge management because they are transformational in leadership style. However, the overall relationship between knowledge management and transactional leadership did not approach any level of significance given the technical nature of knowledge management.

Singh (2008) examines the relationship as well as the impact of leadership styles on knowledge management practices in a software firm in India. He found that directive as well as supportive styles of leadership to be significantly and negatively associated with the art of knowledge management practices. He adds that consulting and delegating styles of leadership are positively and significantly related with managing knowledge in a software organisation. Politis (2001, 2002) looked at the relationship of various leadership styles including Self-management, and transformational, Transactional leadership leadership styles with nine dimensions) (Bass, 1985), Initiating structure (LBDQ scales) and Consideration, and Behavioural skills and Traits for knowledge acquisition dimensions communication/problem understanding, personal traits, control, organization, negotiation). His findings indicate that the leadership styles that involve human interaction and encourage participative decision-making processes are positively related to the skills and traits that are essential for knowledge management.

Similarly, scholars found that certain leadership roles facilitate the sharing of knowledge, through a study of how a collaborative organizational culture and certain leadership roles affect knowledge sharing in the tourism industry in Taiwan (Yang, 2007). The author based his work on the eight leadership roles and using quantitative methods, Yang (2007) determined that there was a positive relationship between the leadership roles of facilitator, mentor, and innovator and knowledge sharing effectiveness. Conversely, there was a negative relationship between the mentor role and knowledge sharing. Yang also found that there was a positive relationship between a collaborative culture and the effectiveness of knowledge sharing. Supportive activities rather than directing them are likely to have a positive effect on knowledge sharing. This is in agreement with Zhen et al (2017) who developed a theoretical model to examine the impact mechanism of leader charisma on individuals' tacit knowledge-sharing behaviour in the context of an Enterprise Systems learning team. Their results from partial least squares analysis suggest that leader charisma has a strong influence on psychological safety climate, which in turn has a positive impact on individuals' intrinsic

motivation and their tacit knowledge-sharing behaviour. Their research findings unpack the impact mechanism of charismatic leadership on tacit knowledge sharing, and provide guidelines for the team leader to exhibit charismatic leadership traits in order to promote a knowledge sharing of enterprise systems.

Chu, Kai-wing (2016). Explore the influence of a principal' kicking off knowledge management (KM) implementation and the following KM processes in the school. In this study, the principal kicked off KM in the school. It was found that KM "cannot" be implemented without the principal's effective knowledge leadership. If there was only little KM leadership, such as the leadership in Stage 1, launching KM was found to be difficult. After awareness of the need of strengthening leadership in Stage 2, the principal exercised stronger leadership in pushing the KM process further, and the school had more obvious KM outcomes. Therefore, this study proves that leadership is essential for KM implementation, especially at the beginning of the KM processes. The principal acted as the knowledge leader with the roles of knowledge vision builder, knowledge enabler builder and knowledge role model. The roles of knowledge leadership are found to be potent and critical for the process of KM implementation to facilitate sharing knowledge and nurturing a sharing culture and trust. Although the results of the study conducted in one school may not be generalized to other school contexts, the lessons learned in the study might be a reference to other schools for future development.

3.34 Critique of the relationship between leadership and knowledge sharing

Firstly, much of the writing in this area has been concerned with the development of conceptual models which aren't empirically evaluated. Bryant (2003) argued that there is a clear relationship between transformational leadership and knowledge management in organizations. While Bryant's piece is pre-empirical, Bryant (2003, p.41) made the point very clearly: *"The greatest need in this area is empirical testing of the organizational knowledge constructs"*. Tse & Mitchell (2010) developed a conceptual model which state that both transformational leadership and knowledge creation, drawing on two contrasting leadership perspectives: Open-mindedness and leader-member exchange (LMX), underpin the effect of transformational leadership on knowledge creation (Amar et al, 2016 ; Tse & Mitchell, 2010). However, the veracity of their models aren't evaluated against any empirical data, their accuracy and utility remains open to question (Anderson, et al,2017; Hislop, 2005). Secondly, the empirical data presented by many of the studies on this topic which do

empirically examine how leadership impacts on knowledge management processes can also be questioned. For example the generalizability of some of the empirical data that is presented can be questioned, as it is either anecdotal or case study evidence related to a single organization case study (Borgmann, et al. 2016; Singh, 2008)). Studies which have collected and analysed quantitative, survey based data in an attempt to statistically measure the relationship between leadership and knowledge management processes have largely failed to provide strong convincing evidence.

Politis (2002) developed and tested seven hypotheses concerning the relationship between transformational and transactional leadership and both knowledge acquisition and team performance in an Australian manufacturing company (Joseph, et al. 2015). However, the results didn't support the hypotheses developed, and with respect to the relationship between team performance and transformational leadership concluded that transformational leadership 'may not be the prime impetus for moving team performance forward (Bratianu, ,2016; Hislop, 2005). Singh (2008) examined the relationship as well as the impact of leadership styles on knowledge management practices in a software firm in India. The study was conducted in only one software firm situated in the national capital of India. Hence, blanket generalization of his findings is questionable. Chu, Kai-wing (2016) Explored how the principal's leadership can enhance KM implementation in a school environment and evaluated the effectiveness of the knowledge leadership framework for KM implementation in a school. The results of the study conducted in one school may not be generalized to other school contexts

Alvesson & Sveningsson (2003) argue that in making strong claims regarding the role of leadership on knowledge management processes and organizational performance, it neglects to account for ambiguity in a particular feature of work in knowledge intensive firms. While suggesting that ambiguity is an inherent feature of all organizations, Alvesson & Sveningsson (2003) argues that ambiguity is a particular feature of work in knowledge intensive firms. Such ambiguities, they argue, bring into question of the claims of contemporary leadership theory, the link between leadership behaviour and organizational performance. They argue that the unavoidable ambiguities that exist in all organizations make it virtually impossible to demonstrate any clear link between the behaviour and actions of particular individuals, and organizational performance outcomes. While clear arguments for the influence of transformational leadership on knowledge sharing exist, the role of transactional leadership is

not so clear. Vera and Crossan (2004) propose a theoretical model where good leaders are those that know how to switch between a transformational and a transactional style of leadership depending on the situation. One might expect that transactional leaders foster knowledge sharing, but only to the extent that it clarifies role and task requirements. These arguments lead to the hypotheses below:

3.35 Conclusion

Managing knowledge and knowledge sharing in particular has been a significant topic of interest and critical to any organizations over the last decade. Organizations perceive knowledge management and knowledge sharing in particular as a way to nurture learning and foster performance. However, while much is being written about knowledge management and knowledge sharing, there is still much to learn. Similarly, school leaders are central to this process. For example, principals must not only manage instructional leadership and other administrative responsibilities, but are also responsible for managing the development of the school (Leithwood, 1999; Sergiovanni, 1999).

3.36 Conceptual model and Hypotheses

This is the conceptual framework proposed for this study; it is built and synthesized from prior scholarly literature studies of both the Full-Range of leadership theory (Anderson,et al, 2017; Chaimongkonrojna et al, 2015; Bass 1985) and Organisational Knowledge theory conceptualized by (Bratianu, et al, 2016; Lievre, et al, 2015; Park, et al,2015; Naicker et al, 2014; Nonaka and Takeuchi 1995).

Figure 1: Hypothesized relationship of leadership styles and knowledge sharing
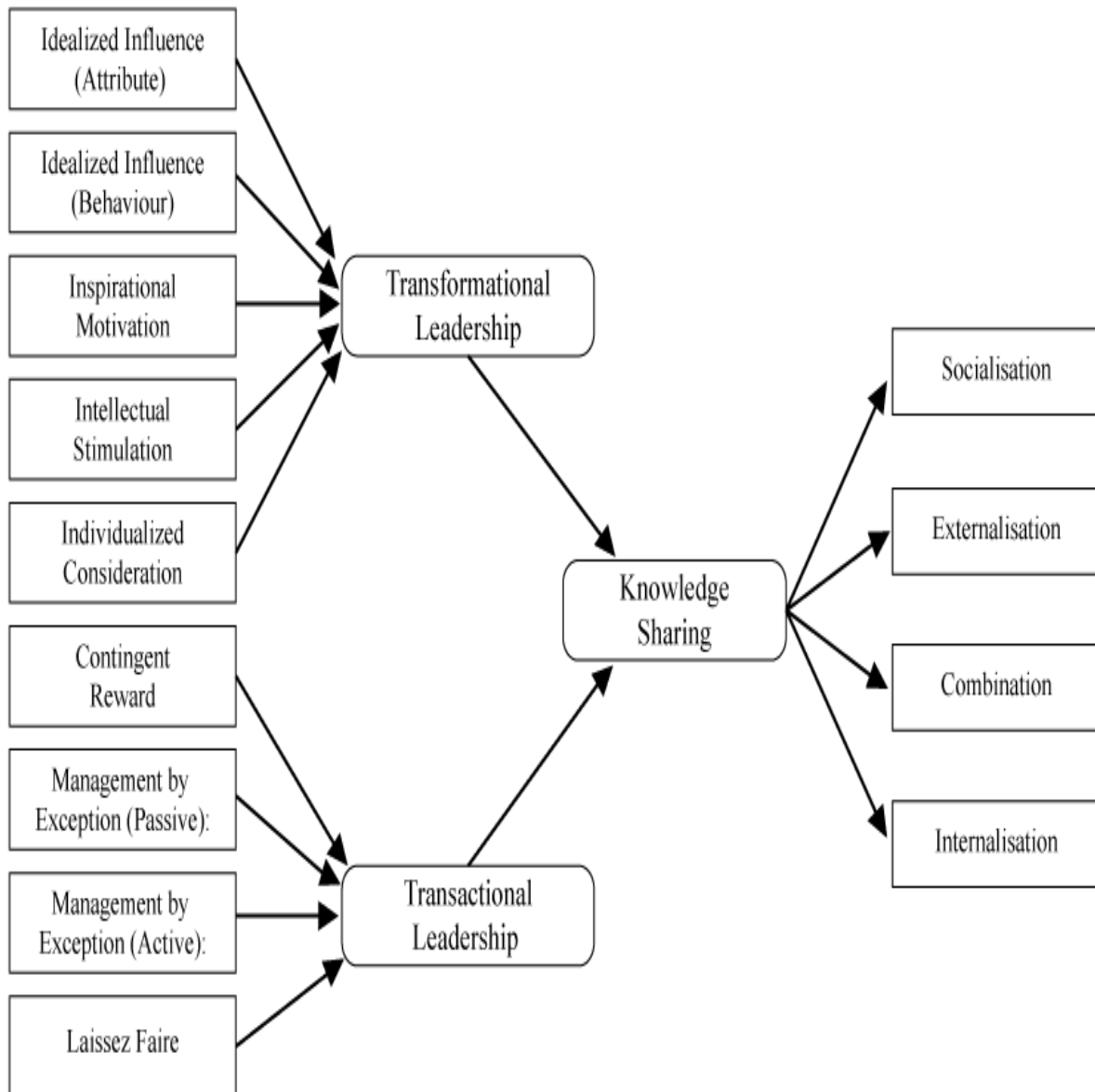
The conceptual model presented in figure 1 guides this study between the relationship leadership styles and knowledge sharing.

3.38 HYPOTHESES

Hypothesis 1:

H1: Leaders' transformational behaviour has positive relationship with the sharing of knowledge in private secondary schools in Dubai. **H1a:** idealized attributed leadership is positively related with the sharing of knowledge in private secondary schools. **H1b:** idealized influence behaviour leadership is positively predicted with the sharing of knowledge in private secondary schools. **H1c:** inspirational motivation leadership is positively significant with the sharing of knowledge in private secondary schools in Dubai. **H1d:** intellectual stimulation leadership is positively related with the sharing of knowledge in private secondary schools in Dubai. **H1e:** individualized consideration leadership is positively associated with the sharing of knowledge in private secondary schools in Dubai.

Idealized influence

Bono & Judge (2004) stated that Idealized influence is about building confidence and trust and providing a foundation for accepting organizational change, followers identify with and want to emulate their leaders and will be less likely to resist proposals for change. Idealized influence is linked to charisma (Jain et al, 2016; Gellis, 2001). Bass (1985) describes Idealized influence both: (a) Idealized Influence (attributed) which refers to the socialized charisma of the leader, whether the leader is perceived as being confident and powerful, and whether the leader is viewed as focusing on higher-order ideals and ethics; (b) Idealized influence (behaviour) which refers to charismatic actions of the leader that are centred on values, beliefs, and a sense of mission (Bass, 1985; Den Hartog, Van Muijen, & Koopman, 1997; Kelly, 2003). Leadership support for knowledge sharing has been shown to be positively associated with employees' perceptions of a knowledge culture and willingness to share knowledge. Lee et al (2006) found that leadership support affected both the level and quality encouragement of knowledge sharing (Cabrera et al, 2006). Knowledge sharing is voluntary and unlikely to take place without strong motivation (Ipe, 2003) and hence teachers are more willing to share their personalized knowledge with others. Leaders' idealized influence leadership (both attribute and behaviour) stimulate knowledge sharing among teachers. This significance for idealized influence behaviour might be explained by the fact

that leaders influence and inspire followers and provide them with energizing and clear sense of purpose, being a role model for ethical conduct, building identification with the leader and his vision (Bass, 1985; Sergiovanni, 1990). Hence, the process of knowledge sharing can be achieved through leaders' idealized behaviour leadership. When considering knowledge processes, the association with all the knowledge attributes was positive, with the socialisation attribute being significant. This may be expected given the tacit to tacit relationship within socialisation

Inspirational motivation

They are able to energize employees' responses. Bass and Avolio (1994) argue that transformational leaders are able to energize their employees. Consequently, sharing their knowledge would no longer be an optional action but an obligatory behaviour for followers to achieve their vocation within the organization (Ohana & Meyer, 2010). Hence, committing to work, being loyal to the leader is associated with sharing knowledge among peers. Transformational leaders are able to have their followers involved in envisioning attractive futures with their organization and encourage them to share knowledge (Yammarino, Spangler, & Bass, 1993). Therefore, this formulates the following hypothesis:

Intellectual stimulation

A leader who possesses these attributes will be seen as a supportive leader who provides guidance to followers, treats them fairly, and recognizes the value of their input. Given that team members expect to receive fair recognition by the leader for their contribution of ideas and information, they are likely to be motivated to share their unique knowledge with others (Srivastava and Bartol, 2006). First, a leader can set an example for subordinates by sharing his or her own knowledge first, which signifies his or her support for team-wide knowledge sharing. Second, the coaching behavior of a leader includes teaching team members how to effectively communicate with one another and encouraging them to collaboratively solve problems, thereby providing opportunities for them to share their knowledge (Arnold et al., 2000). Third, when a leader advocates participative decision making, team members have more opportunities to voice their opinions and provide suggestions (Locke et al., 1997). Under such leadership, team members are likely to see themselves as an important part of the decision process and more motivated to share their knowledge. Fourth, employees might have concerns when sharing knowledge with peers because their social status in the organization is often related to their unique knowledge. A leader is able to identify and alleviate such

concerns, thus removing barriers to knowledge sharing. Finally, Srivastava and Bartol (2006) suggest that informing motivates a search for solutions both inside and outside a team and a greater collaborative attempt to help one another through knowledge sharing. Overall, the preceding points suggest that leadership will strongly influence individuals' attitudes toward knowledge sharing and increase the extent of their knowledge sharing behavior: Thus, intellectual stimulation has more than simply a subjective impact on knowledge sharing effectiveness among teachers and subordinates (Bass, 1985). This led to the following hypothesis:

A significant difference was noted in how intellectual stimulation relates to knowledge processes. Regardless of how it was measured, intellectual stimulation was more highly related than any other leadership style when considering the range of knowledge attributes. Intellectual Stimulation is generally associated with encouraging subordinates to think about problems in new ways. It now seems quite clear that the leader who is able to intellectually stimulate subordinates will amplify knowledge processes. Leaders through intellectual stimulation help subordinates in re-examining critical assumptions to question whether they are appropriate and seeking differing perspectives when solving problems (Yaseen, 2010). This type of leadership style supports followers as they try new approaches and develop innovative ways of dealing with organizational issues. It encourages followers to think things through on their own, promotes workers' individual efforts, and engages in sharing knowledge and problem solving (Bass, 1985; Sergiovanni, 1990). In considering the knowledge process attributes at individual, group or organisational level, intellectual stimulation has be shown to be critical for knowledge processes, for both tacit and explicit exchanges.

Individualized consideration

Leaders coach mentor, provides continuous feedback and link organization members' needs to the organization's mission. They consider their subordinates' individual needs, abilities, and aspirations. They are advisors, coaches, and mentors. Followers are developed to higher levels of potential through the provision of new learning opportunities. House et al (1974) stated that leaders who were willing to listen to their followers and showed a strong recognition of them would be better facilitate knowledge sharing in teams because followers received fair recognition for their contribution. These behaviours are consistent with individualised consideration. By showing respect and consideration of followers 'personal feelings, leaders show their solicitude for followers and strongly motivate them to share. This

statement was also supported and extended by Yang's (2007,2010) finding that mentoring, as well as facilitating and innovating leadership roles, positively affected knowledge sharing. Thus, this led to the following hypothesis: Leaders on individualized consideration spend more time coaching, assessing individual needs, and helping team members in developing their strengths (Bass, 1985). 1985; Yaseen, 2010). Seemingly, such transformational qualities do indeed stimulate higher levels needs of followers and result in higher feelings of commitment to share knowledge. Thus, treating each employee in a caring and unique way may give strong motive to trust and collaborate in knowledge sharing (Bass, 1985; Sergiovanni, 1990), and become motivated to transcend their own self-interests for the good of the group or organization (Bass and Avolio, 1990). Furthermore displaying individualized consideration raises morale and provides teachers with the needed teaching and coaching that will enable them to end their isolation and enhances the sharing of knowledge between teachers (Bass, 1985; Sergiovanni, 1990). When considering the knowledge process attributes, Individualised Consideration is positively correlated for each of the attributes, but significant for knowledge externalisation. This might be expected given the required task and the need to encourage individuals to make tacit information explicit.

Hypothesis 2:

H2: Leaders' transactional behaviour is positively predicted with the sharing of knowledge in private secondary schools in Dubai. **H2a:** Contingent reward leadership is positively associated with the sharing of knowledge in private secondary schools in Dubai. **H2b:** active management by exception leadership is positively related with the sharing of knowledge in private secondary schools in Dubai. **H2c:** passive management by exception leadership has positive relationship with the sharing of knowledge in private secondary schools in Dubai. **H2d:** laissez-faire leadership is positively predicted with the sharing of knowledge in private secondary schools in Dubai.

Contingent reward

The leader who is able to obtain rewards and distribute them in meaningful increments may enhance knowledge sharing effectiveness in their schools. So, knowledge sharing expectancies are strengthened (Bass, 1985). Thus, the exchanges or transactions included in contingent reward leadership may include tangible (i.e. pay increases) or intangible (e.g., recognition). Moreover, when rewards are contingent on knowledge sharing performance, rather than being non-contingent, effectiveness of teachers is enhanced (Bass, 1985). A lack

of incentives has been suggested to be a major barrier to knowledge sharing across cultures (Yao, Kam & Cham, 2007). Incentives including recognition and rewards have been recommended as interventions to facilitate knowledge sharing and help build a supportive culture (Hansen, Nohria and Tiermey, 1999; Liebowitz, 2003). Based on both social exchange theories, organizational rewards such as promotion, bonus and higher salary have been shown to be positively related to knowledge sharing (Kankanhalli et al, 2005). Based on this theoretical rationale, the following hypothesis that includes a level of analysis component is asserted for testing: When considering the knowledge process attributes, CR is positive correlated for each of the attributes, but significant for knowledge socialization and combination. Contingent reward includes leaders clarifying the expectations and presenting recognition when goals are accomplished (Limsila and Ogunlana, 2008; Yukl, 2006). The importance for knowledge processes for socialisation, a tacit to tacit situation, where leaders make clear to individuals expectations. Secondly for combination, an explicit to explicit situation, where organisation wide expectations are set out.

Management by exception

Where leaders monitor for mistakes or role violations (Northouse, 2007), and take corrective actions before the behaviour makes severe difficulties (Judge and Piccolo, 2004). In terms of knowledge processes, MEA was seen to be significant for the knowledge attribute combination. MEA may lend itself to this knowledge attribute given the need to set out expectations and monitor these at an organisational level. Hence, we hypothesize:

Laissez-faire leadership

Because of the avoidance or absence of leadership laissez-faire leadership has no relationship with the sharing of knowledge (Bass, 1985; Bass and Avolio, 1994; Chen et al, 2006; Crawford, 2005). This led to the following hypothesis:

CHAPTER 4: Methodology

4.1 Chapter Introduction

This chapter presents an overview of the research methodology adopted. It is intended to justify the type of methodology and methods employed at each phase of the research. The aim of this study is to examine the relationship between transformational and transactional leadership and knowledge management process of sharing in the context of private secondary schools in Dubai. The researcher examines the perceptions of private secondary teachers in Dubai with respect to leadership styles and knowledge sharing in their schools. To examine the relationship between leadership and knowledge sharing. The following are the research objectives and research questions of this study.

Research objectives

1. To find out what roles leaders play to conceptualize knowledge sharing in the context of Dubai private schools?

2. To examine the relationships between transformational leadership and knowledge sharing in the context of Dubai private schools.

3. To examine the relationship between transactional leadership and knowledge sharing in the context of Dubai private schools.

Research questions

This study aims to answer the following basic research questions:

 1. What role do leaders in Dubai play to manifest knowledge sharing in the context of Dubai private schools?

2. Is there a relationship between transformational leadership and knowledge sharing in the context of Dubai private schools?

3. Is there a relationship between transactional leadership and knowledge sharing in Dubai school context?

The triangulation of the methodologies will help to advance knowledge on the phenomenon of leadership and knowledge sharing by contributing to the literature. However, in doing so, this chapter does not indicate which approach is better or superior. Nonetheless, it intends to justify the research methodology adopted.

There are several ways of conducting research as there is not just one way of defining and identifying the answers to social problems.

4.2 Adopting an Appropriate Research Design

Important to any research design is the determination of how one will go about examining the research problem in order to answer the research question (Guetterman, Timothy 2016; Tashakkori, & Teddlie, 2010; Creswell and Clark, 2007). The research question itself is an important component of other methodological considerations such as the research paradigm, the research method, and the research that shapes refines and defines the research study (Cameron,.et al, 2015; Tashakkori, & Teddlie, 2010; Creswell and Clark, 2007). With well-established phenomena being researched more through quantitative methods and less established phenomena being researched through qualitative methods. Statistical and quantitative results were initially obtained from a representative sample of teachers through administration of a survey, and follow-up qualitative semi-structured interviews were conducted with participants of school principals in an effort to expand on themes and ideas that developed in the initial research. This study uses this research design (Cameron, 2013; Tashakkori, & Teddlie, 2010) which is a procedure for collecting, analysing and "mixing" both quantitative and qualitative data at some stage of the research process within a single study, to understand a research problem completely (Bazeley, ,2015;Tashakkori, & Teddlie, 2010; Creswell, 2002). The rationale for mixing is that neither qualitative nor quantitative methods are sufficient by themselves to fully capture the trends and details of the situation, such as a complex issue of the relationship between leadership and knowledge sharing in the context of private schools in Dubai. The researcher used this approach in the context of Dubai because the purpose of this study is not simply to confirm the relationship between the attributes of leadership and knowledge sharing that context but to add more value to this study by explaining and elaborating the established relationships. When used a combination, quantitative and qualitative methods complement each other and allow more complete analysis (Guetterman, 2016; Tashakkori, & Teddlie, 2010).

4.3 Mixed Method Research: Quantitative and qualitative

The research questions of this study guide the choice of this research design. A Multiple Methodological Approaches design was used for the purpose of this study. As suggested by the discourse on philosophical underpinning, this study uses more than one method in its method of inquiry or research design; hence there is the need to shed more light on this approach. While this method of inquiry has come under different names and terminology, it is in this study regarded as multiple approaches. Creswell and Clark (2007) argue that the combination gives a holistic picture, which takes the trends, generalisations, and in-depth knowledge of participants' perspectives into consideration. Crowther and Lancaster (2009) add that achieving

effectiveness in management research requires inductive and deductive methods. Moreover, Scandura and Williams (2000) argue that combining data would enhance generalizability of the results. Put differently, while prior studies have only been positivistic in approach, (Seung et al, 2016; Kai-wing, 2016; Bryant, 2003; Politis, 2001; Singh, 2008, Zagorsek et al, 2009; Crawford, 2005). Fifth, the researcher brings to this study the strength of mixed methods by adding meanings to numbers in one single study (Aldebert, et al, 2014; Creswell and Clark, 2007; Bryman and Bell, 2007). Furthermore, the researcher can generate and test theory, and can answer a broader and more complete range of research questions because it is not confined to a single method or approach. In addition, the researcher can use the strengths of an additional method to overcome the weaknesses in another method by using both in a research study. For example, the issues of collecting quantitative data in the Emirates may be overcome through triangulation of data and the use of qualitative tools.

The researcher deemed that a mixed design would be the most appropriate model to use for this study for the following reasons: First, a myriad of data collection was used (Seung, et al, 2016; Creswell & Clark, 2007; Bryman and Bell, 2007), to provide strengths that offset the weaknesses of both data" (Guetterman, 2016; Creswell & Clark, 2007; Tashakkori & Teddlie, 2003), to provide contextual understanding coupled with either generalizable, externally valid findings or broad relationships among variables uncovered through a survey. Second, using methods from both research paradigms enabled the researcher greater understanding of the relationship but more important of the underlying values and assumptions, based on this experience, it is recommended that quantitative and qualitative methods be used to produce more robust results that could be accomplished using a single paradigm (Bentahar, et al, 2015 ;Yauch and Steudel, 2003). Hence, the use of this research design would enabled the researcher's findings from the survey to be complemented by valuable contextual information from the semi-structured interviews of the qualitative paradigm (Bosch-Rekveldt, 2015; Bentahar, et al, 2015; Creswell and Clark, 2007; Yeganeh & Su, 2006).

I decided to mix the research design so that the two methodologies can complement each other hence helping achieve the research objectives. The qualitative design was also considered because 'it enables you to get beneath the skin and understand what people really think and, perhaps more importantly feel' (Creswell, 2007). Moreover, according to Miles and Huberman (1994) good qualitative data are more likely to lead to rigorous findings and to new integration. They went on to say that qualitative data:
 …are a source of well-grounded, rich descriptions and explanations of processes in identifiable local contexts. With qualitative data one can preserve chronological flow, see precisely which events led to which consequences, and derive fruitful explanations. (Miles and Huberman, 1994). In this regard, a qualitative research design has been incorporated in the mixed research design to better understand the phenomenon of the relationship between leadership and knowledge. I suppose that leadership is constructed well by those experiencing it and it is therefore imperative to capture these experiences from the people involved in the process. It is with this view that the methodology i employed has been adequately spelled out to offer a

coherent picture of how the research was conducted. Therefore, a mixed research design suits this research because of the richness of the data that this strategy usually accumulates. Miles and Huberman (1994: 40) have stated that 'we have to face the fact that numbers and words are both needed if we are to understand the world'.

4.4 Ontological and Epistemological considerations

The researcher aims to examine the knowledge related to the topic from ontological and epistemological perspectives.

4.5 Ontology

"Appropriate to any research paradigm is the ontological assumption" (Hughes, et al., 2000). Knowledge under ontology is viewed as constant, and needs to be discovered in this world. This study is theory driven and the researcher aims to test the full-range leadership theory by discovering the constant knowledge under ontology. We set out to discover how transformational and transactional leadership foster knowledge sharing by means of data collection using an online questionnaire. "Ontology as a philosophical assumption is grounded in our claims of reality in social science; its existence, its form, its composition, and how the composing units interact with one another" (Grix, 2004). Reality is either "out there" (objectively external to you), or "in here" (subjectively within yourself), or it is "in here" because it has been brought in from "out there" (Brown, 2006). Since ontology relates to descriptions about knowledge or social reality, different views of this claim, is represented in the dichotomy between realism or objectivism and idealism or constructivism (Grix, 2004). Realism or positivism claims that knowledge is constant, and needs to be discovered. Reality is either "out there" (objectively external to you), or "in here" (subjectively within yourself), or it is "in here" because it has been brought in from "out there" (Brown, 2006).

4.6 Epistemology

Epistemology has been described "as an attempt to explain how we know what we know and the status to be ascribed to the understandings we reach" (Hughes, et al., 2000). Whilst ontology concerns our claims of the nature of reality, epistemology is our descriptions of how the reality can be known (Hughes et al, 2000). Epistemology involves the study of theories of knowledge (Smith, 1998; Crowther and Lancaster, 2009) and consists of ideas of what counts to be knowledge and how that knowledge can be captured. For example, an epistemological approach to a theory of leadership and knowledge sharing might be based on exploring what we can observe about the process of leadership in the real world. Thus, the philosophical assumptions provide direction for designing all phases of a research study, and tend to have significant effects on the

conclusions drawn about the phenomena being investigated. Moreover, scholars added that failure to understand these assumptions can affect the quality of management research and research design (Easterby Smith et al, 2008; Tashakkori and Teddlie, 2003). This assertion also finds support in Johnson and Duberley's (2000, p: 1) argument:

"*How we come to ask particular questions, how we assess the relevance and value of different research methodologies so that we can investigate those questions, how we evaluate the outputs of research, all express and vary according to our underlying epistemological commitments.*"

4.7 Positivism

Positivism contains two assumptions: first, an ontological assumption, that reality is external and objective; and second, an epistemological assumption, that knowledge is only of significance if it is based on observations of this external reality (Creswell, 2009). Positivist methods usually incorporate the assumption that there are true answers, and the job of the researcher is either to start with a hypothesis about the nature of the world, and then seek data to confirm or disconfirm it, or the researcher poses several hypotheses and seeks data that will allow selection of the correct one (Tashakkori & Teddlie, 1998). In this research I have employed the epistemology of positivism through the quantitative methodology. The survey research that I conducted with the aim of measuring the level of leadership in voluntary organisations reflects the tenets of positivism. This approach helped me to operationalise the constructs of leadership and knowledge sharing and then use the constructs for semi-structured interviews. The ontological position of positivism was considered for this particular research project when I tried to operationalize and measure the concept of leadership and knowledge sharing within private secondary schools in Dubai. The reason I incorporated the ontology of positivism was to ascertain the social phenomena of leadership and knowledge sharing by measuring it within the context of private secondary schools in Dubai. As I believed that its meaning has an existence that is independent of the participants that took part in the research. Moreover, the ontological orientation of positivism was chosen because of its strict adherence to truth-conducive methods in one's thinking, particularly, to take into account all available information, and to avoid any form of prejudice or bias. This study was guided and based on the framework in table 4.3.3 below.

4.7 Philosophical assumptions of positivism

Philosophical assumptions of positivism	Explanation	Comments
Independence	The observer must be independent from what is being observed (Easterby Smith et al. 2008)	The researcher is independent of what is being observed.

Value-freedom	The choice of what to study, and how to study it, can be determined by objective criteria rather than by human beliefs and interests (Creswell, 2009).	The researcher will pursue value-freedom.
Causality	The aim of the social sciences should be to identify causal explanations and fundamental laws that explain regularities in human social behaviour	The researcher will aim for causality in his study.
Hypothesis and deduction	Science proceeds through a process of hypothesizing fundamental laws and then deducing what kinds of observations will demonstrate the truth or falsity of these (Creswell and Clark, 2007).	The researcher will test the hypotheses and then deduce what kinds of observations will demonstrate truth or falsity of these.
Operationalization	concepts need to be operationalized in a way which enables facts to be measured quantitatively (Easterby Smith et al. 2008)	The researcher will ensure the operationalization of his concepts
Reductionism	Problems as a whole are better understood if they are reduced into the simplest possible elements (Creswell, 2009).	The researcher ensures that problems are reduced into the simplest elements to ensure better understanding.
Generalization	In order to be able to generalize about regularities in human and social behaviour it is necessary to select samples of sufficient size, from which inferences may be drawn about the wider population (Tashakkori and Teddlie, 1998).	The researcher aims to select a sample of sufficient size in order to generalize for the wider population
Cross-sectional analysis	Such regularities can most easily be identified by making comparisons of variations across samples (Easterby Smith et al. 2008).	

TABLE 4.3: PHILOSOPHICAL ASSUMPTIONS OF POSITIVISM

Source: Easterby Smith et al, 2008

4.8 Constructivism

Constructivism is grounded on the assumption that the social phenomena are not constant but rather discovered through the interference by researchers to give multiple meanings and interpretations. Merriam (1998) stated that the theoretical framework or the orientation the researcher brings to his study. Constructivism in regard to this research project could be justified by considering the research topic as interpreted through the mind e.g. classificatory concepts of leadership. It is imperative to understand the interactions and perceptions of people who experience the process of knowledge sharing. I therefore strived to engage with a variety of school leaders of private secondary schools to learn from their perspective of how knowledge sharing is manifested.

4.8 Contrasting implications of positivism and social constructionism

Contrasting implications of positivism and social constructionism		
	Positivism	Social constructivism
The observer	must be independent	is part of what is being observed
Human interests	should be irrelevant	are the main drivers of science
Explanations	demonstrate causality	understanding of the situation
Research	hypothesis and deductions	Ideas are induced from rich data
Concepts	need to be defined	incorporate stakeholders ideas
Units of analysis	reduced to simplest terms	include complex whole situations
Generalization	through statistical probability	theoretical abstraction
Sampling	large numbers selected	small numbers of cases chosen
Source: Easterby Smith et al, 2008		

TABLE 4.3.4: CONTRASTING IMPLICATIONS OF POSITIVISM AND SOCIAL CONSTRUCTIONISM

4.9 Adopting Pragmatism

Adopted and appropriate to this research study is a third paradigm namely "Pragmatism that appears to have prominence and dominance over other emergent paradigms. It has its root from the Latin word "pragmaticus, and connotes practicality, expediency, what gives best results in a given circumstance, and how research can be used to better practice" (Creswell and Clark, 2007). Pragmatism allows for the combination of research designs, relative to the use of a single design which gives a narrow view as opposed to a wider picture (Bryman and Bell, 2007; Tashakkori and Teddlie, 2003). This assertion is also supported by Smith (1988) who argued that using different methods will give better insights of the phenomena being investigated. The usefulness and the appropriateness of pragmatism were summarized by (McAuley, Duberley, & Johnson, 2007). The rationale for the research project under the lens of pragmatism is premised on the needs and purposes and this gives the researcher autonomy to engage in any research methods so long the methods are justified. The action of the researcher is an important one under pragmatism, so long that action can yield results. It was imperative to adopt a pragmatic approach as it allowed me to freely take advantage of the mixed methods strategy. The utility and practicality of pragmatism gave me the opportunity

to weigh the benefits and also to focus on the research objectives. Therefore, what worked for me was being open-minded; reflect upon my actions as the project progressed and adjust my actions where appropriate. The process allowed me to conduct the research in a transparent manner and this is where values and other ethical issues come into play.

4.9 Common Elements of Worldviews and implications for practice

Worldview Element	Post positivism/Positivism	Constructivism	Pragmatism
Ontology (what is the nature of reality?)	Singular reality (e.g., researchers reject or fail to reject hypotheses)	Multiple realities (e.g., researchers provide quotes to illustrate different perspectives)	Singular and multiple realities(e.g., researchers test hypotheses and provide multiple perspectives)
Epistemology (what is the relationship between the researcher and that being researched?)	Distance and impartiality(e.g., researchers objectively collect data on instruments)	Closeness (e.g., researchers visit participants at their sites to collect data)	Practicality (e.g., researchers collect data by " what works" to address research question)
Axiology (what is the role of values?)	Unbiased (e.g. researchers use checks to eliminate bias)	Biased (e.g., researchers actively talk about their biases and interpretations)	Multiple stances (e.g., researchers include both biased and unbiased perspectives)
Methodology (what is the process of research?)	Deductive (e.g.,. researchers test an a priori theory)	Inductive (e.g.,. researchers start with participants' views and build "up" to patterns, theories, and generalizations)	Combining (e.g., researchers collect both quantitative and qualitative data and mix them)

TABLE 4.3.5: COMMON ELEMENTS OF WORLDVIEWS AND IMPLICATIONS FOR PRACTICE
Source: Bryman & Bell, 2007.

4.10 Quantitative Study

4.11 Population and Sample selection

The population for this study was all private secondary school teachers whose schools are located in the Emirate of Dubai and where more than 87% of students are enrolled in private schools). This information is located on the Knowledge and Human Development Authority website, under the "Statistical Reports" (www.khda.gov.ae). The quantitative phase of this study examined the relationship between leadership styles and knowledge sharing. The research study in phase one was carried out in private secondary schools in Dubai. The research study in phase one was carried out in private secondary schools in Dubai. The sample was drawn from a large population of teachers in those schools. The researcher determined there were more than twelve thousand teachers in 147 private schools, of which two thousand nine hundred and eighty

private secondary teachers in private schools in Dubai. If a sample of 223 is used, a margin of 6.5 is obtained. Boomsma and Hoogland (2001) assert that the sample of 200 and over is enough for reliable results if the model is correct. Tashakhori and Teddlie (1998) agrees that the sample of 200 and over hardly constitutes a problem for the results. The researcher has also changed the level of accuracy to 90% in order to have a sample of 200.

