THE MEDIATING ROLE OF MANAGEMENT LEADERSHIP IN THE RELATIONSHIP BETWEEN ORGANIZATIONAL CULTURE AND KNOWLEDGE SHARING

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ABSTRACT

THE MEDIATING ROLE OF MANAGEMENT LEADERSHIP IN THE RELATIONSHIP BETWEEN ORGANIZATIONAL CULTURE AND KNOWLEDGE SHARING

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Today, knowledge competes with both physical and financial assets for the top strategic role in the organization. But the knowledge is only valuable to the organization if those that need it have it when they need it. Knowledge sharing is one way to ensure that knowledge is passed among members of the organization and between units. One of the main determinants of knowledge-sharing attitudes of employees is the organizational culture. The right culture will facilitate, and a cultural mismatch will inhibit knowledge transfer in the organization.

This study aimed to first examine the impact of organizational culture on the knowledge-sharing attitudes of the employees. In addition, the study sought to find out how the relationship so established between OC and KS can be mediated by management leadership style. Following Quinn and Cameron's Competing Values Framework of culture and Situational Leadership, the study surveyed manufacturing firms in the Industrial Zone of the Turkish province of Eskişehir. Structural Equation Modeling was used through SPSS and AMOS to determine the relationship between the variables.

The results show that clan culture had both a direct effect and an indirect impact through relationship-oriented leadership. The other culture types were not found to have any significant direct impact but were shown to impact KS indirectly through leadership. Relationship-oriented leadership was found to mediate the relationship between KS and

adhocracy and market cultures. Task-oriented leadership was also found to mediate the relationship between KS and hierarchy and market cultures.

Keywords: Knowledge, Knowledge Sharing, Organizational Culture, Management Leadership, Situational Leadership, Structural Equation Modeling.

ÖZET

ÖRGÜT KÜLTÜRÜ İLE BİLGİ PAYLAŞIMI ARASINDAKİ İLİŞKİDE YÖNETİM LİDERLİĞİNİN ARACI ROLÜ

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Günümüzde bilgi, bir organizasyondaki en üst stratejik rol için hem fiziksel hem de finansal varlıklarla rekabet etmektedir. Bununla birlikte, bilgi ancak ihtiyaç duyanlar ihtiyacı oldukları zaman ona sahip olabilirse işletme için değerlidir. Bilgi paylaşımı, bilginin organizasyon üyeleri ve birimler arasında iletilmesini sağlamanın bir yoludur. Çalışanların bilgi paylaşım tutumlarının temel belirleyicilerinden biri örgüt kültürüdür. Doğru kültür, organizasyonda bilgi transferini kolaylaştırırken kültürel uyumsuzluğu da engellemektedir.

Bu çalışmanın amacı, öncelikle örgüt kültürünün çalışanların bilgi paylaşım tutumları üzerindeki etkisini incelemektir. Çalışma ayrıca ÖK ve BP arasındaki ilişkide yönetim liderliğinin aracı rolünü bulmaya çalışmaktadır. Yine çalışmada, Quinn ve Cameron'un Rekabet Eden Değerler Kültür Çerçevesi'ni ve Durumsal Liderlik yaklaşımını kullanarak, Türkiye'de Eskişehir ilinin Sanayi Bölgesi'ndeki imalat firmaları üzerinde bir anket gerçekleştirildi.

Sonuçlar, klan kültürünün hem doğrudan hem de ilişki odaklı liderlik yoluyla dolaylı bir etkiye sahip olduğunu göstermektedir. Diğer kültür türlerinin doğrudan önemli bir etkisi bulunamadı ancak BP'yi liderlik yoluyla dolaylı olarak etkilediği gösterildi. İlişki odaklı liderliğin BP ile adhokrasi ve pazar kültürleri arasındaki ilişkiye aracılık ettiği tespit edilmiştir. Görev odaklı liderliğin ise BP ile hiyerarşi ve pazar kültürleri arasındaki ilişkiye aracılık ettiği saptanmıştır.

Anahtar Kelimeleri: Bilgi, Bilgi Paylaşımı, Örgüt Kültürü, Yönetim Liderliği, Durumsal Liderlik, Yapısal Eşitlik Modellemesi.

STATEMENT OF COMPLIANCE WITH ETHICAL PRINCIPLES AND RULES

I hereby truthfully declare that this thesis is an original work prepared by me; that I have behaved in accordance with the scientific ethical principles and rules throughout the stages of preparation, data collection, analysis and presentation of my work; that I have cited the sources of all the data and information that could be obtained within the scope of this study, and included these sources in the references section; and that this study has been scanned for plagiarism with "scientific plagiarism detection program" used by Anadolu University, and that "it does not have any plagiarism" whatsoever. I also declare that, if a case contrary to my declaration is detected in my work at any time, I hereby express my consent to all the ethical and legal consequences that are involved.

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(Signature)

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(Name and Surname of the Student)

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From my mother's ceaseless prayers and my father's unspoken curiosity as to when it would all end, to the admiration from my siblings, my journey has never lacked its backers, and for this, I am forever grateful.

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CHAPTER I:

INTRODUCTION

1.1. Introduction

In today's knowledge economy, whether an organization lives, or dies is determined more by its stock of intellectual capital as opposed to financial capital. Being able to outperform others means the organization must be able to outvie them with an impressive inventory of knowledge that can easily be transformed into actual sellable products. Knowledge derives its value as a strategic asset from its ability to support the vision and strategies of the firm. For it to achieve its objective of aiding in the production process, it needs to be available in the parts of the organization that can derive the greatest benefits from it. Knowledge is the key source of value in all modern human productivity, and Grant (1996, p.111) asserts that knowledge needs to have three pertinent characteristics to achieve this feat; in order to contribute to a worthwhile and tenable competitive advantage, knowledge needs to be *transferable* between organizations as well as within the organization; the transferability of knowledge depends on the absorption capacity of the recipient which is in turn affected by the ability of the said knowledge to be *aggregated* into a common language or location, and any knowledge will only be considered to have value when the return earned from its application is commensurate to the value it creates (*appropriability*).

Efficacious transfer of knowledge is called upon more and more as the nature of the market becomes more complex and competitive. However, the desired, polished sharing of knowledge may be inhibited by several factors that need to be determined before they can be overcome. The transfer of knowledge within and across organizational boundaries is a subject of many factors, the most significant of which is the organization itself [institutional structures, Bock, et al. 2005, p. 89], according to a review by Razmerita, Kirchner, and Nielsen (2016, p.1228). The organizational structure, which consists of organizational climate and organizational culture, plays a major role in shaping how members interact with each other, hence their perceptions and propensity, and behavior towards knowledge (Bock, et al. 2005, p. 90). Another set of determining factors of

knowledge sharing in the organization are grouped under individual factors. These are factors of personal cognition that influence an individual's knowledge-sharing behavior (Chen and Hung, 2010, p. 227). However, based on the understanding of Social Cognitive Theory, the behavior exuded by an individual usually is determined by the factors of their social environment (Chen and Hung, 2010, p. 227). This implies that culture, which is a social construct of a particular group, is able to instill (into the employees) behaviors that may impact their intentions to share knowledge.

Other contextual factors that affect knowledge transfer include information and reward systems (Al-Alawi et al, 2007, p. 25), technology, management practices, and commitment to change (Gupta et al, 2000, p. 19). It is important for the management to have considerable sway to persuade or direct the employees to share information. They need to identify where the stock of knowledge resides and design the best means for its transfer to where it can be exploited for the most benefit (Gupta et al, 2000, p. 20).

When one looks at how organizational culture impacts the perceptions of the employees on knowledge transfer, one needs not forget the factors which shape the form of organizational culture, the greatest of which is leadership. Leaders, especially executives and managers, through their patterns and strategies, are influential in the creation and maintenance of organizational culture (Steers and Shim, 2013, p. 2018). Canato and Ravasi (2015, p. 75) present similar views when they state that, through charisma and vision, leaders are able to hold forth an alternative discernment of the position of the organization and proffer variations in values and perceptions that will likely lead to a change of fortunes for the organization.

1.2. Statement of the Problem

The evolution of the world economy from the closing years of the last century has shown more dependence on human capital contrasted to the physical resources propounded by the industrial revolution. The continued specificity of demand and stiffening international competition has meant that organizations have had to increasingly rely on personal and embedded knowledge to achieve effectiveness. The focus has thus increased on the entire portfolio of intellectual capital available to organizations. As a result, besides pursuing a knowledge-intensive outcome, organizations have realized,

through research and practice, that in order to utilize their knowledge resources effectively, to add value in the process of achieving their objectives, one of the avenues through which they may enhance their decision-making efforts is through retention and reuse of organizational knowledge. Furthermore, contrary to the traditional organization where knowledge generation was a centralized task (especially associated with the R&D laboratories), knowledge in the 21st century is spread throughout the organization (Boisot, 2002, p. 67).

Knowledge within the perspective of Knowledge Management (KM) may be defined as the combination of data, information, experience, value, and expert insight that is utilized in the pursuit of organizational goals (Davenport and Prusak 1998, p. 5). The system of holding and reuse of knowledge summarizes the concept of knowledge management. A more refined definition is provided by Jennex (2005) who defines it as "the practice of selectively applying knowledge from previous experiences of decision making to current and future decision-making activities with the express purpose of improving the organization's effectiveness." The depth of the definition lies in the assumption it makes on the organization's desire to utilize its knowledge assets to inform strategy. However, its focus on the application of knowledge implies KM is only concerned with the existing bits of knowledge and says nothing of the creation process. In classifying the different areas of KM research, Alavi and Leidner (2001, p. 115) outline knowledge creation, its storage and retrieval, its transfer, and ultimately its application as the main KM processes. A similar classification is provided by Davenport and Prusak (1998) whose categorization includes knowledge generation, also knowledge acquisition, codification and coordination, and knowledge transfer. In this regard, I would like to paraphrase Wiig (1997, p. 8)'s conceptualization of KM as a way for the organization to maximize the effectiveness in its handling of its knowledge assets ranging from creation, transformation, organization, and effective application to the delivery of quality products and services. This new definition has the advantage of including all the main contents of KM as a study discipline.

The perceived effect of KM on various aspects of organizational performance has also helped to solidify the regard with which organizations seeking to compete in the knowledge economy apprehend KM. If the management of the knowledge available to the organization has any bearing on its competitive position, then it is beneficial for the

organization to enhance its capacity and quality of knowledge management. A true measure of the quality of KM is achieved by including the different aspects of KM in the measurement tool. However, much depends on the objectives of the researcher. Accordingly, of the identified activities of KM, studies were found to be disproportionately biased towards knowledge transfer (Peachey, Hall, and Cegielski, 2007, p. 41). Since knowledge is generally individual-based, the desire or motivation of these individuals to transfer the knowledge they have acquired and how much they are willing to share has a lot of influence on the knowledge stock of the organization. The learning of an organization is majorly facilitated when the existing members of the organization acquire the necessary knowledge or when the organization acquires new employees who possess knowledge that is not available within the organization. But what any member of the organization learns depends largely on the extent of knowledge already possessed by the other members of the organization and how much of that they are willing to share (Simon, 1991, p. 125).

In order to realize the benefits of KM in effectively achieving the objectives of the organization, other organizational factors that are considered to lead to the success of the organization and the KM system like the assurance of support from the management, organizational infrastructure, strategy, and purpose, IT, and organizational culture need to be taken into contemplation (Jennex, 2007, p. 4, Wong, 2005).

Any form of management leadership has the potential to influence KM and its various components in a particular direction. An empowering leadership, for instance, has the potential of changing the attitudes of the employees with regard to knowledge sharing as well as softening the conditions under which such transfers can take place (Xue, Bradley, Liang, 2011, p. 302). A participatory (shared) leadership facilitates face-to-face sharing of knowledge among employees (Merat and Bo, 2013, p. 13). A lot, therefore, rides on the ability of the manager to create an environment favorable enough for employees to generate and disseminate knowledge. Good (supportive) leadership has also been linked to improved creativity and innovation in creative organizations while at the same time positively impacting the values of the organization. Tuggle and Shaw (2000) consider culture as yet another ‘soft’ aspect of knowledge management factors that may steer the course of KM success. This implies that while certain cultural aspects lead to KM success, others act as barriers to the implementation of effective KM systems. A

culture that encourages knowledge sharing is considered one of the success triggers with respect to an organization's competitive position (Davenport et al., 1998).

In essence, the problem of the study could be described as such: How does organizational culture affect knowledge sharing, and does the nature of management leadership play a mediating role in this relationship? This problem could be represented as shown in the model below:

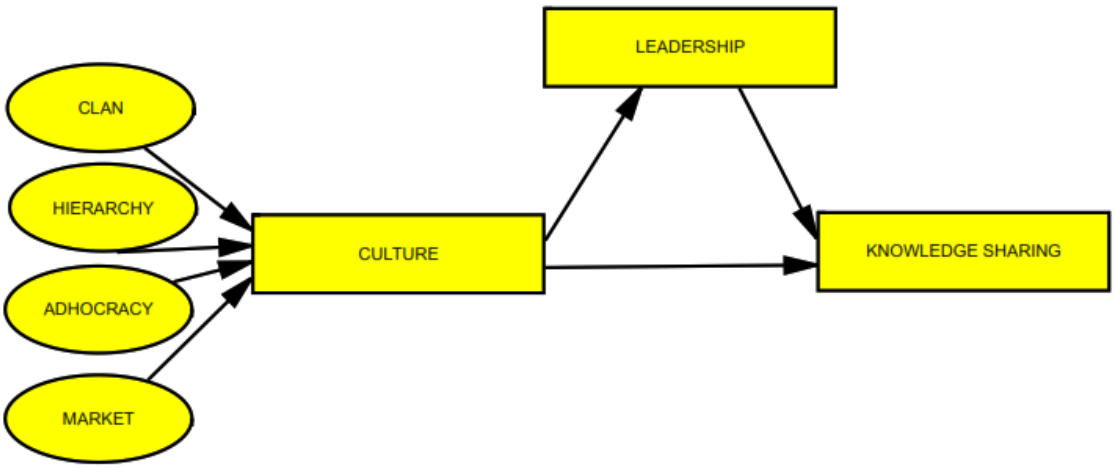

Figure 1.1. Conceptual Model

1.3. Background of the Study

Society always finds a way to reorganize itself in line with the prevailing demands of the environment. Peter Drucker, the great American Management consultant describes the four major transformations that have helped shape the course of modern society. The 13th-century emergence of the new European world with its new architecture, the adoption of Aristotle's wisdom, and universities becoming the centers of a culture marked the beginning of the first transformation (Drucker, 2012, p. 2). The second revolution birthed the Renaissance, which came with the discovery of America. The next transformation was the American revolution towards the end of the 18th century, opening the way to the Industrial Revolution and a new form of civilization. The transformation we find

ourselves in today started after World War II with a shift to the knowledge society driven by information. The post-capitalist society, as Drucker calls it, is based on organizations, with its principal resource being knowledge, as opposed to capital, natural resources, and labor. Thus, far from capital-intensive or labor-intensive firms of the past, firms that desire to compete in today's environment must seek to be knowledge-intensive preponderated by human capital (Starbuck, 1992, p. 715).

Starbuck (1992, p. 716) describes knowledge as a mere stock of expertise, leading to the understanding that possession of knowledge itself is not enough to turn the fortunes of an organization, rather, it is the exceptional value and the application of this knowledge to parts of the organizations where it is necessary that exemplifies the organization. The amount of intellectual knowledge available to an organization and its application has replaced technology as the main determining factor of the competitiveness of an organization. Depending on existing knowledge resources to create new knowledge which then has to be put into action in order to contribute towards the objectives of the organization (Aljuwaiber, 2016, p. 731) is the main challenge facing organizations of the 21st century.

The development experienced in ICTs has reduced the impact of the human and financial burden that hinders the spread of knowledge management practices.

Simon (1991, p. 125) notes that information that is possessed by members of the organization may be related or not, and it is the nature of this relationship that determines the rate of learning of any organization. He goes ahead to assert that learning in the organization is a factor of what is already known within the organization and is enhanced by the rate of transmission of this information among the members.

Contemporary theories of leadership have sought ways to improve cohesion and organizational performance with limited success. Theories like Trait theory, behavioral theories, and - the darling of most research work - transformational and transactional theories have been considered in depth with respect to how they explain the leadership styles and the effect of such styles on the employees. Stemming from the research of Bass (1985), the significant role of the two leadership dimensions of transformational and transactional leadership in organizational management has a long list of backing in

literature, and Transactional Leadership may be considered as "the single most studied and debated idea within the field of leadership" (Diaz-Saenz, 2011, p. 299).

The Situational Leadership approach as originally developed by Hershey and Blanchard (1969) describes a leadership style that considers both the behavior of the leader and the maturity level of the followers leading to two orientations: task-oriented and relationship-oriented leadership. This theory of leadership carries features of both behavioral and contingency leadership theories, making it one of the most comprehensive modern theories of leadership.