4.12 Characteristics of the sample

223 individuals have completed the online questionnaires (through the hyperlink sent to them via email). In terms of gender, 53.4% (n=119) of respondents were male and 46.6% (n=104) were females. This is expected outcome and not biased as private schools in Dubai have more male teachers than female teachers given the fact of its cultural and educational context that is favoured by the male gender and encouraged by the private schools providers (KHDA). In terms of qualification, 14.32% (N: 32) of respondents' held Diploma; 73.5% (N: 164) of respondents held Degrees; 11.2% (N: 25) of respondents held Master; 9% (N: 2) of respondents held PHD. In terms of ages in schools, the respondents ages ranged from 22 to 63, with the mean of 35.35 and (SD=8.365). As the next table shows, 24.22% of respondents' Aged under 30; Age of 48.88% of respondents was between 30-39; 19.73% between 40-49; 5.38% between 50-59 and finally 1.79% were 60 years old and over

Gender

As the next table shows, 53.4% (n=119) of respondents were male and 46.6% (n=104) were females (see Table 1, Fig.

Table 3 Distribution of Gender in the studied sample

Gender	Frequency	Percent	Cumulative Percent
Male	119	53.4	53.4
Female	104	46.6	100.0
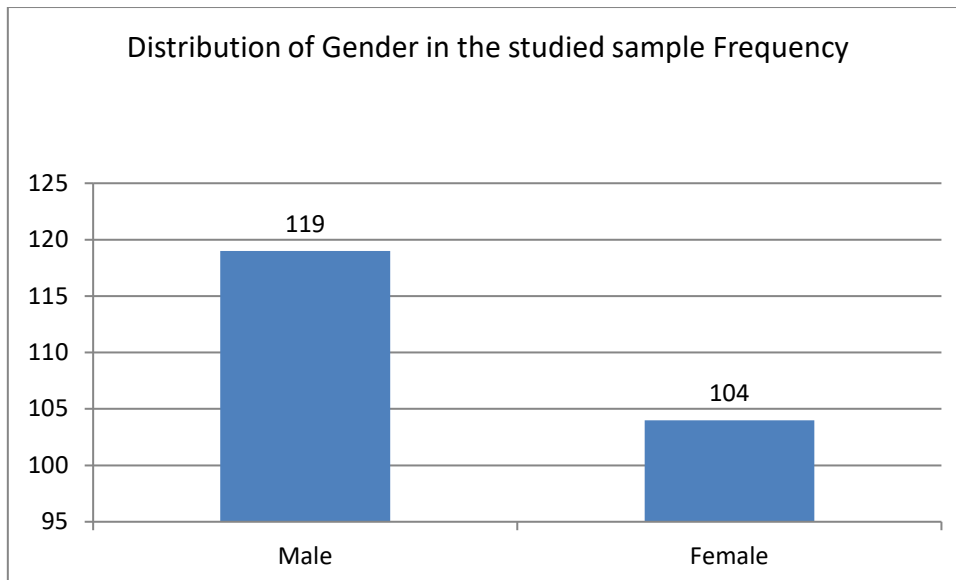
Table 4 Distribution of Gender in the studied sample Frequency

Age

The respondents ages ranged from 22 to 63, with the mean of 35.35 and (SD=8.365). As the next table shows, 24.22% of respondents' Aged under 30; Age of 48.88% of respondents was between 30-39; 19.73% between 40-49; 5.38% between 50-59 and finally 1.79% were 60 years old and over.

Table 5 Distribution of Age levels in the studied sample

Age Levels	Frequency	Percent
Under 30	54	24.22
30-39	109	48.88
40-49	44	19.73
50-59	12	5.38
60 and Higher	4	1.79
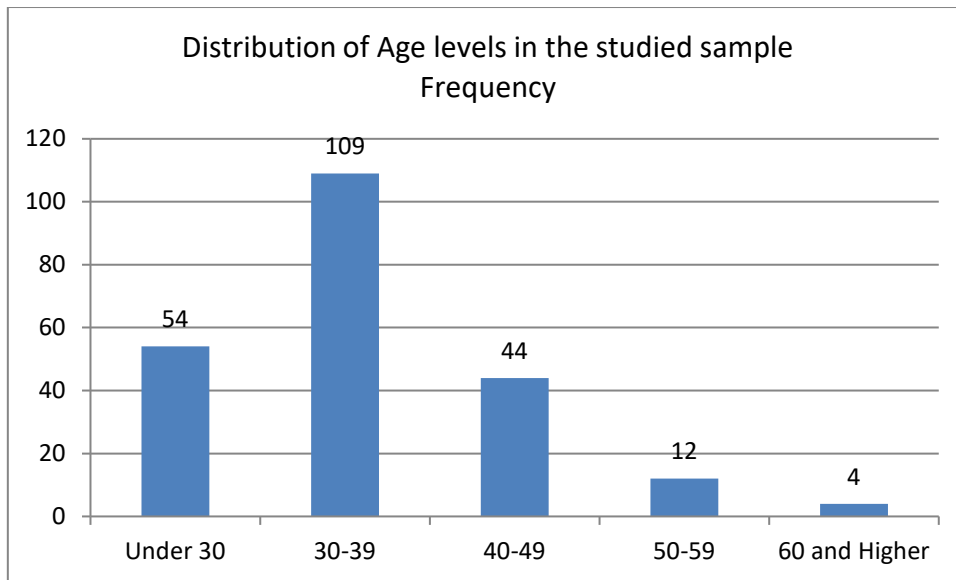
Table 6: Distribution of Age levels in the studied sample Frequency

Qualifications

In terms of qualification, 14.32% (N: 32) of respondents' held Diploma; 73.5% (N: 164) of respondents held Degrees; 11.2% (N: 25) of respondents held Master; 9% (N: 2) of respondents held PHD.

Table 7 Distribution of Qualification in the studied sample

Educational Level	Frequency	Percent
Diploma	32	14.3
First degree	164	73.5
Master	25	11.2
PhD	2	9
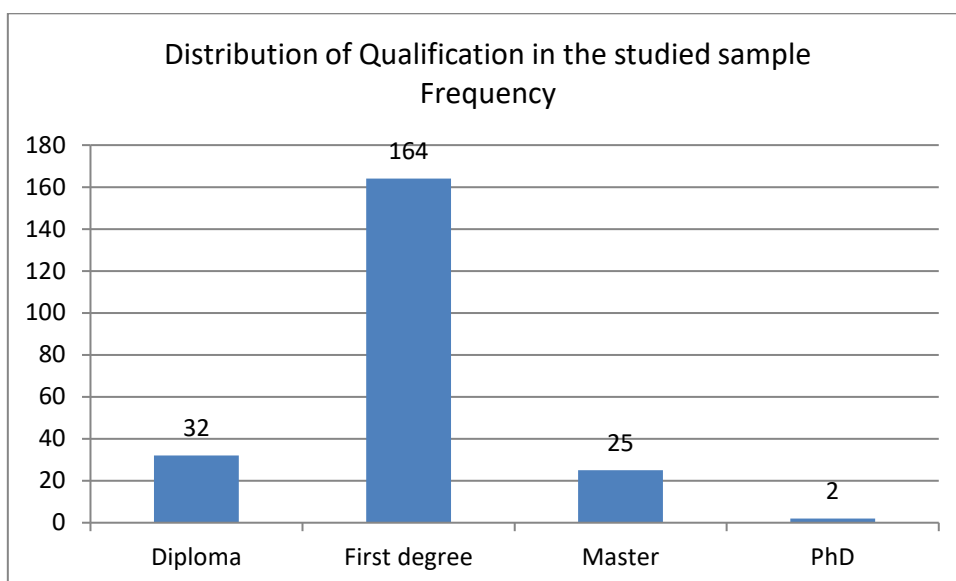
Table 8: Distribution of Qualification in the studied sample Frequency

4.13 Research Instrument

Introduction

The survey consists of the Multifactor Leadership Questionnaire and Knowledge Sharing in one questionnaire. To examine leadership styles, namely, transformational and transactional leadership, this study adopts the MLQ (Bass, 1985) for the following reasons: First, since its introduction, the MLQ has undergone several revisions in attempts to better gauge the component factors while addressing concerns about its psychometric properties (Avolio et al, 1995). The current version of MLQ (Form 5x) was developed based on the results of previous research using earlier versions of the MLQ, the expert judgment of six leadership scholars who recommended additions or deletions of items, and confirmatory factor analyses (CFAs) (Avolio et al, 1995; Avolio, Bass, & Jung, 1999). The MLQ (Form 5X) contains 45 items; there are 36 items that represent the nine leadership factors described above (i.e., each leadership scale is comprised of four items), and 9 items that assess three leadership outcome scales. This study focused on the 36 items that correspond to the nine leadership factors. There is a compelling reason for using the MLQ in this research. The constructs comprising the full-range leadership theory (FRLT) denote three typologies of leadership behaviour: transformational, transactional, and nontransactional laissez-faire leadership, which are represented by nine distinct factors. The MLQ is the most widely used survey for assessing the nine factors in the Full-Range-Leadership Theory (Hunt, 1999; Lowe, Kroeck & Sivasubramuniam; Yukl, 1999); therefore, demonstrating that it measures the constructs it purports to measure has potential relevance to both the scientific and practitioner community.

Bass (1985) developed the Multifactor Leadership Questionnaire (MLQ) to measure the components of transformational and transactional leadership. Since its development, the MLQ has received extensive evidence of its reliability, universality, and validity, and is commonly used in leadership research (Bass, 1997; Bryman, 1992). The MLQ was being tested in Educational context (Bass, 1998; Koh et al, 1995; Leithwood, 1999); Military (Yammarino, Spangler & Bass, 1993), and Business firms (Tejeda et al, 2001). Educational scholars used the MLQ to study transformational and transactional leadership of principals as perceived by teachers in inclusive educational settings (Ingram, 1997). In this study, Ingram reported the high validity found for the overall transformational and transactional leadership constructs in three studies that used the MLQ in the general K-12 settings (King, 1989; Koh et al, 1991).

4.14 Multifactor Leadership Questionnaire (MLQ)

The Multifactor Leadership Questionnaire (MLQ) was used to examine the dimensions of leadership (Bass and Avolio, 1996). The MLQ include 36 items for examining the constructs of leadership styles. The reliabilities of the scale were. 91. For the purpose of this study, four subscales were loaded together and used

as a measure for ***transformational leadership*** (*idealized influence*, e.g., "my principal instils pride in being associated with him", *Inspirational Motivation*, e.g., "my principal talks enthusiastically about what needs to be accomplished", *Individualized Consideration*, e.g., "my principal helps me develop my strengths", and *Intellectual Stimulation*, e.g., "my principal seeks differing perspectives when solving problems"), a total of 20 items. ***Transactional leadership style*** was measured by 3 subscales (*Contingent Rewards*, e.g. "my principal provides me with assistance in exchange for my efforts", and *Management-by-Exception*, e.g., "my principal waits to take action until things go wrong", and "*Laissez-Faire*, e.g., "my principal avoids making decisions), a total of 16 items. A likert scale, quite common in research (Fraenkel & Wallen, 1993) was used to categorize the relationship between leadership styles and knowledge sharing. A five-point scale was used to examine this relationship. A quantitative questionnaire was administered to 223 teachers. The respondents were instructed to fill out a questionnaire that asked a range of questions about the principal's leadership style and its relationship to the sharing of knowledge among teachers in their schools. It was a 36-item question with a 5-point scale (scored from 1"strongly disagree", 5" strongly agree".

4.16 Knowledge sharing questionnaire (SECI)

The knowledge sharing questionnaire was adapted from an instrument by Choi and Lee (2003) based on the SECI model of Nonaka and Takeuchi (1995) and was operationalized to measure the Knowledge Sharing Process. The researcher has made some minor changes to the scales in an effort to modify the items from a business to an educational context (see appendix). For example the word organisation was replaced by schools and school principals replaced managers. 19 items were included in the scales to examine the knowledge sharing process. These items were rated on 5 point likert scale. The respondents were ranged from 1 which depicted" strongly disagree", 5 "strongly agree". All the items were averaged to form overall scales. For the purpose of this study, four subscales were loaded together and used as a measure for **knowledge sharing** (*Socialization*, e.g.," my school stresses sharing experience with other teachers", *Externalization*, e.g., "my school stresses exchanging ideas and dialogues", *Combination*, e.g., "my school stresses creating manuals and documents on knowledge sharing," *Internalization*, e.g., "my school stresses coordinating activities between subject departments").

4.17 Ethical Issues

The researcher followed ethical principles and guidelines for the protection of human subjects of research (Creswell & Clark, 2007; Fraenkel & Wallen, 1993). The researcher explained the purpose of the study and to respect the personal beliefs of the participants and to ensure confidentiality of the data (Creswell & Clark, 2007). The researcher conducted both the survey and the follow-up semi-structured interviews in this study in private secondary schools in Dubai. The follow-up questionnaire was strictly voluntary and participants

had the option to withdraw at any time without consequence. The identity of the respondents was protected through the use of pseudonyms and the filtering of identifying information from the findings (Creswell & Clark, 2007). These respondents were accessed through their school principals who spoke to them about the purpose, aim and objective of the study.

4.18 Quantitative Data Collection and Procedure

Data collection started immediately after the pilot study which was used in small scale version, or trial run, done in preparation for the major study (Denscombe, 2010). The pilot study can be the pre- testing or trying out of a particular research instrument and questions. One of the advantages of conducting a pilot study is that it might give advance warning about where the main research project could fail, where research protocols may not be followed, or whether proposed methods or instruments are inappropriate. (Bryman, 1988). Following positive outcomes from the pilot study, the primary study was initiated. A series of contacts were made in Dubai and consisted of emails, phone calls, and face to face meetings with principals of private schools. Due to the cultural context, it is a pre-requisite to have local contacts for support. The target respondents were teachers of private schools for the first phase of the quantitative data collection. A total of 341 questionnaires were sent online, only 223 usable responses were received. Thus, total response rate was 74%. The teachers were told that in completing the questionnaire they were assisting the first author in his research, the aim of which was to examine the relationship between leadership styles, namely transformational and transactional leadership and knowledge sharing in the context of private secondary schools in Dubai.

The simple random sample used in this study is the most basic form of probability sample. First, there is almost no opportunity for human bias to manifest itself. The researcher presented a letter of introduction to the ministry of education to facilitate the procedure. Teachers were invited by the ministry through their school principals to participate at their own consent. They were told that participation is voluntary. Principals will not be able to see the answers because the replies were sent directly to the researcher. The researcher is grateful to all who participated in this research. Hence, the researcher would observe the ethics of confidentiality as a must and their answers would be kept secret. The outcome of their replies have mixed feedback about their perceptions towards their school leaders with both positive and negative feedback to the research question in hand. This process has two striking points. Employees would not be selected on such subjective criteria as whether they looked friendly and approachable. Secondly, the process is not dependent on the respondents' availability. They do not have to be working in the researcher's proximity to be included in the sample. In the first phase of the quantitative endeavour (Bryman & Bell, 2007), the researcher limited the population for the study to those who hold teaching positions because teachers can accurately rate their leaders' leadership styles, and can genuinely assess their leaders' leadership styles and

knowledge sharing in their schools. Teachers can perceive their leaders as they interact with them on a day-to-day basis through receiving instructions, meetings formal and informal, through professional development and individualized considerations.

4.19 Quantitative Data analysis

Partial Least Squares (PLS)

The author used partial least squares (PLS) to validate the measurements and test the hypotheses. PLS employs a component-based approach for model estimation and is not highly demanding on sample size and residual distribution (Chin, 1998). It is best suited for testing complex structural models as it avoids two problems: inadmissible solutions and factor indeterminacy (Mikko et al, 2016; Fornell and Bookstein, 1982). Both reflective and formative constructs can be estimated by PLS (Chin, 1998). Hence, this method was chosen to accommodate the formative second-order construct since covariance-based SEM techniques do not allow formative constructs to be estimated. The conceptual model was tested using Partial Least Squares (PLS), a second generation multivariate analytic technique that enables path analytic modelling using latent variables (Martensen, et al, 2015; Hair et al, 2014; Wold 1982; Chin 1998). The researcher chose Partial Least Square as one of the two families of structural equation techniques, namely covariance-based technique, as represented by LISREL and Variance-based technique of which Partial Least Squares (PLS) path modelling is the most prominent representative.

The component-based approach partial least squares (PLS) for testing structural models have become increasingly popular. Partial Least Square has been used by a growing number of researchers from various disciplines such as Strategic management (e.g Marko et al, 2016; Gruber et al, 2010; Hulland, 1999), Marketing (Rigdon, 2016; Hair et al, 2010), Information systems (Streukens et al, 2016; Wasko and Faraj; 2005), management science (Carrióna et al, 2016; Nambisan and Baron, 2010). Furthermore, empirical studies published in journals stated that PLS has been used even more frequently than the covariance-based approaches (Martensen, et al, 2015; Goodhue et al, 2006). Researchers have conducted a systematic literature review to demonstrate the increasing popularity of PLS. They analysed all research articles that appeared in arguably the two most prestigious international IS journals, namely Information Systems Research (ISR) and Management Information Systems Quarterly (MISQ) during a period of fifteen years (from 1994 until 2008). They selected eighty-five of these articles by conducting a full text search using the keywords "PLS" and "partial least squares." An in-depth analysis revealed that seventy-eight of the identified articles present empirical studies that used PLS as a means of statistical analysis (Medlin,et al. 2016; Ma, et al. 2016 ;Ferratt et al. 2007; Lowry et al. 2004; Saunders 2009).

Hair et al. (2014) aim to present partial least squares (PLS) as an evolving approach to structural equation modelling (SEM), highlight its advantages and limitations and provide an overview of recent research on the method across various fields. The authors merge literatures from the marketing, management, and

management information systems fields to present the state-of-the art of PLS-SEM research. Furthermore, the authors Meta-analyse recent review studies to shed light on popular reasons for PLS-SEM usage. Recent methodological research has extended PLS-SEM's methodological toolbox to accommodate more complex model structures or handle data inadequacies such as heterogeneity. Their article provides an introduction to PLS-SEM for researchers that have not yet been exposed to the method. The article is the first to Meta-analyse reasons for PLS-SEM usage across the marketing, management, and management information systems fields. The cross-disciplinary review of recent research on the PLS-SEM method also makes this article useful for researchers interested in advanced concepts. Their meta-analysis of PLS-SEM review studies have shown that the most prominent justifications for using PLS-SEM are attributed to nonnormal data; Small sample sizes; and. formatively measured constructs.

These concepts are discussed below.

(1) Nonnormal data collected for social science research often fails to follow a multivariate normal distribution. When attempting to evaluate a path model using CB-SEM, nonnormal data can lead to underestimated standard errors and inflated goodness-of-fit measures (Hair et al, 2014). Fortunately, PLS-SEM is less stringent when working with nonnormal data because the PLS algorithm transforms nonnormal data in accordance with the central limit theorem (Astrachana et al, 2016; Hair et al, 2014). (2) Sample size can affect several aspects of SEM including parameter estimates, model fit, and statistical power (Hair et al, 2014). However, different from CB-SEM, PLS-SEM can be utilized with much smaller sample sizes. PLS-SEM generally achieves higher levels of statistical power and demonstrates much better convergence (Hair et al, 2014). (3) Formative indicators. The central difference between reflective and formative constructs is that formative measures represent instances in which the indicators cause the construct (i.e the arrows point from the indicators to the construct), whereas reflective indicators are caused by the construct (i.e. the arrows point from the construct to the indicators). While both, PLS-SEM and CB-SEM can estimate models using formative indicators, PLS-SEM has received considerable support as the recommended method (Ma, et al. 2016; Hair et al., 2014).

The philosophical distinction between the two SEM approaches is whether to use CBSEM for theory testing, or PLS for theory development and predictive applications (Hair et al, 2014; Henseler et al. 2009). Whereas CBSEM is theory-oriented, and emphasizes the transition from exploratory to confirmatory analysis, PLS is primarily intended for causal predictive analysis in situations of high complexity (Hair et al, 2014; Jöreskog and Wold 1982; Henseler et al. 2009). Both approaches have their specific advantages and disadvantages that qualify them for specific settings. Consequently, researchers should carefully analyse the design of the study and the characteristics of the sample before they opt for one of them. With the growing interest in SEM using PLS in various disciplines, PLS software's availability has also increased quite considerably. Currently, several tools are available; the researcher has to choose one that fits his or her preferences best.

The most established software tools for PLS path modelling are LVPLS (Lohmöller 1984; Lohmöller 1987), PLS-Graph (Chin 2001), PLS-GUI (Li 2005), Smart PLS (Ringle et al. 2005), SPAD PLS Path Modelling (SPAD 2009), and Visual PLS (Fu 2006).

Summary

The PLS approach has several characteristics making it attractive to researchers: First of all, it is "distribution-free." Consequently, there are no assumptions regarding the distributional form of measured variables (Chin 1998b). Moreover, PLS will neither produce inadmissible solutions nor suffer factor indeterminacy (Fornell and Bookstein, 1982; Carte et al, 2003). Under certain conditions, it works with relatively small sample sizes (Cassel et al. 1999). Consequently, PLS makes lower demands on measurement scales, sample size, and residual distributions (Wold, 1985; Cenfetelli, et al, 2008). PLS makes fewer demands regarding sample size than other methods. PLS does not require normal-distributed input data, can be applied to complex structural equation models with a large number of constructs, is able to handle both reflective and formative constructs, is better suited for theory development than for theory testing, and is especially useful for prediction (Goodhue et al. 2006; Marcoulides et al.2006, 2009; Burton-Jones et al, 2006 Choudhury, et al, 2008).

4.20 Qualitative Study procedure

The purpose of the qualitative study was to discover new information, and to gain insight and understanding into how leaders style of leadership attribute and leaders role foster knowledge sharing in their schools. The interviews allowed the principals to further elaborate on the findings of the survey of the quantitative phase. These elaborations provided richer insights into actual behaviours and helped the researcher to gain a better understanding of the relationship between leadership styles and knowledge sharing in the context of private secondary schools in Dubai. The researcher attempted to represent diverse settings to the greatest extent possible. The researcher aims to hear from those who are actually engaged in the process, in order to learn what it was like from their perspective.Both Merriam (1998) and Patton (2002) suggest that determining sample size is a matter of judgment. My goal was to learn the most I could from the semi-structured interviews and gain better understanding. In qualitative research, saturation is the point at which the data that is being collected is redundant with data previously collected (Glaser & Strauss, 1967). Merriam (1998), in reference to sample size, contends that *"what is needed is an adequate number of participants, sites, or activities to answer the question posed at the beginning of the study in the form of the purpose statement)"* (p. 64). As I collected data, I remained cognizant of these two guiding principles with regard to sample size. After my sixth interview, I realized that I was beginning to hear repetition among the participants' answers to my interview questions. By the tenth interview I determined through data analysis that I had enough data

to answer my research questions, and decided that no further interviews were needed, thus, there was no need to seek out additional participants. The aim of the interview was explained and assurance of confidentiality was given. The time of interview was also determined. All the interviews took place in the principals' offices in Dubai which could be considered a natural and relevant environment for the interviewees. Moreover, the interviewees were principals and leaders of their schools, so the subject matter was of significance to them.

4.21 Selection procedure of principals

The researcher conducted interviews with ten of the school principals randomly. Their names and schools were selected from a list provided from the ministry of education. Their names were chosen randomly not on the basis of A to Z criteria but rather by allocating a number so that every name and school will have equal chance of selection. The researcher contacted twenty five principals and only ten agreed to participate. These individuals discussed open-ended questions that further clarified and complemented the statistical results reported in the quantitative section. The original questions were developed by the researcher for his study and conducted semi-structured interviews with Dubai school principals. All the interviews were conducted face-to-face, in a place of the participant's choosing. All of the principals except one chose to be interviewed in his or her office. One principal chose to be interviewed in the meeting room. The interviews lasted between 40 and 80 minutes. The interviews were all audio taped with the consent of the participants. Allowing the ability to accurately capture quotes, remember the intonation and emphasis that the participants used when speaking. The researcher examined the transcriptions and looked for patterns and themes that informed and complemented the quantitative data. The transcribed interviews comprised the data set for this section. The information from these interviews was designed to complement with the survey results. The participants represented ten different school systems. Not only was there geographical diversity among the participants, but also there was diversity in terms of the size of the school each one led. School populations ranged between 1000 and 2000 students.

4.22 Population, sample description and rationale

The chosen sample for this phase consisted of 10 school principals in Dubai. These people are mostly busy people hence non-probability sampling was chosen due to limited time. Specifically, simple random sampling was adopted in selecting the 10 school principals. Moreover, since this phase consisted of qualitative samples, according to most scholars (Miles and Huberman, 1994 ;) tend to be purposive, rather than random. Therefore, in order to gain a deeper understanding and also to maintain rigour, it was necessary to meet up with them, face to face and conduct interviews. The semi-structured interviews were

chosen in relation to the research objective at this stage of the project as highlighted in the methodological chapter.

Name	Gender	School	School Population	Years' Service	Highest Degree	Years in Admin	Primary Career
Participant 1	Male	Dubai British	1000-1500	23	B.A ED	12	Yes
Participant2	Male	Victoria	1000-1500	25	P.H.D	8	Yes
Participant3	Male	German Int.	1000-1300	22	M.A. ED	13	Yes
Participant4	Male	Choufiat	1000-1400	20	M.A.ED	17	No
Participant5	Female	Amana	1000-1500	32	M.A.ED	19	Yes
Participant6	Female	Australian int.	1000-1700	18	M.A. ED	15	Yes
Participant7	Male	American int.	1000-1500	33	M.A ED	13	Yes
Participant8	Male	Victoria int.	1000-2000	23	P.H.D	18	Yes
Participant9	Male	Scholars	1000-1500	16	B.A ED	10	Yes
Participant10	Female	Al Resalah	1000-1500	18	M.A.ED	12	Yes

Table 4-5: Participant Profiles for interviews

There are multiple types of leaders within a school. The researcher could have chosen to focus on both principals and assistant principals, or formal teacher leader positions within the school such as department heads or head teachers. The researcher limited the population for this study to those in the position of principal, because the researcher is interested in how those who hold the senior leader position in the school link and attribute to knowledge sharing within their academic establishments. As a senior leader, principals are more likely to have a comprehensive view of the knowledge sharing process taking place within the school and should be able to speak knowledgeably about the process of knowledge sharing. The researcher rang each school to make an appointment to meet the principals and inviting them to take part in the study. Ten principals agreed to participate in the study.

4.23 Qualitative Data Collection, analysis and Procedure

Semi-structured interviews were utilized as the primary source of data collection, with a quantitative study as the major study. DeMaris (2004) uses the term qualitative interviews as *"an umbrella term for those methods in which researchers learn from participants through long, focused conversations"* (p. 52). Similarly, Rubin and Rubin (1995) assert that qualitative interviews are *"conversations in which the researcher gently guides a conversational partner in an extended discussion"* (p. 4). In qualitative research, interviewing is usually in the format of individual, face-to-face verbal exchange; however, interviews can also encompass phone conversations, and electronic communications via the internet. Many researchers use interviews to provide the researcher information about the participant's experiences, opinions, feelings, and knowledge (Rubin & Rubin, 1995). Interviews typically range from a highly structured design to semi-structured to unstructured (Patton, 2002). Conducting a semi-structured qualitative interview study will allow me the opportunity to learn more about leaders' experiences and perceptions of how they have facilitated and managed knowledge sharing in their schools. The participants were contacted by telephone to arrange for interviews with them and a brief description about the research paper was explained to them. For the participants that agreed a date and place was arranged, all agreed to conducting the interviews at their school office. These interviews were recorded using an iPad, with the principal's permission. The audio interviews were transcribed by playing the recorded audio using the Audacity software and typing the interview in Microsoft Word.

Appendix B outlines the interview protocol. While the research topic is predetermined, this type of interview technique allows for some degree of flexibility, opening the way for an informative in-depth conversational style of interview. These interviews are designed to allow for a more natural flow of conversation between the researcher and the respondent, thus allowing increased flexibility in both the questions asked and the responses given (Patton, 2002). Because the purpose of this study was to discover new information, and to gain insight and understanding into how leaders facilitate knowledge sharing, I needed to hear from those who actually engaged in the process, in order to learn what it was like from their perspective. Prior to the start of the interview, each participant was asked about the confidentiality and anonymity of their information, indicating they had been informed about the study and that they were willing to participate.

4.24 Qualitative Data Analysis

In terms of qualitative data analysis, Denscombe (2010) mentioned few principles before qualitative data analysis; he claims that by following these principles will result in more efficient outcomes. He argues that the first principle is to compact extensive and diverse raw data into a succinct structure. This will provide the researcher the opportunity to identify, compare and determine the data upon which to focus.

Furthermore, he adds that the second principle is to make the relationship between the researcher's objectives and the summary clear. That mostly fit when the objectives of any qualitative study consider the clear drivers responsible for its research methodologies. Moreover, he claims that the third principle suggests one should conclude by developing a model and, or improving the conceptual basis of the researcher. Qualitative data analysis is essentially *"the process of making sense out of the data"* (Merriam, 1998, p.178). Bogdan and Biklen (1992) define data analysis as "*the process of systematically searching and arranging interview transcripts, field notes, and other materials that you accumulate to increase your own understanding of them and to enable you to present what you have discovered to others*" italics (p.153). The process of qualitative data analysis is recursive and involves the ability to sense patterns in the data collected as well as both inductive and deductive thinking in order to develop interpretations to generate meaning (Ruona, 2005).

Qualitative approaches are diverse, complex and nuanced (Holloway & Todres, 2003), and thematic analysis should be seen as a foundational method for qualitative analysis. Thematic analysis was used in this research to analyse the qualitative data of this study, which was supported through Nvivo data analysis software. NVivo has an updated version of 11.0). NVivo was chosen as best fit for the study as well for the researcher's ease of use of the program. Nvivo helps to understand concepts like links, nodes, memos, and attributes, to get acquainted with the terminology, and learn how to use some important functions like coding, searching, or developing a model using graphic features of the software. NVivo was also very helpful in easily organizing different data types and sources used in the study. It was also very useful to look at the data emphasizing the relationships within it. Using NVivo, it was easy to do cross-case analyses, to re-order the codes and add memos about potential relationships to files, and to "play" with the data. NVivo helped to automate and speed up many data management and analysis tasks. Overall, NVivo was very helpful while building a database for the data analyzed. It demonstrated very clearly all the data coded and the way it had been coded. The relationships explored by the researcher among the data sources could be seen easily in the two browsers of NVivo. Also, the management of these long data files was very easy using NVivo. Welsh (2002) emphasizes another important feature of NVivo in terms of its adding rigor to the qualitative studies; search facility that enables researchers to interrogate their data. "*However, the software is less useful in terms of addressing issues of validity and reliability in the thematic ideas that emerge during the data analysis process*" (Welsh, 2002,).

Thematic analysis is a method of identifying, analysing, and reporting patterns (themes within data). It organizes and describes the data set in rich detail (Braun and Clarke, 2006). However, it also often goes further than this, and interprets various aspects of the research topic (Boyatzis, 1998). Holloway and Todres (2003, p.347) identify thematizing meanings "*as one of a few shared generic skills across qualitative analysis."* For this reason, Boyatzis (1998) characterises it not as a specific method but as a tool to use across different methods. Similarly, Ryan and Bernard (2000) identify thematic coding as a process

performed within major theory, rather than a specific approach in its own right. Thematic analytic is widely used, but there is no clear agreement about what thematic analysis is and how you go about doing it (Boyatzis, 1998; Tuckett, 2005). It can be seen as a very poorly "branded" method, in that it does not appear to exist as a named "named analysis" in the same way that other methods do (e.g., grounded theory, discourse analysis, narrative analysis). In this sense, it is often not explicitly claimed as the method of analysis (Guest, Greg, 2012; Braun and Clarke, 2006).

4.25 Braun and Clarke (2006) thematic analysis and procedure

The researcher has adopted Braun and Clarke's (2006) guide to the six phases of conducting thematic analysis, details of which will be explained below. First, the researcher prepared his data by putting into a manageable form. Interviews were transcribed verbatim in few weeks. The researcher listened to the recording and made edits to the transcripts as necessary as possible in an effort to have his data as clean as possible. Each interview participant and the school were given a pseudonym and code number and all identifying information were removed from the transcript. The next step in the analysis process is familiarization. The researcher continued to immerse himself in the data, listening to the recording, re-reading the data, and making notes about was going on in the data. The researcher began to analyze the data by separating it into meaningful segments. The process was repeated for the first three interviews before proceeding to the next stage. All the data at this point was merged into a master document that facilitated analysis of the data. The researcher was able to sort the data thematically to reflect on what themes were emerging across participants. The researcher identified, continued to gain new insights which necessitated further editing of his coding and recoding the data.

The researcher has set of fully worked-out themes through involving the final analysis and write-up of the report. The researcher was informed that the task of the write-up of a thematic analysis is to tell the complicated story of the researcher's data in a way which convinces the reader of the merit and validity of the analysis. The researcher add that is of great importance that the analysis provides a coherent, concise, logical, non-repetitive, and interesting account of the story the data to tell. Thematic analysis is appropriate for this study. Firstly, good qualitative research needs to be able to draw interpretations and be consistent with the data that is collected. Thematic analysis is capable to detect and identify variables or factors that influence an issue generated by the participants. Hence, the participants' interpretations are significant in terms of giving the most appropriate explanations for their behaviour, actions and thoughts. This fits well with the features that are involved in the process of thematic analysis (Creswell, 2009). Miles and Huberman (1994) also argue that thematic analysis highlights the flexibility to cope with even data collected separately at different times. The researcher has adopted Braun and Clarke's (2006) guide to the six phases of conducting thematic analysis: The phases stated below are the steps taken by the researcher for the qualitative data analysis of this study by means of the Nvivo. The researcher aims to explore the themes that

emerge from the data through coding and categorizing data into themes in order to answer the research question.

Phase 1: Becoming familiar with the data

Braun and Clarke (2006) argue that when the researcher engages in analysis, he will come to the analysis with some prior knowledge of the data. The authors add that it is vital that the researcher immerses himself in the data to the extent that the researcher is familiar with the depth and breadth of the content. Braun and Clarke further add that immersion usually involves 'repeated reading' of the data, and reading the data in an active way- searching for meanings, patterns. They argue that it is ideal to read through the entire set at least once before the researcher begins his coding, as his ideas, identification of possible patterns will be shaped as he reads through (Braun and Clarke, 2006). The researcher made himself familiar with the data through reading the material few times. The researcher continued to immerse himself in the data, listening to the recording, re-reading the data, and making notes about was going on in the data. The researcher continues developing and defining coding throughout the entire analysis. The researcher began to analyse the data by separating it into meaningful segments. The researcher repeated the process for the first three interviews before proceeding to the next. The researcher started to take notes and marking ideas for coding that he will then go back to in subsequent phases.

Phase 2: Generating initial codes

The study used the theoretical framework (theory testing) to generate the initial codes which ultimately lead to creating themes. The process of coding is part of analysis (Miles & Huberman, 1994), as you are organizing your data into meaningful groups (Tuckett, 2005). Miles and Huberman (1994) point to two methods of creating codes. The first one is used by an inductive researcher who may not want to pre-code any datum until s/he has collected it, seen how it functions or nests in its context, and determined how many varieties of it there are. This is essentially the 'grounded' approach originally advocated by Glaser and Strauss (1967). The other one, the method preferred by Miles and Huberman, is to create a provisional 'start list' of codes prior to fieldwork. That list comes from the conceptual framework, list of research questions, hypotheses, problem areas and/or key variables that the researcher brings to the study. Braun and Clarke (2006) further add that coded data differs from the units of analysis (themes) which are broader. They argue that the themes which start to be developed in the next phase are where the interpretative analysis of the data occurs, and in relation to which arguments about the phenomenon being examined are made (Boyatzis, 1998). The authors argue that coding depends on whether the themes are more "data-driven" or "theory-driven" as in the former, the themes will depend on the data, but in the latter, the researcher might approach the data with specific questions in order one can code around. The coding approach of this study is theory-

driven because it is based on the theoretical framework. The researcher has systematically worked through the entire data set, giving full and equal attention to each data item, and identifies interesting aspects in the data items that may form the basis of repeated patterns (themes) across the data set.

Phase 3: Searching for themes

Braun and Clarke (2006) argue that this phase begins when all data have been initially coded and collated, and identified a list of different codes across the data set. The authors added that this phase involves sorting the different codes into potential themes, and collating the relevant coded data extracts within the identified themes. The researcher, taking Braun and Clarke's recommendations on board, started to analyse his codes, and consider how different codes may combine to form overarching theme (Braun and Clarke (2006; Boyatzis, 1998; Miles & Huberman, 1994; Ryan,. and Bernard, 2003). Braun and Clarke (2006) argue that it may be helpful at this stage to use visual representations to help sorting the different codes into themes. The authors further added using tables, mind-maps. Or might write the name of each code and organize them into theme-piles. They also added that the researcher ends this phase with a collection of candidate themes, and sub-themes, and all extracts of data that have been coded in relation to them (Braun and Clarke 2006; Miles & Huberman, 1994). The researcher used visual representations to help sorting the different codes into themes. The researcher further added using tables, mind-maps. The researcher wrote the name of each code and organizes them into theme-piles. The researcher ended this phase with a collection of candidate themes, and sub-themes, and all extracts of data that have been coded in relation to them. (Braun and Clarke 2006; Miles & Huberman, 1994).