Whereas research has indicated the significance of culture in influencing various aspects of organizational operations including performance, employee attitude, satisfaction, and commitment among others, the acts of developing and maintaining a sustainable cultural environment rest on the shoulders of an effective leader.

1.4. Significance of the Study

Different parts of the organization may possess the knowledge vital for the success of the organization in different forms and degrees (Alvesson, 1993, p. 1002) or dissimilar forms. This brings about the need to exchange *these* kinds of information between *these* parts for the organization to perform its objectives efficiently and competitively. Studies conducted to date have considered the effects of culture on various aspects of knowledge management with a significant number especially examining the knowledge transfer aspect of KM. On the other hand, several studies have also investigated how different leadership styles affect knowledge transfer among employees. A third perspective that has also been considered, often separately, is the effect of the various leadership styles on organizational culture. However, so far, no study has been conducted to examine the nature of the interaction that exists among the three variables, all of which have been found to significantly impact the organization's ability to adapt to change, achieve its objectives, and attain an overall desirable and sustainable competitive position.

This study stands in a unique position to provide a meaningful contribution to researchers and practitioners in both theoretical and practical aspects. The study reveals an elaborate theoretical background of the three major variables, shedding new light on the application of Situational Leadership. Situational Leadership has become the most

commonly taught and adopted model of leadership due to its ability to allow for the application of various leadership models in the same situations as opposed to the other models which viewed leadership styles as opposite ends of a continuum. This study presents the examination of leadership models in the manufacturing sector in Turkey using the Situational Leadership model.

The study also suggests possible applicable combinations of cultural dimensions and situational leadership styles that put the organization in a better position to realize its knowledge-sharing objectives.

1.5. Research Questions

This study was conducted to shed more light on the relationship that exists between organizational culture and the knowledge-sharing practices in the organization and to further find out if management leadership plays any role in mediating this relationship. The main objective of the study was to determine whether the specific situational leadership dimension of the leader influenced how his followers perceived knowledge sharing given different cultural settings. To effectively achieve this objective, the study sought to formulate appropriate models and perform empirical analysis that was intended to answer the following questions:

Q1. How do the different dimensions of organizational culture affect knowledge transfer in an organization?

Q2. How can organizations take advantage of their leadership situation to improve knowledge sharing?

Q3. Are there certain dimensions of organizational culture that call for specific forms of situational leadership?

Q4. Does leadership play any mediating role in the relationship between OC and KS?

These questions were formulated from a literature review and the resultant responses are believed to be a significant addition to research on organization design research.

1.6. Scope of the Study

Quinn and Spreitzer (1991, pp.115–142) categorized organizational culture into typologies under their Competing Values Framework, ending up with four cultural dimensions, group culture, development culture, rational culture, and hierarchical culture. The four dimensions are the results of two sets of orientations: external vs internal orientation and stability vs flexibility orientations. The different cultural dimensions and orientations carry different values and have varied implications on how organizations seek to achieve their goals.

The main classifications of knowledge as either explicit or implicit (Nonaka, 2006, p. 1182) guide the scope with which this study examines the concept of knowledge transfer. Explicit knowledge is described as that which can be documented and easily transferable whereas tacit knowledge is subjective and is only mostly expertise-based, transferable only through direct interaction with the holder. This study examines the transfer of both forms of knowledge.

This study was intended to assess management leadership within the framework of Situational Leadership®, developed by Kenneth H. Blanchard and Paul Hersey.

1.7. Definition of Terms

Leadership: In its basic form, leadership is defined as the ability to influence others to effect desired objectives.

Situational leadership: Situational leadership is a concept based on the premise that different situations call for different styles of leadership, hence effective leadership is determined by both the behavior of the leader and the readiness or development level of the subordinates with regard to the task at hand.

Organizational Culture: Culture may refer to a set of unwritten rules about the nature of the interaction between individuals within a particular group. It is a way of thinking or mental programming that individuates one group from the next (Hofstede, Hofstede, and Minkov, p. 6). In the context of this study, the description of culture by Schein (2004, p. 1) as a phenomenon created by the interaction of people and shaped by the behaviors of leaders seems to be quite fitting. This is grounded on the belief that

leaders play a significant role in the creation and/or management of the organizational culture.

Knowledge: Information that has undergone analysis, refining, and synthesis, and has become meaningful thought and attained an actionable state.

The significance of formal education in the advancement of knowledge cannot be overemphasized, but Alvesson (1993, p. 1001) warns against relying entirely on this as the basis of the definition of knowledge. He claims that formal education provides only standardized knowledge, whereas knowledge by its nature contains elements of originality, creativity, and innovation that are beyond the realms of formal education. He goes ahead to argue that knowledge obtained by formal education is only one side of the coin while tacit knowledge covers the other side.

Knowledge Management: Even though many definitions exist that seek to exemplify knowledge management, no scholar seeks to limit the scope of the term, hence the available definitions are often simplistic in nature and mostly, general in scope in order to allow room for all the areas in which knowledge management is applicable. Management practice is determined to enhance the activities of the organization towards capturing, storing, and transfer of the organization's intellectual capital.

Knowledge Sharing: Knowledge sharing is one of the components of knowledge management practice that entails the exchange of knowledge resources between individuals in the organization with the aim of ensuring that knowledge is available to all those who may need it.

1.8. Limitations of the Study

i. Leadership is a comprehensive discipline that cannot be measured using a single construct. This study is however limited to the measurement of leadership using the Situational Leadership Model.

ii. The study intended to use the Leader Behavior Analysis II-Self and Leader Behavior Analysis II-Other which are instruments developed under the framework of Situational Leadership®, developed by Kenneth H. Blanchard and Paul Hersey. However, permission and access to the two proprietary

scales could not be obtained even after contacting the two firms that own them. As a result, the study had to rely on a different, less comprehensive scale for measuring situational leadership.

iii. Knowledge Sharing is used to demonstrate the knowledge management behavior and attitude of employees in the organization.

iv. The survey of the study, even though comprehensive in reach, only covered organizations operating within the industrial area of the Turkish city of Eskişehir.

v. The measurement of organizational culture was limited to the Competing Values Model.

vi. The limitations that affect studies in Social Sciences, given that their subject matter is humans, are also applicable to this study, hence the reliability of the data obtained depends on the features of the data collection instrument used.

vii. The nature of the situational leadership survey requires that a leader and his direct subordinates are surveyed to obtain the leader's self-perspective and the perspective of others on his leadership skills. Due to the failure to obtain permission to use the original Situational Leadership survey, this aspect of the survey wasn't adhered to and only the views of the subordinates were sought.

1.9. Summary

This chapter relates the justification of the study by delineating the problem, its position in current literature, and the contribution of this study in bringing a better understanding of the problem. The rest of the study is structured as follows: Chapter II presents an in-depth review of the empirical literature regarding the three main variables of the study and outlines the main hypothesis of the study. In chapter III, the theoretical framework of the study is considered, looking at the relationships that exist between the variables. The methodology used in the study, highlighting the instruments of data collection and the analysis of the obtained data is considered in Chapter IV while chapter V presents the results of the analysis and the conclusion of the study.

CHAPTER II:

LITERATURE REVIEW

2.1. The Nature of Knowledge

> *"Now that knowledge is taking the place of capital as the driving force in organizations worldwide, it is all too easy to confuse data with knowledge and information technology with information."* - Peter Drucker

The shift from the industrial to the knowledge society has been swift, projecting knowledge itself to the position of the *fourth* factor of production. The recognition of knowledge as the driver of human reasoning and, consequently, an integral element of behavioral control has led to its recognition by some scholars and practitioners as arguably the most valuable asset. Knowledge has taken a major role in bringing to the market products and services with research and development, in many instances, taking precedence to production in terms of their significance. Today, the process of gathering information and designing a car meant for the progressive and energy-conscious market of the future, for instance, is costlier than the actual production: All the major car producers can attest to this. Superior knowledge determines how effective the production systems will run as well as how efficiently the employees will operate. Information Technology has been integral in solidifying the role of knowledge in the running of modern organizations. As an intellectual asset, knowledge (especially tacit knowledge) has also been considered a key factor in gaining a competitive edge. Drucker (1993) aptly captures this in '*The poverty of economic theory'* essay:

> We now know that the source of wealth is something specifically human: knowledge. If we apply knowledge to tasks, we already know how to do, we call it "productivity." If we apply knowledge to tasks that are new and different, we call it "innovation." Only knowledge allows us to achieve those two goals (Drucker, 1993, p. 23).

While Grant's (1996, p. 110) definition of knowledge is rather the periphrasis of the word itself *(that which is known*), Liebeskind (1996, p. 94) defines knowledge as the information that has been sufficiently validated through tests as opposed to any unverified

information and speculation. Wiig (1993) also distinguishes knowledge from information by defining the latter as data that has been organized to give meaning to a given situation. Knowledge, however, he describes as facts, truths, and know-how that is held over a period of time and which advises actions and decisions on different situations. If knowledge were not different from data and information, then it certainly wouldn't have stimulated such great interest. Alavi and Leidner (2001, p. 109) sought to provide a hierarchical context in which data is considered as mere raw numbers and facts while information is their processed version. Knowledge, they describe as the "*personalized information …related to facts, procedures, concepts, interpretations, ideas, observations, and judgments".* With knowledge, available information can be interpreted, and a suitable course of action formulated. In line with the proponents of the knowledge hierarchy, 10% is just a figure that has no meaning attached to it, just data. However, a 10% interest on one's savings at a bank conveys a specific meaning to the user, hence qualifies to be termed as information. The value reached by money deposited in a savings account at a 10% interest rate at the end of the year is the knowledge. Based on this knowledge, one can make a decision on whether the resultant amount is sufficient enough and whether this is the best way to invest their funds or see if there are other avenues to appreciate their investments.

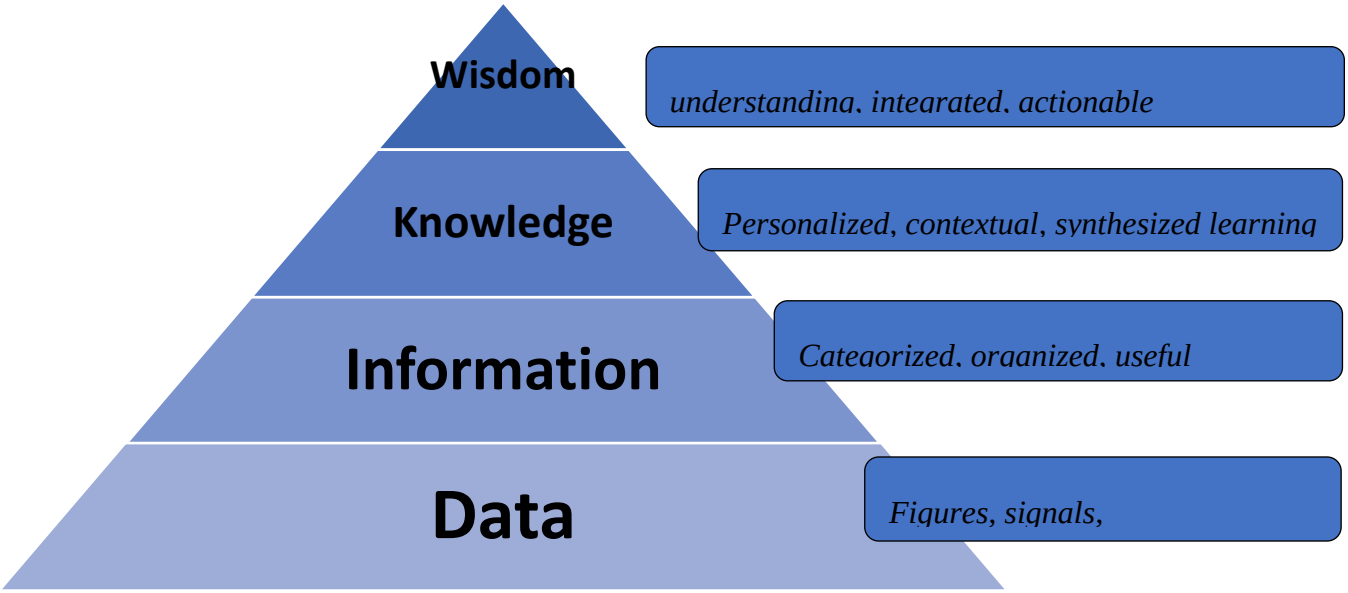

Figure 2.1. The DIKW Pyramid

However, contrary to the universality of the above example, whether something is considered information or knowledge depends on what it means to the holder. What

qualifies as knowledge in one part of the organization may only qualify as information in another part of the organization. So, unless it can be acted upon, unless it can instigate action, then all that knowledge is worthless or is no knowledge at all. That is why Svelby (1997) and Davenport, De Long, and Beer (1998, pp. 43-57) define knowledge by its ability to effect human action; as the "capacity to act", and as the refined part of the information that is capable of influencing decisions and actions. When information undergoes analysis, refining, and synthesis process, it becomes meaningful thought and attains an actionable state known as knowledge.

There is an abundance of definitions of knowledge in literature which implies that there is, as yet no consensus on the definition of the word. Knowledge is the key source of value in all modern human productivity and should be able to create the required value for the firm. Value is not an intrinsic property of knowledge. The value of knowledge varies depending on where and how it is used. A given aspect of knowledge may be extremely important in one situation and absolutely worthless in another (CWA 14924-4, 2004). For this reason, not all knowledge is equally important for businesses. The qualitative characteristics that knowledge should possess in order to be considered valuable to an organization include accuracy, relevance, completeness, timeliness, attainability, clarity, reliability, and cost-effectiveness (Çukacı, 2005, p. 12; Three Rivers District Council, 2008, pp. 2-3; Yozgat, 1998, p. 18). Grant (1996, pp. 109-122) asserts that knowledge needs to have three pertinent characteristics; in order to confer a sustainable competitive advantage, knowledge needs to be transferable between firms as well as within the firm; the transferability of knowledge depends on the absorption capacity of the recipients, which, in turn, is affected by the ability of the said knowledge to be aggregated into a common language or location; and any knowledge will only be considered to have value when the return earned from its application is commensurate to the value it creates (appropriation). The value of knowledge rests on its ability to support the vision and strategies of the firm.

With regard to the ownership or possession of knowledge, literature has made a distinction between individual, team, and organizational knowledge. Individual knowledge refers to the skills, experiences, and know-how that an individual employee possesses that contribute to the development of the organizational knowledge base (Jin-Feng et al, 2017, p. 291) while team knowledge refers mostly to the skills and experiences

developed by team members during their interactions while performing cooperative tasks and is often only visible through group behaviors and collective awareness. Organizational knowledge refers to the collective proprietary skills, intelligence, culture, or technology that members of an organization have gathered, and which distinguishes them in the process of performing their tasks (Tsoukas and Vladimirou, 2001, p. 973). This type is made of ideas and actions that result from management, monitoring, and development activities of the organization, and have earned certain distinctive features (Özdemirci and Aydın, 2007, p. 168). Accumulation of organizational knowledge is, therefore, a deliberate process that involves the creation, transformation, and storage of the said knowledge in forms that can be easily accessed and applied in organizational processes. Grant (1996, p. 113) predicates that the so-called organizational knowledge is just the collective learning of the organizational members since the only two ways for an organization to learn is through the learning of its members and acquisition of members who already possess the said knowledge. Organizational or corporate knowledge is much more secure than individual knowledge and carries more strategic importance to the company. What is important is the ability of the organization to produce collective value systematically from individuals' knowledge.

Another classification of organizational knowledge may be on the internal-external spectrum. Internal knowledge refers to the information contained in the knowledge structures existing in the organization (Gregan-Paxton and John, 1997, p. 278). Organizations strive to generate knowledge in their internal structures in ways that will lead to superior products and services or that will improve the efficiency of their processes. One of the main avenues through which internal knowledge is generated is through the research and development efforts and the skilled labor of the organization (Audretsch and Feldman, 1996, p. 639). The innovative performance of the organization determines how they place in the environment in which they are players. Tonaka (1994, p. 14) defines innovation as the identification of problems by the organization and creating knowledge to solve them. The created knowledge, thus, has the potential to affect change in other parts of the organization and even engender innovation in other parts, creating a chain of knowledge creation. The amount and quality of internal knowledge that the organization may be capable of producing (or the extent of their innovation) depends on three factors: time, physical, and human resources Zucker et al (2007, p. 851).

External knowledge refers to knowledge acquired from outside the organizational boundaries. To fend off competition or to surge ahead of the pack, and in areas where the organization may feel insufficient in its own knowledge stock or its ability to produce new knowledge from its internal resources, the organization may opt for an outward-looking strategy in which they obtain new knowledge from the external environment (Mina, Bascavusoglu-Moreau and Hughes, 2014, p. 853). However, before an organization is able to benefit from its external environment as a knowledge source, there is a need to examine its absorptive capacity, which refers to the capacity of the organization to assimilate and incorporate knowledge from other sources into its own processes, products, and services. The quality of the organizational resources, as well as its openness to the environment majorly impacts its absorptive capacity. A rich stock of existing knowledge helps the organization to adequately define their problems and identify the nature of knowledge that they may need from the external environment. The caliber of human resources retained by the organization also lends to how the obtained knowledge is incorporated into the operations of the organization. Openness to the environment creates a mutually symbiotic system in which the organization can easily obtain the required knowledge from external sources while also sharing its own internally produced information and knowledge.