Phase 4: Reviewing themes

Braun and Clarke (2006) argue that this phase begins when you have devised a set of candidate themes, and it involves the refinement of those themes. The authors added that at this phase, it will become evident that some candidate themes are not really themes (e.g., if there are not enough data to support them, or the data are too diverse), while others might collapse into each other (e.g., two apparently separate themes might form one theme). Patton's (1990) dual criteria for judging categories-internal homogeneity and external heterogeneity- are worth considering here. Data within themes should cohere together meaningfully, while there should be clear and identifiable distinctions between themes (Patton's, 1990).Braun and Clarke (2006) argue that this phase involves two levels of reviewing and refining the themes. The authors added that Level one involves reviewing at the level of the coded data extracts. This means that the researcher needs to read all the collated extracts for each theme, and consider whether they appear to form a coherent pattern. They add that if the candidate themes do not fit, the researcher needs to consider whether the theme itself is problematic, or whether some of the data extracts do not fit there. Hence, they further add that the researcher

would need to rework his themes, creating new theme. Level two involves a similar process, but in relation to the entire data set (Braun and Clarke, 2006; Boyatzis, 1998). At this stage, the authors argue that the researcher should consider the validity of individual themes in relation to the data set, but also whether the candidate thematic map "accurately" reflects the meanings evident in the data set as a whole. The researcher has re-read the entire data set to ascertain whether the themes "work" in relation to the data set, and also to code any additional data with themes that has been missed in earlier coding stages. The need for recoding from the data set is to be expected as coding is an on-going organic process (Braun and Clarke, 2006). The process of recoding is only fine-tuning and making more nuanced a coding frame that works, and fits the data well (Braun and Clarke, 2006; Boyatzis, 19986). The researcher will continue editing and refinement, considering this as editing written work. At the end of this phase, the researcher should have a fairly good idea of what his themes are, how they fit together, and the overall story they tell about the data (Braun and Clarke, 2006).

Phase 5: Defining and naming themes

Braun and Clarke (2006) argue that phase five begins when the researcher has a satisfactory thematic map. The authors add that the researcher defines and further refines the themes that will present for his analysis, and analyse the data. The authors argue that as part of the refinement, the researcher needs to consider the themes themselves, and each theme in relation to others, and identify whether or not a theme contains any sub-theme (Braun and Clarke, 2006; Miles & Huberman, 1994). In an attempt to define and name themes, the researcher has identified what each theme is about, and determines what section of the data each theme captures. By "define and refine" the authors mean identifying the "essence" of what each theme is about (as well as the themes overall, and determining what aspect of the data each theme captures (Braun and Clarke, 2006; Boyatzis, 1998). They further add that for each theme, a need to conduct and write a detailed analysis, as well as identifying the "story" that each theme tells, in relation to the research question (Braun and Clarke, 2006; Miles & Huberman, 1994). The researcher wrote a detailed analysis by identifying a story that each theme tells.

Phase 6: Producing the report

Braun and Clarke (2006) argue that phase six begins when the researcher has set of fully worked-out themes, and involves the final analysis and write-up of the report. The authors add that the task of the write-up of a thematic analysis is to tell the complicated story of the researcher's data in a way which convinces the reader of the merit and validity of the analysis. They add that is of great importance that the analysis provides a coherent, concise, logical, non-repetitive, and interesting account of the story the data to tell- within and across themes (Braun and Clarke, 2006; Miles & Huberman, 1994). They further add that the write-up must

provide sufficient evidence of the themes within the data-i.e., enough data extracts to demonstrate the prevalence of the theme (Braun and Clarke, 2006; Boyatzis, 1998). In this step, the qualitative researcher moves fully into interpretation of the data. Ruona (2005) asserts that qualitative data analysis is an art. Once all the data has been coded and categorized, the researcher must go beyond the codes and categories to offer his or her interpretation of what is going on (Wolcott, 1994).

The researcher has embarked upon the task of coding. The rich data were coded by using NVivo, a software package designed to aid the analyses of qualitative data, which is the most recent version of NUD*IST (Non-numerical Unstructured Data, Indexing Searching and Theorizing).The first step was to load NVivo on to my computer, and I then created a project in NVivo, calling it the 'relationship between leadership and knowledge sharing. The interview transcripts, which were in a Word format, were imported into NVivo. The computer was now ready to start coding electronically. I prepared a list of these codes (called 'nodes' in NVivo). These were: knowledge sharing, transformational leadership, transactional leadership. Coding was the next stage and involves a process of moving back and forth between the data, re-categorizing and recoding as the data are compared. In thematic analysis, the researcher identifies initial codes and themes from the data. The process of coding is part of analysis (Miles & Huberman, 1994), as you are organizing your data into meaningful groups. Braun and Clarke (2006) further add that coded data differs from the units of analysis (themes) which are broader. The researcher compiled a preliminary list of themes and codes that emerged from the data, assigning code numbers to each category. The researcher used preliminary schemes coding scheme to code the first three interviews, entering appropriate code number in the code column. The researcher discovered how truly an iterative process thematic analysis as he continued to code the data from the remaining interviews. The researcher adjusted his coding scheme several times as new sights developed. In this step, the qualitative researcher moves fully into interpretation of the data.

Ruona (2005) asserts that qualitative data analysis is an art. Once all the data has been coded and categorized, the researcher must go beyond the codes and categories to offer his or her interpretation of what is going on (Wolcott, 1994). All the data at this point was merged into a master document that facilitated analysis of the data. The researcher was able to sort the data thematically to reflect on what themes were emerging across participants. The researcher identified, continued to gain new insights which necessitated further editing of his coding and recoding the data. The sorting feature was valuable and allowed him to ''think with his data'' (Ruona, 2005) to interpret and generate meaning. Coding can be carried out by selecting segments of text using line numbering in the document, or by highlighting the specific quotation to be coded. Opening the first interview transcript, I selected an excerpt. I chose not to code by using line numbering as sometimes a quotation starts and ends in the middle of the line and additional words are unnecessarily included in the chosen extract. I instead highlighted the quotation and clicked on 'Coder' at the bottom of the screen. This extract matched the tree node called 'identity'. I clicked on 'identity' in the node listing and then clicked on 'code'. As Miles and Huberman (1994) contend, codes will change and develop; other codes flourish, with too many segments getting the same code, thus creating the familiar

problem of bulk, calling for breaking down codes into subcodes. Once all 10 transcripts were coded, I was able to exploit the search facility of NVivo and to generate extremely useful reports, which I could save and print.

4.26 Chapter Summary

This study was a mixed method study designed to examine the relationship between Transformational and transactional leadership, and knowledge sharing in the context of private secondary schools in Dubai. The quantitative phase 1 was based on results of a survey that measured the relationship between school principals' leadership styles of Idealized Influence, Inspirational Motivation, Intellectual Stimulation, Individualized Consideration, and Contingent Reward, the components that make up the model, and knowledge sharing. The qualitative purpose was to extend prior research by contextualizing knowledge sharing. School principals agreed to participate in semi-structured interviews were contacted. These individuals discussed open-ended questions with the researcher that further added value to the study. The study has adopted Braun and Clarke (2006) thematic analysis with the six phase technique for the qualitative data analysis.

CHAPTER 5: DATA ANALYSIS

5.1 Introduction

Path analysis between the dimensions of transformational and transactional leadership and the dimensions of knowledge sharing revealed that transformational leadership is positively associated with all the dimensions of knowledge sharing. This supports other studies on the impact on transformational leadership on performance (Yammarino et al, 1993; Keller, 1995). Although it needs to be noted that 3 of the five attributes of transformational leadership were found to be significant in relation to knowledge processes (idealised influence behaviour, intellectual stimulation, and individualized consideration). Different leadership attributes were significant in relation to different knowledge processes. For instance, IIB was significant only when considered with socialisation. The exception being leaders' intellectual stimulation leadership, which was shown to be significantly correlated with all dimensions of knowledge sharing (socialisation, externalisation, combination, and internalisation). While Individualised Consideration was shown to be significant for knowledge externalisation. The purpose of the qualitative approach is to add value to the study in order to gain a better understanding of the research phenomenon. The themes and core values of how knowledge sharing is manifested are explained. The themes and core values for sharing knowledge are summarised below:

5.2 Quantitative findings

5.3 Introduction

This section includes the information on the method employed for data analysis. The latent variable approach was employed as the framework of the study. Latent variables are those variables in social and behavioural sciences which are not directly observable. Therefore that variable called Latent variable and the method of analysis would be the latent variable analysis (Hair et al 2014; Bagozzi, 1984). The latent variables in the present study were Knowledge Sharing subscales (the outcome variable) and the predictor latent variables were Transactional Leadership and Transformational Leadership subscales. Typically, the studies using the path modelling, they are following through similar steps; first satisfactory evidences needed to support the construct validity of latent variables. This means that the degree to which each of the latent variables (e.g., Contingent reward) can be represented by the set of related variables (e.g., CR1, CR2, CR3 and CR4) should be high, usually shows by factor loadings. Therefore at the first step of the analysis, the factor validity of the latent variables was measured, a step that usually called Construct and scale development. At this stage, the initial model will be screened for the variables that showing no significant relationship to each of the factors. The variables with low relationship to each of the factors will be

removed. The second step would be modification in the modelled latent variables to test the relationships between the latent variables.

5.4 Partial Least Square for data analysis

The conceptual model was tested using Partial Least Squares (PLS), a second generation multivariate analytic technique that enables path analytic modelling using latent variables (Wold 1982; Chin 1998). The loadings of items on constructs in a PLS model are the same as factor loadings, path coefficients are standardized regression coefficients, and R^2 values describe variance explained in dependent variables. PLS is regarded as an appropriate statistical tool for early stage research models where the emphasis is on theory exploration, extension, and prediction (Jöreskog and Wold1982). Unlike standard linear regression, PLS does not require multivariate normality when estimating parameters, and is suitable for use with smaller samples (Barclay et al. 1995) (for a more detailed discussion of shortcomings of regression analysis, see Wilcox 1998). Tests of reliability and validity were conducted, including those for item reliability, internal consistency, convergent validity, and discriminant validity (Hulland 1999). Path significance was assessed using bootstrap statistics and a123236 D. J. Neufeld et al. blindfold resampling procedure, with a total of 500 resamples and an omission distance of one case per sample (Lohmöller 1984). Smart-Pls was used for the analysis. The stages are explained in detailed below.

5. 5 Construct measurement and validation

Smart-PLS (Ringle et al., 2005) measures both the measurement model and structure model, mainly unidimensionality, reliability, and validity of the scale. The partial least squares [PLS] (as implemented in Smart-Pls, 2005 for the measurement of the structural equation modelling [SEM]) were employed for the analysis of the surveyed data. Smart PLS is a component-based path modelling program based on partial least squares (PLS). SEM combines factor analysis with linear regressions and enables the simultaneous examination for the path (Structural) and factor (Measurement) models in one model (Haenlein and Kaplan, 2004). Partial least square of path modelling was employed because it makes fewer demands on assumptions including the underlying data distribution and sample size compared to covariance-based structural equation modelling (Rigdon, 1996). Because of these advantages, PLS path modelling has been widely used to analyze survey data (Verhagen and Dolen, 2009; Kuechler et al., 2009; Gefen and Straub, 2005).

The target respondents were among the teachers of the schools. The questionnaire was provided in electronic format and respondents were asked to complete it online (through the hyperlink sent to them via email). The final sample includes 223 usable questionnaires that were considered for the final analysis. The questions tried to quantify the measured variables using the five-point Likert scale. Then the answers were coded as

'1' to '5'. There were no missing values. The constructs used in this study are five subscales of Transformational Management with 20 items (Idealized Influence-Behavior, 4 items, Idealized Influence-Attribute, 4 items, Individualized Consideration, 4 items, Inspirational Motivation, 4 items, and Intellectual Stimulation, 4 items,); subscales of Knowledge sharing with 19 items (Combination 5 items, Externalization 4 items, Internalization 5 items, and Socialization 5 items,) and, subscales of Transactional Management with 16 items (Contingent Reward, 4 items, Laisser- Faire, 4 items, Management by Exception-Active, 4 items, and Management by Exception-Passive, 4 items). For each construct, we identified the underlying domains of that construct and used items from previous research to represent each domain. Then the constructs for their psychometric properties were tested.

Based on this set of approved data, psychometrical properties of the modelled data including convergent validity, discriminant validity, unidimensionality, and reliability of the constructs and the structural model were tested first. Variables were checked for any nonsignificant factor loading, none of the items were removed at this stage, therefore all of the initial variables were considered in the model. This test ensured that only strongest measured variables remained in the scales. As a result, all measured variables had significant factor loadings, as the result the levels of average variance extracted (AVE) of the final constructs were between .57 and .83 all were higher than the .50 level recommended by Fornell and Larcker (1981). The reliability of the constructs was assessed by the levels of Cronbach's Alpha which was compared to the standard threshold of .70 recommended by Nunnally (1978) and the more conservative level of .80 threshold recommended by Straub and Carlsson (1989), they were ranged from .86 to .93. In addition, the unidimensionality was measured by estimation of the cross- loadings among the measured variable. Cross loadings are the loadings of each of variables on the other components. For all pairs of constructs, all measured variables for each pair of constructs were expected to be loaded clearly and strongly on their expected construct, without exception and with a good margin of difference between loadings. In summary, a set of valid, reliable constructs was ready to be used to test the structural model in the target sample with the size of 223. Psychometrical aspects including the validity and reliability tests and the outcomes of the structural model analysis are explained in the next section.

5.6 Validity and Reliability

 Measurement Model

Results demonstrated satisfactory item reliability, internal consistency, convergent validity and discriminant validity (see Table2). First, loaded at 0.7 or above on their respective constructs, indicating acceptable item reliability (Chin 1998; Carmines and Zeller 1979). Second, internal consistency was well above the commonly used cut off for all multi-item constructs (Nunnally 1978; Van Den Ven 1979). Third, average variance extracted (AVE), a measure of the average amount of variance that a construct captures from its

indicators relative to the amount due to measurement error, was well above the 0.5 threshold for all constructs suggesting convergent validity (Fornell and Larcker 1981; Chin 1998). Fourth, items correlated most strongly with intended construct (as shown by loadings and cross-loadings in Table5.2), indicating acceptable discriminant validity (Barclay et al. 1995; Wixom and Todd 2005). Also, the average correlation among the measures of each (shown on the diagonal of the correlation matrix of Table) was greater than each construct's relationship with any other construct, providing further evidence of discriminant.

5.7 Instrument validation

The psychometric properties of the constructs were tested using confirmatory factor analysis (CFA) using SmartPLS 2.0-M3 (Ringle et al., 2005). PLS modelling was applied to validate the constructs (subscales) of Knowledge sharing, Transformational leadership and transactional leadership. In addition, we aimed to test the possible relationships of the subscales of Transformational (H1) and Transactional Leaderships (H2) with the subscales of Knowledge Sharing. Model indices including Average variance extracted (AVE), composite reliability and Cronbachs' Alpha value are presented in Table5. 1. Reliability and construct validity are mandatory validities for instrument measurement (Straub et al. 2004). While reliability is an issue of measurement within a component (e.g., Contingency reward), construct validity has to do with measurement between constructs. Convergent validity and discriminant validity are components of construct validity (Straub et al., 2004. Thus, reliability, convergent validity, and discriminant validity were examined for the constructs as follows.

Table5.1 provides the AVE, reliability and inter-correlations for each of the constructs in the model. As mentioned above, reliability is used to evaluate the internal consistency of a construct. Confirmatory factor analysis [CFA] of PLS provides the values for Cronbach's alpha and composite reliability for each construct. As showed in the table5. 1, all the scales are reliable; all composite reliability values are superb, they are all well exceed the threshold value of .70 (Nunnally, 1978, Straub et al., 2004). Composite reliability (see Table5. 1) of all 13 constructs exceeded .70 (the minimum reliability was .80)

TABLE5. 9 CORRELATIONS BETWEEN LATENT VARIABLES

	Composite Reliability	Cronbach's Alpha	AVE	Inter-correlations												
				COMBIN	CR	EXTERN	IC	IIA	IIB	IM	INTERN	IS	LF	MBEA	MBEP	SOCIAL
COMBIN	0.93	0.90	0.72	**0.85**												
CR	0.94	0.91	0.80	0.59	**0.89**											
EXTERN	0.90	0.86	0.70	0.70	0.57	**0.84**										
IC	0.91	0.86	0.71	0.45	0.74	0.48	**0.84**									
IIA	0.95	0.93	0.83	0.48	0.59	0.57	0.62	**0.91**								
IIB	0.92	0.89	0.75	0.51	0.60	0.58	0.69	0.77	**0.87**							
IM	0.95	0.93	0.82	0.48	0.59	0.53	0.65	0.81	0.77	**0.91**						
INTERN	0.92	0.89	0.69	0.74	0.63	0.71	0.61	0.56	0.59	0.55	**0.83**					
IS	0.93	0.90	0.77	0.58	0.75	0.67	0.75	0.74	0.75	0.73	0.70	**0.88**				
LF	0.94	0.91	0.78	-0.13	-0.25	-0.23	-0.34	-0.40	-0.37	-0.35	-0.23	-0.35	**0.88**			
MBEA	0.94	0.92	0.80	0.43	0.48	0.34	0.30	0.44	0.33	0.43	0.40	0.42	0.01	**0.89**		
MBEP	0.95	0.93	0.82	-0.06	-0.20	-0.16	-0.30	-0.32	-0.31	-0.31	-0.15	-0.30	0.82	0.02	**0.91**	
SOCIAL	0.87	0.80	0.57	0.72	0.64	0.80	0.56	0.61	0.64	0.55	0.70	0.69	-0.26	0.33	-0.19	**0.75**

Note the shaded numbers in the diagonal row are the square root of the average variance extracted

Convergent validity can be examined through CFA within PLS modelling. The three criteria recommended by Fornell and Larcker (1981) for establishing convergent validity are: (1) all indicator factor loadings should be significant and exceed .707 so that over one half of the variance is captured by the latent construct (Gefen and Straub, 2005; Straub et al., 2004); (2) construct reliabilities should exceed .70; and (3) average variance extracted (AVE) by each construct should exceed .50. Table5. 2 shows the factor loadings on components for all of the variables. As shown in table5.2, factor loadings for 55 items (belonging to 13 latent constructs) in the CFA model were significant at $p< 0.01$[1] and all of the items had factor loadings greater than .707 in exception for S3, which was also deemed acceptable as it is well close to .60 (Hair et al., 1998).

Convergent validity was assessed using the average variance extracted (AVE) measure and in line with the recommendation by Fornell and Larcker's (1981) who suggest the .5 threshold. Convergent validity is demonstrated by the high levels of AVE, ranging from .57 and .83, well above the suggested level of .50 in the literature (Fornell and Larcker, 1981). Comparison of the inter-correlations between constructs and the square-root of AVE confirms discriminant validity (Fornell and Larcker, 1981); in every case (except for Social) the square-root of AVE was higher than inter-correlations with other variables by a significant margin. Composite reliability and Cronbach's Alpha values for the research constructs in Table5. 1 indicate

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[1] The t values ≤ 1.96 are significant at p≤.05. The t values ≤ 2.58 are significant at p≤.01

high reliability in the model; Cronbach's Alpha varies from .80 to .93 while composite reliability varies from .87 to .95, well above the .70 and 0.80 cut-offs recommended in the literature (Nunnally, 1978; Straub and Carlsson, 1989).

Table5-2 below shows the factor loadings on components for all of the variables. As shown in table5- 2, factor loadings for 55 items (belonging to 13 latent constructs) in the CFA model were significant at $p<0.01$[2] and all of the items had factor loadings greater than .707 in exception for S3, which was also deemed acceptable as it is well close to .60 (Hair et al., 1998). Convergent validity was assessed using the average variance extracted (AVE) measure and in line with the recommendation by Fornell and Larcker's (1981) who suggest the .5 threshold. Convergent validity is demonstrated by the high levels of AVE, ranging from .57 and .83, well above the suggested level of .50 in the literature (Fornell and Larcker, 1981). Comparison of the inter-correlations between constructs and the square-root of AVE confirms discriminant validity (Fornell and Larcker, 1981); in every case (except for Social) the square-root of AVE was higher than inter-correlations with other variables by a significant margin.

Table 5. 10 Loadings (in grey) and cross-loadings in final structural model

Constructs / Variables	COMBIN	CR	EXTERN	IC	IIA	IIB	IM	INTERN	IS	LF	MBEA	MBEP	SOCIAL	Loadings t value
CO1	0.81	0.51	0.59	0.36	0.46	0.42	0.44	0.57	0.48	-0.16	0.4	-0.07	0.63	24.13
CO2	0.84	0.46	0.57	0.35	0.37	0.41	0.39	0.6	0.46	-0.08	0.34	-0.07	0.59	33.44
CO3	0.85	0.48	0.56	0.35	0.34	0.36	0.35	0.6	0.45	-0.09	0.31	-0.04	0.58	30.77
CO4	0.87	0.52	0.6	0.37	0.38	0.42	0.37	0.62	0.48	-0.06	0.37	0.02	0.57	36.74
CO5	0.85	0.52	0.62	0.45	0.49	0.53	0.49	0.72	0.56	-0.16	0.39	-0.08	0.65	31.65
CR1	0.5	0.9	0.48	0.68	0.5	0.52	0.48	0.55	0.68	-0.19	0.4	-0.15	0.56	54.41
CR2	0.56	0.9	0.52	0.68	0.58	0.53	0.54	0.61	0.68	-0.2	0.49	-0.15	0.57	48.85
CR3	0.54	0.92	0.5	0.63	0.49	0.51	0.5	0.58	0.66	-0.17	0.47	-0.14	0.56	77.89
CR4	0.5	0.85	0.53	0.63	0.54	0.58	0.58	0.52	0.65	-0.32	0.36	-0.26	0.59	32.75
EX1	0.64	0.55	0.86	0.43	0.54	0.51	0.5	0.65	0.62	-0.23	0.26	-0.15	0.76	34
EX2	0.58	0.47	0.89	0.43	0.51	0.54	0.49	0.6	0.62	-0.18	0.29	-0.17	0.68	40.32
EX3	0.6	0.47	0.87	0.37	0.5	0.5	0.46	0.63	0.56	-0.22	0.34	-0.15	0.65	37.42
EX4	0.51	0.4	0.72	0.37	0.35	0.37	0.28	0.47	0.4	-0.13	0.23	-0.03	0.58	13.16
IC1	0.38	0.49	0.37	0.75	0.5	0.5	0.49	0.55	0.56	-0.22	0.33	-0.2	0.37	18.54
IC2	0.25	0.52	0.33	0.84	0.47	0.58	0.54	0.37	0.6	-0.3	0.13	-0.26	0.43	29.95
IC3	0.39	0.66	0.42	0.89	0.52	0.58	0.54	0.49	0.67	-0.27	0.22	-0.24	0.5	44.07
IC4	0.44	0.76	0.45	0.87	0.57	0.65	0.6	0.6	0.69	-0.36	0.3	-0.29	0.57	49.21
IIA1	0.42	0.52	0.51	0.53	0.93	0.68	0.69	0.49	0.65	-0.37	0.39	-0.27	0.54	63.4
IIA2	0.46	0.55	0.53	0.56	0.93	0.69	0.74	0.5	0.66	-0.34	0.41	-0.27	0.56	62.19
IIA3	0.42	0.54	0.52	0.6	0.9	0.75	0.74	0.54	0.69	-0.37	0.39	-0.32	0.56	43.81
IIA4	0.45	0.55	0.53	0.56	0.88	0.68	0.77	0.52	0.67	-0.37	0.41	-0.31	0.54	37.13
IIB1	0.44	0.47	0.45	0.59	0.62	0.85	0.63	0.52	0.59	-0.33	0.21	-0.23	0.49	21.95
IIB2	0.39	0.51	0.46	0.62	0.67	0.88	0.67	0.51	0.65	-0.37	0.26	-0.33	0.54	31.42
IIB3	0.49	0.61	0.58	0.64	0.68	0.9	0.69	0.57	0.73	-0.33	0.31	-0.28	0.62	56.64
IIB4	0.44	0.46	0.5	0.53	0.71	0.82	0.66	0.45	0.6	-0.26	0.34	-0.22	0.54	20.44
IM1	0.41	0.47	0.47	0.52	0.69	0.64	0.89	0.45	0.61	-0.32	0.33	-0.27	0.46	41.36
IM2	0.4	0.48	0.46	0.59	0.73	0.68	0.9	0.41	0.65	-0.32	0.37	-0.31	0.48	31.81
IM3	0.49	0.61	0.54	0.65	0.76	0.75	0.92	0.59	0.74	-0.32	0.43	-0.3	0.58	77.41
IM4	0.45	0.56	0.43	0.58	0.74	0.7	0.9	0.5	0.64	-0.32	0.41	-0.25	0.47	41.56
IN1	0.55	0.51	0.53	0.46	0.39	0.43	0.38	0.81	0.53	-0.12	0.27	-0.06	0.49	27.85
IN2	0.62	0.57	0.56	0.54	0.43	0.47	0.41	0.86	0.57	-0.18	0.29	-0.11	0.55	32.4
IN3	0.65	0.54	0.6	0.53	0.57	0.56	0.52	0.86	0.62	-0.24	0.38	-0.17	0.64	45.47
IN4	0.64	0.51	0.64	0.52	0.47	0.5	0.49	0.84	0.59	-0.22	0.38	-0.17	0.59	36.51
IN5	0.59	0.5	0.6	0.48	0.47	0.5	0.46	0.79	0.59	-0.17	0.32	-0.12	0.6	23.27
IS1	0.51	0.63	0.6	0.62	0.63	0.62	0.6	0.59	0.85	-0.25	0.33	-0.2	0.64	31.93
IS2	0.51	0.62	0.61	0.68	0.68	0.7	0.7	0.6	0.9	-0.35	0.35	-0.31	0.64	49
IS3	0.47	0.65	0.56	0.66	0.63	0.64	0.62	0.63	0.89	-0.3	0.37	-0.29	0.55	38.34
IS4	0.54	0.73	0.57	0.7	0.65	0.67	0.66	0.64	0.88	-0.31	0.42	-0.25	0.6	37.26
LF1	-0.02	-0.14	-0.11	-0.27	-0.23	-0.25	-0.26	-0.12	-0.23	0.82	0.04	0.82	-0.16	12.31
LF2	-0.11	-0.24	-0.22	-0.32	-0.36	-0.34	-0.26	-0.18	-0.31	0.9	0.02	0.73	-0.25	23.82

LF3	-0.16	-0.24	-0.24	-0.3	-0.38	-0.36	-0.35	-0.22	-0.33	0.94	-0.03	0.78	-0.25	53.77
LF4	-0.13	-0.23	-0.21	-0.32	-0.39	-0.36	-0.35	-0.25	-0.33	0.88	0.01	0.64	-0.23	22.51
MBEA1	0.36	0.44	0.32	0.29	0.49	0.37	0.52	0.36	0.42	-0.02	0.9	-0.01	0.31	54.36
MBEA2	0.38	0.46	0.32	0.3	0.44	0.31	0.39	0.37	0.42	-0.06	0.92	-0.01	0.28	69.4
MBEA3	0.42	0.42	0.32	0.23	0.33	0.26	0.33	0.34	0.32	0.04	0.9	0.04	0.32	55.12
MBEA4	0.38	0.41	0.23	0.24	0.31	0.21	0.28	0.35	0.34	0.07	0.86	0.04	0.26	24.62
MBEP1	0.01	-0.18	-0.1	-0.3	-0.28	-0.26	-0.25	-0.12	-0.28	0.72	0.05	0.88	-0.14	9.82
MBEP2	-0.1	-0.24	-0.19	-0.33	-0.38	-0.37	-0.38	-0.2	-0.35	0.79	-0.04	0.95	-0.23	10.02
MBEP3	-0.04	-0.12	-0.14	-0.19	-0.22	-0.21	-0.2	-0.09	-0.2	0.71	0.06	0.89	-0.16	9.91
MBEP4	-0.02	-0.13	-0.09	-0.22	-0.22	-0.22	-0.22	-0.09	-0.19	0.75	0.03	0.89	-0.12	11.38
S1	0.55	0.45	0.53	0.4	0.41	0.47	0.41	0.47	0.49	-0.15	0.21	-0.15	0.71	12.68
S2	0.6	0.49	0.67	0.36	0.51	0.49	0.45	0.52	0.52	-0.27	0.28	-0.21	0.86	30.1
S3	0.4	0.43	0.5	0.36	0.23	0.2	0.21	0.45	0.44	-0.03	0.23	0.02	0.5	6.2
S4	0.55	0.46	0.58	0.44	0.5	0.55	0.43	0.54	0.53	-0.26	0.22	-0.19	0.8	25.58
S5	0.59	0.58	0.7	0.54	0.58	0.61	0.53	0.62	0.62	-0.22	0.3	-0.16	0.85	36.23

Finally, Table5-2 indicates the factor loadings of all measured variables and constructs. As we can see, all loadings were significant, at p<.01, all the loadings (with the exception of S3, but still significant at p<.01) were exceeding .70 and all were significant at the *p< .01* level, which confirms convergent validity (Anderson and Gerbing, 1988). The t values more than 2.58 are considered as significant at the *p<.01* therefore to show the latent variable (i.e., Combination) can be explained by the given items/variables (i.e., CO1). Moreover, the cross-loadings shown in table5-2 verify the discriminant validity and unidimensionality of constructs (Chin, 1998). Overall, the results demonstrate a strong, valid and reliable set of constructs in the research model.

Structural model

The PLS structural model and hypotheses are assessed by examining path coefficients and their significance levels. In this study we use smart-PLS software, which is a Java-based Graphical User Interface program. To estimate the statistical significance of the parameter estimates, two resampling methods are available in smart-PLS-bootstrappping and blindfolding (Ringle et al., 2005). Therefore, the bootstrapping procedure with resampling procedure is used in this study to estimate the statistical significance of the parameter estimates. In the next step of the structural analysis, all of the target paths were estimated and then the significance of paths was measured using corresponding t-values as calculated by PLS algorithm and the application of bootstrapping respectively in the Smart-PLS 2.0 software package (Ringle et al., 2005). The 500 runs were selected as the target bootstrapping times with the sample of 223.

Figure 1 illustrates the full path model with the final path estimations and t-values (see Figure 1).

Path Coefficients (Mean, STDEV, T-Values)	Original Sample	Sample Mean	Standard Deviation	Standard Error ()	t Values
CR -> COMBIN	0.33	0.33	0.12	0.12	2.68
CR -> EXTERN	0.21	0.21	0.12	0.12	1.80
CR -> INTERN	0.16	0.16	0.11	0.11	1.45
CR -> SOCIAL	0.30	0.29	0.11	0.11	2.66
IC -> COMBIN	-0.15	-0.14	0.11	0.11	1.32
IC -> EXTERN	-0.20	-0.20	0.10	0.10	2.10
IC -> INTERN	0.11	0.10	0.10	0.10	1.03
IC -> SOCIAL	-0.09	-0.09	0.11	0.11	0.88
IIA -> COMBIN	-0.02	-0.02	0.11	0.11	0.16
IIA -> EXTERN	0.13	0.13	0.10	0.10	1.30
IIA -> INTERN	0.03	0.03	0.09	0.09	0.27
IIA -> SOCIAL	0.16	0.17	0.10	0.10	1.62
IIB -> COMBIN	0.19	0.19	0.11	0.11	1.82
IIB -> EXTERN	0.18	0.18	0.10	0.10	1.85
IIB -> INTERN	0.14	0.14	0.08	0.08	1.66
IIB -> SOCIAL	0.25	0.25	0.10	0.10	2.58
IM -> COMBIN	0.03	0.04	0.12	0.12	0.27
IM -> EXTERN	-0.04	-0.03	0.12	0.12	0.35
IM -> INTERN	-0.06	-0.06	0.10	0.10	0.61
IM -> SOCIAL	-0.11	-0.11	0.11	0.11	0.99
IS -> COMBIN	0.25	0.25	0.12	0.12	2.11
IS -> EXTERN	0.47	0.46	0.10	0.10	4.86
IS -> INTERN	0.40	0.40	0.10	0.10	3.86
IS -> SOCIAL	0.34	0.34	0.11	0.11	2.96
LF -> COMBIN	-0.06	-0.04	0.09	0.09	0.67
LF -> EXTERN	-0.07	-0.06	0.08	0.08	0.81
LF -> INTERN	-0.07	-0.06	0.09	0.09	0.83
LF -> SOCIAL	-0.03	-0.02	0.09	0.09	0.37
MBEA -> COMBIN	0.14	0.14	0.05	0.05	2.56
MBEA -> EXTERN	0.00	0.00	0.06	0.06	0.02
MBEA -> INTERN	0.09	0.09	0.07	0.07	1.31
MBEA -> SOCIAL	-0.03	-0.03	0.05	0.05	0.72
MBEP -> COMBIN	0.15	0.13	0.09	0.09	1.72
MBEP -> EXTERN	0.10	0.10	0.08	0.08	1.27
MBEP -> INTERN	0.12	0.10	0.09	0.09	1.37
MBEP -> SOCIAL	0.06	0.06	0.08	0.08	0.77

Structural Model		
Results of Hypotheses testing:		
	Path coefficient β	Path significance
H1: Idealized Consideration→		
Externalization	0.20	2.10**
H2: Management by exception attribute→		
Combination	0.14	2.11**
H3: Idealized influence behaviour→		
Socialization	0.25	2.58*
H4: Intellectual Stimulation→		
Externalization	0.47	4.86*
H5: Intellectual Stimulation→		
Internalization	0.40	3.86*
H6: Intellectual Stimulation →		
Socialization	0.34	2.96*
H7: Intellectual Stimulation →		
Combination	0.25	2.11**
H8: Contingent Reward→		
Combination	0.33	2.68*

H8: Contingent Reward→		
Socialization	0.30	2.66*
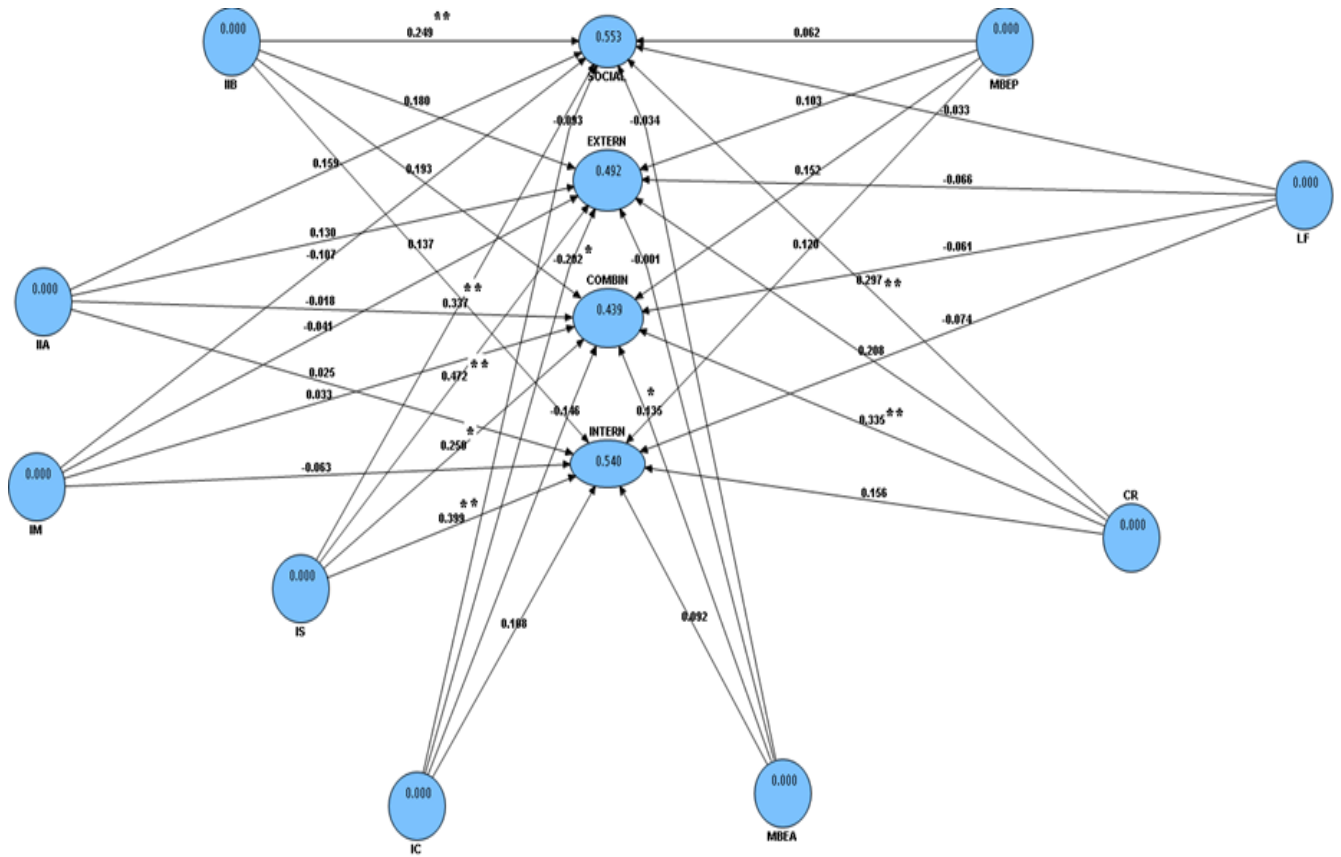
FIGURE 1 PATH ESTIMATES IN THE FINAL STRUCTURAL MODEL (P<.05; **: P<.01).