The valuation of knowledge based on the source is another area that has received considerable attention of researchers in recent years with most findings indicating managerial preference of external knowledge at the expense of internally nurtured knowledge (Menon and Pfeffer, 2003, p. 511), with Grimpe and Kaiser (2010, p. 1484) arguing that the knowledge produced internally could be augmented with outsourced knowledge to produce a performance superior to that of competitors. They however caution against complete reliance on external knowledge as a competitive tool as competitors may also have access to the same source hence diluting any competitive edge that may have been attained. The knowledge stock of the organization, which combines knowledge generated from different sources in itself forms the basis from which most of the future internal knowledge may be created (Griliches, 1990, pp. 1661-1707).

Epistemologically, knowledge may be distinguished by its different forms, the main ones being either explicit or tacit (Polanyi, 2009; Pathirage, 2007; Nonaka, 1994) and subjective or objective. Positivism considers the existence of knowledge as independent

of the human beings that use it. Its existence out of the humans that apply it makes it easy for knowledge to be possessed by anyone and therefore makes possible the transfer from one person to another. The usefulness and transferability of *objective* knowledge explain the heightened striving by individuals and firms to acquire it. Smith (2001, p. 312) highlights a framework within which the comparison of explicit and tacit knowledge should be shared to include learning, teaching, transfer, evaluation, and the resultant way of thinking among other factors.

Explicit knowledge refers to the *know-what* defined in the natural, formal, and systematic language which can be communicated in forms, manuals, rules, mathematical expressions, patents, and other written records. Explicit or systematic knowledge can be transferred or shared as a subject of education or socialization through formal means like print and electronic methods. The acquisition of explicit knowledge, due to its technicality, requires some level of academic competence obtained through formal education, according to Smith (2001, p. 314). Due to its ability to be codified, documented, and stored, explicit knowledge can be stored in a database where it can be repeatedly called upon to solve similar problems or create value for the organization. The access of the codified and stored knowledge is enabled through appropriate information retrieval techniques.

One may have all the explicit information but still remain ignorant or unable to perform certain activities successfully as Wells (1914) observed in the statement "… her knowledge of the world was rather less than nothing, having obtained entirely from books…" (The Unexpected Anecdote of the Lion XXIX). The performance of certain tasks depends on the expertise acquired with practice and experience. Tacit knowledge is the result of gradual and progressive illumination through observation or application by an individual, and which is stored as learned experiences only in the mind of the holder. Unarticulated meanings that may only exist in our subconscious and which we may not be able to put into words, or as Polanyi (1967, p. 22) aptly puts it "…*we can know things, and important things, that we cannot tell*". Polanyi (2009) later describes tacit knowledge as a kind of human knowing that cannot be described or be told to others, thereby making the implication that tacit knowledge cannot be formalized. This is a knowledge form that one is only aware of possessing by applying it to a task. Dixon (1994, p. 26) compares it to, among other things, the excellence of a medical diagnostician that allows her to

pinpoint exactly successfully and accurately the patient's problem even though she may find it difficult to point out how she came to this prognosis. Acquisition of tacit knowledge by individuals is a constant and continuous factor in the daily endeavors of an individual. This ability to acquire and retain knowledge from their activities depends on the mental capacity of the employees and cognition among other factors (Jin-Feng et al, 2017, p. 292). Due to its non-structured, non-systematic (generally context-specific) nature, tacit knowledge holds the potential for sustainable competitive advantage because it is not easily imitated and replicated by competitors. The only effective way to transfer tacit knowledge would be through the relocation of the personnel who possess the knowledge. Tacit knowledge is entrenched in the specific context of its application. It is a major source of innovative success (Jin-Feng et al, 2017, 292) for organizations that are able to effectively exploit its unique features. However, these same features are what make the transfer and sharing of tacit knowledge such a quandary to surmount.

Zaim et al. (2015, p. 762) broke down tacit knowledge to include personal knowledge, managerial, expertise, and collective knowledge. They found managerial knowledge which included competencies in leadership, planning, and decision making among others was the most influential factor of tacit knowledge. Another classification of tacit knowledge may be either technical or cognitive. Technical tacit knowledge, according to Smith (2001, p. 314), is the set of informal unconscious skills that has been developed by a craftsman to a level of consistent success while remaining unaware of the reason for such accomplishments. Cognitive tacit knowledge on the other hand is the set of values, mental models, and beliefs that are so deep-rooted that they have been taken for granted.

The availability of tacit knowledge for the benefit of the organization depends on the willingness of the employees who possess these *mystic powers of production* to apply, transfer or share them. "…only this shows you how useless knowledge is unless you apply it…", (Wells 1922). Upon realizing the value of their knowledge, most rational employees often choose to withhold all or part of their tacit knowledge (Yuqin et al, 2012), while retirement, death, and other factors that cause exit of employees from the organization also lead to the loss of such implicit knowledge. These events have prompted most organizations to seek ways to motivate their employees to share their knowledge.

Polanyi (2009, p. 25) emphasized the importance of tacit knowledge and the futility of seeking its quantification, arguing that the positivist attempt to formalize all forms of knowledge "*is to exercise the kind of lucidity which destroys its subject matter"*. The emphasized role of tacit knowledge in the production process should not be used to support the argument of its perceived superiority over explicit knowledge. Alavi and Leidner (2011, p. 111) abate the viability of this reasoning by indicating that the inability of tacit knowledge to be articulated shouldn't be enough criterion to signify its preeminence and go as far as citing examples who are of the contrary opinion. However, another argument views both explicit and tacit knowledge as not entirely independent factors, but rather as two sides of the same coin. The apprehension and comprehension of explicit knowledge are reliant on the framework provided by tacit knowledge (Alavi and Leidner, 2011, p. 112). This implies the necessity of tacit knowledge in the understanding and hence deriving any benefits from explicit knowledge. These two forms of knowledge are also interdependently connected through a conversion process that, for instance, allows tacit knowledge to be expressed in traditional systemized forms and can allow explicit knowledge to be transformed into tacit terms as well. Nanoka's (1991) conversion framework provides a channel between explicit and tacit knowledge in the creation process. In the framework, knowledge creation could occur from tacit to tacit, explicit to explicit, tacit to explicit, and explicit to tacit.

2.2.1. The evolution of knowledge management

> *"Knowledge is the new capital, but it's worthless unless it's accessible, communicated, and enhanced."- Hamilton Beazley, Strategic Leadership Group*

Dixon (2000, p. 1) introduces her book by recounting a cartoon drawing from a newspaper in which two 'scientists' sitting at their workstations with their backs to each other come to the realization that they had been working on the same problem for the past twenty-five years. Dixon uses this example to explain the problems likely faced by many organizations in which the knowledge in one part of the organization finds difficulty reaching the other parts of the organization, leading members to essentially reinvent the wheel at every step. We are in the age of knowledge and the role of human intelligence on all aspects of organizational operations can only increase substantially in the coming

years. Attaining a competitive advantage over peers now depends on the quality of the knowledge and the level of innovation involved, and the role of every management team should be to find new ways of advancing their knowledge assets. Over the years, the role of Knowledge Management (KM) in organizations has changed to become more and more central, with more focus on the nature of knowledge acquisition or organizational learning, the advancing insights which result in an observable change of the organizational problems and outcomes (Fiol and Lyles, 1985, p. 803). Accumulation of the said knowledge assets may not be enough for sustainable competitiveness in this day of constant and rapid technological changes (İchijo, 2007, p. 121). As well as consistently producing new knowledge and making them available where and when needed, organizations need to protect their existing stock of knowledge from the competition. But was it always like this? We briefly look at the historical changes that have been experienced in KM in order to bring it to its present state.

Bennet and Porter (2003, pp. 469-470) take a military approach in their study into the application of KM at the Department of the Navy as they describe information supremacy as real-time access to information needed by commanders to improve decision quality and maneuverability, both to accelerate decision-making and to effectively lock down the planned actions of the adversary. In this sense, the superiority of information means that the organization has the knowledge to make a difference in the field in which it operates and has a sustainable competitive advantage over its competitors. Knowledge supremacy can only be achieved through stringent knowledge management. KM efforts are geared toward efficient utilization of the human capital and knowledge assets of the organization to create value.