CHAPTER 6: RESULTS

6.1 Quantitative results

6.2 Introduction

Hypothesis 1: predicts that transformational leadership positively predicts knowledge sharing

Hypothesis H1b was supported: Idealized influence behaviour positively predicted knowledge sharing through socialisation (β =0.25, t =2.58*, p < .001). This means one unit increase in leaders' idealized influence behaviour associates with 0 .25 of unit of changes in knowledge sharing socialization. Hypothesis H1d, which stated that Intellectual stimulation would predict knowledge sharing, was supported: Intellectual stimulation positively predicted knowledge sharing through socialization (β =0.34, t =2.96*, p<.001), externalization (β=0.47, t=4.86*, p<.001), combination (β=0.25, t=2.11**, p<.005), and internalisation (B=0.40, t=3.86*, p<.001).Hypothesis. H1e was supported: Individualized consideration had effect on knowledge sharing through externalisation (β =0.20, t =2.10**, p<.005). Hypothesis 4 stated that contingent reward positively predicted knowledge sharing, and it was supported, contingent reward positively predicted knowledge sharing through socialization (β =0.30, t =2.66*, p < .001).

Hypothesis 2: predicts that transactional leadership positively correlate with knowledge sharing

Likewise, hypothesis H2a stated that contingent reward leadership positively predicted knowledge sharing, and it was supported, contingent reward positively predicted knowledge sharing through combination (β =0.33, t =2.68*, p < .001). Hypothesis H2b was supported: management by exception active did influence knowledge sharing through combination (β =0.14, t =2.11**, p<.005). Hypothesis H2c, which stated that management by exception passive was positively associated with knowledge sharing, was not supported. Likewise, Hypothesis H2d laissez-faire which positively predicted knowledge sharing was not supported. Hypothesis H1a, which stated that idealized influence attribute was positively associated with knowledge sharing, was not supported.

6.3. H1 - Relationship between transformational leadership and knowledge sharing

Idealized Influence Behaviour and socialisation

The first significant path was idealized influence behaviour for Socialization (B=.25, p<.01), the effect of idealized influence behaviour on Socialization was positive then the higher was the levels of idealized influence behaviour, the higher would be the levels of Socialization and vice versa. This significance for idealized influence behaviour might be explained by the fact that leaders influence and inspire followers and provide them with energizing and clear sense of purpose, being a role model for ethical conduct, building identification with the leader and his vision (Bass, 1985; Sergiovanni, 1990). Hence, the process of knowledge sharing can be achieved through leaders' idealized behaviour leadership. When considering knowledge processes, the association with all the knowledge attributes was positive, with the socialisation attribute being significant. This may be expected given the tacit to tacit relationship within socialisation.

Intellectual Stimulation and externalization

The next significant paths were first, Intellectual Stimulation and Externalization (B=.47, p<.01), the effect of Intellectual Stimulation on Externalization was positive then the higher was the levels of Intellectual Stimulation, the higher would be the levels of Externalization and vice versa . Second, Intellectual Stimulation on Internalization (B=.40, p<.01), the effect of Intellectual Stimulation on Internalization was positive then the higher was the levels of Intellectual Stimulation, the higher would be the levels of Internalization and vice versa. Third, Intellectual Stimulation on Socialization (B=.34, p<.01), the effect of Intellectual Stimulation on Socialization was positive then the higher was the levels of Intellectual Stimulation, the higher would be the levels of Socialization and vice versa. Fourth, intellectual stimulation on combination (*B=.25, p<.01*) the effect of Intellectual Stimulation on combination was positive then the higher was the levels of Intellectual Stimulation, the higher would be the levels of combination and vice versa .

A significant difference was noted in how intellectual stimulation relates to knowledge processes. Regardless of how it was measured, intellectual stimulation was more highly related than any other leadership style when considering the range of knowledge attributes.

Intellectual Stimulation is generally associated with encouraging subordinates to think about problems in new ways. It now seems quite clear that the leader who is able to intellectually stimulate subordinates will amplify knowledge processes. Leaders through intellectual stimulation help subordinates in re-examining critical assumptions to question whether they are appropriate and seeking differing perspectives when solving problems (Yaseen, 2010). This type of leadership style supports followers as they try new approaches and develop innovative ways of dealing with organizational issues. It encourages followers to think things through on their own, promotes workers' individual efforts, and engages in sharing knowledge and problem solving (Bass, 1985; Sergiovanni, 1990). In considering the knowledge process attributes at individual, group or organisational level, intellectual stimulation has be shown to be critical for knowledge processes, for both tacit and explicit exchanges.

Individualized Consideration and externalization

The path of individualized consideration IC on Externalization, was significant (B= -.20, p<.05), which addresses the reverse relationship between the two components. The higher is individualized consideration IC, the lower would be the Externalization and vice versa. Much like Idealised Influence Behaviour, the individualized consideration scale was found to be much more strongly associated with subordinate perceptions of effectiveness as compared with organizational measures of effectiveness. A positive association between Individualized Consideration and effectiveness was consistent across studies (Yaseen, 2010). Leaders on individualized consideration spend more time coaching, assessing individual needs, and helping team members in developing their strengths (Bass, 1985; Yaseen, 2010). Seemingly, such transformational qualities do indeed stimulate higher levels needs of followers and result in higher feelings of commitment to share knowledge. Thus, treating each employee in a caring and unique way may give strong motive to trust and collaborate in knowledge sharing (Bass, 1985; Sergiovanni, 1990), and become motivated to transcend their own self-interests for the good of the group or organization (Bass and Avolio, 1990). Furthermore displaying individualized consideration raises morale and provides teachers with the needed teaching and coaching that will enable them to end their isolation and enhances the sharing of knowledge between teachers (Bass, 1985; Sergiovanni, 1990). When considering the knowledge process attributes, Individualised Consideration is positively correlated for each

of the attributes, but significant for knowledge externalisation. This might be expected given the required task and the need to encourage individuals to make tacit information explicit.

6.4. H2 - Relationship between transactional leadership and knowledge sharing

Contingent Reward and combination

The first significant path was Contingent reward on Combination (B=.33, p<.01); the effect of Contingent reward on Combination was positive then the higher was the levels of Contingent reward, the higher would be the levels of Combination. The second significant path was contingent reward on socialisation (B=.30, p<.01); the effect of CR on Socialization was positive then the higher was the levels of CR, the higher would be the levels of Socialization and vice versa. These are both discussed below. Surprisingly, and dissimilar to previous findings, not all dimensions of transactional leadership style are related to knowledge sharing. Probably the most interesting result of the study is that the relationship between contingent reward leadership and knowledge sharing is practically equally as strong as the effect of transformational. Hence, this study offers support for the second research question. The classical theoretical arguments presented in the literature review clearly argue that transformational leadership is a much more effective type of leadership in various settings and with various leadership outcomes.

However, a factor that may have affected the results of the study is the context. Although in its essence transformational leadership may be universally effective (Bass, 1997; Chen and Lee, 2003), its effectiveness varies across different contexts. Especially in a rapidly changing multicultural environment such as Dubai, where many managers have not been exposed to a wider range of leadership, the kinds of behaviours specified by contingent reward leadership might be relatively more effective than in nations with a long tradition of management practice and science (Chen and Lee, 2003). In addition to the consideration of leadership styles within the UAE, and more specifically Dubai. It may also be that the context for the study has a unique influence on the results. Knowledge sharing within the educational sector that is, may belong to a group of leadership outcomes for which contingent reward leadership is especially effective. When considering the knowledge process attributes, CR is positive correlated for each of the attributes, but significant for knowledge socialization and

combination. Contingent reward includes leaders clarifying the expectations and presenting recognition when goals are accomplished (Limsila and Ogunlana, 2008; Yukl, 2006). The importance for knowledge processes for socialisation, a tacit to tacit situation, where leaders make clear to individuals expectations. Secondly for combination, an explicit to explicit situation, where organisation wide expectations are set out.

Management by Exception- Active (MEA) and combination

Management by Exception- Active MBEA on Combination was significant path (B=.14, p<.05). This means the positive relationship between Management by Exception- Active MBEA and Combination. The higher was the levels of Management by Exception- Active MBEA, the higher would be the levels of Combination and vice versa. Where leaders monitor for mistakes or role violations (Northouse, 2007), and take corrective actions before the behaviour makes severe difficulties (Judge and Piccolo, 2004). In terms of knowledge processes, MEA was seen to be significant for the knowledge attribute combination. MEA may lend itself to this knowledge attribute given the need to set out expectations and monitor these at an organisational level. This study also revealed that both active and passive management by exception were not correlated with the four dimensions of knowledge sharing.

6.5. Summary of quantitative findings

Transformational leadership dimensions   Knowledge sharing

Idealised influence attributes   (IIA)   Socialisation

Idealised influence behaviour   (IIB)   Externalisation

Inspirational motivation   (IM)   Combination

Intellectual stimulation   (IS)   Internalisation

Individualised consideration   (IC)

Transactional dimensions

Contingent reward   (CR)

Management by exception active   (MEA)

Management by exception passive   (MEP)

	SECI	IIA	IIB	IM	IS	IC	CR	MEA	MEP	LF
			Transformational Leadership					*Transactional Leadership*		
Knowledge Sharing	S	.16	.25,P<.01	-0.11	.34,P<.01	.0.093	.30, P<.01	0.034	0.062	0.033
	E	.13	0.18	0.041	.47,P<.01	-.20,P<.05	0.21	0.001	0.103	0.066
	C	.0.018	0.19	0.033	.25,P<.05	0.15	.33, P<.01	.14, P<.05	0.152	0.061
	I	.0.025	0.14	0.063	.40,P<.01	.0.18	0.16	0.092	0.12	0.074

Table 6-4: Path coefficient β Path significance t (N=223)

Two paths were significant at the p<.05 level, they were IC => Externalization, (B= -.20, p<.05, which addresses the reverse relationship between the two components. The higher is the IC, the lower would be the Externalization and vice versa.

The second significant path was MBEA => Combination (B=.14, p<.05) and means the positive relationship between MBEA and Combination. The higher was the levels of MBEA, the higher would be the levels of Combination and vice versa.

Six paths were significant at the p<.01 and they were as follows:

1- CR => Combination (B=.33, p<.01); the effect of CR on Combination was positive then the higher was the levels of CR, the higher would be the levels of Combination.

2- CR => Socialization (B=.30, p<.01); the effect of CR on Socialization was positive then the higher was the levels of CR, the higher would be the levels of Socialization and vice versa.

3- IIIB=> Socialization (B=.25, p<.01), the effect of Individualized Consideration on Socialization was positive then the higher was the levels of IIIB, the higher would be the levels of Socialization and vice versa.

4- Intellectual Stimulation => Externalization (B=.47, p<.01), the effect of Intellectual Stimulation on Externalization was positive then the higher was the

levels of Intellectual Stimulation, the higher would be the levels of Externalization and vice versa.

5- Intellectual Stimulation => Internalization (B=.40, p<.01), the effect of Intellectual Stimulation on Internalization was positive then the higher was the levels of Intellectual Stimulation, the higher would be the levels of Internalization and vice versa.

6- Intellectual Stimulation=> Socialization (B=.34, p<.01), the effect of Intellectual Stimulation on Socialization was positive then the higher was the levels of Intellectual Stimulation, the higher would be the levels of Socialization and vice versa. These results indicate that transformational and transactional contingent reward leadership and knowledge sharing are positively correlated.

6.6. Conclusion

The next section will provide the qualitative explanation for the contextualisation of knowledge sharing. The results of the questionnaire showed that three dimensions of transformational leadership (Idealised influence behaviour, Intellectual stimulation and Individualised consideration) all have a positive correlation with knowledge sharing in private schools in Dubai. The results also showed that two dimensions of transactional leadership (Contingent reward and Management by Exception Active) have a positive correlation with knowledge sharing in private schools in Dubai.

6.7. Qualitative findings

6.8 Introduction

The purpose of this section is to extend prior research between leadership and knowledge sharing by contextualizing how knowledge is shared in Dubai context. The qualitative findings in this study are the themes which emerged from the data and represent the core values such as leaders' leading by example, empowering teachers, creating a culture of trust and collaboration, mentoring, and communally celebrating success by adding to the tested model in order to gain a better insights and

understanding of how knowledge is manifested in Dubai private schools. The detailed explanations are as follows:

6.9 Management by exception active and combination

One main theme emerged with regard to the leadership style of Management by Exception active and how it is used to encourage Knowledge Sharing through Combination. This theme is 'Culture of collaboration'.

6.10 Culture of trust and collaboration

'I think when we are open with the teachers we discuss failures in the schools we discuss mistakes that happen in the school this will encourage teachers also to share their experiences with each other whether their mistakes or whether their successes so this shares cooperation and openness amongst the teachers.' [transcript 1]

'I think our openness has encouraged teachers to talk to each other more to share experiences more to help each other more to cooperate more within the school for the benefit of the students so they are no barriers now between the teachers and the administration' [transcript 1]

'I think with mistakes when you come back to mistakes it's all about how to I learn from the mistake, right let's have a conversation, what are you going to learn from it and how do you make sure it doesn't happen again but how do I grow out of what has happened.' [transcript 9]

'Again I guess I keep saying the same thing. Our whole culture is built on teachers working together in teams, so they must share knowledge. They all read the curriculum direction in a different way so if you are teaching year 4 Maths we have the Australian curriculum document, each teacher read that and might see if differently. So they plan together about what they are going to teach and how they are going to teach and so that's the basis of all of our work as leaders. We have to make sure teachers are given the help that they need to share that information and to continuously improve their own skills as teachers. [transcript 9]

Summary and conclusion for Culture of trust and collaboration

The principals mentioned the importance of being open and cooperative with teachers and encouraging them to discuss failures and mistakes. They want the teachers to come and discuss these failures and mistakes with them so they can discuss what has been learnt and try to come up with solution to the problem or how mistakes can be avoided in the future. By principals and teachers meeting to discuss and share ideas on how they can solve problems and avoid future mistakes, explicit knowledge will be shared and combined to produce new explicit knowledge that can be shared with other teacher to help them avoid similar mistakes and how to solve problems. This Combination style of knowledge sharing was influenced by Management by exception active leadership style through being open with the teachers and encouraging them to discuss mistakes and failures. By the principal being open with the teachers to discuss failures and mistake, this they believe encourages the teachers to share ideas and whether they were successful or unsuccessful. When teachers meet to discuss and share ideas they are sharing explicit knowledge. Explicit knowledge from the various teachers will be combined together to form new knowledge and solutions to avoiding problems. This new knowledge will be shared in the form of explicit knowledge throughout the school. Therefore, the knowledge sharing type is Combination. Combination knowledge sharing is encouraged by the principal being open with teachers to discuss failures, so they are not afraid to speak about their mistakes and they can easily ask the principal or other teachers for help and advice. Also, the mistakes of others and the solutions to the problems will be shared using Combination knowledge sharing which will help avoid future mistakes by other teachers. Management by Exception Active is the style of leadership that is effectively used to encourage Combination knowledge sharing when the principal is open and encourages discussions to share experiences and solve problems.

6.11 Individualised consideration and externalisation

A common theme emerged with respect to the leadership style of Individualised Consideration and how it is used to encourage Knowledge Sharing through Externalisation. This theme is 'Mentoring'.

6.12 Mentoring

'As I explained yaani when I mentor people it's based on my observations so I visit their classrooms when I see something is not happening in their classrooms I the give the advice and obviously if it is a problem shared amongst a big number of my teachers then I conduct a workshop or I invite someone with more skills at the subject to give them the training' [transcript 1]

'I mean basically the main thing we've had here is with the teachers, one of the teachers we went into an English teacher, and I found that he couldn't control the class. He's an American actually but no classroom management skills. He seems quite a committed teacher, quite a religious teacher, quite committed but just can't... So when I went in fact he was giving sweets, he was giving them candy at the end. And then I told him well "A" we don't, this is not school policy and "B" they will have no teeth left at the end of school. I don't think the parents would approve and coming to me with their dentist bills or the doctor for obesity, one or the other. And I said and this isn't school policy of course apart from all of that and I said we have to look at why you can't control or what you can do and we gave him tips of what he can do and how he can change it, then the head of department said he will daily go in and support him, check him, see what he can do. So we tried to give some strategies of what he can do but not do what he is doing right now.' [transcript 7]

'Yes we have a mentoring program, it's very important for us, often people come from Australia here and it's their first time being out of Australia. So some of the mentoring is about understanding our school, why we do things the way that we do it, what life is like in this part of the world, how you adjust has a teacher to live and work in this part of the world. And so we attach mentors, I tend not to be mentor but if we find hard to match somebody who's about my age for example, then I might mentor.' [transcript 6]

'The more between teacher and teacher, we setup a number of mentors. So new members of staff get given a mentor when they come, so going back to your question about transfer of organizational knowledge. You know we setup each new teacher with a mentor, somebody who's been here for a year or two years, you know this is your reference point, this is the person you can talk to and so on.' [transcript 9]

'So evaluation is ongoing regularly, checking the results, checking the pacing, whether he is under-pacing or not, he's following actually the guidance given to him by the head of department where they need help. If somebody is doing very well like an extreme, we would like to know how he is doing it so we can learn from that person. So it's not only evaluation to look down, always the idea of this is constructive and the teachers expect us to do that and they know I'm doing it and we discuss these thing with them and then we put a plan for them.' [transcript 8]

'Generally we don't employ people who have less than 2 years' experience, so they would all have some level of experience. Before they come they are connected with a buddy who sort of does the transition and the introduction so even prior to the arrival they have some information coming to them. Not just about school, but about accommodation and life in Sharjah. When they come then there is a period of probation obviously, so they get support and induction in the first couple of weeks, they get again there is a mentor usually the head of the department, they are observed at least twice in the probation period, they've opportunity to give us feedback as well.' [transcript 2]

Summary and conclusion the importance for mentoring

Many of the principals who were interviewed mentioned the importance of mentoring teachers to share their tacit knowledge developed through years of experience in teaching and articulating this as explicit knowledge to teachers. Individual consideration is effective in sharing knowledge through Externalization. Principals try to find out areas of improvement in individual teachers or by assigning a mentor to give them advice and guidance. The common ways discovered during the qualitative study that principals use to discover areas of improvement are through observations or ongoing teacher evaluation. Principals when mentoring teachers take the tacit knowledge they have developed from years of experience and they articulate this to the teachers as explicit knowledge. Therefore, the knowledge sharing attribute type is Externalization. This is done by giving person advice when the principals are aware that an individual teacher needs to improve in a certain area or the principals will conduct workshops if the problem is shared amongst other teachers. For some workshops principal will get other teachers skills in a certain area or invite someone from outside the school with more skills to run these workshops. When principals are observing teachers or listing to their needs and then tailoring advice to individual teachers the style of

leadership used is Individual Consideration. When the teachers are observing and modelling between one another, then the type of knowledge sharing is externalization.

6.13 Idealized influence behaviour and socialisation

Two themes emerged with respect to the leadership style of Idealized influence behaviour and how it is used to encourage Knowledge Sharing through socialisation. The themes are 'leading by example and empowerment'.

6.14 Leading by example

"Erm, I think it's important because, well in a number of respects, people will we see me as a very hard worker, I do put in the hours, I am here almost first in the morning, I'm last to leave. I think just the affect they see me working very strenuously on behalf of the school, they, I am not asking them then to do something that I'm not prepared to do myself. Some people here do give extra time, people are quite generous with their weekend, with their after-school time." [Transcript 2].

"Well I think if you set the example you show others where you want to go. If you work hard, set that example other people are prepared to work hard if they see you working alongside them rather than just directing them then they are prepared to do it. It's like we talk about what we call a model of servant leadership, I'm here to serve the school community so therefore I'm here to support you lets to it together rather than you do it on your own." [Transcript 9].

"I still teach as well, so it's important for me that I'm still involved in teaching. I teach English Literature. The ministry has often told me that I shouldn't be teaching, but I think it's important for the influence it has on other staff and the other perceptions of me that I'm not aloof and removed from it. And I think they recognize I teach reasonably well so that always helps as well." [Transcript 2].

"Not talk act. You don't have to tell them what to do. You do it yourself and they see you doing it, they follow suit." [Transcript 8].

Summary and conclusion for leading by example

There is a consensus of principals that leading by example is effective in encouraging knowledge sharing through Socialisation. Leading by example is used by the principals through acting in a certain way to try influence the staff to imitate their actions and behaviour. Principals believe that leading by example has a positive effect on the teachers and can see them repeating the positive behavior that the principals are showing them through their actions. Because the principal embodies values that the teachers should be learning and mimicking the style of leadership is Idealised Influence Behaviour when they try to act as a role model and lead by example. Leading by example is difficult to formalize and can only be learnt through observation over a long period of time. Principals lead by example in a variety ways. One method mentioned by a number of principals is by working hard and being committed. They believe by working hard and being committed the staff will learn from their example and also work hard. This example shows how knowledge can be shared through actions when a principal is leading by example. Knowledge is shared from the principal's example to the other teachers from tacit knowledge to tacit knowledge. By principals sharing in the experience of teaching even if they do not have to, the teachers will learn tacit knowledge which wouldn't be possible by principals just telling the teachers what to do. This type of knowledge sharing is therefore Socialisation. The same is true with principals who are seen by teachers to be very hard workers. Being a role model and leading by example falls under the Idealised Influence Behaviour leadership style because the principal embodies values that teachers should be learning and mimicking. Idealised Influence Behaviour helps to influence knowledge to be shared by Socialisation in this instance because acting as a role model is difficult to formalize and can only be learnt through observing and spending time together. The principal believes by encouraging teachers to be better and demonstrating it themselves, the teachers will be influenced by their behavior and go to others and repeat the positive behavior.

6.15 Empowering teachers

"When somebody is new on the group we choose a partner teacher for them like tutor like mentor. So this new teacher as no problem to ask one certain person, so it is clear from the beginning this is my helper I can say. A mentor for the new staff to adapt easily and fast." [Transcript 3].

"We encourage teachers to visit each other in their classrooms, as much as they can. We also ask the old timers teach." [Transcript 8]

"They even visit each to see each other performing in their classroom and learn from each other" [transcript 1]

"I think this influence teachers because teachers now also visit each other classes and when they visit they're doing an informal observation of what the other teachers are doing and they are learning from each other and they notice that some skills are not apparent in the instruction style of their colleagues they invite them back to their classroom and that indirectly show them how to do the things that they were not doing in their class so people learn from each other this way by observation and by modeling.' [Transcript 1

Summary and conclusion for empowering teachers

Many of the principals discussed the importance of 'empowering teachers to share knowledge'. They do this by giving experienced teachers' leadership roles such as a mentor or a helper and then providing them with support with this role. They also encourage teachers to visit other teachers while they are teaching for peer observations. When new teachers arrive at the school the principals like to assign mentors or helpers to help the new teachers settle in and so that they can learn from more experienced teachers. This makes it easier and quicker for new teachers to adapt to the school. Another method the principals use the leadership style of Idealised Influence Behaviour to empower teachers to share knowledge is by valuing teachers as important contributors of knowledge, providing support to teachers, and by encouraging the teachers to share knowledge through peer observations. During peer observations the teachers will visit other teachers while they are teaching to watch and observe the lessons. This will facilitate knowledge to be shared simply by observing.

6.16 Intellectual stimulation and socialisation

One main theme emerged with regard to the leadership style of intellectual stimulation and how it is used to encourage Knowledge Sharing through Socialisation. This theme is 'Culture of knowledge sharing'.

6.17 Culture of knowledge sharing

"So that sort of sharing has been useful, we've also asked people to do peer observations so normal teachers, subject teachers, have to get into primary or some area that's unfamiliar to them. It's not judging they are not looking for mistakes; they're just looking for things that maybe they wouldn't do in their own subject area. It just broadens their horizon, so they're both important." [Transcript 2].

'One of the ways as I said teachers invite other teachers to their classrooms I have an English teacher who wanted to teach students about cynicism or criticism or and irony so she taught her kids to draw cartoons they do cartoons that they criticize certain situations certain traditions certain habits and then she had a workshop for her for the other teachers she showed them how students can express their ideas in a cartoon better than in a writing sometimes instead of writing a piece of composition that is like what twenty lines or fifty lines a piece of cartoon would express the whole idea in few drawings so other teachers adopted this idea they had like doing models plays short sketches and now we have an event in the school yearly where we have teachers having sketches about irony they have also cartoons plays short plays of course about the same idea so it became an event in the school yearly event everybody does that now.' [Transcript 1].

'Or we have one very interesting system maybe you heard about. We have a concept that teachers have to go to another teachers' lesson. Peer observation right; at the beginning we told them please find a friend of you. Okay a friend you know because lesson is a, how can I say, not parallel teacher, the other the peer is sitting at the back and watching. He has some questions and he is making notes about like peer and after the lesson the come together and gets feedback. Next term they change, no number will come to your lesson, number two you are coming to my lesson and this discussion is private.' [Transcript 3].

Summary and conclusion of culture for knowledge sharing

The theme 'culture of knowledge sharing, emerged from the interviews with the principals. The principals mentioned a variety of ways that they provide a platform for knowledge sharing, peer observations, encouragement and sharing ideas and experiences to help encourage knowledge sharing and creativity. During these peer observations the teachers will watch another teachers' lesson to observe and take notes. One principal gets them to observe classes which are unfamiliar to them, such as a different subject, so that maybe they can learn new ideas and help broaden their horizons. During peer observations the teachers are

spending time together and this creates new tacit knowledge to be acquired by the observer from tacit knowledge of the observed teacher. By principals encouraging the social interaction of observing they are actively trying to get the teachers to share knowledge through Socialisation. When the principals get teachers to take part in peer observations it will encourage knowledge to be shared through Socialisation. During peer observations the teachers are spending time together and this cause's new tacit knowledge to be acquired by the observer from tacit knowledge of the observed teacher. Another way of increasing knowledge to be shared by Socialisation is by the principal asking teachers to look at their weaknesses and then assigning a teacher to work with them. By working with a teacher strong in a certain area they will learn through observation tacit knowledge. By working with teachers who are stronger in certain areas knowledge may be shared by explanations. But more likely it will be learnt through observation, tacit to tacit, hence the style of knowledge sharing is Socialization. The principal is doing this to encourage people to always understand there are many ways to look at issues and to learn new ideas; therefore the style of leadership is Intellectual Stimulation.

6.18 Intellectual stimulation and externalisation

One main theme emerged with regard to the leadership style of intellectual stimulation and how it is used to encourage Knowledge Sharing through externalisation. This theme is 'Knowledge Culture

6.19 Knowledge culture

'We try to have in service days where we don't just invite people from outside but we invite colleagues who have special experience or special knowledge to share it with others. It is amazing what you find when you ask teachers to come up with something that's, well every teacher has something that's unique to them and these are things we've got to share if we're to improve.' [Transcript 4].

'We encourage teachers to share experience even us in the administration sometimes we are not trained like I was trained for education twenty five or twenty six years back a lot of things that came later such as technology use of technology so when we have a teacher who is say trained in technology better than we are we ask them to conduct a workshop and teach us

that's how we keep updated with the technology ourselves even in the administration I was not trained myself to deal with special students so I invited special teacher to conduct a session for the administrators ourselves to understand what is special how do we deal with special students and now my colleagues whenever they have any new skill now they share it with the others through a workshop.' [Transcript 1].

'Professional development I've done for the teachers? Yeah, with the teachers we do them spontaneously throughout the year. But we did over a week's professional development training in September when they first, which was very intense and we did that from A to Z. From classroom management, to fulfilling the objectives of the American course standards and how they can do it, to teaching techniques, to dress code the basic things, to student discipline what they do, you know, from A to Z.' [transcript 7].

'Okay we, what I was saying about the experienced staff and the newer staff. We have a staff briefing every morning, Tuesday is professional development day in the school. At briefing every Tuesday, we pull the name out of the hat and whoever is chosen has to come next Tuesday with a 5 to 7 minute presentation about something they have done recently that has worked very well. We've had some startling stuff, because there's stuff going on in this school that you never hear about and it's just an opportunity, and everybody goes "oh okay, I never thought of doing that". And your hearing, PE teachers are hearing what's going on in Maths or Science and normally they are so busy they don't get to visit each other.' [Transcript 2].

'Well as I said, the regular meetings we have with them. Sometimes I teach the class and discuss what they have seen okay. The same time the health department and mathematics or Physics or English. They themselves will give up this citation of their own experience and as I said this is ongoing. And sometime we ask our regional director who's in charge of all the schools also to come and meet and discuss these things. And in our school because it's a network directors meet once a year from all over the world to discuss concerns and how we can add to our schools.' [Transcript 8].

Summary and conclusion for knowledge culture

One method used by principals to increase Externalisation knowledge sharing is by encouraging innovation and creativity, conducting workshops and professional development, training, and sharing experiences, information and knowledge. The principal will either

conduct workshops to share specialist tacit knowledge that they have gathered through years of experience and study or they will ask a member of staff or a specialist from outside the school to conduct these workshops. During workshops or professional development this tacit knowledge is made explicit and communicated to the teachers. This is therefore Externalisation knowledge sharing that was directly influenced by Intellectual stimulation manifested by conducting workshops to teach teachers new ideas and solutions to problems. The principals encourage teachers who have specialist knowledge in a field to share their knowledge and experience with other teachers through workshops and professional development training sessions. Tacit knowledge gathered from experience and studying is made explicit and communicated during workshops to other teachers, therefore the type of knowledge sharing used is externalization. The principal is encouraging teachers with new techniques and solutions to teaching to share these new ideas, hence the style of leadership is Intellectual Stimulation because the teachers will learn new techniques and solutions to help them identify and solve problems creatively. Intellectual Stimulation is effective in encouraging externalization when the principal encourages and supports the administration and teachers to run workshops to share their specialist knowledge to the other teachers. By forcing all the teachers to share new creative ideas that they have successfully used to solve problems with the other teachers from different subjects, it will give the other teachers more ideas and solutions on ways to improve their teaching and solve problems. Because the principal is encouraging the sharing of new creative ideas the style of leadership is Intellectual Stimulation.

6.20 Intellectual stimulation and combination

One main theme emerged with regard to the leadership style of intellectual stimulation and how it is used to encourage Knowledge Sharing through Combination. This theme is 'culture of trust and team work.

6.21 Trust and team work

'Well the first one is that they plan in teams and so the fact they have times to plan in teams, we will release all of the teachers in a year level at the same time so they plan the units of work, so they have the curriculum documents and they design the units to work. So they design those together, so all the teachers in ELC, all of the teachers in prep, all of the

teachers in grade one. They plan their own units of work, so they are responsible; they have a head of department that works with them. So the head of department sits in the meeting, so they are the technical expert, they know what the curriculum requires in English, Maths, Science, all of it. But its teachers who plan who share what they do, who share their resources and often inside the team they'll share the work so somebody might lead the Maths, somebody might lead the English inside the team.' [Transcript 6].

'Discussions when we have a meeting, everybody will say I encountered this situation and this is how I handled it and we will discuss it. Someone else as encountered another situation, sometimes I ask the head of the department to bring all these issues to our meeting and we say okay lets discuss we have these things, now let's hear from you how we can solve these issues. So it could be videoing in meetings and also on one-to-one meetings and also to remove the pressure, the peer pressure. You can say two teachers could be meetings together to express this issue, help one another. Which there is no personnel from the administration attending which is very comfortable and you can discuss it openly and then we encourage people to come forward.' [Transcript 8].

'During the day they have preparation time so they are welcome to sit together and meet and we encourage teamwork, especially when there is test writing or there is preparation for lessons. They sit together and they share experience, they share the same lesson plans, they share the same ideas. So this is always encouraged, this is done at all levels.' [Transcript 8].

'Yes, at departmental level, for example, in the subject specialist areas the middle leaders are obliged to have a weekly meeting where they actually do discuss the progress of the departments and their then again obliged to listen to the input of each member of their subject specialist team and the same happens on a year coordination basis in the primary place of the school. And this is the best way I feel, in the current structure of the school where we can actually be sure that everybody is being heard or the creative elements in the teachers are being tapped.' [Transcript 10].

'Well we pick particular themes, for example at the moment we think we are not very good about data. What data do we collect, how do we use it, how do we, how do we analyse it, we think we need to do this better. So that's the theme so therefore we have a number of meetings in and around that, let's look at what we are collecting so that might be run by the

curriculum coordinator and then we might break that down into let's go look at it and let's go and analyze it, how do we analyze it, what are we analyze it. That's a small example.' [Transcript 9].

Summary and conclusion for trust and teamwork

Principals emphasize the importance of trust and teamwork. One method used by principals effectively to encourage Combination knowledge sharing by Intellectual stimulation is to get teachers to plan in teams, share and generate ideas together during meetings or to produce units of work in groups. This will increase knowledge sharing through Combination because explicit knowledge will be shared by a variety of teachers during the meetings, sitting together, and working in teams and this knowledge will be collected together and combined to produce new explicit knowledge. The teachers and principals are using the curriculum documents and they work together to design the units, therefore this style of leadership is Intellectual Stimulation because the principal is helping the teachers to be creative in designing the units of work. Intellectual Stimulation will help share Combination knowledge when the principal encourages teachers to meet up to discuss, share and generate ideas. The school has weekly meetings that allow everybody to be heard and that the creative elements in the teachers are being tapped. This style of leadership is Intellectual Stimulation because the principal is encouraging and supporting teachers to be creative and come up with new ideas. Again Intellectual Stimulation encourages meetings and discussions that share knowledge in a Combination type of knowledge sharing, explicit to explicit. The principals give an example of how the school is not very good with data, he then organizes meeting around that theme to come up with new ideas on how the school can improve on how they look at and analyze data.

6. 22 Intellectual stimulation and internalisation

One main theme emerged with regard to the leadership style of intellectual stimulation and how it is used to encourage Knowledge Sharing through internalisation. This theme is 'Culture of care'.

6.23 Culture of care

'For example when we train a teacher who is not trained in the American curriculum say coming from the Lebanese curriculum the first we do we is we appoint a mentor for him a teacher who has been working with us in the American curriculum for a long time that person teaches him about we make a lesson plan how we introduce material to the kids about the idea of student centered classroom instead of the traditional teacher centered classroom of course also we have heads of departments who always keep teachers updated about how is the curriculum being implemented in different grade levels' [transcript 1].

'Well not really that's a difficult one. We have an informal introductions for all new teachers here, for instance in the week before formal school starts when the teachers are here but not the students, I personally spend at least two hours with all the new teachers collectively and speak to them about life in the Emirates. They also have presentations from other staff on specialist subjects, so that for instance, advice on driving, the morality laws, attire, how to get a driver's license and so on is all dealt with in as palatable and digestible way as possible so that people not just feel welcome but at home quite quickly and knowing what is expected of them and what the system expects of cause.' [Transcript 4].

'Yeah I would say last year we moved particularly to the Australian national curriculum, before it was a curriculum in each of the states in Australia we're Queensland. And now there is an Australian National curriculum, so last year there was a very big job to get teachers understanding the Australian curriculum documents and how they implement them in their different year levels. So a very big program right across the year with the heads of curriculum leading that development.' [Transcript 6]

'Well then you give him orientation, you have to give them orientation of the school. Show them the building the facilities, we have to show them, explain to them the school policy. Every institution has different regulations and we introduce them to those. We have to show them the testing system that we have, we have to show them the visual aids that we have in our school, smart boards whatever. We have also to show them and train them to follow our guidelines okay that they can talk later on as well, we mentioned earlier, be more imaginative and creative. But we owe them this when they come over here they know nothing about the school, even if they have come from another school even if they have teaching experience, it doesn't mean they can apply it at our school. To a certain extent maybe yes, but they cannot

apply everything because we have different regulations. And so we have to give them the orientation regarding all these steps and this is as I said, it doesn't stop we give training to teachers at the beginning of the year, but it's ongoing.' [Transcript 8].

Summary and conclusion for culture of care

Principals believe the importance of having a culture of care in schools. During the qualitative interviews the principals highlight various ways that they use Intellectual stimulation leadership style to encourage knowledge to be shared through Internalisation. Explicit knowledge is shared with new teachers during inductions, through school manuals or by assigning a mentor to give instruction on organisational knowledge. This is therefore Internalisation because knowledge is going from explicit in the form of inductions, manuals or mentors and becomes tacit knowledge when the teacher uses this and it becomes embedded. The principals assign a mentor to new teachers who are not familiar with the school curriculum. This mentor explains how the school makes lesson plans; introduce material and other organizational knowledge. This explicit knowledge is shared from the mentor to the new teacher who will then take and use this knowledge in the classroom until it becomes embedded as tacit knowledge. The principal is trying to introduce a new curriculum in the school, so trying to change and improve the organizational knowledge within the school. Because the principal is encouraging new ideas and trying to improve the organizational knowledge the style of leadership used is Intellectual Stimulation.

6.24 Contingent reward and socialisation

One main theme emerged with regard to the leadership style of contingent reward and how it is used to encourage Knowledge Sharing through Socialisation. This theme is 'Communally celebrating success.

6.25 Communally celebrating success

'We communally celebrate success. We provide recognition at assembly and thanks at assembly in front of the whole school. A recent example, for example, when I had three of my teachers lead on the Filipino crisis. So we had a nice big resounding session of applause for them, for all that they had done in collecting money for charity. Written recommendation,

written letter, thank you notes and then of course as I said earlier, we do have the occasional joint outwards.' [Transcript 10].

'I think because we encourage teachers financially and by honouring them to show the leadership skills they are more enthusiastic to invite teachers to go to their classes they are more enthusiastic to conduct workshops to share their experiences with their colleagues' [transcript 1]

'Everybody is interested in money of course and they do, but I don't want that they are doing this for the money, of course I would want that they are doing this for the school, for the students. Some of them they like it and some of them they are not interested even in the money. You know this is the 25% what you paid for. So I can say it helps the school it's not bad and if you do this in front of the group then the others see okay principal is seeing what we are doing, he is recognizing what we are doing and he gives feedback and I am happy for myself, he understands.' [Transcript 3].

'I think this is very significant, because we have more for the school when the teachers are more motivated to do their job so if they like to come to school and they like to do extras, this is good for the community for the students. And if one teacher starts with one idea and the other teachers see him and they see how successful he is then they come to him, can I help you, can I learn from you, can we do it together and later they do alone. Yeah I can say for myself we have a good atmosphere here at school at the moment, everybody is open.' [Transcript 3].

Summary and conclusion for communally celebrating success

The principals highlighted the importance of rewarding teachers publicly. When teachers see other teachers being rewarded and celebrated publically, they seek to find out why the teacher was rewarded and try to become involved with the rewarded teacher. By spending time with the rewarded teacher they will learn tacit knowledge which is hard to formalize and can only be learnt through shared experiences, eventually this knowledge will become tacit knowledge for the new teacher. This type of knowledge sharing is Socialisation and was directly influenced by rewarding and celebrating teacher publicly using Contingent reward style of leadership. By honouring and rewarding teachers financially, they become more enthusiastic and this leads to more peer observations to share their knowledge. This Contingent Reward

style of leadership encourages peer observations where knowledge is shared tacit to tacit, which is Socialization.

6.27 Contingent reward and combination

One main theme emerged with regard to the leadership style of Contingent reward and how it is used to encourage Knowledge Sharing through Combination. This theme is 'Culture of trust and relationship'.

6.28 Culture of trust and relationship

'we also share any time I read an article in any education magazine or scientific magazine and I find that it is interesting and would help my teachers when they are conducting their classes or even to improve their teaching styles I share this with my teachers either sending them shortcut the URL shortcut or photocopying the article from the magazine and leaving it in the boxes for the teachers I see many of them come back to me later to discuss the content of that material and they talk to me about it so I think it is working because they know that when they are showing interest in what we are doing in the school they are rewarded and they are honoured all the time.' [Transcript 1].

'I do think that's really important you need that culture of trust and you need that culture where people realize that making a mistake is okay, they won't be punished for that. You can't have innovation creativity if you have punishment so there's got to be a clear understanding that trying new things is encouraged and celebrated in the school. Obviously there are a set of school values and you have to stay inside the schools expectations but you have to have this culture which celebrates achievement and encourages innovation or teachers won't do those things. In some schools, where I've taken over schools, when there before. You sometimes find that teachers have got a much closed door, they like to do what they are doing inside their room. Whereas really good schools are very open and people are sharing information, sharing ideas, sharing resources, talking a lot about kids, talking a lot about what they are doing and I hope that's the sort of school that we have here.' [Transcript 6].

'No no no, I do it. I mean, nobody knows my staff more than I do. The heads of department

'We are in constant communication with each other as a leadership team, we discuss every shortcoming and every success together. So I will take it and I suggest, and sometimes if the increase comes from regional office and I feel it needs to be raised. Yes, I will ask them to push it high.' [Transcript 8].

Summary and conclusion for culture of trust and relationship

Principals highlight the importance of trust and relationship. The principals highlight various ways that they use Contingent reward leadership style to encourage knowledge to be shared through Combination. One method used by the principals is honouring and rewarding teachers who show an interest in sharing and discussing ideas in the school, sharing and reading together, providing good work environment, providing a culture of trust, encouraging openness, and encouraging constant communication. Another method used by the principals is by not looking for and punishing mistakes, but rather celebrating achievement and innovation, and providing good working atmosphere and environment. This new knowledge is then shared among other teachers in the school in the form of explicit knowledge meaning Combination is the type of knowledge sharing attribute used. Combination knowledge sharing was influenced by using Contingent Reward style of leadership to reward and honour teachers who show an interest in the school and who are sharing knowledge amongst each other. Rather than punishing mistakes the principal prefers to encourage and celebrate achievement and innovation. The rewarding of achievements and innovation would fall under the Contingent Reward style of leadership, but there is encouragement for innovation and new ideas which could arguably be classed as Intellectual Stimulation. The principal believes that this reward and celebration encourages the teachers to be more open and share ideas and knowledge with each other. The knowledge is shared explicit to explicit through discussions therefore the type of knowledge shared is Combination.

When both of these methods are used the teachers will feel free and motivated to share explicit knowledge they learn from educational or scientific articles and internal knowledge because they know they will be praised and rewarded for showing an interest. This explicit knowledge will be discussed, shared and then combined and edited to produce new knowledge. This new knowledge will then be shared among other teachers in the form of explicit knowledge. Combination is therefore the way that knowledge is shared and it was influenced by using Contingent reward style of leadership. The principals are honouring and rewarding teachers who show an interest in teaching and improving their skills and by

honouring and rewarding them, the teachers are coming back to him to discuss the ideas. During discussions knowledge is shared explicit to explicit which is Combination and this was encouraged by using Contingent Reward style of leadership. So by honouring and rewarding teachers it seems to have a direct impact on the teachers in encouraging them to discuss and share knowledge. This could be because they know if they show an interest in sharing and discussing ideas they will be praised and rewarded for this. The principals and the teachers are regularly sharing explicit knowledge is the form of educational or scientific articles and internal knowledge, which is then combined and edited to produce new knowledge. The principals meet regularly with the heads of departments to discuss shortcomings and every success. Because the principal and the heads of department are in constant communication the type of knowledge sharing is Combination, explicit to explicit. The principal does not directly mention rewarding but he mentions they discuss every success, therefore it shows there is lots of recognition for teachers who are successful. Hence, the Combination knowledge sharing it may argue has been influenced by this Contingent Reward of recognition.

6.29 Summary of quantitative and qualitative findings

Relationships	Themes	Categories
IIB -Socialization	Leading by example	Hard work, trust and openness, , not talk act,, setting a good example, social interactions and communication, praise and recognition, open door policy and accessibility
	Empowering teachers	Collective cognitive responsibility, participation in decision making, collective consensus and consultation, encouragement, observations, ongoing support and assistance.
IS ->Socialization	Culture of knowledge sharing	Innovations and creativity environment, space for knowledge sharing, assistance and on-going peer observations, encouragement, reward and support, Confidence building and self -efficacy
IS..Externalization	Knowledge culture	Sharing spirit for innovation and creativity, conducting

IS ->Combination		workshops, training, sharing new experiences and specialist knowledge, financial assistance for professional development, socializing, thinking out of the box spirit.
	Culture of Trust and team work	Ongoing evaluations and assessment, Planning in teams, sharing new experiences and ideas, discussions, meetings, team working, sitting together.
IS..Internalizatio n	Culture of care	Appointing mentors, training, keeping teachers updated, talking and giving presentations to new staff, induction to new teachers, socialising and coaching, peer observation
IC- Externalisation	Mentoring	Peer observations, advising and guidance, professional development, training and appraisal performance, coaching and support
CR - >Socialisation	Communally celebrating success	Encouraging teachers financially, honouring them in public, sharing and discussion experiences, providing recognition and thanks, motivating the staff, openness and trust,
CR>Combination	Culture of trust and relationships	sharing and reading together, sharing valuable material with the staff, rewarding and honouring the staff, providing a good work environment, providing a culture of trust, encouraging trial and error, encouraging openness, celebrating achievement and innovation, constant communication, Knowing the staff.
MBEA…Combin ation	Culture of trust and collaboration	Openness and trust, discussion and sharing experiences, encouragement of teachers, cooperation and collaboration, working together in teams.

6.30 Chapter summary

The purpose of the quantitative study was to test the hypotheses to confirm the relationship between leadership styles attributes of transformational, transactional and laissez-faire leadership and knowledge sharing attributes in the context of secondary school in Dubai. To test the hypotheses an online questionnaire was sent to 300 teachers of secondary schools in Dubai private schools. The results of the questionnaire showed that three dimensions of transformational leadership (Idealised influence behaviour, Intellectual stimulation and Individualised consideration) all have a positive correlation with knowledge sharing. The results also showed that two dimensions of transactional leadership (Contingent reward and Management by Exception Active) have a positive correlation with knowledge sharing. The purpose of the qualitative study was to add value to the quantitative study by extending prior research adding and explaining the conceptualisation of knowledge sharing in Dubai context. Model explaining the concepts are introduced below.

CHAPTER 7: DISCUSSION

7.1 Introduction

On one level the study provides added impetus and support to the combination approach towards leadership styles. Rather than proclaiming one particular leadership style to be the dominant approach, it indicates where a leadership style is more effective for achieving a particular task. In this case it was the attributes for knowledge processes as based on the SECI model. Another possible argument from the findings however, is to argue that in terms of leadership styles, transformational leadership rather than transactional, Management-by-exception, or Laissez-Faire was the only leadership style to be significantly related for each of the knowledge process attributes, based on the attributes from the SECI model. It might be implied, therefore, that overall a transformational approach is more effective than any of the other leadership styles considered. Going a stage further, as Intellectual stimulation was the only leadership attribute to be significant for each of the four SECI knowledge process attributes; it may be argued that Intellectual stimulation is the most relevant leadership attribute within transformational leadership for achieving knowledge processes in the context. A dent to this argument is with the level of significance for the knowledge attribute combination. Where although there was a significant relationship for transformational leadership and combination, the level of significance for transactional leadership through contingent reward was shown to be much greater, and hence, arguably, CR would form a more effective leadership style for achieving the knowledge process attribute 'Combination'. Hence justifying the continued argument that a combinational approach for leadership style is still the most effective method.

First, the work offers further support to the distinctive attributes of transformational leadership and transactional leadership. It was stated above; the most significant knowledge attributes were socialisation and combination. Socialisation was significant with 3 leadership attributes, two of these attributes fall under transformational leadership (IIB & IS). Socialisation in the knowledge process emphasises social networking, and the importance of tacit knowledge. The other knowledge process attribute that was significant with the greatest number of leadership attributes was combination. Combination was also significant with 3 attributes, with two of these coming under transactional leadership (CR & MEA). Combination can be more strongly associated with explicit knowledge. Second

transformational and contingent reward leadership seem equally important for facilitating knowledge sharing. The study findings suggest that both transformational and transactional leadership behaviours are essential to knowledge management process and knowledge sharing in particular. The creation of a successful KM process, however, depends on how well leaders can balance transactional and transformational behaviours. Leaders who choose transactional behaviour will work within current culture and follow existing norms, values, and procedures. In this sense, transactional leadership behaviours reinforce current KM practices. Transformational leadership behaviour, in contrast, allows top executives to adapt organizational culture and realign it with the new vision, when needed (Bass, 1985, 1998).

Furthermore, the findings indicate that charisma and contingent reward are the most effective leadership behaviours for knowledge sharing. Leaders should, therefore, focus on developing these leadership behaviours, depending upon the situation. They should build respect and trust based on working with individuals, on setting up and determining agreements in order to achieve specific goals, or clarifying expectations, and on providing rewards for successful completion of tasks or sharing knowledge. Finally, by using an appropriate blend of transformational and transactional leadership styles, managers can increase firms' levels of knowledge sharing. Firms that are able to better manage their knowledge assets will create a knowledge-sharing environment. The qualitative stage of this study is based on and extends prior research as it takes knowledge sharing to a next level by contextualising how knowledge is manifested in Dubai. The section below explains the conceptualisation of knowledge sharing.

7.2 Transformational leadership is positively related with knowledge sharing

7.3 Idealized influence behaviour (IIB) and socialization

The first significant path was idealized influence behaviour for Socialization (IIB) (B=.25, p<.01), the effect of IIB on Socialization was positive then the higher was the levels of IIB. This significance for IIB might be explained by the fact that leaders influence and inspire followers and provide them with energizing and clear sense of purpose, being a role model for ethical conduct, building identification with the leader and his vision. Hence, the process of knowledge sharing can be associated through leaders' idealized behaviour leadership. When considering knowledge processes, the association with all the knowledge attributes was

positive, with the socialisation attribute being significant. This may be expected given the tacit to tacit relationship within socialisation. Socialization is primarily a process between individuals, where new tacit knowledge is established and it is pushed through by Social interaction as tacit to tacit knowledge transfer, sharing tacit knowledge through face-to-face or shared knowledge through experiences. For example, meetings and brainstorming exercises can support this kind of interaction. Since tacit knowledge is difficult to formalize and often time and space specific, tacit knowledge can be acquired only through shared experience, such as spending time together or living in the same environment. For example capturing knowledge by walking around and through direct interaction with teachers as well as the people inside the organization is part of socialization. Followers view their leaders as role models thanks to their ability to lead by example. The next subsection will explain and elaborate how knowledge sharing id manifested through the core values 'leading by example and empowering teachers.

7.4 Leading by example

School leaders place a lot of emphasis on ensuring that teachers can see that even though they may be the principal of the school, they are 'hands-on' and are very much involved in the school. They place a lot of emphasis on taking a positive approach. They describe this as a key aspect of their role in sharing knowledge because the teachers will see they are positive and will take the knowledge in a positive manner. School principals feel that it is important for them to undertake activities and responsibilities that they expect their teachers to fulfil. In that respect, they are leading by example which add credibility to their requests. They describe this as a key aspect of their role, one that requires them to do actions in front of people rather than tell them. Leaders can lead by example through observing the teachers and when they see a teacher struggling to teach a point, the principal will step in and teach the class to demonstrate how to teach that particular point without having to tell them. Leading by example in this context is through acting in a certain way to try influence the staff imitate their actions and behaviour and through observing and spending time together by showing others where you want to go. Principals when leading by example school leaders take the tacit knowledge they have developed from years of experience and they articulate this to the teachers as tacit knowledge. This example shows how knowledge can be shared through actions when leading by example. Knowledge is shared from the principal's example to the other teachers from tacit knowledge to tacit knowledge. By leading by example the teachers

will learn tacit knowledge which wouldn't be possible by principals just telling the teachers what to do.

'Not talk act. You don't have to tell them what to do. You do it yourself and they see you doing it, they follow suit. So by leading by example, you won't for example, consider to follow the students. So you go there and you show them, you do it in front of them. I mean you talk about punctuality without causing any embarrassment to somebody and you talk to the students. People are observing, watching how you dealt with that issue etc. So this is a little example that they can see and they follow suit.' (transcript 12, 2014).
'Well I think if you set the example you show others where you want to go. If you work hard, set that example other people are prepared to work hard if they see you working alongside them rather than just directing them then they are prepared to do it. It's like we talk about what we call a model of servant leadership, I'm here to serve the school community so therefore I'm here to support you let us do it together rather than you do it on your own.' (transcript 9, 2014)

The findings show that the presence of dissimilar context and isolation of teachers in Dubai schools demand the presence of leadership leading by example. This contributes to the culture of knowledge sharing which is usually a lack of motivation among teachers ability to share knowledge. The results are in line with prior research studies (Whisnant, et al, 2014; Behery, 2007; Politis 2002; Jabnoun, 2007; and Awad and Ghaziri, 2004) where leaders provide vision and sense of mission, instil pride, and behave as role models for their followers. To effectively lead by example school leaders in this study provide their followers by action with a sense of purpose and challenge through idealized influence. This is in agreement with Anastasia (2013) who explains that this type of leadership cannot be effective if leaders do not first lay foundation based on consistent goals and standards. The findings are in agreement with those of Becerra-Fernandez et.al (2008) who found out that if leaders lead by example; it shows that that they are committed to their work. Furthermore, they are able to guide subordinates on how effective performance can be attained, thus increasing their efficiency through observational learning.

Studies (Connelly, 2000 and Syed-Ikhsan, 2004) aiming at improving how knowledge is shared across an institution, found out that leaders are in an ideal position to drive change

through leading by example. According to Bass and Bass (2008), leaders are in a unique position to accurately establish whether the right people are acquiring the knowledge and using it to add value to the institution. From the results of the current study it comes out clearly that teachers will be influenced by their behavior and go to others and repeat the positive behavior. When leaders lead by example, they shape the values of the learning institution and create a support system that initiates and manages change in an effective manner. In addition it also contributes to presence of direction from management, because knowledge sharing approaches such as best practice transfer and lessons learned will bring alignment with the institutions strategy. Researchers (Wall, 2012 and Looney, 2003) that have examined transformational leadership as a form of visionary leadership and which is positively associated with leading by example, have greatly reinforced their work in this research finding. This was an indication that, principal's communication in leading the teachers by example towards goals achievement was successful which is in line with the finding of the current study Most of the times, the head teacher and senior leaders are accountable for the rigidity to teach students. Such actions of leading by example are particularly normal in secondary schools. A principal shows that he/she is committed to lead by example by being the hardest working individual at the learning institution (Plowman et.al, 2007).

It is important to lead by example because leaders set the course by assisting other people to see what the future holds. Bass and Bass (2008) stress that leading by example is a characteristic of true leadership. A gathering of people with poor leadership will rapidly result in conflict since every individual perceives things differently and will intrinsically lean toward differing solutions (Bolden et.al, 2003). Podsakoff et al. (1990) argue that this dimension of transformational leadership sets an example for employees to follow that is consistent with the values the leader espouses. They added that such practices may enhance teachers' beliefs about their own capacities; their sense of self-efficacy. Bryman (1992) added that robust personal characteristics of leaders' impact can be explained through their modelling effect: for example, energy, honesty, integrity, self-confidence, initiative and persistence. Leithwood et al (2000) argued in their review of research about specific included in this dimension by highlighting that the leader acting as a role model, leading by doing rather than only by telling.

This is in agreement with Kai-wing Chu, (2016) who emphasized the influence of a principal's leadership in encouraging knowledge management (KM) implementation and the

following KM processes in the school. Kai-wing Chu, (2016) contend that KM "cannot" be implemented without the principal's effective knowledge leadership. Moreover, he argues that leadership leading by example is essential for KM implementation, especially at the beginning of the KM processes. The principal acted as the knowledge leader with the roles of the knowledge vision builder, knowledge enabler builder and knowledge role model. The roles of knowledge leadership are found to be critical for the process of KM implementation to facilitate sharing information and knowledge and nurturing a sharing culture and trust.

7.5 Empowering teachers

The school leaders in this context, use the leadership style of Idealised Influence Behaviour to empower teachers to share knowledge is through valuing teachers as important contributors of knowledge, providing support to teachers, and by encouraging the teachers to share knowledge through peer observations. For example, this was evidenced when new teachers arrive at the school the principals like to assign mentors or helpers to help the new teachers settle in and so that they can learn from more experienced teachers. They do this by giving experienced teachers' leadership roles such as a mentor or a helper and then providing them with support with this role. They also encourage teachers to visit other teachers while they are teaching for peer observations. From the previous chapter, the interviews showed that in Dubai schools there is dissimilar context, isolation of teachers in schools, lack of feeling important and valued among teachers. Empowerment is important because people want power because power makes people feel important thus motivating them.

In agreement with Xue, Yajiong (2011). The author examined the impact of team climate and empowering leadership on team members' knowledge sharing behavior. A research model was developed based on prior knowledge management studies. Survey data were collected from 434 college students at a major US university, who took courses that required team projects. The partial least squares technique was applied to test the research model .The findings have shown that team climate and empowering leadership significantly influence individuals 'knowledge sharing behavior by affecting their attitude toward knowledge sharing. These two constructs also have significant direct effects on the knowledge sharing behavior.

Leithwood et al (2000) argued that this dimension of transformational leadership includes practices aimed at providing both informal and formal opportunities for members of the school to participate in decision making about issues that affect them and about their

knowledge is crucial. They added that part of this dimension is for leadership practices that create discretion and autonomy for teachers to use their expertise to greatest effect. By empowering teachers will contribute their motivation to change by enhancing beliefs about the extent to which their working context will support their efforts to implement new practices in their classrooms and schools. The findings from the current study showed that true empowerment brings about higher professionalism because teachers take responsibility for and are involved in the decision-making process. According to Kotter (2009) who agrees with these findings, teacher empowerment brings about a better organization and the trust and resources are being provided to develop teachers as professional in schools, school leaders need to ensure that they are accountable and acting in a suitable way while maintaining school improvement efforts so as to impact student learning positively. Leaders' empowerment can help explain and elaborate how knowledge sharing is manifested through their practices described below.

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                    ┌─────────────────────────┐
                    │ Idealised Influence     │
                    │ Behaviour               │
                    │ and Socialisation       │
                    └─────────────────────────┘
                              │
          ┌───────────────────┴───────────────────┐
 ┌──────────────────────┐              ┌──────────────────────┐
 │ Empowering Teachers  │              │ Leading by examples  │
 └──────────────────────┘              └──────────────────────┘

 ┌──────────────┐                       ┌──────────────┐
 │ Participation│                       │  Hard work   │
 │ in decision  │                       └──────────────┘
 │   making     │        ┌──────────────┐        ┌──────────────┐
 └──────────────┘        │ Encouragement│        │ Trust and    │
                         └──────────────┘        │ openness     │
 ┌──────────────┐                                └──────────────┘
 │  Reaching    │                       ┌──────────────┐
 │  Consensus   │                       │ Actions over │
 └──────────────┘                       │    talk      │
                                        └──────────────┘
 ┌──────────────┐                                ┌──────────────┐
 │  Collective  │                                │ Setting a    │
 │  cognitive   │                                │ good example │
 │ responsibility│                               └──────────────┘
 └──────────────┘       ┌──────────────┐
                        │  Ongoing     │ ┌──────────────┐
                        │ support and  │ │ Praise and   │
                        │  assistance  │ │ recognition  │
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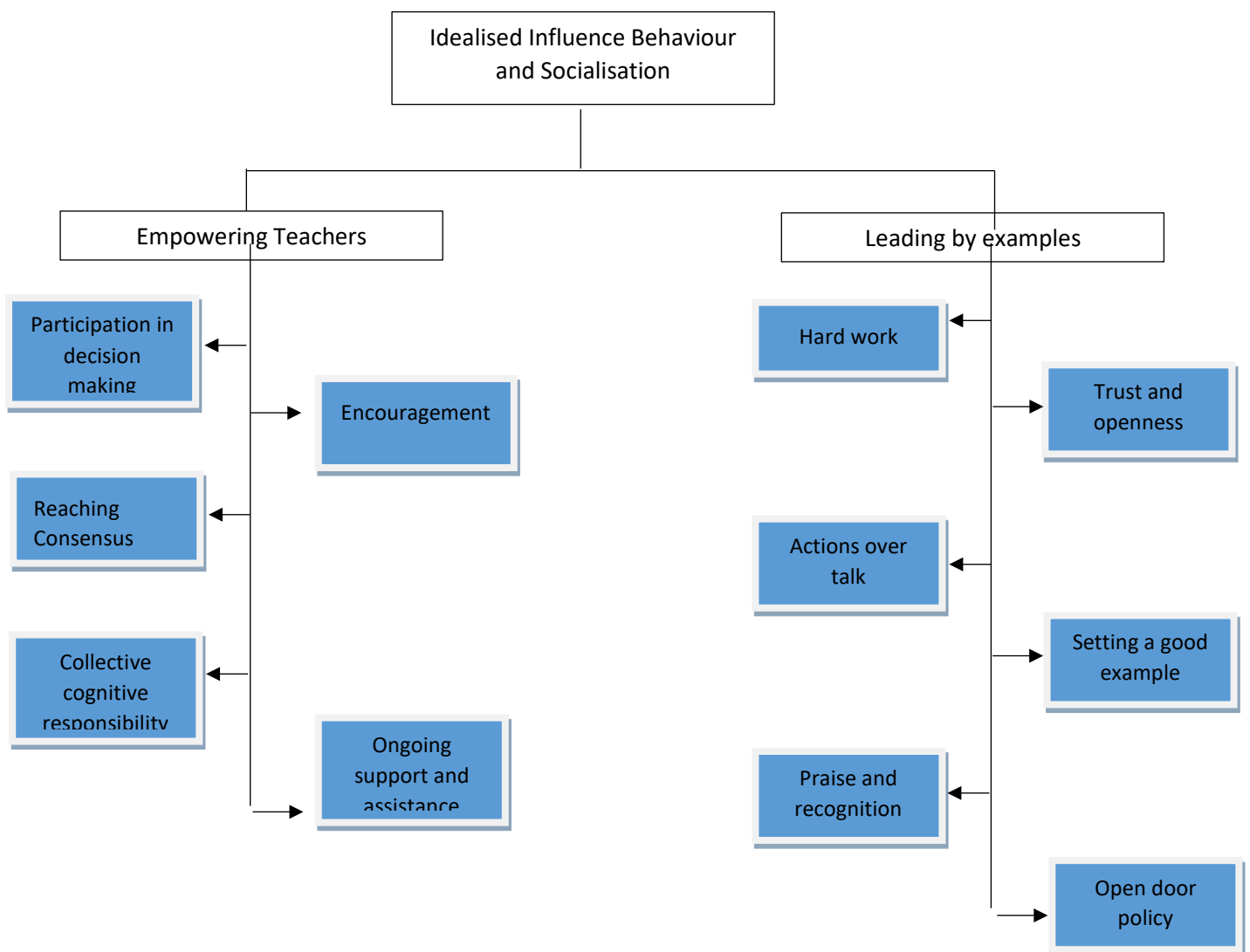
7.6 Individualized consideration and externalization

The path of individualized consideration on Externalization, was significant (B= -.20, p<.05), which addresses the reverse relationship between the two components. The higher is individualized consideration, the lower would be the Externalization and vice versa. When considering knowledge processes, the association with all the knowledge attributes was positive, with the externalization attribute being significant. This may be expected given the tacit to explicit relationship within externalization. Explicit knowledge can be acquired only through shared experience, such as spending time together. Hence, the process of knowledge sharing can be achieved through leaders' individualized consideration leadership. This might be expected given the required task and the need to encourage individuals to make tacit information explicit.

Individualized Consideration is positively correlated for each of the attributes, but significant for knowledge externalization through developing factors, which embed the combined tacit knowledge which enable its communication. For example, concepts, images, and written documents can support this kind of interaction. When tacit knowledge is made explicit, knowledge is crystallized, thus allowing it to be shared by others, and it becomes the basis of new knowledge. Leaders with these traits have an influence on knowledge sharing in a positive manner. Hence, the process of knowledge sharing can be achieved through leaders' individualized consideration leadership. Regardless of how it was measured individualized consideration was more highly related than any other leadership style. When considering the range of knowledge attributes. Individualized consideration is generally associated with encouraging subordinates to become motivated to transcend their own self-interests for the good of the group or organization. This significance for individualized consideration might be explained by the fact that leaders on individualized consideration spend more time coaching, assessing individual needs, and helping team members in developing their strengths. The next subsection will explain and elaborate how knowledge sharing id manifested through the core values 'mentoring of teachers.

7.7 Mentoring

The findings show that principals report that mentoring individuals is not only critical but a significant component of knowledge sharing. Mentorship helps improve standards of teaching practices and learning. It facilitates knowledge to be shared from experienced

teachers to less experience and newly recruited teachers. This implies that a mentoring system is a distinct process of exchange involving two parties where one is a significantly established, proficient and experienced individual one while the other is an eager novice party that is lower ranked. In this process, the school leaders in this finding offer professional insight and support for the benefit of the junior's career. Principals when mentoring teachers take the tacit knowledge they have developed from years of experience and they articulate this to the teachers as explicit knowledge. This example shows how knowledge can be shared through actions when mentoring. Knowledge is shared from the principal's example to the other teachers from tacit knowledge to explicit knowledge. By mentoring the teachers will learn explicit knowledge which wouldn't be possible by principals just telling the teachers what to do. School principals place a lot of emphasis on ensuring that new teachers are assigned a coach and mentor to help them settle in to the school and living in a new country.

'Yes we have a mentoring program, it's very important for us, often people come from Australia here and it's their first time being out of Australia. So some of the mentoring is about understanding our school, why we do things the way that we do it, what life is like in this part of the world, how you adjust has a teacher to live and work in this part of the world. And so we attach mentors, I tend not to be mentor but if we find hard to match somebody who's about my age for example, then I might mentor.' [transcript 6]

There is evidence showing that when mentoring is not widespread in many Dubai schools due to different culture which impacts the way knowledge is shared. This evidence is in agreement with the findings by Alavi and Leidner (2001) which showed that mentorship helps improve standards of teaching practices and learning. It implies that mentorship facilitates knowledge to be shared from experienced teachers to less experienced and newly recruited teachers. In relation to the established relationships associated with Intellectual stimulation and combination, principals consider mentoring and team work critical for knowledge sharing. In agreement with Cabrera and Cabrera (2005), principals when mentoring teachers take the tacit knowledge they have developed from years of experience and they articulate this to the teachers as explicit knowledge.

The findings also show that principals emphasize that developing team work spirit and mentoring individuals is not only critical but a significant component of knowledge sharing. This implies that a mentoring system is a distinct process of exchange involving two parties where one is a significantly established, proficient and experienced individual one while the

other is an eager novice party that is lower ranked. In this process, the senior party offers professional insight and support for the benefit of the junior's career. Michelle (2009) stressed that a mentor is a supporter/a teacher or a leader offering support to a mentee /colleague through developing their abilities, proficiencies and competencies and knowledge on a particular provision. From a previous study by Alavi and Leidner (2001) a formal mentoring process is referred to as a supported and controlled process where a senior leader collaborates with a less experienced employee to be provided mentorship. On the other hand, an informal mentoring process is not provided by the organization, but is rather a spontaneous and voluntary process. Findings showed that for the duration of knowledge sharing process, an experienced employee collaborates with a less experienced employee where the leader not only teaches but also provides support to the subordinate throughout their career.

Nonetheless, the findings also evidenced that in the course of the last decade, other new types of mentoring processes have been introduced. Among them is the process where a younger employee mentors an older and experienced personnel instead of the vice versa. Based on the findings by Finn (2013) some of the factors that have brought about this reversed mentoring process include modern globalization, the need to make quick decisions and solutions to market requirements and rapid technological development. One of the interviewees said that modern day students who reach university and college levels have advanced skills in using computers, the internet and various web based technologies and are rather very eager to share this knowledge with others. This implies that the question is how to motivate senior employees to be willing to learn from younger people and how they should accept the subordinate to be their mentor.

Past scholars (North and Kumta, 2014) found out that there is a positive association between knowledge sharing and mentoring. Smith (2005) agrees that efficient monitoring is a recipe for outstanding networking especially in a school setting. In context of these provisions, the findings imply that networking represents active sharing of knowledge and information/interactions whose consequences are mutual growth. Further implication organizations should view a mentoring process as an investment to enhance socialization and increased knowledge sharing (Becerra-Fernandez et al., 2008). It has been established that among employees who have been involved in a mentoring program, there is a higher commitment in advancing knowledge sharing (Argote and Ingram, 2000). It is evident that mentoring processes support the teaching of students and their adjusting into educational

structures (both primary and secondary schools). Moreover, mentoring systems have also proven to be successful in higher educational institutions like Universities.

According to Al-Alawi et al. (2007), most organizations are currently using mentoring programs as method of knowledge transfer. Mentorship is centered on the fact that it allows the interaction of beginner employees with proficient and experienced employees (Yang, 2007b). Mentoring based knowledge sharing is beneficial and enables the creation abilities of the novice personnel to gain relevant insight that inspires their smooth blending into a firm (Gerald et.al, 2006). The benefits of mentoring programs to a firm are numerous among them: facilitating professional growth and proficiency and empowerment of mentees. This is in line with Du et al, (2007) who showed that mentoring provides a platform for the proficient and experienced mentors to transfer their skills and knowledge to the mentees which inspire efficient operation of a firm.
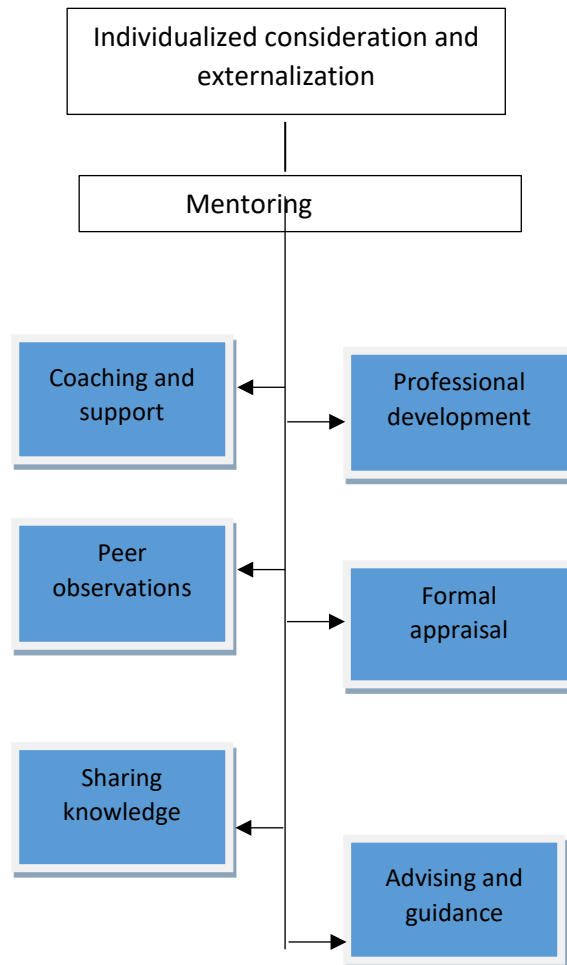
7.8 Intellectual stimulation and combination

The findings in this research report that a significant path was intellectual stimulation on combination (B=.25, p<.01), the effect of Intellectual Stimulation on combination was significant then the higher was the levels of Intellectual Stimulation, the higher would be the levels of combination and vice versa. Where school leaders, in this research findings, through intellectual stimulation help subordinates in re-examining critical assumptions to question whether they are appropriate and seeking differing perspectives when solving problems. They support followers as they try new approaches and develop innovative ways of dealing with organizational issues. A school leader encourages followers to think things through on their own, promotes workers' individual efforts, and engages in sharing knowledge and problem solving.

When considering knowledge processes, the association with all the knowledge attributes was positive, with the combination attribute being significant. Combination represents the creation of new explicit knowledge which is done through combining different types of explicit know. This significance for intellectual stimulation might be explained by the fact that leaders influence and inspire followers and provide them with energizing and clear sense of purpose, being a role model for ethical conduct, building identification with the leader and his vision. This may be expected given the tacit to tacit relationship within socialization. The new explicit knowledge is then disseminated among the members of the organization. The fact that intellectual stimulation allows followers to re-assess their decisions to determine their validity and application makes it important in combination process which blends distinct knowledge provisions to produce an explicit one. In considering the knowledge process attributes at individual, group or organizational level, intellectual stimulation has be shown to be critical for knowledge processes, for both tacit and explicit exchanges. A significant difference was noted in how intellectual stimulation relates to knowledge processes. Regardless of how it was measured, intellectual stimulation was more highly related than any other leadership style when considering the range of knowledge attributes. Intellectual Stimulation is generally associated with encouraging subordinates to think about problems in new ways. It now seems quite clear that the leader who is able to intellectually stimulate subordinates will amplify knowledge processes. The next subsection will explain and elaborate how knowledge sharing is manifested through the core values 'culture of trust and teamwork.

7.9 Culture of trust and team work

The principals use the leadership style of intellectual stimulation to foster trust and team work by getting teachers to plan, share and generate ideas together during meetings or to produce units of work in groups. This will increase knowledge sharing through Combination because explicit knowledge will be shared by a variety of teachers during the meetings, and this knowledge will be collected together and combined to produce new explicit knowledge. The principals help building relationships and focus and discussion enhances dialogue, build trust, and build staff capacity resulting in a cohesive, value-driven staff. By valuing teachers as important contributors of knowledge, providing support to teachers, and by encouraging the teachers to share knowledge through trust and teamwork. Knowledge is shared from the principal's example to the other teachers from explicit knowledge to explicit knowledge. By

fostering trust and teamwork teachers will learn explicit knowledge which wouldn't be possible by principals just telling the teachers what to do. School principals place a lot of emphasis on ensuring that teachers act as leaders and develop trust and relationship skills. They describe this as a key aspect of their role, one that requires them to support their staff and empower them through being involved and visible sharing and discuss their problems and their concerns. By listening to them and their problems and being close to them. These findings support insights in current literature on knowledge sharing with respect to the role of leaders and leadership styles, how they make a difference to foster knowledge sharing through building a culture of trust and teamwork. (Werner Rutten et al 2016 ;Rahman, et al, 2015; Mohammed Arif et al, 2015; Peralta et al, 2014; Pangil,et al, 2014; Wickramasinghe, et al, 2012; Holste, J. et al ,2010).

Trust and teamwork is one of the components contributing to knowledge sharing. The principals indicate that building teams and focus and discussion enhances dialogue, builds trust, and builds staff capacity resulting in a cohesive, value-driven staff. This implies that team work and trust seems to be one of the pillars in fostering knowledge sharing. There is a significant amount of literature available on building trust in schools. Specifically, studies have focused on teacher-principal and teacher-teacher trust in relation to school improvement and student learning. Bryk and Shneider (2002) indicated a connection between level of trust in a school and knowledge sharing and student learning. The authors find that *"trust fosters asset of organizational conditions, some structural and others social-psychological, that make it more conducive for individuals to initiate and sustain the kind of activities necessary to affect productivity improvements"* (p.116). The findings of the current study contend that trust alone does not guarantee organizational success, but schools with little or no trust show almost any improvement in knowledge sharing. This implies that trust among teachers lowers vulnerability and increases the likelihood that teachers will take risks and engage in tasks associated with reform and organizational change. Building trust between teachers is not easy task.