Knowledge Management satisfies two objectives in an organization according to Wiig (1997, p. 1). The first one is to ensure the organization operates with astute intelligence to achieve its success, and secondly, to effectively exploit its knowledge assets so as to realize its best value. This means that the knowledge assets must be created, organized, and employed cogently, and hence the definition of KM as the activities related to how the organization acquires (or creates), accumulates and transfers knowledge inputs as well as how it stores and utilizes the knowledge outputs (Argote, 1999, p. 31).

Dalkir (2005) reports having encountered over 100 published definitions of KM, 72 of which he considers exceptional. Having considered these definitions, he proffers the following as his exclusive definition of knowledge management:

"Knowledge management is the deliberate and systematic coordination of an organization's people, technology, processes, and organizational structure… through creating, sharing, and applying knowledge as well as through feeding the valuable lessons learned and best practices into corporate memory in order to foster continued organizational learning..." (Dalkir, 2005, p. 5).

In this definition, deliberate and systematic coordination (otherwise known as monitoring in Wiig's terms), creation, sharing, and the application of the knowledge assets are identified as the areas of focus of KM. For an organization to benefit from its existing knowledge assets, KM serves as a basis for coordination of the efforts aimed at highlighting the knowledge areas necessary to achieve the objectives of the organization, provides suggestions for alternative sources of such knowledge and identifies ways to save and maintain the best knowledge in the corporate memory where it can be used again and again as needed. At its core, KM is multifarious, covering various dimensions varying from the organizational, technical, and socio-cultural (Alavi and Denford, 2003, p. 105). KM employs various technical strategies and cultures to create and disseminate knowledge to various units of the organization. This implies the need to exploit various approaches to derive the desired outcomes from any KM process.

Wiig (1993, p. 20) accentuates the importance of knowledge management through three themes. The first theme rests in the acceptance that knowledge is the foundation of any business structure. However, it is only through an active and coordinated KM that an organization is able to consistently act intelligently, which makes the second theme. The third theme refers to the ability of the KM to make available the best knowledge for utilization in achieving the organizational goals.

Knowledge Management as presently conceived, found its way into modern literature in the late 1980s and early 1990s which is about the same time the internet was being rolled into active use and the realization of the knowledge society (Koenig and Neveroski, 2008, p. 244). However, the practice itself dates back to the earliest civilizations. Jashapara (2004, p. 18) traces the roots of knowledge management back to oral traditions where the human mind was considered the best store of knowledge and transmission occurred by word of mouth through poetry, songs, and narratives. Oral

narratives were, however, encumbered by accumulated interpretations and the limit of human memory. Jashapara (2004, p. 8) notes that the Sumerians, considered to have been the first to write, accumulated written materials until the need emerged to organize them into catalogs which we now call libraries. One such knowledge preservation antiquities was the library in Alexandria, Egypt which was established in the 3rd Century BC, operated for nearly 1000 years and at some point, had more than 500,000 literary works.

Drucker (1993) has been credited with most of the earliest contributions to the concept of KM as we conceive it today (Koenig and Neveroski, 2008, pp. 243-254). Through the discussion of the transformation from capitalism to a society that relied on knowledge for the very essence of production, a society he went ahead to brand the "*knowledge society*"; Drucker noted that production was the subject of creative destruction during the industrial revolution, and with the advent of technology, production became a matter of the *systematic, purposeful application of knowledge*. However, of much relevance to the development of KM is the recognition by Drucker (1993, p. 38) of the role of knowledge in the creation of knowledge. This phase which he termed the *management revolution* relates how to define what knowledge is needed and how the available knowledge can be used to enhance effectiveness, which is, essentially, knowledge management. Wiig (1997, p. 4) also connects the roots of modern-day knowledge management to the revolutions in economic, cultural, and industrial environments. He highlights the major revolutions that may have aided the rise of KM right from Agrarian economics all the way to the knowledge revolution which started during the latter half of the last century. Also noteworthy is the fact that focus on knowledge started in the second stage of natural resource economics, where experts emerged who provided specialized services. The idea of a knowledge economy, also known as information economy, is defined by Kevuk (2008) as the economic structure in which all economic activities within the economic system are realized on a knowledge basis where the knowledge is integrated into these activities.

The contribution of accountancy and consulting organizations to the development of knowledge management is also immense. McKinsey & Co. and Ernst & Young are some of the names associated with the early use of KM. In fact, McKinsey & Co. are reported to have used the term around 1988. One of the most cited definitions of KM has its roots in consultancy:

> A discipline that promotes an integrated approach to identifying, capturing, evaluating, retrieving, and sharing all of an enterprise's information assets. These assets may include databases, documents, policies, procedures, and previously uncaptured expertise and experience in individual workers (Duhon, Gartner Group, 1998).

This definition is unique because unlike others at the time, it captures the essence of tacit knowledge as that which is '*previously uncaptured'* and is made up of '*expertise and experience'* of the employees.

Prusak's (2001, p. 1002) countered the claims by skeptics that KM was just a gimmick by consultants to shore up their declining revenue by stating that KM was indeed meant as a response to real-world problems like the delirious complexity that resulted from globalization; the premium value on the less digitized aspects of knowledge (judgment, leadership, wit, etc.) as a result of ubiquitous computing; and the shifting view of the firm to a more knowledge-centric view as a pool of capabilities created by knowledge. Prusak (2001, p. 1003) also makes reference to a 1993 conference in Boston which was entirely devoted to knowledge management as one of the possible epicenters of the KM debate. Despite a lukewarm view at the time, it sets the stage for further discussion of KM practices for both researchers and practitioners.

Another force that can be associated with the early advancement in KM was the emergence of the internet. The internet and ICT, in general, created more opportunities for the creation, codification, and storage of knowledge in ways that can easily be accessible from anywhere. Firms began appreciating the role of internet technologies in linking different parts of their organization and expanding the creative roles of the employees as well as limiting the access to company knowledge through the use of the firm-based intranet. The decline in the cost of PCs, making them affordable to the masses, also played a role in how people created and shared knowledge (*McInerney and Koenig*, 2011, p. 3). The liberalization efforts and the globalization wave of the 1990s resulted in a previously unperceived vibrant competition. This, and the general inclination towards knowledge-intensive products and processes at the time also contributed to the adoption of several KM practices (Alavi and Denford, 2003, p. 106).

Wiig (1997, p. 6) outlines a 20-year timeline of the development of KM starting in 1975 with activities that did not qualify as KM per se, but which set the ground for the emergence of KM as a practice and an academic discipline. Among the organizations that

have been highlighted in the literature to have been among the pioneers of KM are management consulting firms that, upon the realization that their main business was to act as merchants of knowledge, initiated knowledge management systems as early as 1988; like McKinsey & Company and Price Waterhouse (Prusak, 2001, p. 1003; Wiig, 1997, p. 6) and Buckman Labs which is said to have engaged in KM from 1991 as a way to secure and exploit the collective knowledge of employees (DeTienne and Jackson, 2001, p. 1). Others include General Motors Corporation, Hughes Aerospace and Electronics Company, and Hewlett-Packard Company (Prusak, 2001, p. 1003).

Some of the other definitions that have been proffered for KM include:

> *"an emerging set of organizational design and operational principles, processes, organizational structures, applications and technologies that help knowledge workers dramatically leverage their creativity and ability to deliver business value" - David Gurteen (1998)*

The definition focuses on the infrastructure behind the KM that enables employees to utilize the knowledge they so possess to benefit their firm, while the following definition by Alavi and Leider (2001) only emphasizes the utilization of these knowledge assets.

> *"identifying and leveraging the collective knowledge in an organization to help the organization compete (von Krogh 1998)." - Alavi and Leidner, 2001, p. 113)*

> *KM is the process of unlocking an organization's collective knowledge and expertise wherever it resides and making it available for use the of organizational members so that it can yield the maximum return (Hibbard, 1997)*

> *KM is the systematic, and purposeful construction, renewal, and utilization of an organization's intellectual resources in order to increase its performance and gains (Wiig, 1997, p. 8).*

> *KM is a deliberate strategy of getting the right knowledge to the right people at the right time, thereby helping the organization utilize its knowledge resources in ways to enhance its organizational performance (O'Dell & Grayson, 1998, p. 154)*

As pointed earlier, the definition by Duhon touches on most aspects of KM including tacit knowledge which is missing in most definitions. For this purpose, this is the definition that will be adopted by this study:

> A discipline that promotes an integrated approach to identifying, capturing, evaluating, retrieving, and sharing all of an enterprise's information assets. These assets may include databases, documents, policies, procedures, and previously uncaptured expertise and experience in individual workers (Duhon, Gartner Group, 1998).