Hoy and Tschannen-Moran (1998) identify common barriers to developing and maintaining trust between teachers, principals, and leaders. The present study findings shows that the barriers identified, perceived top-down decision-making, ineffective communication, lack of follow-through, and teacher isolation is most common. Fahimeh and Zahra (2011) agrees that building a sustainable knowledge sharing environment in organizations in today's modern world requires the organizations to heavily build up on their knowledge sharing

practices. This contributes to knowledge sharing process because it emphasizes that no organization can afford to ignore the importance of teamwork, especially when it comes to managing an organization through knowledge sharing. Smith (2005) further agrees that it is important that organization's management be at a position to identify problems that hinder team members' interplay and obstruct better performance in knowledge management can make teamwork look sophisticated. Despite much of the knowledge being known to an organization, it remains highly unshared. Additionally, findings showed that in learning environment teachers should be able to share knowledge with the students. This implies that the critical role that the principal as the leader of a team plays in facilitating knowledge sharing within a team is very crucial in advancing trust and teamwork in organizations. Based on the findings by Hendriks (2004) it was recommended that how knowledge sharing can be increased within organizational teams through focusing on the role of leadership and trust in knowledge sharing. As a contribution to the knowledge processes, one of the ways of building trust and teamwork is through collaboration. Collaboration is a very important characteristic that contributes significantly to the success of teamwork.

The analysis of the findings showed that collaboration can be done in different models including collaboration between teachers and students in order to enhance knowledge sharing. This implies that by collaborating as a team, each party must be involved in every step, from goal setting to planning, information sharing, investing, responsibility, problem solving, and knowledge sharing. Therefore, the principal needs to involve the teachers in the entire process. For one to become a successful teacher through efficient knowledge sharing, there are various forms of knowledge that one must have. Specifically, explicit knowledge is a very important process for teachers. Teachers also encounter a lot of trouble understanding implicit knowledge, which is hard to translate and transfer and more institutionalized. This indicates that in-services teacher's center more on the knowledge creation process compared to knowledge creation features, since the latter is easier to obtain knowledge while realizing the vision of the school. So as to acquire high quality knowledge in reaching the objective of the school, school leaders ought to improve the knowledge management process. This implies there should be created a culture of creating new knowledge touching on innovation and creation, originating from collaboration with other teachers and students (Kahle, 2011). This can be a vital knowledge management process that school leaders should implement. Additionally, the knowledge management process can be much easier for school leaders if they are willing to accept opinions and new knowledge from other individuals. A study

conducted by Awas and Ghaziri (2004) maintained that teachers are aware that creating new knowledge is a vital as part of the positive process of improving their skills and creativity.

Obtaining new knowledge is seemingly vital in helping a school improve its academic performance. Hamlin (2004) agrees that knowledge acts as a benchmark to the credibility of learning institutions. Past researchers have stated that knowledge, as a significant asset, advances a school's performance, enhances competitiveness and is used as a tool of managing conflict. The study also disclosed that the self-validation practice is the main assessment process that in-service teachers use to enhance their teaching skills although it can bring about information imbalances. From the study findings, it is discovered that in order to acquire new knowledge, teachers must agree to share and dispense knowledge to the students. Nonetheless, it is important to underline that the knowledge sharing process can only be successful is teachers are willing to share and use knowledge in teaching. This implies that every party should collaborate together in order to understand the new knowledge. School leaders are responsible for motivating and encouraging teachers to share knowledge whether externally or internally. School leaders should widely use the incentives given to teachers in order to support knowledge creating and sharing initiative.

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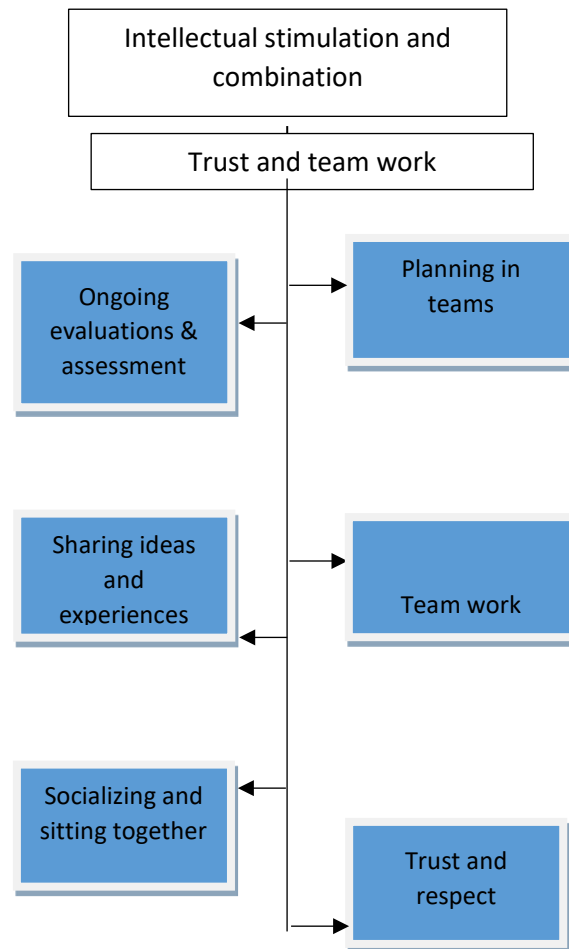
7.10 Intellectual stimulation and socialization

The findings in this research report that the path of intellectual stimulation on socialization, was significant (B=.34, p<.01), the effect of Intellectual Stimulation on Socialization was positive then the higher was the levels of Intellectual Stimulation, the higher would be the levels of Socialization and vice versa. Where school   leaders in this research findings stimulate followers to rethink old ways of doing things, reassess their old values and beliefs and Induce employees to appreciate, dissect, ponder and discover what they would not otherwise discern. The school leaders through intellectual stimulation instil feelings of power in followers to attain higher goals through socialized power rather than the "pure" charismatic leader who attempts to exert dominance and subjugate followers through personalized power.

When considering knowledge processes, the association with all the knowledge attributes was positive, with the socialization attribute being significant. This may be expected given the tacit to tacit relationship within socialization. Since tacit knowledge is difficult to formalize and often time and space specific, tacit knowledge can be acquired only through shared experience, such as spending time together or living in the same environment. Socialization typically occurs in a traditional apprenticeship, where apprentices learn the tacit knowledge needed in their craft through hands-on experience, rather than from written manuals or textbooks. In terms of knowledge processes, intellectual stimulation was seen to be significant for the knowledge attribute socialization. Intellectual stimulation may lend itself to this knowledge attribute given the need to set out expectations. The next subsection will explain and elaborate how knowledge sharing is manifested through the core values and practices of leaders 'culture of knowledge sharing.

7.11 Culture of knowledge sharing

These findings support insights in current literature on knowledge sharing with respect to the role of leaders and leadership styles, how they make a difference to foster knowledge sharing through building a culture of knowledge sharing. When the school leaders get teachers to take part in peer observations it will encourage knowledge to be shared through Socialization. They get them to observe classes which are unfamiliar to them, such as a different subject, so that maybe they can learn new ideas and help broaden their horizons.

The school leaders set expectations for knowledge sharing.
'Or we have one very interesting system maybe you heard about. We have a concept that teachers have to go to another teachers' lesson. Peer observation right; at the beginning we told them please find a friend of you. Okay a friend you know because lesson is a, how can I say, not parallel teacher, the other the peer is sitting at the back and watching. He has some questions and he is making notes about like peer and after the lesson the come together and gets feedback. Next term they change, no number will come to your lesson, number two you are coming to my lesson and this discussion is private.' [Transcript 3].
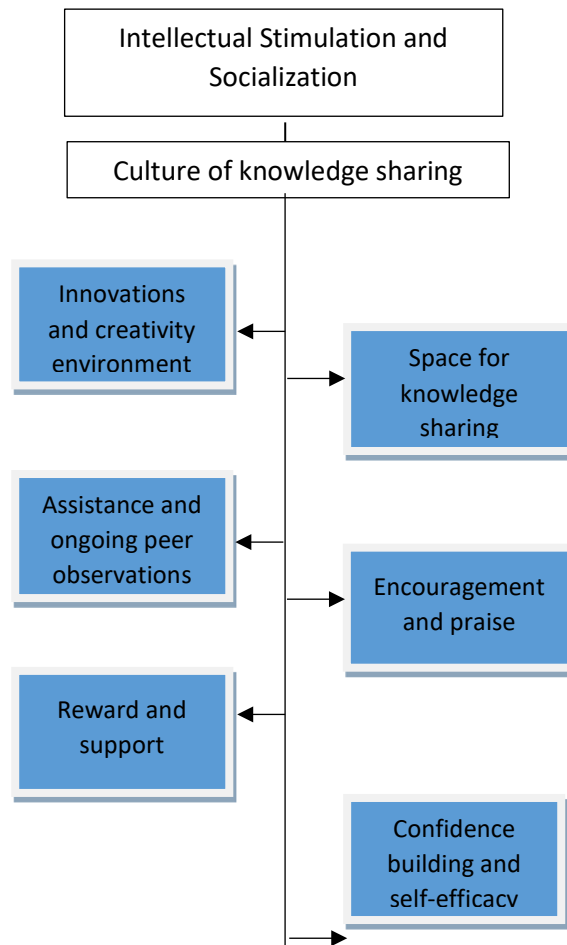They do this by encouraging teachers to look at their weaknesses and then work with a teacher to work with to help them improve their own skills. Another way of increasing knowledge to be shared by Socialisation is by the principal asking teachers to look at their weaknesses and then assigning a teacher to work with them who is stronger in that area. By

working with a teacher strong in a certain area they will learn through observation tacit knowledge. The principals use the leadership style of intellectual stimulation to foster a culture of knowledge sharing.

In Dubai, isolation of teachers in schools has been a key problem where knowledge sharing culture has been affected negatively. The results show that the principals consider developing a culture of knowledge sharing critical for knowledge sharing. In relation to the established relationships associated with Intellectual stimulation and combination, principals emphasize that developing a culture of knowledge sharing helps the organization (Carroll et al, 2003). The culture of knowledge sharing is critical to share knowledge and transformational leadership can positively be associated with all the dimensions of knowledge sharing as revealed by path analysis between the dimensions of knowledge sharing, transformational and transactional leadership (Gao, 2004). Bass and Bass (2008) also seem to agree on the issue that having a culture of knowledge sharing will result to higher motivation, which then makes them to transcend from their own self-interest to the better interest of the group or organization. Bass (1985) and Sergiovanni (1990) maintain that teachers are enabled to end their isolation and enhance knowledge sharing among themselves, if they are provided with individualized consideration; this helps in raising their morale and also provides them with the needed teaching and coaching (Du et.al, 2007). Though significant for knowledge externalization, Individualized Consideration positively correlates with each other in organizational culture attributes. This implies that it is a required task at hand and the need to encourage individuals make this expectation normal considering the required task at hand.

Transformational leadership style of principals and school culture was well addressed by the first research question. In all the factors of transformational leadership and all of the factors of school culture, the findings revealed that there was a positive relationship (Foss et.al, 2009). Increased levels of school culture could be associated with increased levels of transformational leadership as indicated by the results. Scope (2006) conducted a study and found out that, effective leadership was closely related to transformational leadership style and school culture, something that this study found to as consistent. Among all the factors of transformational leadership; the school culture factor and collaborative leadership was found out by this study to have a moderate to strong degrees of positive correlation (Ford and Chan, 2003). When schools prove that they can form and sustain relationships with the staff members through the assurance that they will feel valued and supported, as well as by

including them in the decision-making process, then they will be said to have attained collaborative leadership (David, 2009). Creating a shared vision, building trust and respect, providing support and encouragement, as well as involving others in the decision-making process is what Bass and Avolio (2000) characterize as transformational leadership.

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7.11 Intellectual stimulation and externalization

The findings in this research findings report that the path of intellectual stimulation on externalization, was significant (B=.47, p<.01). The effect of Intellectual Stimulation on Externalization was positive. Then the higher was the levels of Intellectual Stimulation, the higher would be the levels of Externalization and vice versa. Where Intellectual stimulation is commonly exhibited by leaders who inspire in their followers among other things; competence, ability to produce innovative ideas and creative thinking. The school leaders,

through intellectual stimulation instil feelings of power in followers to attain higher goals through socialized power rather than the "pure" charismatic leader who attempts to exert dominance and subjugate followers through personalized power (Ramirez et.al, 2007). Leaders' intellectual stimulation leadership stimulates followers to be creative and innovative and to challenge their own beliefs and values as well as those of the leader and the organization (Bass, 1985). This type of leadership style supports followers as they try new approaches and develop innovative ways of dealing with organizational issues. They encourage followers to think things out on their own, promote workers' individual efforts, and engage in sharing knowledge and problem solving (Bass and Bass, 2008; Tan, 2000).

When considering knowledge processes, the association with all the knowledge attributes was positive, with the externalization attribute being significant. This may be expected given the tacit to explicit relationship within externalization. The results are in line with prior research studies (Boer, 2005; Awad and Ghaziri, 2004).   Hamlin (2004) agrees that these leaders by availing to their followers the necessary requirements in abundance promote an internal learning climate. Intellectual stimulation challenges followers to find new and better ways to solve their problems or perform their tasks (Yaseen, 2010).   Generally, Intellectual stimulation enhances the ability of the followers to not only comprehend but solve problems by provoking their thoughts and changing their perceptions and beliefs to operate in the most effective manner. The next subsection will explain and elaborate how knowledge sharing is manifested through the core values and practices of leaders 'knowledge culture.

7.12 Knowledge culture

The principals use the leadership style of intellectual stimulation to foster a knowledge culture by encouraging teachers who have specialist knowledge in a field to share their knowledge and experience through workshops and professional development training sessions. Knowledge is shared from the principal's example to the other teachers from tacit knowledge to explicit knowledge. By fostering a knowledge culture, the teachers will learn explicit knowledge which wouldn't be possible by principals just telling the teachers what to do. Knowledge culture is defined and described in this context as follows:
'We encourage teachers to share experience even us in the administration sometimes we are not trained like I was trained for education twenty five or twenty six years back a lot of things that came later such as technology use of technology so when we have a teacher who is say
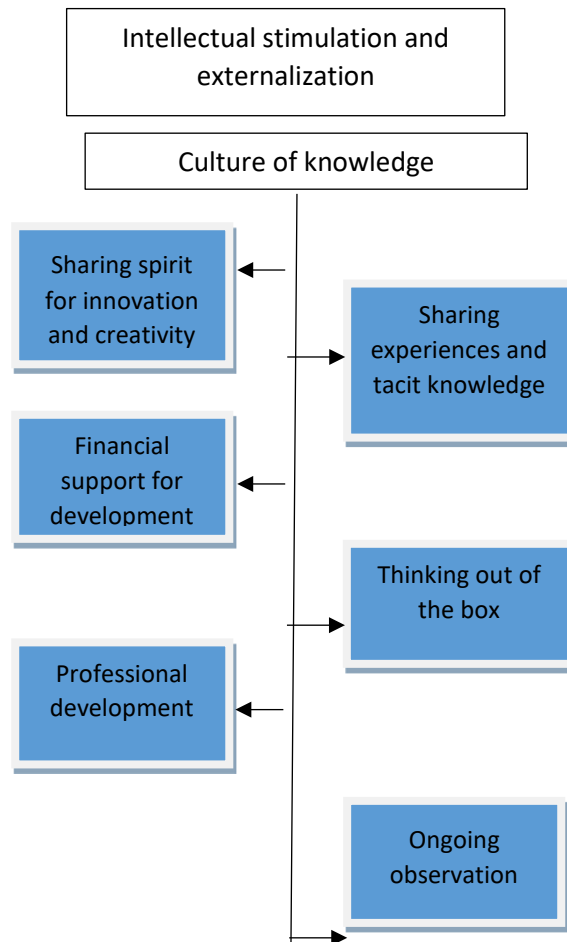
trained in technology better than we are we ask them to conduct a workshop and teach us that's how we keep updated with the technology ourselves even in the administration I was not trained myself to deal with special students so I invited specialized teacher to conduct a session for the administrators ourselves to understand what is special how do we deal with special students and now my colleagues whenever they have any new skill now they share it with the others through a workshop.' [Transcript 1].

Knowledge is perceived as power in Dubai based schools. In an effort to raise standard of teaching and learning, encourage leadership and enhance creativity and innovations, Dubai based teachers should be availed with an environment where there is presence of a knowledge-centered culture. Principals consider developing a knowledge culture critical for knowledge sharing. This implies that the principal assigns a mentor to new teachers who are not familiar with the school curriculum. This mentor explains how the school makes lesson plans; introduce material and other organizational knowledge. In relation to the established relationships associated with Intellectual stimulation and combination, principals emphasize that developing knowledge culture as critical to knowledge sharing (Gold et.al, 2001). Knowledge culture helps to create and foster social interactions by learning from others and thus leveraging knowledge sharing, an aspect that is widely practiced in schools. This implies that knowledge culture, teachers might not be sharing a similar vision in the routines and actions at the system level, and they might reserve/differentiate attitude and behavior. The lack of culture and habit in sharing information is a factor that may stress teachers. The principal and school management play a leading role in fostering knowledge sharing through the creation of a culture built on trust and team work.

According to De Long and Fahey (2000), in order to encourage knowledge sharing, knowledge culture must be established in order to ensure suitable conditions are present to encourage teachers to share knowledge. Knowledge culture is encouraged by the availability of the following conditions: promotion of dedication to learn, transparency and faith nurturing (Lee, 2001). According to (Foss et al., 2009), the success of knowledge sharing is determined by numerous factors but in respect to culturally determined conditions such as motivation and mutual trust. The development of knowledge sharing in an organization is dictated by knowledge culture which is the guide to interactions between people. Mohdand Zawiyah (2010) agreed that devoid of culture, knowledge cannot be defined. As mentioned earlier in the literature review chapter culture is defined as a set of beliefs or concepts an individual is obliged to be acquainted with to operate in a way deemed standard by the

members of the provision. Ramirez et al., (2007), further agreed that where there is no knowledge culture, teachers might not be sharing a similar vision in the routines and actions at the system level, and they might reserve and differentiate attitude and behaviour. Past studies (Paulin and Suneson, 2012) reveal a significant amount of positive relationship between knowledge culture and knowledge sharing.

Past studies (Paulin and Suneson, 2012) reveal a significant amount of positive relationship between knowledge culture and knowledge sharing. This implies that devoid of culture, knowledge cannot be defined. As mentioned earlier in the literature review chapter culture is defined as a set of beliefs or concepts an individual is obliged to be acquainted with to operate in a way deemed standard by the members of the provision. According to Smith and McLaughlin (2014), a set of beliefs, values, knowledge, practices and harmonized behaviors of a given social group are defined as organizational culture. Culture has numerous benefits to a variety of organizational aspects. King (2007) systematically provides a framework to define its importance in all aspects of an organization. Referencing him, there is a dire need for a cultural change among organizations and knowledge sharing should form its basis (Katun et.al, 2015). For knowledge to inspire competitive advantage for a firm, among the conditions it should fulfill is independence from individuals and the fact that organizational processes, systems, cultures and values need to have captured it which is inspired by knowledge sharing. The relevance of culture to the sharing of knowledge in firms has been categorized distinctly from just an importance to a necessity. According to Rashid et al. (2004), organizational culture is a demonstration of the underlying culture of an organization.

Intellectual stimulation and externalization

Culture of knowledge

Sharing spirit for innovation and creativity

Sharing experiences and tacit knowledge

Financial support for development

Thinking out of the box

Professional development

Ongoing observation

7.13 Intellectual stimulation and internalization

The findings in this research report that a significant path was, Intellectual Stimulation and internalization (B=.47, p<.01), the effect of Intellectual Stimulation on internalization was positive then the higher was the levels of Intellectual Stimulation, the higher would be the levels of internalization and vice versa. Where the school leaders through intellectual stimulation help subordinates in re-examining critical assumptions to question whether they are appropriate and seeking differing perspectives when solving problems (Yaseen, 2010). They support followers as they try new approaches and develop innovative ways of dealing with organizational issues, encourage followers to think things through on their own, promotes workers' individual efforts, and engage in sharing knowledge and problem solving. In terms of knowledge processes, intellectual stimulation was seen to be significant for the knowledge attribute internalization. Internalization is the process of understanding and

absorbing explicit knowledge into tacit knowledge held by the individual. Internalization is a process of embodying explicit knowledge into tacit knowledge (Lee & Choi, 2003).

In considering the knowledge process attributes at individual, group or organizational level, intellectual stimulation has be shown to be critical for knowledge processes, for both tacit and explicit exchanges. Regardless of how it was measured, intellectual stimulation was more highly related than any other leadership style when considering the range of knowledge attributes. Intellectual Stimulation is generally associated with encouraging subordinates to think about problems in new ways. It now seems quite clear that the leader who is able to intellectually stimulate subordinates will amplify knowledge processes. When considering knowledge processes, the association with all the knowledge attributes was positive, with the internalization attribute being significant. This may be expected given the explicit to tacit relationship within internalization. The results are in line with prior research studies (Bennis et.al, 1997; Boer, 2005 and Awad and Ghaziri, 2004). The next subsection will explain and elaborate how knowledge sharing is manifested through the core values and practices of leaders 'culture of care.

7.14 Culture of care

In relation to the established relationships associated with intellectual stimulation and combination, principals emphasize that developing culture of care is critical to knowledge sharing. The findings in this study have shown that fostering a culture of care is critical for knowledge sharing. The school leaders use the leadership style of intellectual stimulation to foster a culture of care by highlighting various ways to encourage knowledge to be shared. These findings have shown that tacit knowledge is central to teachers work and the processes they engage with. This indicates that intellectual stimulation style of leadership is crucial in order to foster culture of care, teachers need to feel able and willing to make tacit they know how. This knowledge will be taken by new teachers and implemented in during their lessons until it becomes embedded and tacit knowledge. By fostering a culture of care teachers will learn tacit knowledge which wouldn't be possible by principals just telling the teachers what to do.

In a setting where individuals are inclined and willing to share knowledge with one another and subsequently establish the best ways they want to apply it, the processes of knowledge-sharing require to be made voluntary. This mandates for organizations to create knowledge

awareness to their employees and encourage them to have culture of care in knowledge sharing in order to ensure that the right knowledge is shared and received (Al-Alawi, 2007). In definition, culture is a set of collective values, beliefs and behavioral expectations that inspire behavior and facilitate communication of values. In accordance with Kotter (2009), culture represents a joint mind programming. It is a distinguishing factor between discrete human groups from another. This is demonstrated by the decision making characteristics and behaviors of individuals in a setting which are dictate by common traits relative to an interaction (MohdBakari et.al, 2010).

Connely (2000) states that knowledge-sharing is a concept that mandates the presence of two parties, the source of the information and the recipient and thus emphasizes that care is a determining component for the knowledge sharing process. The role of the source party is to disseminate the knowledge in a conscious manner by use of any many means (Thomas, 2014). The means of communication may take the form of writings, speeches just to cite but a few. For the second party, their role is to identify observe and identify the knowledge expressions and decode them through any means which may take the form listening, imitation and reading (Looney, 2003). According to Boer (2005), among the different organizational cultures in a company, a culture of care is a determinant factor in how people involve in sharing information, ideas and knowledge. He argues that if people care about each other, there are more inclined to share beneficial information, knowledge and ideas due to increased trust, confidence and reliability on each other. As previously stated in the literature review, the importance of a culture of care in facilitating knowledge sharing is significant and as such, organizations have a mandate of establishing a cultural provision that incorporates knowledge sharing in its an organizational culture founded on care is mandatory (McGrane, 2016). Moreover, according to (Al-Alawi, 2007), the degree of organizational cultures promoting knowledge-sharing dictates the degree of performance of an organization. Sharing knowledge among employee enhances proficiency and overall performance efficiency since the employees are able to act on a knowledgeable point of view (Ling, 2011). Employees are able to make viable decisions and manage intricate situations around the operations. Change needs to originate from the foundations of an organization (Moore, 2010). The organizational culture structure needs to be founded on care and established in a way that promotes knowledge sharing.
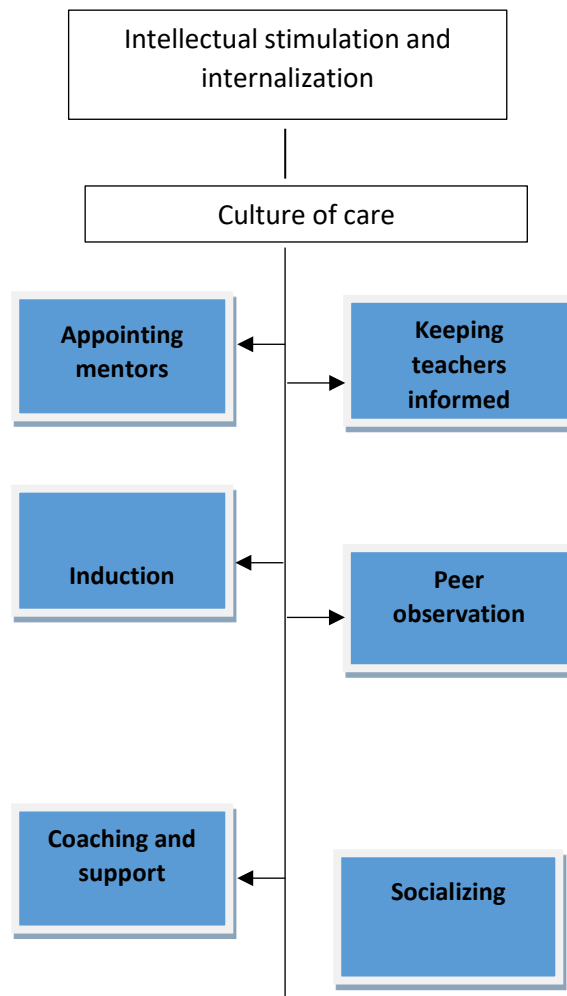
7.15 Management by exception active (MBEA) and combination

Management by Exception- Active MBEA on Combination was significant path (B=.14, p<.05). This means the positive relationship between MBA and Combination. The higher was the levels MBEA, the higher would be the levels of Combination .and vice versa. Where leaders monitor for mistakes or role violations, and take corrective actions before the behaviour makes severe difficulties. In terms of knowledge processes, MBEA was seen to be significant for the knowledge attribute combination. Combination is a process where new explicit knowledge is established and it is pushed through by distinct processes such as merging, classifying and blending available explicit knowledge. The fact that Management by exception active monitors individuals and identify mistakes and errors and take appropriate actions makes it particularly significant in facilitating knowledge combination of

knowledge. In considering the knowledge process attributes at individual, group or organizational level, MBEA has be shown to be critical for knowledge processes, for both explicit and explicit exchanges. A significant difference was noted in how MBEA active relates to knowledge processes. Regardless of how it was measured, MBEA was more highly related than any other leadership style when considering the range of knowledge attributes. Management by exception active is generally associated with leaders monitor and actively seek out deviations from desired performance on the part of the subordinates with a view to taking corrective action. It now seems quite clear that the leader who is able to encourage subordinates will amplify knowledge processes. When considering knowledge processes, the association with all the knowledge attributes was positive, with the combination attribute being significant. This may be expected given the explicit to explicit relationship within combination. The next subsection will explain and elaborate how knowledge sharing is manifested through the core values and practices of leaders 'culture of trust and collaboration.

7.16 Culture of trust and collaboration

The findings in this study have shown that fostering a culture of trust and collaboration is critical for knowledge sharing. These findings have shown that explicit knowledge is central to teachers work and the processes they engage with. This indicates that style of management by exception active leadership is crucial in order to foster Culture of trust and collaboration, teachers need to feel able and willing to make explicit they know how. The principals use the leadership style of management by exception active to foster a culture of trust and collaboration through leaders being open and cooperative with teachers and encouraging them to discuss failures and mistakes, and share ideas on how they can solve problems and avoid future mistakes, explicit knowledge will be shared and combined to produce new explicit knowledge that can be shared with other teacher to help them avoid similar mistakes and how to solve problems. This Combination style of knowledge sharing was influenced by Management by exception active leadership style through being open with the teachers and encouraging them to discuss mistakes and failures. By valuing teachers as important contributors of knowledge, providing support to teachers, and by encouraging the teachers to share knowledge through peer observations. Knowledge is shared from the principal's example to the other teachers from explicit knowledge to explicit knowledge. These findings support insights in current literature on knowledge sharing with respect to the role of leaders and leadership styles, how they make a difference to remove barriers for enhancing

knowledge sharing through building a culture of trust and collaboration. From the findings the principals who were interviewed mentioned the importance of being open and cooperative with teachers and encouraging them to discuss failures and mistakes.
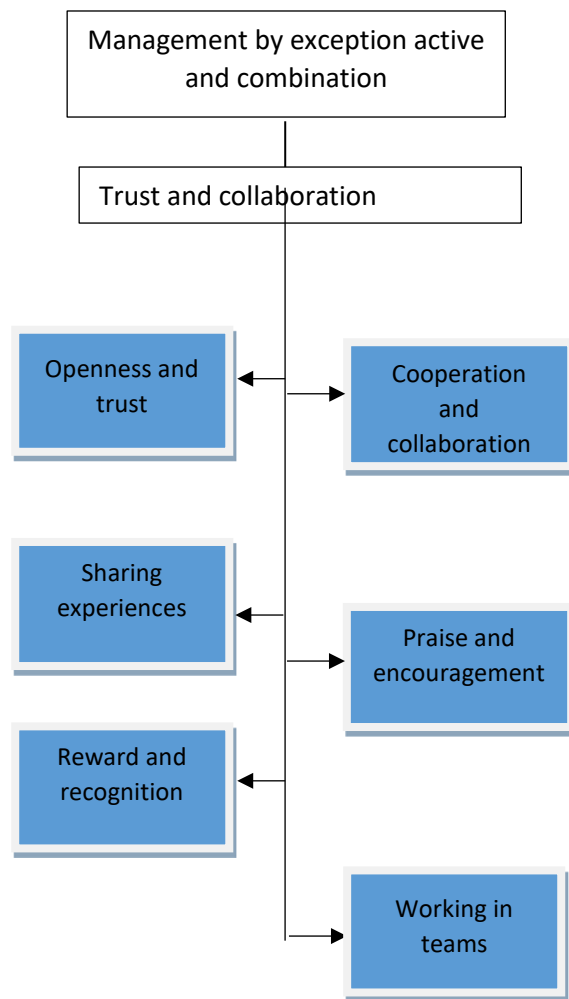
According to Alavi and Leidner (2001) who agrees with the findings a culture of trust and collaboration has a prominent impact on knowledge sharing in organizations. Connelly (2000) agree that trust and collaboration influences interaction and communication with a group of people. Trust is an important aspect among Dubai based teachers. The findings emphasize that when people are isolated, it is difficult to enhance knowledge sharing and thus collaboration is very important in an organization. Syed-Ikhsan and Rowland (2004) agrees that trust/collaboration as the willingness of organizational leaders to interact and communicate. As explained in the previous chapter, a culture of trust is a determining factor for potential learning and should be treated as an integral part of knowledge sharing. From an organization perspective, if employees cannot collaborate/ trust each other to share knowledge, opinions, information regarding their work/experience, they will display a passive manner in knowledge sharing.

As explained in the literature review, trust and collaboration is the management's willingness to be transparent with employees, making their objectives, views and biases known and inviting their perspectives. These actions by management influence the knowledge sharing behavior positively (Looney, 2003). It is clear that an organization where people collaborate to share information and knowledge is more likely to thrive that an organization where people do not collaborate. However, according to Smith (2005), in an organization where people collaborate, trust is limited due to different intentions. He maintains that depending in personal interests, people are more likely to limit the knowledge they share. To be precise, they would only share selective knowledge based on specific subjects that do not affect their individual interests negatively. Therefore, as further maintained by Smith and McLaughlin (2014) when people lack trust in the workplace, it is unlikely for them to partake in knowledge sharing.

Neo (2002), who supports this concept, argued that trust affects the sharing of knowledge between parties. Furthermore, as mentioned in Chapter 4, trust and collaboration is strong predictors of knowledge sharing because trust/collaboration reflects a person's openness to seek and share different view and ideas. From this concept, employees who are high in trust/collaboration are more engaged in Knowledge Sharing activities (Lemon and Sahota, 2004). As explained in the literature review, a theoretical basis for the relationship between

knowledge sharing and trust/collaboration is drawn from the equity theory and other social exchange theories that try to explain relational satisfaction based on concepts of fair/unfair allocation of resources within interactive relationships (Plowman et.al, 2007). The concept is that is there is organizational trust/collaboration; relationships are enhanced thus creating a culture of freely sharing knowledge and information. As the equity theory suggests, if there is a fair balance between how people collaborate/trust each other to work, an organization is in a better position to succeed in knowledge sharing initiatives (Paulin and Suneson, 2012). As maintained in Chapter 4, people need to understand that there is a fair balance between what they receive (inputs) and what they share (outputs). Neo (2002) further maintained that if people perceive that inputs are sufficiently and fairly rewarded by outputs, they are motivated to continue to do the same at a balanced level. A balanced knowledge sharing process yields trust that produces voluntary collaboration, which in turn drives performance (Ling, 2011). This leads people to rise above the need to share ideas, information and knowledge.

Abrams et al. (2003) argued that when there is trust and collaboration in the organizational environment, knowledge-sharing behaviors are high. The previous chapter (Chapter 4) showed that the more employees are committed to the organization, the more there is trust and the more they tend to partake in the knowledge sharing process. Thus, if the organizational culture is viewed to be, trust/collaboration based (Lucas, 2005); employees will more likely share their expertise and knowledge among each other. Collaboration and trust among people is an integral factor in successful knowledge sharing is schools. Yang ('2007) revealed that that there was a strong and positive relationship between a collaborative culture and knowledge sharing. The author empirically explored how organizational culture with a focus on collaboration, and certain types of leadership roles significantly affect knowledge sharing. Kowta (2012). *Agreed that collaborative knowledge sharing links the learning and knowledge processes to enhance organizational learning. The knowledge grows more with communication, sharing of ideas and transfer of knowledge through face-to-face communication, discussions, faculty development programs, industry-institute interactions. Academic institutions should align their human resource strategies, practices and processes in such a way that collaborative knowledge sharing becomes a part of the work culture and overcome the barriers to knowledge sharing. There is need to develop systems that can recognize and reward the efforts of employees who share their knowledge.*

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7.17 Contingent reward and socialization

The findings in this research report that a significant path was contingent reward on socialization (B=.30, p<.01); the effect of Contingent Reward on Socialization was positive then the higher was the levels of contingent reward, the higher would be the levels of Socialization and vice versa. Where school leaders through contingent reward help subordinates, support followers, and encourage them to engage in sharing knowledge. When considering the knowledge process attributes, contingent reward is positively correlated for each of the attributes, but significant for knowledge socialization. The process that transfers tacit knowledge in one person to tacit knowledge in another person is socialization. Socialization is a process of sharing experiences and thereby creating tacit knowledge such as

shared mental models and technical skills. Hence, tacit knowledge is shared among people through modelling and mentoring, conversation, workplace culture, and shared experiences. It is experiential, active and a "living thing". For example, capturing knowledge by walking around and through direct interaction with customers and suppliers outside the organization and people inside the organization. This depends on having shared experience, and results in acquired skills and common mental models. The next subsection will explain and elaborate how knowledge sharing is manifested through the core values and practices of leaders 'culture of communally celebrating success.

7.18 Communally celebrating success

The findings in this study have shown that fostering a communally staff celebrating success is critical for knowledge sharing. These findings have shown that tacit knowledge is central to teachers work and the processes they engage with. This indicates that contingent reward style of leadership is crucial in order to foster an environment for celebrating success, teachers need to feel able and willing to make tacit they know how.
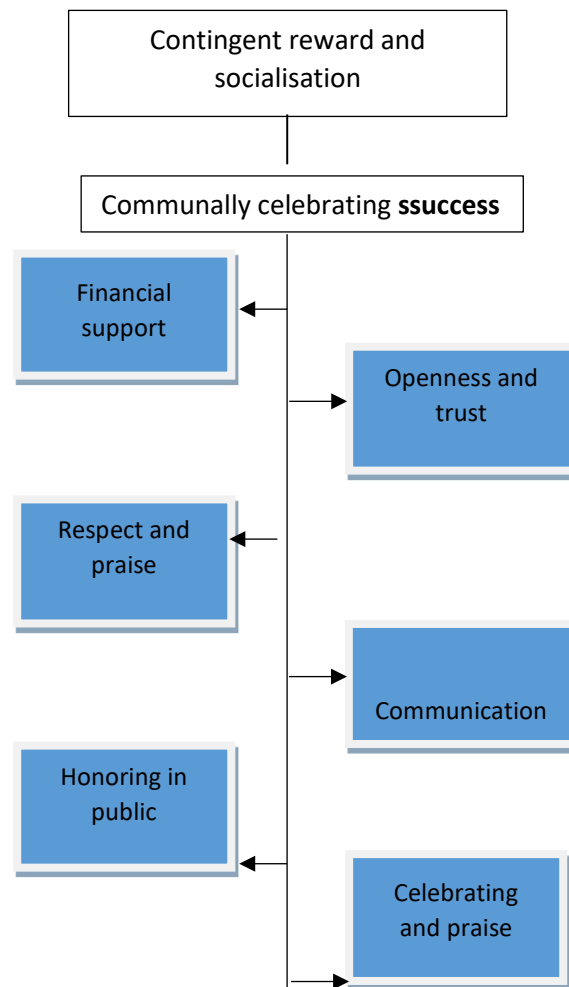
'We communally celebrate success. We provide recognition at assembly and thanks at assembly in front of the whole school. A recent example, for example, when I had three of my teachers lead on the Filipino crisis. So we had a nice big resounding session of applause for them, for all that they had done in collecting money for charity. Written recommendation, written letter, thank you notes and then of course as I said earlier, we do have the occasional joint outwards. I don't yet have teacher of the month, it's something I've been asked to consider. It sounds to me a little too much like, you know, seeing somebody in the hotel lobby. But, we feel that is something we have to work on actually. The ways in which we actually thank, applaud and congratulate, we think it doesn't happen enough.' (transcript 10, 2014)

'When we celebrate I do that myself, so that's at our whole school things, set up public forums with our parents so yeah certainly the celebrating of achievement, I do all of that.' (transcript 6, 2013

The principals use the leadership style of contingent reward to foster an environment for communally celebrating success. When teachers see others teacher doing something that they are being rewarded for they go and ask to be involved so they can learn from the celebrated teacher. By spending time with the rewarded teachers they will learn tacit knowledge which is hard to formalize and can only be learnt through shared experiences, this knowledge will

then become tacit knowledge to them. Hence, the type of knowledge sharing is Socialization. Socialization knowledge sharing was directly influenced by rewarding and celebrating teachers publicly using Contingent Reward style of leadership. When considering the knowledge process attributes, Contingent Reward is positively correlated for each of the attributes, but significant for knowledge socialisation, where leaders make clear to individuals expectations. By honouring and rewarding teachers financially, they become more enthusiastic and this leads to more peer observations and conducting workshops to share their knowledge. This Contingent Reward style of leadership encourages peer observations where knowledge is shared tacit to tacit, which is Socialisation. Knowledge is shared from the principal's example to the other teachers from tacit knowledge to tacit knowledge. By fostering a communally celebrating success the teachers will learn tacit knowledge which wouldn't be possible by principals just telling the teachers what to do.

As mentioned earlier in the literature review chapter, communally celebrating success is a factor that enhances knowledge sharing. Awad and Ghaziri (2004) maintained that if organizations are involved in initiatives where they communally celebrate success, there is a high possibility of improving how knowledge is shared. As scholars agree, this is because people are able to interact and communicate with each other in an involved manner (McGrane, 2016 and Looney, 2003). This evidenced that the process of recognition by the organization creates an environment where people feel inclined to share knowledge because people are active in a lively atmosphere. Additionally, as explained in the literature review chapter, communally celebrating success involves a lot of interactions between people and the process makes people share ideas, information and knowledge regarding their experiences among other things. Kotter (2009) argues that in a school setting, it is essential to set apart a period of celebrating success and giving. He further maintained that this could be a good time to appreciate all parties who play an integral role in ensuring school success; this includes teachers, students and families. According to Paulin and Suneson (2012), this can be a very good platform to interact and share knowledge.

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Financial support

Openness and trust

Respect and praise

Communication

Honoring in public

Celebrating and praise

7.19 Contingent reward (CR) and combination

The findings of this research report that a significant path was Contingent reward on Combination (B=.33, p<.01); the effect of CR on Combination was positive then the higher was the levels of CR, the higher would be the levels of Combination. Where Contingent reward leaders provide rewards are determined in context of the efforts applied by the followers to fulfil the objectives of an organization. CR is a resolute by the leader where the efforts of the followers can be followed upon and fulfilled. When considering the knowledge process attributes, CR is positively correlated for each of the attributes, but significant for knowledge combination. Once knowledge is explicit, it can be transferred as explicit knowledge through a process calls combination (Nezafati et al, 2009). Combination allows knowledge transfer among groups across organizations (Lemon & Sahota, 2004). The creation of new explicit knowledge which is done through processes such as merging, classifying and blending available explicit knowledge. Hence, the Combination knowledge

sharing is influenced by CR and combination. The knowledge is shared explicit to explicit through discussions therefore the type of knowledge shared is Combination. The next subsection will explain and elaborate how knowledge sharing is manifested through the core values and practices of leaders 'culture of trust and relationship.

7.20 Culture of trust and relationship

The findings in this study have shown that fostering a culture of trust and relationship is critical for knowledge sharing. The school leaders and the teachers are regularly sharing explicit knowledge is the form of educational or scientific articles and internal knowledge, which is then combined and edited to produce new knowledge. Rather than punishing mistakes, school leaders help encouraging and celebrating achievement and innovation. The rewarding of achievements and innovation would fall under the Contingent Reward style of leadership, but there is encouragement for innovation and new ideas which could arguably be classed as Intellectual Stimulation. The school leaders in Dubai context highlight various ways that they use Contingent reward leadership style to encourage knowledge to be shared through Combination. One method used by the principals is honouring and rewarding teachers who show an interest in sharing and discussing ideas in the school. Another method used by the principals is by not looking for and punishing mistakes, but rather celebrating achievement and innovation. When both of these methods are used the teachers will feel free and motivated to share explicit knowledge they learn from educational or scientific articles and internal knowledge because they know they will be praised and rewarded for showing an interest.

This explicit knowledge will be discussed, shared and then combined and edited to produce new knowledge. These findings have shown that explicit knowledge is central to teachers work and the processes they engage with. This indicates that contingent reward style of leadership is crucial in order to foster Culture of trust and relationship, teachers need to feel able and willing to make explicit through leaders clarifying the expectations and presenting recognition when goals are accomplished. The findings suggest that this belief about the importance of relationships influenced principals' leadership styles and the strategies they used to foster knowledge sharing. Principals discussed the importance of developing relationships for effective knowledge sharing processes, and gave detailed accounts of how they model relationships building among their teachers.

School principals place a lot of emphasis on ensuring that teachers act as leaders and develop trust and relationship skills. They describe this as a key aspect of their role, one that requires them to support their staff and empower them through being involved and visible sharing and discuss their problems and their concerns. By listening to them and their problems and being close to them. The importance of a culture of trust in inspiring knowledge sharing in organizations cannot be downplayed. Trust in a firm occurs in a variety of provisions. According to Rashid et al. (2004), a culture of trust is a vital component in facilitating knowledge sharing. Precisely the presence of trust encourages open knowledge sharing among employees and as such, the relationship between a trust culture and knowledge sharing is a direct one.

The importance of a culture of trust in inspiring knowledge sharing in organizations cannot be downplayed.   In line with Awad and Ghaziri (2004) a trust culture in an organization has a subsequent positive influence on knowledge sharing. According to Argote and Ingram (2000) the importance of trust in enhancing knowledge sharing is immense. For efficient knowledge sharing, conducive conditions are mandatory and trust offers these conditions. Trust allows employees to freely open up to their colleagues, which for an organization culminate to active knowledge sharing (Moore, 2010). Trust in a firm occurs in a variety of provisions. Trust may be between fellow colleagues or within an organizational framework and all these provisions have their importance in facilitating knowledge sharing. In context of knowledge sharing, trust is responsible for enhancing openness in knowledge sharing which is a component that inspires joint problem solving. For an organization characterized by proper knowledge sharing (Smith, 2005), the costs of conveying a message/ information are reduced since employees are able to distribute the information in the entire organization efficiently. Moreover, acquisition from a fellow colleague is better understood and easily absorbed (Neo, 2002).

Based on the above-mentioned reasons, it is notable that the decision of an individual to share knowledge with others is dependent on trust (Ling, 2011). It determines the willingness to share knowledge. Despite the fact that devoid of trust knowledge sharing is bound to occur, the information conveyed may be characterized by factors such as inaccuracy and untimeliness, which defeat the intention of the information (Plowman et.al, 2007). Moreover, lack of trust may reduce the inclination of individuals in sharing more knowledge. Scholars (Chan, 2003 and Ling, 2011) note that lack of trust is a persistent challenge that needs to be addressed particularly in context of inter-organizational teams. The significance of trust in facilitating fundamental sharing of knowledge mandates for organizations to create a culture

of trust and mend all trust concerns in their settings (Rad and Yarmohammadian, 2006). This results to improved working environment due to presence of unity, shared vision among others.

Principals consider developing a culture of trust and relationships critical for knowledge sharing. In relation to the established relationships associated with contingent reward and combination or contingent reward and socialisation, principals emphasize that developing relationships is critical to knowledge sharing. The findings suggest that this belief about the importance of relationships influenced principals' leadership styles and the strategies they used to foster knowledge sharing (Kahle-Piasecki, 2011). Other scholars assert the critical importance of relationships for providing opportunities and motivation to share (Syed-Ikhsan and Rowland, 2004). Tan (2000) specifically mention the importance of relational channels for the development of trust, which is critical for knowledge sharing. In this study, principals stressed the importance of relationships among the teaching staff that would provide opportunities for teachers to share, as well strengthen their motivation to share (Paulin and Suneson, 2012). These principals believed that strong relationships and high levels of trust facilitated knowledge sharing among their teachers (Behery, 2007). The importance of perceived trustworthiness to knowledge sharing in organizations was further reinforced by (Alavi and Leidner, 2001).

Relational channels facilitate face-to-face communication, which allows for the building of trust, which in turn is critical to sharing knowledge, and help people develop respect and friendship, which influence their behaviour (Leithwood, 1994). According to (Tan et al., 2009), lack of trust has detrimental consequences on a firm. Devoid of trust, knowledge creation is hampered and the subsequent knowledge sharing is completely disoriented. In a setting where employees deem sharing knowledge to be unsafe, any information they acquire does not disseminate to other employees. Trust provides the proper conditions for enhancing knowledge transfer and safeguards its dissemination in a formal manner. Moreover, the author also further adds that knowledge sharing can only flourish in an organization that promotes a culture of trust. Moreover, the author relates knowledge sharing to an individual's personality. As such, no individual is willing to risk sharing knowledge without full guarantee of trust with his or her colleague (Ling, 2011). Suspicion and caution will characterize the process of knowledge sharing in a setting that lacks trust. The significance of trust in the process of knowledge sharing therefore mandates for the establishment of a knowledge sharing culture that is founded on practices and virtues that promote free-flow of

knowledge centered on trustworthiness between personnel/employees (Ribière, 2001). According to Ribière (2001), knowledge sharing is a means that enables handling of essential integration relative to disseminated knowledge in organizations and as such, organizations require ensuring the process is solid and reliable which can only be cemented by incorporating trust.

The results indicate that trust is a significant and vital component that promotes and facilities efficient knowledge sharing. Numerous researchers (McGrane, 2016 and Shabnam, 2010) have been established to define the role played trust in facilitating knowledge sharing which signifies its undeniable significance in supporting knowledge sharing in the workplace. Nonetheless, even with numerous attention and focus on the relationship between trust and knowledge sharing, the challenge of establishing a culture of trust in organizations still remains an imminent challenge for organizations globally (Archer, 2014). In knowledge of this, managers are thus mandated the responsibility to establish an organizational culture that promotes foundation, collaboration and sharing of knowledge that enhances the free flow of knowledge through trustworthiness.
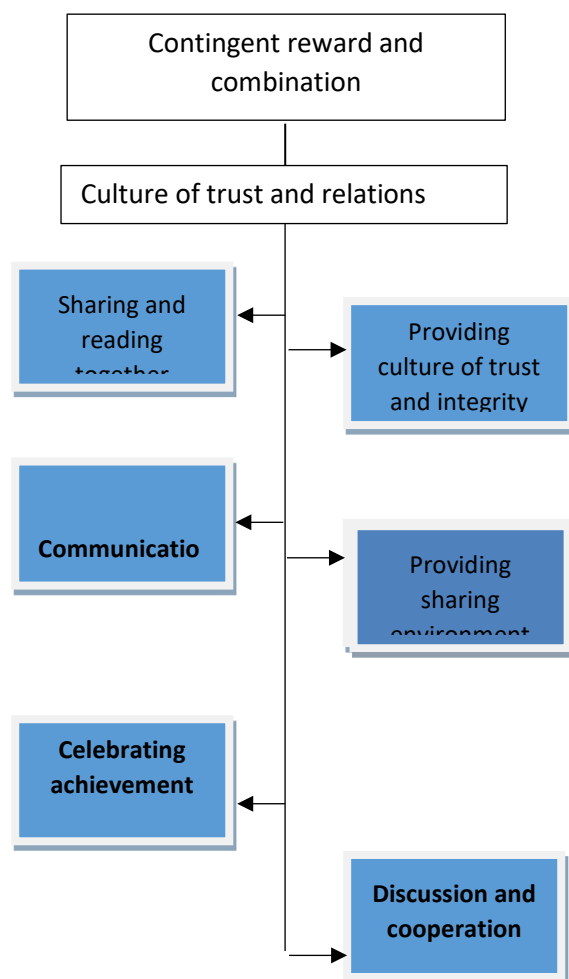
7.21 Implications for theory

The study offers the following contributions to the theory through first, testing empirically existing theories of leadership and knowledge management process. Second, by identifying effective styles of leadership in achieving knowledge sharing attributes. Third, by the conceptualization of knowledge sharing in a Middle Eastern context. The explanations are as follows: The study empirically found that a combined relationship between leadership namely transformational and transactional leadership have a positive relationship with knowledge sharing. Such as idealized influence behavior is only being significant with socialization. Individualized consideration is significant with externalization of knowledge sharing. Intellectual stimulation is the most significant of transformational leadership as it has positive relationship with all SECI attributes. Contingent reward is significant with both socialization and combination of knowledge sharing and consists with the most significant of transactional leadership. Management by exception is positively related to combination.

In addition, the study extends prior studies by conceptualizing knowledge sharing in Dubai context: First, Contextualized knowledge is shared from the principal's example to the other teachers from tacit knowledge to tacit knowledge. Such as knowledge sharing can be achieved through school leaders leading by example and empowering teachers through idealized influence behavior and socialization. For example, through the principals acting not talking, being honest with integrity, interacting and socializing with the staff, being accessible and approachable, having open door policy, empowering teachers through participation in decision making and being involved in reaching consensus with the principal. The principals being hands-on and very much involved, being a role model for ethical conduct, building identification with the leaders and his vision, walking around and direct interactions, teaching and working hard as well as empowering teachers by offering them leadership roles, valuing teachers as main contributors of knowledge, sharing responsibilities and spending time.

Second, through Intellectual stimulation and externalization, contextualized knowledge is shared from the principal's example to the other teachers from tacit knowledge to explicit knowledge. For example, by providing professional development, encouraging ongoing observation, helping teachers to think out of the box, fostering sharing experiences and tacit knowledge, offering financial support, encouraging innovation and creativity sharing spirit, and providing regular evaluations and assessments together, peer observation, and visiting other teachers. Third, knowledge is shared from the principal's example to the other teachers

from explicit knowledge to tacit knowledge through intellectual stimulation and internalization. For example, by principals, appointing mentors, training, keeping teachers updated, talking and giving presentations to new staff, providing orientations and induction programs to new teachers, socializing, providing professional development, and coaching. Fourth, through intellectual stimulation and socialization. Knowledge is shared from the principal's example to the other teachers from tacit knowledge to tacit knowledge. For example, by principals encouraging innovations and creativity, providing a platform for knowledge sharing, providing assistance and on-going observations, encouragement, support, and having an open door policy.

Fifth, Principals when mentoring teachers take the tacit knowledge they have developed from years of experience and they articulate this to the teachers as explicit knowledge through intellectual stimulation and externalization. For example, by principals,' mentoring, encouragement, observations by modelling, ongoing support and assistance, sharing experiences, and coaching and guidance. Sixth, through intellectual stimulation and combination. Knowledge is shared from the principal's example to the other teachers from explicit knowledge to explicit knowledge. For example, by principals being collaborative, planning in teams, sharing new experiences and ideas, discussions, meetings, team working, sitting together, and professional development. Seventh, knowledge is shared from the principal's example to the other teachers from explicit knowledge to explicit knowledge through contingent reward and combination. For example, by principals honouring and rewarding teachers who show keen interest to share and discuss ideas in the school, by sharing and reading together, sharing valuable material with the staff, providing a good work environment, providing a culture of trust, encouraging trial and error, encouraging openness, celebrating achievement and innovation.

Moreover, through contingent reward and socialization. Knowledge is shared from the principal's example to the other teachers from tacit knowledge to tacit knowledge. For example, by principals Encouraging teachers financially, honouring them, encouraging them to share experiences, providing recognition and thanks, motivating the staff, openness and trust, rewarding successful teachers, and celebrating good practice in public. Finally, through management by exception active and combination. Knowledge is shared from the principal's as an example, to the other teachers from explicit knowledge to explicit knowledge. For instance, by modelling ideas among staff, being open and honest, encouraging teachers to work together, allowing failures and mistakes, and working as a team without labelling

7.22 Implications for practice

There are several important implications from this research. The study findings suggest that both transformational and transactional leadership behaviors are essential to Knowledge sharing practices. The creation of a successful knowledge sharing, however, depends on how well leaders can balance transactional and transformational behaviors, authoritarian and participative systems, and task and relationship orientation. Leaders who choose transactional behaviors will work within current culture and follow existing norms, values, and procedures. In this sense, transactional leadership behaviors reinforce current KM practices. Transformational leadership behaviors, in contrast, allow top executives to adapt the organizational culture and realign it with the new vision, when needed. Furthermore, the findings indicated that charisma and contingent reward are the most effective leadership behaviors for KM practices. Leaders should, therefore, focus on developing these leadership behaviors, depending upon the situation. They should build a culture of team work collaboration, relationship, culture of knowledge and knowledge sharing, and communally celebrate success as well as respect and trust based on working with individuals, on setting up and determining agreements in order to achieve specific goals, on clarifying expectations, and on providing rewards for the successful completion of tasks. Importantly, Bass (1985) established that transformational and transactional leadership behaviors can be learned through training programs. This holds an important message for management. Individuals can develop transformational and transactional leadership behaviors, and as it is argued here, these behaviors can have positive impact on Knowledge sharing.

It is important for leaders to endorse learning at every level and to generate opportunities for individuals to participate in knowledge sharing from mixed sources, while leaders strongly impact knowledge sharing. As well, it is vital for leaders to create opportunities for teachers and personnel to share knowledge and hold meetings and discussions for ideas. By underlining the institution's mission and vision and through personal empowerment and reassurance, leaders can motivate staffs to execute and support changes that will contribute to sharing of knowledge. In addition, contingent reward and transformational leadership appear just as significant for enabling knowledge sharing. As a result, leaders should center on creating both leadership styles, based on the situation. To begin with, leaders should build trust and respect based on collaborating with staff members, on establishing and defining contracts to accomplish specific work objectives, on spelling out expectations, and on giving

rewards for the successful execution of tasks. Only when leaders have created strong transactional bases can they spread them by adding characteristic transformational deeds that motivate subordinates to rise above their self-interests and apply more effort to reach the shared vision of growing into a learning institution (Berson et.al, 2006). Leaders ought to create chances for individuals to hold meetings and discussions, be attentive of changes in the institution, and create an open culture of sharing knowledge in which collaboration and trust are main values.

The present study's findings have implications for educational institutions. The findings show the significance of team creativity and collaboration in building highly effective members of staff. A lot of institutions train and promote leaders under the supposition that leadership is a key to employee effectiveness. The present study's findings highlight that institutions should point their efforts towards systems and activities that will reinforce employees' belief in their ability to perform. Leadership is an essential mechanism that can contribute to this. Particularly, transformational leadership has been revealed to increase confidence in staff members. Nonetheless, this study maintains the argument that effective leaders, utilizing both transactional and transformational leadership styles help create high levels of employee satisfaction and high self-assuredness. As a result, institutions should choose, train and support leaders who portray either transactional or transformational leadership styles. It is vital to aid leaders identify the right situations to utilize each leadership style and realize when combining these different leadership styles is most effective.

To add to leadership, there are other ways in which employees' self-assuredness beliefs can be enhanced. An institution can tailor reward systems to underpin such beliefs in employees. As well, an institution can design selection systems to employ individuals with high self-efficacy levels, under the supposition that such individuals help create collective efficiency beliefs in the workforce. As contended by Bock and Kim (2002), individual and collective efficacy beliefs have equivalent foundations, serve equivalent functions, and run through equivalent processes. The present study demonstrated that the degree of trust had a positive relation to creative outcomes. Thus, it is essential for institutions to carry out trust-building training. It is important for leaders to understand the right time to implement credibility and benevolence strategies to ensure a level of trust is maintained in members of staff. The following are the summary implications to practitioners:

1. Employee creativity is based on a highly effective workforce.

2. Institutions ought to put more effort and resources to enhance employees' belief in their ability to execute what favors employees' creativity.

3. The institution's recruitment process can be designed to hire persons with high self-efficacy levels.

4. Institutions ought to carry out trust building training for individual staff members who can enhance the creativity performance.

In the modern day competitive era, both practitioners and scholars are unceasingly classifying knowledge as the most competitive edge. Many institutions in the present day's knowledge intensive economy focused on not only determining knowledge sharing but also introducing strategies to implement knowledge management (KM). Institutions are doing this so that knowledge coming from employees is converted into organizational knowledge. Even so, institutions find it challenging to leverage knowledge because of their employees' conscious and unconscious practice of knowledge hoarding. As a result, the purpose of the present study was to further comprehend and look into the co-existence of significant elements in knowledge sharing including culture and trust (Boer, 2005). The literature review chapter managed to highlight and look into the need for institutions to extend a deeper comprehension of the relationship between trust and culture, which are regularly considered vital factors that supports the knowledge sharing tradition (both tacit and explicit) originating from employees, who are the most valuable assets of an institution.

Trust between institutions and trust between staffs is correspondingly significant. Thus, it is clear that when there is trust, workers are more ready to share each other's knowledge. As well, trust also impacts the knowledge sharing process by enhancing openness knowledge sharing, which in turn facilitates shared problem solving. Additionally, trust enables knowledge sharing to be cheaper and increases the probability that knowledge attained from colleagues will be adequately comprehended and absorbed, as a result allowing staffs to use the knowledge effectively. As a result, trust has come to be a facilitator in determining a person's decision on whether or not he/she can share their personal knowledge with fellow employees. If this happens, the readiness to provide useful knowledge transpires.Nonetheless, if there is no trust, the shared knowledge may not be precise, inclusive or timely because of the reluctance to take risks associated with useful knowledge. As trust inflates, it aids in

alleviating and overcoming the fear of risk in the process of sharing knowledge. As well, knowledge sharing is depended on the person involved, and most people will not risk sharing their knowledge without having a good cause of sense of trust (Bolloju, Khalifa and Turban, 2002). With no high level of trust, employees have a tendency of being doubtful on other people's behaviors and intentions. As a result, trust between workers giving and obtaining knowledge will significantly affect knowledge sharing. Thus, a culture of sharing knowledge should include practices and customs that reinforce the free flow of knowledge via trust among workers.

7.23 Contributions of study

As earlier mentioned in chapter one, this study makes a valuable contribution, given that there is a shortage of empirical studies focusing on education in the United Arab Emirates, and Dubai in particular. Overall, the study achieved the desirable contribution through addressing the research question and objectives. The study demonstrates that leadership styles whether transformational or transactional positively predict knowledge sharing process. Through reviewing the impact of various themes such as Culture of trust and relationship, Culture of trust and collaboration, Trust and teamwork, mentoring among others and explaining their relationship with SECI based on the results. There has been no previous direct empirical evidence to examine the relationship between transformational and transactional leadership and knowledge sharing process.

This study makes several important contributions to the field. First of all, the study aims to test existing theories about leadership and knowledge sharing in a Middle Eastern context such as Dubai. Second, the study identifies the effective styles of leadership for achieving knowledge sharing attributes. Third, the study aims to explain the conceptualization of knowledge sharing in Dubai context. Fourth, the study links two previously relatively disparate fields of knowledge management and knowledge sharing in particular and leadership from an empirical perspective. Fifth, the study empirically aims to prove that that transformational and transactional leadership significantly correlate with knowledge sharing. Fourthly, the study also establishes a strong relationship between contingent reward leadership and knowledge sharing, thus highlighting the importance of such a type of leadership for successfully developing a knowledge sharing organization. Six, the study provides empirical confirmation for the contingent perspective towards leadership and

Knowledge sharing (Vera &Crossan 2004), which claims that the most effective strategic leaders are those best able to function in both transformational and transactional styles, depending on the situation. Finally, the study expands the scope of empirical research by examining leadership and knowledge sharing process in the context of private secondary schools in Dubai. Finally, by testing existing (predominantly Anglo-Saxon) theories of leadership and knowledge sharing in different cultural, economic, and political contexts, the study enhances the generalizability and validity of these theories and constructs. This study aims to contribute by providing important guidelines for school leaders on the dimensions of leadership that need to be enhanced in order to improve learning and knowledge sharing among teachers. The theoretical / conceptual contribution is likely to mirror this by shedding further light on current understanding of leadership processes that enhance knowledge sharing.

7.24 Chapter summary

The purpose of this chapter was to discuss the findings and non-findings of the research questions / hypotheses in relation to existing published research. It begun with a discussion of the hypothesis formulated on account of the literature review segment. It highlighted on the outcome of the hypotheses proposed in the course of the literature where a positive relationship was established between knowledge sharing and transformational relationship and a similar result with Leaders' transactional contingent reward leadership and knowledge sharing in private secondary schools in Dubai. The section then further elaborated on the various elements that are characteristics of the subject constructs in the hypothesis mainly: transformational leadership and transactional leadership. In deliberating on the first hypothesis, a number of characteristic associations under the transformational and knowledge sharing construct were discussed mainly; Idealised influence behaviour and socialisation (Leading by example, empowering teachers), Individual consideration and externalisation(mentoring), Intellectual stimulation and socialisation,(Culture of knowledge sharing), Intellectual stimulation and externalisation(Knowledge culture), Intellectual stimulation and combination(Trust and teamwork) and Intellectual stimulation and internalisation(Culture of care).

The second hypothesis was also outlined and defined together with its subsequent constructs and associated relationships. The hypothesis is centred on Leaders' transactional contingent

reward leadership knowledge sharing in private secondary schools in Dubai where a positive relationship is identified. The section further discussed on the relationship between the constructs under the hypothesis mainly the relationship between Management by exception active and combination, (Culture of trust and collaboration), Contingent reward and socialisation (Communally celebrating success), Contingent reward and combination(Culture of trust and relationships). The findings of the study which outline the outcome of the research process were also highlighted where various implications of the findings to managerial practices and practice were deliberated on. In the aspect of Implications for practice, deliberations indicated that present study findings have implications for educational institutions.

Moreover, the findings showed the significance of team creativity and collaboration in building highly effective members of staff. On the second implication, particularly in context of Managerial Practices, the findings that indicate the suggested significance of both transactional and transformational leadership conducts relative to the knowledge sharing process, especially knowledge sharing were discussed. The chapter finalized with discussion on the contribution this particular study had on various aspects. Various contributions of this study mainly the fact that it contributes to the overall empirical studies centered on education in the United Arab Emirates, and Dubai in particular were comprehensively expounded. Moreover, the propositions of the researcher on the impact of adopted leadership styles on motivation, performance and turnover and the suggested contributions it will have on human resources department in organizations and schools were also delineated and discussed in broad context.

CHAPTER 8: CONCLUSION

8. 1 Introduction

The results confirmed a significant positive link between transformational leadership and knowledge sharing (H1). The relationship between transactional Contingent reward leadership and knowledge sharing (H2) was supported. Path analysis between the dimensions of transformational and transactional leadership and the dimensions of knowledge sharing revealed that transformational leadership is positively associated with all the dimensions of knowledge sharing. The results have been reported in the leadership literature (e.g., Devries et al, 2010; Srivastava et al, 2006; Vera and crossan, 2004; Bryant, 2003). Thus, we propose these H1 and H2 results are highly consistent with prior leadership research findings and provide a strong baseline context for an extended evaluation. Surprisingly, inspirational motivation, idealized influence attributes had no influence on knowledge sharing. These insignificant results might be related to cultural phenomenon and lack of practice as explained by Hofstede (1991). Although it needs to be noted that 3 of the five attributes of transformational leadership were found to be significant in relation to knowledge processes (idealised influence behaviour, intellectual stimulation, and individualized consideration). Different leadership attributes were significant in relation to different knowledge processes. For instance, IIB was significant only when considered with socialisation. The exception being leaders' intellectual stimulation leadership, which was shown to be significantly correlated with all dimensions of knowledge sharing (socialisation, externalisation, combination, and internalisation). While Individualised Consideration was shown to be significant for knowledge externalisation. The qualitative stage of this study is based on and extends prior research as it takes knowledge sharing to a next level by contextualising how knowledge is manifested in Dubai. The section below explains the conceptualisation of knowledge sharing.

8. 2 Idealized influence behaviour and Socialization

The findings of this research report that Idealized influence behaviour and Socialization (B=.25, p<.01) show that tacit knowledge is crucial to teachers practice. This confirms that the effect of idealized influence behaviour on Socialization. Principals acknowledge that Leading by example and empowerment of teachers provide colleagues with challenge and

Idealized influence behaviour that essentially enables them to learn from peers and reflect on their own work. Knowledge is shared from the principal's example to the other teachers from tacit knowledge to tacit knowledge. For example, knowledge sharing is conceptualised and contextualised differently from other cultures. The principals being hands-on and very much involved, being a role model for ethical conduct, building identification with the leaders and his vision, walking around and direct interactions, teaching and working hard as well as empowering teachers by offering them leadership roles, valuing teachers as main contributors of knowledge, sharing responsibilities and spending time together, peer observation, and visiting other teachers. Principals demonstrate tacitly to their colleagues that they understand the reality of their work; likewise, when they work together and share knowledge, they tacitly demonstrate to associates that leading by example and empowerment are core values within their establishment. This type of knowledge sharing is therefore socialization.

8. 3 Intellectual Stimulation and Externalization

These findings of Intellectual Stimulation and Externalization (B=.47, p<.01) show that explicit knowledge is central to teachers work. This indicates that the effect of Intellectual Stimulation on Externalization. The school principals in this study emphasize that developing knowledge culture as critical to knowledge sharing in order to raise the standard of teaching and learning, encourage leadership and enhance creativity and innovations. This has created culture helps to foster social interactions by learning from others and thus leveraging knowledge sharing, an aspect that is widely practiced in schools. Contextualised knowledge is shared from the principal's example to the other teachers from tacit knowledge to explicit knowledge. For example, by providing professional development, encouraging ongoing observation, helping teachers to think out of the box, fostering sharing experiences and tacit knowledge, offering financial support, encouraging innovation and creativity sharing spirit, and providing regular evaluations and assessments. Principals demonstrate tacitly to their colleagues that they understand the reality of their work; likewise, when they work together and share knowledge, they explicitly demonstrate to associates that culture of knowledge is a core value within their establishment. Such explicit exchanges are essential and likely to yield more results than if the experience of teaching even if they do not have to, the teachers will learn tacit knowledge which wouldn't be possible by principals were simply to just telling the teachers what to do. This type of knowledge sharing is therefore externalization.

8. 4 Intellectual Stimulation and Internalization

These findings of Intellectual Stimulation and Internalization (B=.40, p<.01) show that tacit knowledge is central to teachers work. Principals acknowledge that For Dubai based teachers developing culture of care is critical to knowledge sharing to work openly together and share knowledge with one another and subsequently establish the best ways they want to apply it. This requires mandates for school principals to create knowledge awareness for their employees and encourage them to have a culture of care in knowledge sharing in order to ensure that the right knowledge is shared and received. Knowledge is shared from the principal's example to the other teachers from explicit knowledge to tacit knowledge. For example, by principals, appointing mentors, training, keeping teachers updated, talking and giving presentations to new staff, providing orientations and induction programs to new teachers, socializing, providing professional development, and coaching. Principals demonstrate tacitly to their colleagues that they understand the reality of their work; likewise, when they work together and share knowledge, they tacitly demonstrate to associates that culture of care is a core value within their establishment. Such tacit exchanges are essential and likely to yield more results. This type of knowledge sharing is therefore internalization.

8. 5 Intellectual Stimulation and Socialization

These findings of Intellectual Stimulation and Socialization (B=.34, p<.01) show that tacit knowledge is central to teachers work. This shows that the effect of Intellectual Stimulation on Socialization was positive then the higher was the levels of Intellectual Stimulation, the higher would be the levels of Socialization and vice versa. The school principals indicate that Creating a culture of knowledge sharing provide colleagues with challenge and Intellectual stimulation behavior that essentially enables them to learn from peers and reflect on their own practice. Knowledge is shared from the principal's example to the other teachers from tacit knowledge to tacit knowledge. For example, by principals encouraging innovations and creativity, providing a platform for knowledge sharing, providing assistance and on-going observations, encouragement, support, and having an open door policy. By encouraging peer observation and visiting classes understand the reality of their work; likewise, when they visit each other classes and share knowledge, they tacitly demonstrate to associates that culture of knowledge sharing is a core value within their establishment.

8.6 Individualized Consideration and Externalization

These findings of Individualized Consideration and Externalization (B= -.20, p<.05), which addresses the reverse relationship between the two components, show that explicit knowledge is central to teachers work. Principals emphasize that mentoring individuals is not only critical but a significant component of knowledge sharing. Principals when mentoring teachers take the tacit knowledge they have developed from years of experience and they articulate this to the teachers as explicit knowledge. For example, by principals,' mentoring, encouragement, observations by modelling, ongoing support and assistance, sharing experiences, and coaching and guidance. By mentoring people and it is based on the principals' observations so they visit their classrooms when they see something is not happening they then give the advice and obviously if it is a problem shared amongst a big number of their teachers then they conduct workshops or they invite someone with more skills at the subject to support them. Principals demonstrate explicitly to their colleagues that they understand the reality of their work; likewise, when they work together and share knowledge, they explicitly demonstrate to associates that mentoring is a core value within their establishment. Such explicit exchanges are essential and likely to yield more results than if the experience of teaching even if they do not have to, the teachers will learn explicit knowledge which wouldn't be possible by principals were simply to just telling the teachers what to do. This type of knowledge sharing is therefore externalization.

8. 7 Intellectual stimulation and combination

These findings of intellectual stimulation and combination (B=.25, p<.01) show that explicit knowledge is central to the teachers work. This indicates that the effect of Intellectual Stimulation on combination was positive. The school principals consider developing trust and team work critical for knowledge sharing. Knowledge is shared from the principal's example to the other teachers from explicit knowledge to explicit knowledge. For example, by principals being collaborative, planning in teams, sharing new experiences and ideas, discussions, meetings, team working, sitting together, and professional development. Trust and team work provide colleagues with challenge and Intellectual stimulation behaviour that essentially enables them to learn from peers and reflect on their own practice. By helping the teachers to plan and discuss ideas together and explicit knowledge is shared from various

teachers and heads of department. This explicit knowledge is then combined together to plan and designs the units of work. Because explicit knowledge is collected from a variety of teachers and combined to produce new explicit knowledge, the type of knowledge sharing is Combination.

8. 8 Contingent reward and Combination

These findings Contingent reward and Combination (B=.33, p<.01) show that explicit knowledge is central to teachers work and the processes they engage with. This shows that the effect of CR on Combination was positive then the higher was the levels of CR. Principals acknowledge that developing trust and relationships is critical to knowledge sharing. Knowledge is shared from the principal's example to the other teachers from explicit knowledge to explicit knowledge. For example, by principals honouring and rewarding teachers who show keen interest to share and discuss ideas in the school, by sharing and reading together, sharing valuable material with the staff, providing a good work environment, providing a culture of trust, encouraging trial and error, encouraging openness, celebrating achievement and innovation, encouraging constant communication and interactions. Principals demonstrate explicitly to their colleagues that they understand the reality of their work; likewise, when they work together and share knowledge, they explicitly demonstrate to associate that culture of trust and relationship are core value within their establishment. Such explicit exchanges are essential and likely to yield more results. This type of knowledge sharing is therefore combination.

8. 9 Contingent reward and Socialization

These findings of Contingent reward and Socialization (B=.30, p<.01) show that tacit knowledge is central to teachers work and the processes they engage with. This confirms that the effect of CR on Socialization was positive then the higher was the levels of CR, the higher would be the levels of Socialization and vice versa. School principals place a lot of emphasis on ensuring that teachers are praised and rewarded for their good work. Knowledge is shared from the principal's example to the other teachers from tacit knowledge to tacit knowledge. For example, by principals Encouraging teachers financially, honouring them, encouraging them to share experiences, providing recognition and thanks, motivating the

staff, openness and trust, rewarding successful teachers, and celebrating good practice in staff, openness and trust, rewarding successful teachers, and celebrating good practice in public.

Hence, teachers see other teachers doing something that they are being rewarded for, they go and ask to be involved so they can learn from the celebrated teacher. By spending time with the rewarded teachers they will learn tacit knowledge which is hard to formalize and can only be learnt through shared experiences, this knowledge will then become tacit knowledge to them. This type of knowledge sharing is Socialization. Socialization knowledge sharing was directly influenced by rewarding and celebrating teachers publicly using Contingent Reward style of leadership. Principals demonstrate tacitly to their colleagues that they understand the reality of their work; likewise, when they work together and share knowledge, they tacitly demonstrate to associates that leading by example and empowerment are core value within their establishment. Such tacit exchanges are essential and likely to yield more results than if the experience of teaching even if they do not have to, the teachers will learn tacit knowledge which wouldn't be possible by principals were simply to just telling the teachers what to do. This type of knowledge sharing is therefore socialisation.

8.10 Management by Exception Active and Combination

These findings of Management by Exception Active and Combination (B=.14, p<.05) show that explicit knowledge is central to teachers work. This shows that the higher was the levels of MBEA, the higher would be the levels of Combination and vice versa. The school Principals are being open and cooperative with teachers and believe that a culture of trust and collaboration is a determining factor for potential learning and should be treated as an integral part of knowledge sharing. Knowledge is shared from the principal's as an example, to the other teachers from explicit knowledge to explicit knowledge. For instance, by modelling ideas among staff, being open and honest, encouraging teachers to work together, allowing failures and mistakes, and working as a team without labelling, principals demonstrate explicitly to their colleagues that they understand the reality of their work; likewise, when they work together, they explicitly demonstrate to associates that openness and collaboration is a core value within their establishment. Such explicit exchanges are essential and likely to yield more results than if the experience of teaching even if they do not have to, the teachers will learn explicit knowledge. This type of knowledge sharing is therefore combination.