2.1.2. Knowledge management construct factors

The state of the KM practices of an organization depends on certain success factors and barriers. The success factors of KM have been considered in the literature under different categorizations. Lee and Choi (2003, p. 181), for instance, outline three categories of enablers, processes, and organizational performance. In this classification, enablers refer to all the factors that enhance knowledge creation and encourage its sharing and application whereas processes refer to the actual act of creating, sharing, storing, and applying the knowledge in the organization, and organizational performance is the extent to which the organization is able to achieve its objectives owing to the possession and application of the knowledge. The enablers, according to Bennet and Gabriel (1999, pp. 216-218), include the technology used, structure (flexible enough to allow creativity, but formal enough to ensure the creativity leads to results), culture (the level of risk-taking and collaboration determines how and how much knowledge is created and shared) and the environment.

Holsapple and Joshi (2000, p. 239) classify the KM factors into three categories: managerial, environmental, and resource-related factors. The managerial factors arise from the activities of the administrators of the KM practices. The extent to which they exercise and the nature of their leadership, control, coordination as well as evaluate valuation of knowledge resources and processors have a strong impact on the direction of the KM practices. The environmental factors, which are often external to the organization, similar to those discussed by Bennet and Gabriel (1999, p. 218), influence both the knowledge processes as well as the availability of the enablers. Finally, the resource factors refer to the organization's financial might, which will likely influence its ability

to generate or obtain knowledge. Resources may also affect the quality of the managerial factors as well as how the organization responds to the environmental factors it is exposed to (ibid. p. 242).

An outline given by Skyrme and Amidon (1997, p. 33) identifies seven knowledge factors that may also comfortably find their places in those already discussed above. The factors include a strong link to a business imperative, a compelling vision and architecture, knowledge leadership, a knowledge-creating and sharing culture, continuous learning, a well-developed technology infrastructure, and systematic organizational knowledge processes.

In Yew Wong (2005, p. 262)'s review of some of the success factors, culture, leadership, and IT are noted to have recurring roles in most of the previous studies. In the review, Yew Wong (2005, p. 266) presents an integrated list of 11 KM factors including management leadership and support, culture, IT, strategy and purpose, measurement, organizational infrastructure, processes and activities, motivational aids, resources, training and education, and HRM. From the eleven factors discussed, leadership and culture are considered due to the relevance to the current study. According to Yew Wong (2005, p. 269), culture can be one of the major obstacles of KM. Culture can facilitate the success of KM practices if it is knowledge-oriented and supports its creation, sharing and application. An innovative culture opens room for creativity, risk-taking, and problem-solving. This opens room for extensive knowledge generation and undisturbed application. A collaborative culture on the other hand creates an environment in which the knowledge is shared among the people who need it. The most important aspect of leadership in KM is the position of the leader as a role model through his behaviors regarding KM. If the leader can be seen to have a consistent interest in continuous learning and sharing of knowledge, his followers would be encouraged to follow in his footsteps. The leader is also tasked with creating a conducive environment that supports KM (ibid. p. 267).

2.1.3. Nonaka's theory of organizational knowledge (SECI Model)

One of the most quoted researchers in knowledge management is *Ikujiro Nonaka,* who has worked to co-author several studies on various aspects of KM. The most important of these is the KM creation theory and the SECI model.

According to the SECI model, organizational knowledge comes into being through the interaction between explicit and implicit knowledge. This interaction is known as knowledge conversion. Explicit and implicit knowledge are converted into each other through different processes which leads to both qualitative and quantitative improvement of both forms of knowledge. The SECI model takes its name from the initials of the stages of interaction between the explicit and implicit knowledge in the conversion process (Socialization, Externalization, Combination, and Internalization).

Socialization (tacit to tacit) is the process of converting tacit knowledge into new tacit knowledge. In socialization, new tacit knowledge is converted through sharing experiences. Tacit knowledge is highly internalized and usually difficult to formalize hence socialization generally takes the form of apprentices who learn through observation, guidance, imitation, and practice rather than through written guides and textbooks. In a space of mutual trust, people can share their creations, mental models as well as world views. Socialization may also occur in informal social meetings outside the workplace (Nonaka, 1994, p. 19; Nonaka et al., 2000, p. 9). The use of words, or language, is not an integral part of the socialization process. Acquisition of tacit knowledge can take place without uttering a single word. Socialization depends on the existence of a physical or virtual space that creates the point of interaction for the members of the organization.

Externalization is the process by which tacit knowledge is converted into explicit knowledge. The internalized nature of tacit knowledge makes it quite difficult to articulate into explicit knowledge, making this a challenging conversion process. However, since it allows for the codification of tacit knowledge into documents and manuals and allows the knowledge to become clear and evident, allowing it to be shared by others and forming the basis of new information, it is one of the most critical processes in the creation and sharing of knowledge (Nonaka, 1994, p. 19; Nonaka et al., 2000, p. 9).

Combination is the process of making explicit knowledge more complex and systematic. The existing explicit knowledge sources like documents and guides are collected, combined, classified recategorized, or transformed into new explicit knowledge that can be used inside or outside the organization. (Nonaka et al., 2000, p. 10). Combination requires the use of social processes that combine different pieces of explicit

knowledge organized by individuals. Individuals exchange and gather knowledge through exchange mechanisms such as meetings and telephone calls.

Internalization is the process that turns explicit knowledge into tacit knowledge. Through internalization, explicit knowledge is shared all over an organization and transformed into implicit knowledge by individuals. This has some similarities with the concept of "learning" (internalization). Internalization is closely related to 'learning by doing'. Explicit knowledge is realized through action and implementation. When knowledge is internalized, it becomes part of the implicit knowledge of individuals and becomes a valuable asset (Nonaka, 1994, p. 19; Nonaka et al., 2000, p. 10).

The interactive process in the SECI Model can take place not only within the organization but also among companies. While the information can be transferred within the boundaries of the organization, it is possible to generate new information through interactions that can occur between different organizations. The information produced by organizations through dynamic interactions enables them to generate new information by interacting with external factors such as suppliers, customers, affiliates, and even universities, by gaining mobility. An example of this is that the confidential information owned by customers can be expressed in a way that can be useful to the company. Any product produced by the company can be used to reveal this hidden information that customers have, and the meanings that customers place on the products can be revealed, from the production to sale, from adaptation to use (Nonaka and Takeuchi, 1995).

The SECI model defines an active process in which explicit and tacit knowledge is converted to different forms. By converting knowledge or experience tacit to the organization or an individual to another person, the knowledge itself becomes socialized (tacit to tacit). The knowledge becomes externalized when individuals who have the knowledge convey this in their communication with the community in forms that can easily be formalized. The formalized knowledge is added to, organized, and classified with others coming from within the community in the combination stage to produce newer explicit knowledge that is more systematized. Through practice and experience, individuals get to internalize the explicit knowledge in forms that will stay in their minds as the main repository. This process of knowledge conversion is crucial to the organizational learning process as well as the maintenance of the organization’s knowledge asset. Tacit knowledge, as has been described above, mostly exists in the

minds of the holder. This knowledge is of high strategic value to the organization as it cannot be imitated by the organization. But in this condition, it is only good as long as the employee holding it is present in the organization. Should the employee leave, for any reason, the said knowledge is also lost? It is thus extremely important to convert the tacit knowledge into forms that can be stored and reused in the organization.

2.1.4. The knowledge management process

The knowledge management process happens in different phases consisting of identify the need for knowledge, acquiring or creating the needed knowledge, evaluating and organizing it, sharing it with other members of the organization, improving its efficiency through feedback from sharing, re-gathering or reacquiring the knowledge resulting from the efficiency creation in the organizational knowledge pool, applying it, and evaluating it based on the results of the application. As can be seen the knowledge management process is an ongoing event with back and forth in many stages to eradicate an inefficiency of the knowledge that is eventually applied and to ensure its strategic efficiency. The stages of KM outlined in the section below are often performed concurrently as the abstract nature of knowledge makes it impossible to determine where one stops and ends.

2.1.4.1. Knowledge creation

Knowledge creation by an organization refers to the conscious and intentional generation of useful information in accordance with the corporate strategy and objectives, and in such a way that will support and provide added value to the organizational processes and practices. The said knowledge could be created within the organization, or in collaboration with external players, or the knowledge could be acquired entirely from external sources. Successful innovation by an organization is enhanced by the collaborative efforts created by the combination of externally generated knowledge and those created and developed in-house (Cassiman and Veugelers, 2006, p. 69).

Organizations use their existing knowledge, experience, values, and corporate traditions to process the information they obtain from their internal and external environment and transform them into new knowledge through an organizational learning process (Davenport and Prusak, 2001, p. 85). This knowledge, which then becomes a part of the institution's knowledge pool, brings a new quality to the institution.