8.11 Recommendations

The findings of the present study suggest that transactional and transformational leadership conducts are vital to the KM (knowledge management) process, especially knowledge sharing. On the other hand, the creation of a fruitful knowledge management process is dependent upon how well leaders can bring a balance between transformational and transactional behaviors. The leaders that select transactional behavior will work within the existing culture and follow current customs, values, and processes. Along these lines, transactional leadership conducts strengthen existing knowledge management practices. On the contrary, according to Avolio et.al (1999) transformational leadership conducts enable leaders and top management to implement an organizational culture and readjust it with the new vision, whenever necessary. In addition, the present study's findings show that the most effective knowledge sharing leadership behaviors are charisma and contingent reward. As a result, leaders should center in creating these leadership behaviors based on the situation. According to Smith (2005), an institution can put up training programs to teach transactional and transformation leadership behavior. As a result, there are a number of implications for managers as listed below.

1. If leaders can deliberately manage knowledge, they can make their institutions more effective

2. Through the use of an appropriate balance of transactional and transformational styles of leadership, manager can raise the level of knowledge sharing in institutions.

3. Managers who are able to manage knowledge effectively can attract and retain better members of staff.

4. Institutions able to manger their knowledge assets build an environment of knowledge sharing.

It is important to understand that knowledge management comprises of three components: Knowledge creation, knowledge sharing and knowledge exploitation. Bryant (2003) further maintains that for all these three components to be of any impact, leaders must play a leading role. Creation and sharing of knowledge in a climatic environment that respects others ideas cannot be successful unless leaders play their roles fully. The researcher articulates that, for teachers to be reliable to their school, it is the responsibility of leaders especially the school principal to create a culture that values knowledge, knowledge sharing as well as encourage the employees to be reliable to their organization.

The teachers should be the second main area of focus by leaders, leaders should ensure that, teachers get enough training as well as enough delegation if they are to attain the desired culture. The results indicated that, there was a positive impact on the perception of transformational leadership from followers who exhibited similar characteristics with transformational leaders. In creating a learning environment that support people, providing the knowledge, connecting them to one another, instilling them on the need to succeed, impacting skills, and resources effective leaders know how, when and why to create such environments. This finding supports previous research. The researcher postulate that in order for improved school knowledge sharing to take place, school principals should not depend solely on being instructional leaders. Therefore, building on instructional leadership alone will not create the necessary influence to improve knowledge sharing - it should be combined with both transformational and transactional leadership. Dubai educational policymakers should exert more efforts to strengthen transformational and transactional leadership in schools if improvement of school knowledge sharing is to be achieved. Further, researchers and practitioners should not only be investigating the general or collective impact of leadership styles but also identifying effective leadership styles for achieving knowledge sharing attributes. They should move beyond a general focus on the impact of leadership to examining and increasing the frequency of those practices that make larger positive impacts on teachers knowledge sharing and students' learning.

In addition, other recommendations are made for future research. The first is to expand the research, and thus the literature base, on the relationship between leadership and knowledge sharing. The second is to expand the results of this study in the future, either in further degree work by this researcher or for use as a base by other researchers. The third recommendation is to conduct further research on this topic in in the UAE and other Arab nations. First, to extend the literature on leadership and knowledge sharing in the UAE, several recommendations for future research are proposed. First, the presence of a combined leadership both transactional leadership and transformational leadership can be expanded in future research to other schools and universities in order to improve students' learning and teachers 'growth in the UAE. Bass' (1998) assertion that the two leadership styles can be complementary with each other can be validated by examining if the practice of two leadership styles produces positive results. Moreover, the predominance of one leadership style over the other can be examined to understand how the combination of two leadership styles can affect the overall leadership of school principals and knowledge sharing. Second, another way to extend the literature on combined leadership and knowledge sharing in other

schools in the UAE is to conduct a cross-cultural study about the applicability of combined leadership in the Middle East. By examining its applicability in the entire region, the results of the study can be placed into a larger context. Examining combined leadership and knowledge sharing in various cultural settings, particularly in non-Western cultures, is a necessary aspect of improving overall understandings of the theoretical foundations of transformational and contingent leadership of transactional leadership. Third, change needs to become more than a theory as it is, in fact, the goal of applying the various leadership concepts is to affect change in the learning process.

8.12 Limitation of study and Future research

This research explores the question of how do the transformational and transactional leadership affects the sharing of knowledge. Understanding what is knowledge and knowledge sharing is a necessary prerequisite to address this question. A limitation of this study is that the data collected was of cross-sectional nature, so definite conclusions concerning causality are not possible. Although the size of the returned sample, 223 teachers, is considered to be large, the researcher still considers that more data in longitudinal study could be obtained to produce more reliable results. Future researchers may include other emirates in their studies and not just Dubai in order to yield better performance. Future research may include public schools and not only private schools in order to enhance the study and provide better picture. Future research could deepen the understanding of leadership styles and knowledge sharing activities and management practices in knowledge–management organizations such as schools by building on the results found in this study. Factoring in more contextual variables to the model could extend this line of research such as culture and technology. Future research could expand the study and not stop as this study did at the conceptualisation of knowledge sharing.

8.13 Chapter Summary

The purpose of this study was to empirically examine the relationship between leadership and knowledge sharing. The results of the study were based on the quantitative survey and qualitative semi-structured Interviews. In this chapter, several conclusions and recommendations were presented Based on the results that emerged from the data. Based on the results of the study, the results indicate that there is a positive relationship between

leadership and knowledge sharing. In order to move forward, leaders need to acknowledge that their current leadership that is instructional is not being received positively by their subordinates. The implication of the results to leadership is that both transformational and transactional leadership can be applicable in the UAE given that certain modifications are made to take the culture into consideration. Transactional leadership appears to still be practiced and it can be gradually integrated with the practice of transformational leadership, with the goal of eventually making transformational leadership the equally dominant style of leadership to foster on knowledge management process. Professional development and seminars that focus on both transformational and transactional leadership might also be useful in institutionalizing the leadership style in the UAE school system. For future research, the researcher recommends examining the complementary nature of transactional leadership and transformational leadership in the UAE in other schools such as government schools in order to gain a better understanding on its impact on knowledge sharing. Finally, a cross-cultural study about the applicability of both transformational and transactional leadership in the Middle East region is proposed in order to expand the literature on the applicability of transformational leadership in other Arab cultures. Given that there are a number of important differences between transactional and transformational leadership styles, the ability to successfully combine the two management styles seems imperative.

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APPENDICES

Appendix A: The Questionnaire for this study
Demographic information
Please tick as appropriate
Gender: Male ☐   Female ☐
Would you please state your age: ....
Qualification held: Diploma   first degree   Master   PhD
Please state your position in the school. ....
Please state your department in the school. ....
                                    ☐   ☐   ☐   ☐

Knowledge Sharing adapted from Choi and Lee 2003 based on Nonaka and Takeuchi SECI Model.

Socialisation

Would you please select the appropriate answer concerning knowledge sharing in your

school? Where 1 is strongly disagree and 5 is strongly agree.

1	The school emphasises gathering information from meetings with teachers.	1	2	3	4	5
2	The school emphasises sharing experience with other teachers.	1	2	3	4	5
3	The school emphasises engaging in dialogue with teachers from other schools.	1	2	3	4	5
4	The school emphasises finding new strategies and opportunities to share knowledge.	1	2	3	4	5
5	The school emphasises creating a work environment that allows peers to share knowledge.	1	2	3	4	5

Externalisation

1	The school stresses creative and essential dialogue between teachers.	1	2	3	4	5
2	The school stresses the use of deductive and inductive thinking.	1	2	3	4	5
3	The school stresses exchanging various ideas and dialogues.	1	2	3	4	5
4	The school stresses the subjective opinion.	1	2	3	4	5

Combination

1	The school stresses planning strategies by using published literature and computer simulation.	1	2	3	4	5
2	The school stresses creating manuals and documents on knowledge sharing	1	2	3	4	5
3	The school stresses building databases on knowledge sharing	1	2	3	4	5
4	The school stresses building up knowledge sharing environment by gathering data and information	1	2	3	4	5
5	The school stresses transmitting newly created concepts for knowledge sharing	1	2	3	4	5

Internalisation

1	The school stresses coordinating activities between subject departments	1	2	3	4	5
2	The school stresses forming teams as a model and conducting experiments and sharing results with entire departments.	1	2	3	4	5
3	The school stresses searching and sharing new values and thoughts among teachers.	1	2	3	4	5
4	The school stresses sharing and trying to understand styles of leadership through communications with colleagues.	1	2	3	4	5
5	The school stresses benchmarking toward knowledge sharing.	1	2	3	4	5

The Multifactor Leadership Questionnaire (MLQ) of Bass and Avolio (2003)

Transformational leadership variables:

Where 1 is strongly disagree and 5 is strongly agree.

1	Does the principal inspire pride in being associated with him/her?	1	2	3	4	5
2	Does the principal go beyond self-interest for the good of the group?	1	2	3	4	5
3	Does the principal act in ways that build my respect?	1	2	3	4	5
4	Does the principal display a sense of power and confidence?	1	2	3	4	5
5	Does the principal talk about their most important values and beliefs?	1	2	3	4	5
6	Does the principal specify the importance of having a strong sense of purpose?	1	2	3	4	5
7	Does the principal consider the moral and ethical consequences of decisions?	1	2	3	4	5
8	Does the principal emphasize the importance of having a collective sense of mission?	1	2	3	4	5
9	Does the principal talk optimistically about the future?	1	2	3	4	5
10	Does the principal talk enthusiastically about what needs to be accomplished?	1	2	3	4	5
11	Does the principal articulate a compelling vision of the future?	1	2	3	4	5
12	Does the principal express confidence that goals will be achieved?	1	2	3	4	5
13	Does the principal re-examine critical assumptions to question whether they are appropriate?	1	2	3	4	5
14	Does the principal seek differing perspectives when solving problems?	1	2	3	4	5

15	Does the principal get me to look at problems from many different angles?	1	2	3	4	5
16	Does the principal suggest new ways of looking at how to complete assignments?	1	2	3	4	5
17	Does the principal spend time teaching and coaching?	1	2	3	4	5
18	Does the principal treat me as an individual rather than just as a member of a group?	1	2	3	4	5
19	Does the principal consider me as having different needs, abilities and aspirations from others?	1	2	3	4	5
20	Does the principal help me to develop my strengths?	1	2	3	4	5

Transactional Leadership:

21	Does the principal provide me with assistance in exchange for my efforts?	1	2	3	4	5
22	Does the principal discuss in specific terms who is responsible for achieving performance targets?	1	2	3	4	5
23	Does the principal make clear what one can expect to receive when performance goals are achieved?	1	2	3	4	5
24	Does the principal express satisfaction when I meet expectations?	1	2	3	4	5
25	Does the principal focus attention on irregularities, mistakes, exceptions and deviations from standards?	1	2	3	4	5
26	Does the principal concentrate his/ her full attention on dealing with mistakes, complaints and failures?	1	2	3	4	5
27	Does the principal keep track of all mistakes?	1	2	3	4	5
28	Does the principal direct my attention toward failures to meet standards?	1	2	3	4	5
29	Does the principal fail to interfere until problems become serious?	1	2	3	4	5
30	Does the principal wait for things to go wrong before taking action?	1	2	3	4	5
31	Does the principal show that he/ she is a firm believer in "If it ain't broke, don't fix it"?	1	2	3	4	5
32	Does the principal demonstrate that problems must become chronic before taking action?	1	2	3	4	5
33	Does the principal avoid getting involved when important issues arise?	1	2	3	4	5
34	Is the principal absent when needed?	1	2	3	4	5
35	Does the principal avoid making decisions?	1	2	3	4	5
36	Does the principal delay responding to urgent questions?	1	2	3	4	5

Appendix B

The original copy of questionnaire items of knowledge sharing and Leadership styles

Socialization (KC-S; 5 items)

My company stresses gathering information from sales and production sites.

My company stresses sharing experience with suppliers and customers.

My company stresses engaging in dialogue with competitors.

My company stresses finding new strategies and market opportunities share knowledge by wandering inside firm.

My company stresses creating a work environment that allows peers to understand the craftsmanship and expertise share knowledge.

Externalisation (KC-S; 5 items)

My company stresses creative and essential dialogue

My company stresses the use of deductive and inductive thinking.

My company stresses the use of metaphors in dialogue for concept creation

My company stresses exchanging various ideas and dialogues.

My company stresses the subjective opinion.

Combination (5 items)

My company stresses planning strategies by using published literature and computer simulation and forecasting

My company stresses creating manuals and documents on products and service son knowledge sharing

My company stresses building databases on products and services knowledge sharing

My company stresses building up materials by gathering management figures and technical information

My company stresses transmitting newly created concepts (forks)

Internalisation (5 items)

My company stresses (coordinating) enactive liaisoning activities with (subject) department by cross-functional and development teams

My company stresses forming teams as a model and conducting experiments and sharing results with entire departments.

My company stresses searching and sharing new values and thoughts

My company stresses sharing and trying to understand management visions and values through communications with fellows

My company stresses benchmarking and test marketing toward knowledge sharing.

Appendix C

Original questionnaire items of transformational and transactional leadership

Idealized influence (attributes)

Does the leader inspire pride in being associated with him/her?

Does the leader go beyond self-interest for the good of the group?

Does the leader act in ways that build my respect?

Does the leader display a sense of power and confidence?

Idealized influence (behaviour)

Does the leader talk about their most important values and beliefs?

Does the leader specify the importance of having a strong sense of purpose?

Does the leader consider the moral and ethical consequences of decisions?

Does the leader emphasize the importance of having a collective sense of mission?

Inspirational Motivation

Does the leader talk optimistically about the future?

Does the leader talk enthusiastically about what needs to be accomplished?

Does the leader articulate a compelling vision of the future?

Does the leader express confidence that goals will be achieved?

Intellectual Stimulation

Does the leader re-examine critical assumptions to question whether they are appropriate?

Does the leader seek differing perspectives when solving problems?

Does the leader get me to look at problems from many different angles?

Does the leader suggest new ways of looking at how to complete assignments?

Individualized consideration

Does the leader spend time teaching and coaching?

Does the leader treat me as an individual rather than just as a member of a group?

Does the leader consider me as having different needs, abilities and aspirations from others?

Does the leader help me to develop my strengths?

Transactional Leadership:

Contingent Reward

Does the leader provide me with assistance in exchange for my efforts?

Does the leader discuss in specific terms that are responsible for achieving performance targets?

Does the leader make clear what one can expect to receive when performance goals are achieved?

Does the leader express satisfaction when I meet expectations?

Management-by-exception (active)

Does the leader focus attention on irregularities, mistakes, exceptions and deviations from standards?

Does the leader concentrate his/ her full attention on dealing with mistakes, complaints and failures?

Does the leader keep track of all mistakes?

Does the leader direct my attention toward failures to meet standards?

Management-by-Exception (Passive)

Does the leader fail to interfere until problems become serious?

Does the leader wait for things to go wrong before taking action?

Does the leader show that he/ she is a firm believer in "If it ain't broke, don't fix it"?

Does the leader demonstrate that problems must become chronic before taking action?

Laissez-Faire

Does the leader avoid getting involved when important issues arise?

Is the leader absent when needed?

Does the leader avoid making decisions?

Does the leader delay responding to urgent questions?

Source: Scales from (Bass & Avolio, 2000) Multifactor Leadership Questionnaire model Construct of: The Full Range Leadership Theory.

Appendix D

Letter to Accompany Survey Forms
Dear Principal:
I am a doctoral student in Strategic Management at De-Montfort University in Leicester in England under the supervision of Professor Robert Bradshaw, and Dr. Hulya Oztel, senior lecturer and programme leader in Strategic Management. My research study will investigate the relationship between leadership styles and knowledge sharing in the context of private secondary schools in Dubai. The results of this research will give principals important

information about leadership styles in the context of private schools and a potential link to foster teacher practice in learning to share and sharing to learn knowledge in an effort to improve learning.

The Questionnaire is designed to measure the relationship between leadership styles and knowledge sharing. Please kindly ask your teaching staff to take few minutes of their valuable time to respond to my online survey. Your school participation is critical to my study. As a former teacher and secondary principal, I realize that your school time is valuable. I appreciate the school cooperation in responding to my survey which will take no more than 20 minutes. Surveys and data will be available only to this researcher. *This study will not identify individual schools, teachers or principals.* There are no known risks and/or discomforts associated with this study. The response will be kept strictly confidential and will only be used for the purpose of this study. Further, the response will be used to identify individual teachers, principals or schools in the results of the study. Every precaution will be taken to maintain the confidentiality of the teachers' response. My handling of the data will be consistent with the Ethical standards dictated by my university. Data will be analyzed within the context of available data obtained from your school. The end product will protect the school confidentiality. Only this researcher will have access to the data.

If you have any questions about this study, please contact me at (078) 28186007 during the day or the evening, or via e-mail at mondherc@hotmail.com. You may also contact my supervisors, Professor Bradshaw, or Dr. Hulya at De-Montfort University. If you would like to receive a copy of my findings, please provide your email address. If you agree to participate in a follow-up interview, I will telephone to arrange an appointment at your convenience. I will make every effort to take a minimum amount of your precious time. Thank you for your time and cooperation. Sincerely

Appendix E
School level Principal Leadership Practices According to Leithwood Model of School

Transformational Leadership (Leithwood, Jantzi & Steinbech, 1999)

Setting school Directions: Building school vision and goals
- Helping to provide colleagues with an overall sense of purpose;   - Initiating processes that engage staff in the collective development of a shared vision;   - Espousing a vision for the school but not in a way that pre-empts others from expressing their vision;

- Exciting colleagues with visions of what they may be able to accomplish if they work together to change their practices;

- Helping clarify the meaning of the school 's vision in terms of its practical implications for programmes and instruction;

- Assisting staff in understanding the relationship between external initiatives for change and the school's vision;

- Assisting staff in understanding the larger social mission of which their vision of the school is a part, a social mission that may include such important end values as equality, justice and integrity;

- Using all available opportunities to communicate the school's vision to staff, students, parents and other members of the school community.*(Leithwood & Jantzi, 2000)*

They identified ten specific practices aimed at goal setting from a review of transformational school leadership, typically on the part of school principals. These practices are as follows (Leithwood & Jantzi, 2000):

Establishing school Goals:

- Providing staff with a process through which to establish school goals and to regularly review those goals; this is likely to be a " problem- solving process and to include careful diagnosis of the school's context;

- Expecting teams of teachers and individuals to regularly engage in goal setting and reviewing progress toward those goals;

- Assisting staff in developing consistency between school visions and both group and individual goals;

- Working towards the development of consensus about school and group goals and the priority to be awarded frequently such goals;

- Frequently referring to school goals and making explicit use of them when decisions are being made about changes in the school;

- Encouraging teachers, as part of goal setting, to establish and review individual professional growth goals;

- Having ongoing discussions with individual teachers about their professional growth goals;

- Clearly acknowledging the compatibility of teachers' and school's goals when such is the case;

- Expressing one's own views about school goals and priorities;

• Acting as an important resource in helping colleagues achieves their individual and school goals.*(Leithwood & Jantzi, 2000)*

Providing intellectual stimulation • Removing penalties for making mistakes as part of efforts toward professional and school improvement;
• Removing penalties for making mistakes as part of efforts toward professional and school improvement; • Embracing and sometimes generating conflict as a way of clarifying alternative courses of action available to the school; • Requiring colleagues to support opinions with good reasons; • Insisting on careful thought before action. • Directly challenging the basic assumptions of staff about their work as well as Unsubstantiated or questionable beliefs and practices *(Leithwood & Jantzi, 2000)*

Developing People Offering individualised support
• Treating everyone equally; not showing favouritism towards individuals or groups;
• Having an "open-door policy;
• Being approachable, accessible and welcoming;
• Protecting teachers from excessive intrusions on their classroom work;
• Giving personal attention to colleagues who seem neglected by others;
• Being thoughtful about the personal needs of staff.
(Support for the personal, professional development of their staff)
• Encouraging individual staff members to try new practices consistent with their interests;
• As often as possible, responding positively to staff members' initiatives for change;
• As often as possible, providing money for professional development and other needed resources in support of changes agreed on by staff;
• Providing coaching for those staff members who need it
(Developing close knowledge of their individual colleagues)
• Getting to know individual teachers well enough to understand their problems and to be aware of their particular skills and interests, and listening carefully to staff's ideas.
(Leithwood & Jantzi, 2000)

Demonstrating high performance expectations
• Expecting staff to be innovative, hardworking and professional; these qualities are included among the criteria used in hiring staff;
• Demonstrating commitment to the welfare of students;
• Often espousing norms of excellence and quality of service;
• Not accepting second-rate performance from anyone;
• Establishing flexible boundaries for what people do, thus permitting freedom of judgement and action within the context of overall school goals and plans
• Being clear about one's own views of what is right and good.
(Leithwood & Jantzi, 2000)
Developing structures to foster participation in school decisions
• Distributing the responsibility and power for leadership widely throughout the school;
• Sharing decision-making power with staff;
• Allowing staff to manage their own decision-making committees;
• Taking staff opinion into account when making decisions
• Ensuring effective, group problem solving during meetings.
• *(Leithwood & Jantzi, 2000)*
Symbolizing professional practices and values
• Becoming involved in all aspects of school activity;
• Working alongside teachers to plan special events;
• Displaying energy and enthusiasm for own work;
• Responding constructively to unrequested feedback about one's leadership practice.

Appendix F
Qualitative questions for data collections

Qualitative questions
Part 1
1. Your leadership style influencing teachers.
   a. How do teachers perceive you as a leader?
   b. Can you let me know the type of leadership role models you aspire to?
   c. How can your role model approach influence staff?
   d. Can you give examples of situations where you own leadership style was a model for staff?
   e. How important are social interactions in helping you act as a role model.

f. How would your leadership style help sharing practice experiences between your teachers?

Part 2
   2. Teacher innovation and creativity.
      a. How do you get your teachers seek differing perspectives when solving problems, and look at problems from many different angles.
      b. How significant such leadership style in helping teachers 'endeavours to be innovative and creative in the school?
      c. How/Why did you do that?
      d. Can you give examples of situations where you own leadership help the sharing of knowledge?
      e. Can you give examples of sharing experiences between individuals?
      f. Can you give examples of professional development between you and the teachers?
      g. Can you give examples of formal and informal meetings between individuals
      h. Can you give examples of transfer of organizational knowledge to individuals?

Part 3
   3. Teacher mentoring and coaching.
      a. How do you spend time coaching; assessing individual's needs, and delegate responsibilities to help teachers grow?
      b. How significant is coaching in helping teachers 'endeavours to commitment?
      c. Can you give examples of situations practice of mentoring and coaching help the sharing of knowledge between yourself and teachers?

Part 4
   4. Rewards/ recognition.

      a. How do you determine rewards for your teachers' efforts?
      b. Can you clarify the expectations and present recognition when goals are achieved?
      c. Is it clearly set out for teachers how different types of behaviour will be rewarded? If so how and where?
      d. Why are rewards given?
      e. How effective are rewards?
      f. Have you linked financial rewards alongside recognition?
      g. Do you undertake the rewarding process or is it done on your behalf?
      h. How significant such leadership style in helping teachers 'endeavours to sharing knowledge commitment through sharing experiences as well as documented knowledge? Can you give examples?

Part 5
   5. Management of mistakes.
      a. How do you focus attention on teachers' irregularities, mistakes, and deviations from rules and standards and take corrective actions..
      b. How significant such watching for deviations from rules in helping teachers 'endeavours to commitment?
      c. How effective such leadership style in helping teachers' endeavours to sharing documented knowledge?
      d. Can you give examples of situations where you did it and why you did it?

Consent form for interviews

The following information is provided for you to decide whether you wish to participate in a doctoral study which is under the supervision of Professor Robert Bradshaw, and Dr. Hulya Oztel at De-Montfort University in Leicester in England.

The purpose of this study is to examine the relationship between leadership styles, namely transformational and transactional leadership and knowledge sharing in private secondary schools in Dubai. The data collection for this qualitative phase of the study will consist of tape-recorded principal interviews. The interviews will take approximately one half hour each and will consist of open-ended questions regarding leadership style in your school.

Your participation in this study is voluntary and you are free to withdraw from the study at any time. There are no known risks and/ or discomforts associated with this study. The expected benefits associated with your participation are the opportunity to participate in the qualitative phase of a research study, and knowledge and insights about the transformational and transactional principal and knowledge sharing in the context of private secondary schools in Dubai.

Pease do not hesitate to ask questions about the study before participating or during the time that you are participating. Your name will not be associated with the research findings in any way and any comments you make will be strictly confidential and will not be shared with anyone. Every precaution will be taken to maintain the confidentiality of your responses; however, there is always a minimal risk that the confidentiality of the data could be compromised due to unforeseen circumstances beyond the control of the researcher. If you have any questions about your rights as a research subject, you may call Dr. Oztel at De-Montfort University who is my first supervisor for this study.

Please sign your consent with full knowledge of the nature and purpose of the procedures. A copy of this consent form will be given to you for your records.

....

Signature of Participant   Date

Mondher Chebbi Mobile: (078) 2818600

Figure below depicts the path analysis between the dimensions of transformational and transactional leadership and the dimensions of knowledge.
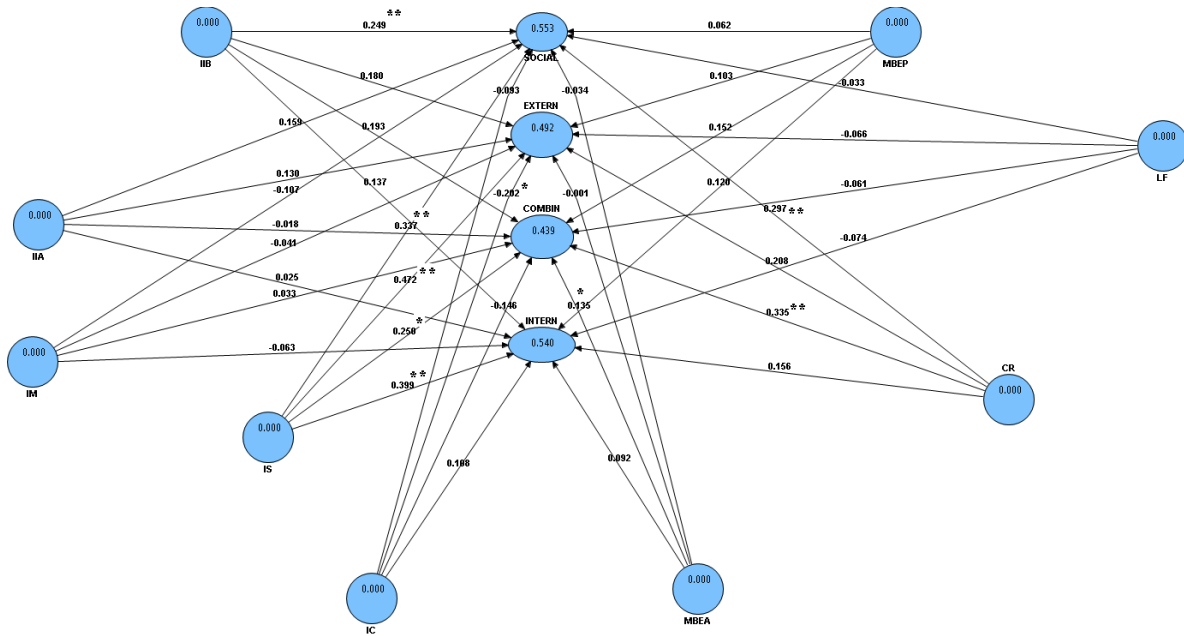

Figure A-1: Path analysis between the dimensions of transformational and transactional leadership and the dimensions of knowledge

Appendix G: representing leadership namely transformational and transactional constructs, questionnaires, and related literature.

Transformational Leadership constructs and operational definitions	Questionnaire Items (Bass & Avolio (2000)	Related literatures
Idealized influence (Attribute): Refers to the ability to inspire followers and being a role model for ethical conduct, building identification with the leader and his vision.	• Inspires pride in being associated with him/her. • Goes beyond self-interest for the good of the group. • Acts in ways that build my respect. • Displays a sense of power and confidence.	Anderson,etal,2017; Chaimongkonrojna et al, 2015;Bass, 1985; Bass (1990); Bass (1997); Bass & Avolio (1997); Bass & Avolio (2000); Yammarino& Spangler & Bass (1993). Bass, B. M., & Avolio, B. J. (1994). Bass, B. M. (1998); Avolio et al (1999); Den Hartog, Van Muijen, & Koopman (1997). Bycio et al, (1995).
Idealized influence (Behaviour): Refers to the ability to inspire followers and provide them with energizing clear sense of purpose, being a role model for ethical conduct.	• Talks about their most important values and beliefs. • Specifies the importance of having a strong sense of purpose. • Considers the moral and ethical consequences of decisions. • Emphasizes the importance of having a collective sense of mission.	Anderson,etal,2017; Chaimongkonrojna et al, 2015; Bass, 1985; Bass (1990); Bass (1997); Bass & Avolio (1997); Bass & Avolio (2000); Yammarino & Spangler & Bass (1993). Bass, B. M., & Avolio, B. J. (1994); Bass, B. M. (1998); Avolio et al (1999); Den Hartog, Van Muijen, & Koopman (1997). Bycio et al, (1995).
Inspirational motivation: Refers to the ways leaders energize their followers by viewing the future with optimism, stressing ambitious goals, projecting an idealized vision, and communicating to followers that the vision is achievable .	• Talks optimistically about the future. • Talks enthusiastically about what needs to be accomplished. • Articulates a compelling vision of the future. • Expresses confidence that goals will be achieved.	Anderson,etal,2017; Chaimongkonrojna et al, 2015Bass, 1985; Bass (1990); Bass (1997); Bass & Avolio (1997); Bass & Avolio (2000); Yammarino & Spangler & Bass (1993). Bass, B. M., & Avolio, B. J. (1994); Bass, B. M. (1998); Avolio et al (1999); Den Hartog, Van Muijen, & Koopman (1997). Bycio et al, (1995).
Intellectual stimulation: Refers to the ability to get employees to question the tried ways of solving problems and to encourage them to question the methods they use.	• Re-examines critical assumptions to question whether they are appropriate. • Seeks differing perspectives when solving problems. • Gets me to look at problems from many different angles. • Suggests new ways of looking at how to complete assignments.	Bass, 1985; Bass (1990); Bass (1997); Bass & Avolio (1997); Bass & Avolio (2000); Yammarino & Spangler & Bass (1993). Bass, B. M., & Avolio, B. J. (1994); Bass, B. M. (1998); Avolio et al (1999); Den Hartog, Van Muijen, & Koopman (1997). Bycio et al, (1995). Anderson,etal,2017; Chaimongkonrojna et al, 2015
Individualized consideration: Refers to the ability to understand the needs of each employee and working continuously to get them	• Spends time teaching and coaching. • Treats me as an individual rather than just as a member of a group. • Considers me as having different needs, abilities and aspirations from others.	Bass, 1985; Bass (1990); Bass (1997); Bass & Avolio (1997); Bass & Avolio (2000); Yammarino & Spangler & Bass (1993). Bass, B. M., & Avolio, B. J. (1994); Bass, B. M.

to develop their full potential.	• Helps me to develop my strengths.	(1998); Avolio et al (1999); Den Hartog, Van Muijen, & Koopman (1997). Bycio et al, (1995).
Transactional Leadership dimensions		
Contingent reward: Refers to the clarification of what is expected from followers and what they will receive if they meet expectations.	• Provides me with assistance in exchange for my efforts. • Discusses in specific terms who is responsible for achieving performance targets. • Makes clear what one can expect to receive when performance goals are achieved. • Expresses satisfaction when I meet expectations.	Anderson,etal,2017; Chaimongkonrojna et al, 2015;Bass, 1985; Bass (1990); Bass (1997); Bass & Avolio (1997); Bass & Avolio (2000); Yammarino & Spangler & Bass (1993). Bass, B. M., & Avolio, B. J. (1994); Bass, B. M. (1998); Avolio et al (1999); Den Hartog, Van Muijen, & Koopman (1997). Bycio et al, (1995).
Management by exception (Active): Focuses on monitoring task execution and any problems that might arise and correcting those problems to maintain current performance.	• Focuses attention on irregularities, mistakes, exceptions and deviations from standards. • Concentrates his/ her full attention on dealing with mistakes, complaints and failures. • Keeps track of all mistakes. • Directs my attention toward failures to meet standards.	Anderson,etal,2017; Chaimongkonrojna et al, 2015Bass, 1985; Bass (1990); Bass (1997); Bass & Avolio (1997); Bass & Avolio (2000); Yammarino & Spangler & Bass (1993). Bass, B. M., & Avolio, B. J. (1994); Bass, B. M. (1998); Avolio et al (1999); Den Hartog, Van Muijen, & Koopman (1997). Bycio et al, (1995).
Management by exception (Passive): Refers to avoidant leadership that tends to react only after problems have become serious and often avoids making decisions.	• Fails to interfere until problems become serious. • Waits for things to go wrong before taking action. • Shows that he/ she is a firm believer in "If it ain't broke, don't fix it". • Demonstrates that problems must become • Chronic before taking action.	Bass, 1985; Bass (1990); Bass (1997); Bass & Avolio (1997); Bass & Avolio (2000); Yammarino & Spangler & Bass (1993). Bass, B. M., & Avolio, B. J. (1994); Bass, B. M. (1998); Avolio et al (1999); Bycio et al, (1995). Anderson,et al, 2017; Chaimongkonrojna et al, 2015
Laissez faire: Refers to the absence of a transaction of sorts with respect to leadership in which the leader avoids making decisions, abdicates responsibility, and does not use his or her authority.	• Avoids getting involved when important issues arise. • Is absent when needed. • Avoids making decisions. • Delays responding to urgent questions.	Bass, 1985; Bass (1990); Bass (1997); Bass & Avolio (1997); Bass & Avolio (2000); Yammarino & Spangler & Bass (1993). Bass, B. M., & Avolio, B. J. (1994); Avolio et al (1999); Den Hartog, Van Muijen, & Koopman (1997); Bycio et al, (1995). Anderson,et al, 2017; Chaimongkonrojna et al, 2015
Knowledge Sharing dimensions	**(from Choi & Lee,2002) based on Nonaka & Takeuchi;s SECI(1985) model**	
Socialisation: Refers to conversion of tacit knowledge to new tacit knowledge through social interactions and shared experience among organisational members.	• The school stresses gathering information from meetings with teachers. • The school stresses sharing experience with other teachers. • The school stresses engaging in dialogue with teachers from other schools. • The school stresses finding new strategies and opportunities to share knowledge. • The school stresses creating a work environment that allows peers to share knowledge.	Bratianu, et al, 2016; Naicker et al, 2014); Nonaka (1994); Nonaka (2007); Nonaka, Toyama & Konno (2000); Nonaka & Takeuchi (1995); Nonaka, I., & Toyama, R. (2005); Choi & Lee (2003); Lemon & Sahota (2004); Nezafati et al (2009); Peeters and puterrie, (2003). Bratianu, et al, 2016; Naicker et al, 2014 Lievre, Pascal; Tang, Jing (2015). Park, Sunyoung; Kim, Eun-Jee (2015
Externalisation:	• The school stresses creative and essential	Bratianu, et al, 2016; Naicker et al,

Refers to converting tacit to new explicit knowledge (e.g. articulation of best practices or lessons learned).	dialogue between teachers. • The school stresses the use of deductive and inductive thinking. • The school stresses the use of metaphors in dialogue for concept creation. • The school stresses exchanging various ideas and dialogues. • The school stresses the subjective opinion.	2014; Nonaka (1994); Nonaka (2007); Nonaka, Toyama & Konno (2000); Nonaka & Takeuchi (1995); Nonaka, I., & Toyama, R. (2005); Choi & Lee (2003); Lemon & Sahota (2004); Nezafati et al (2009). Peeters and puterrie, (2003). Lievre, Pascal; Tang, Jing (2015);Park, Sunyoung; Kim, Eun-Jee (2015
Combination: Refers to the creation of new explicit knowledge by merging, categorising, and synthesising existing explicit knowledge (e.g. literature survey reports).	• The school stresses planning strategies by using published literature and computer simulation. • The school stresses creating manuals and documents on knowledge sharing. • The school stresses building databases on knowledge sharing. • The school stresses building up knowledge sharing environment by gathering data and information. • The school stresses transmitting newly created concepts for knowledge sharing.	Bratianu, et al, 2016; Naicker et al, 2014; Nonaka (1994); Nonaka (2007); Nonaka, Toyama & Konno (2000); Nonaka & Takeuchi (1995); Nonaka, I., & Toyama, R. (2005); Choi & Lee (2003); Lemon & Sahota (2004); Stankosky (2005); Nezafati et al (2009); Peeters and puterrie, (2003). Lievre, Pascal; Tang, Jing (2015; Park, Sunyoung; Kim, Eun-Jee (2015).
Internalisation: Refers to creation of new tacit knowledge from explicit knowledge (e.g. the learning and understanding that results from reading or discussion).	• The school stresses enactive liaising activities between subject departments • The school stresses forming teams as a model and conducting experiments and sharing results with entire departments. • The school stresses searching and sharing new values and thoughts among teachers. • The school stresses sharing and trying to understand styles of leadership through communications with colleagues. • The school stresses benchmarking toward knowledge sharing.	Bratianu, et al, 2016; Naicker et al, 2014; Nonaka (1994); Nonaka (2007); Nonaka, Toyama & Konno (2000); Nonaka & Takeuchi (1995); Nonaka, I., & Toyama, R. (2005); Choi & Lee (2003); Lemon & Sahota (2004); Nezafati et al (2009); Peeters and puterrie, (2003). Lievre, Pascal; Tang, Jing (2015); Park, Sunyoung; Kim, Eun-Jee (2015