The process of knowledge creation starts with the determination of the need for the knowledge in accordance with the objectives and strategies of the institution. This is then followed by planning, which implies the determination of details like for what, from whom, when, how, and from where the knowledge will be obtained. This is followed by plans about collecting, updating/changing, creating, developing, or acquiring. Knowledge from external sources could be obtained through observation, learning, purchasing or licensing (especially for patented knowledge), recruitment of specialists, scientific publications, and the media among others (Cassiman and Veugelers, 2006, p. 68; Zaim, 2005, p. 167). Internally, knowledge creation may be the result of individual or group activities or may rise from robust R&D practices. The knowledge creation represents the cumulation of intuitions, beliefs, ideas, and personal experiences which then become collective knowledge which is then considered as part of the knowledge capital of the organization.

2.1.4.2. Knowledge storage and retrieval

As well as knowledge can be created, it could also be lost due to poor memory, or it could depreciate in its own quality. Learning organizations could also potentially forget that which they have acquired (Argote, 2013, p. 98; Alavi and Leidner, 2001, p. 118). Non-existent or depreciated knowledge may not grant the necessary competitive advantage to the organization hence the need for organizational memory where the existing knowledge is stored in a way that can be accessed for future applications by authorized entities. Organizational memory may be kept in various forms including physical forms like written documents or electronic databases or file systems or even tacit knowledge acquired and retained as individuals' memories. Other forms of organizational memory may include organizational culture, transformations, structure, ecology, and information archives (Chou, 2005, p. 457). Similarly, Argote and Ingram (2000, p. 153) outline three elements in which organizational knowledge is embedded: members, tools, and tasks. While members refer to the individuals who make up the organization, tools refer to the hardware and software that hold the knowledge including the technological component and the physical structures that make up the organization. Tasks are the *goals, intentions, and purposes*. Memory makes knowledge available for reapplication in repetitive or standardized tasks as well as act as a reference point for new tasks that may learn from the experience of the past. As well as acting as a storage form for

organizational knowledge, the organizational memory also provides a medium for the transfer of the said knowledge.

Information technologies have become an integral part of how organizations store and retrieve knowledge. Information systems provide knowledge repositories for large amounts of information, allowing ease of regulated access while at the same time keeping records of such interaction (Olivera, 2000, p. 814). In this way, as Alavi and Leidner (2001, p. 119) suggested, computer storage and retrieval tools enhance organizational memory.

2.1.4.3. Knowledge sharing and transfer

Despite the rapid expansion of the understanding of knowledge in the recent past, our ability to achieve sustainable growth and development proportionately is encumbered by the reluctance or failure to disseminate this knowledge in its necessary forms (Cribb and Hartomo, 2002, p. 1). As a continuum, Cribb and Hartomo (2002, p. 11) hold that knowledge has seen outstanding success in the discovery and development stages while still weak at transfer, awareness, and application.

Information is only considered knowledge when it adds value to the decision-making process. This means all forms of organizational knowledge need to reach where they will be used in a timely manner, which, often, is not the case. Cabrera and Cabrera (2002, p. 691) highlight the questions a manager should ask themselves regarding knowledge sharing (KS) among employees: why do people choose to share or not share knowledge? What are the motivational factors or barriers that act on the attitude of the players toward knowledge sharing? And what is the role of the organization in fostering the knowledge-sharing practices of its employees?

Nonaka's model of knowledge creation outlines how knowledge can be created at any part of the organization, and often when it is passed from one individual or part of the organization to another, it is transformed, and a new knowledge form is considered to have been created (Nonaka, 1994, p. 19). Nonaka's model and Davenport and Prusak's (1998) formula can help understand exactly what KS means according to the picture painted by Hendrik (1999, p. 92). According to Hendrik's description, knowledge is not

a commodity, and hence cannot just change hands, per se. The basic prerequisite for KS is the existence of two parties; one where the knowledge currently resides and the other that is to receive the said knowledge. The KS process starts when the sender, willingly and deliberately, or otherwise, initiates acts (externalization) that may be perceived by the intended receiver, like displaying, writing, and speaking, or merely performing a task. The sharing is complete when the intended receiver performs acts (internalization) that will enable them to perceive the displayed knowledge, like observing, listening, reading, or learning by performing and generally exerting efforts to comprehend the knowledge.

Argote and Ingram (2000, p. 151) define KS as "the process through which one unit …is affected by the experience of another". They contend that knowledge is only considered to have been effectively shared where there is a change in the knowledge or performance of the recipient. Understanding KS requires an awareness of the distinction between individual and organizational knowledge. Often, knowledge is created at the individual level and then transferred to the organizational level where it is utilized or stored. With this, it is, therefore, easier to understand Hendrik's (1999, p. 91) notion of KS as a link between the individual and organizational level knowledge.

Using the *public good dilemma*, Cabrera and Cabrera (2002, p. 691) explains how the feeling by an employee that others would cooperate in the knowledge sharing would encourage them to gladly contribute their own knowledge to the pool. On the other hand, if an employee feels that he gains nothing by sharing his knowledge (like in competitive environments where he may even feel like losing an edge by sharing his knowledge or when the effort of making the contribution to the organizational knowledge pool seems to take too much effort), he may limit or entirely refrain from sharing (Cabrera and Cabrera, 2002, p. 9).

Knowledge is easily sharable when there is a notion of shared experiences among members of the group involved. The shared understanding may help iron out any contradictions that may result from different forms or sources of knowledge (Nonaka, 1994, p. 24). Shared experiences help members of a team to understand what others are trying to express even when the articulation may be fuzzy. When the collaborative efforts of sharing knowledge are conducted within the framework of a community of practice, as opposed to considering individual groups as independent entities, more fluidity (in

speed and constancy) in the transfer of knowledge can easily be achieved as a result of the trust built among the team members (ibid, p. 24).

Every knowledge shared between employees is an opportunity to boost their skills and competencies as well as an occasion for the mutual creation of new knowledge (Yang, 2007, p. 531). By sharing knowledge, the sharers get a chance to perceive their knowledge in a different light while the recipients get to learn.

2.1.4.4. Knowledge application

There is no benefit accruing to an organization just from the mere possession of any particular set of knowledge. Its existence alone does not guarantee any form of process, product, or service effectiveness nor does it grant any competitive advantage. The knowledge only becomes of value to the organization if it could be used to shape decisions regarding the strategic and operational issues of the business, and if it creates innovative opportunities or helps in making better use of the existing opportunities. Knowledge application implies the incorporation and use of the knowledge from the various sources into the procedures and processes of the organization (Birasnav (2014, p. 1623). Sarin and McDermott (2003, p. 708) argue that one of the main roles of the organization is to inspire its member to apply the knowledge they possess in pursuit of the organizational goals. In the individual context, according to this view, encouraging knowledge creation plays secondary to application.

2.1.4.5. Organizational factors influencing knowledge sharing

Since an understanding was reached on the role of KS in helping knowledge achieve its competitive advantage status, several studies have been carried out on various aspects of KS. Most of the studies have focused on the KS behavior with a few others looking at the KS attitudes of organizations. Attitudes have been shown to shape KS behaviors in organizations. Schauer, Vasconcelos, and Sen (2015, p. 786) recognized the role played by the attitudes of the individuals (sharers) involved in the exchange process. They noted that as much as the characteristics of the *sources* shaped their perception of the knowledge sharing process, the attitudes of the receiver also had significant impacts on this understanding. Beyond the individual level, they noticed the influence of the "*common sense of a lived experience*", a concept that may have previously been used to define organizational culture (Schein, 2004, p. 11).

Earlier research on the obstacles focused on the contextual factors that made it impossible to transfer knowledge, like features of the organizational culture and structure. With the inevitability of KS becoming apparent in all organizational operations, later studies, have however focused on factors that affect the ease with which the transfer could be made (Zander, 1991; Szulanski, 1996, pp. 27-43) by focusing on the nature of the knowledge itself.

Kostova (1999, p. 313) identified social, organizational, and relational contextual factors that make knowledge transfer possible, especially, in multinational corporations. The social context factors include the cognitive, regulatory, and normative factors which are aspects of the institutional and socio-cultural environment in the organization, comprising issues such as culture, leadership, and distribution of power. This organizational context also makes reference to organizational culture and how it affects the recipients' absorptive capacity as well as the compatibility of the knowledge transferring units, sentiments similar to those of Zander and Kogut (1995, p.87). The organizational culture affects the view of the organization towards innovation, change, and learning, factors which all shape the absorptive capacity (Yu, Lu, and Liu, 2010, p. 40).

The relational context of knowledge transfer is an area that has received a lot of focus among researchers of KS. Relational context looks at how the sender and the recipients of the knowledge items relate and their general attitude towards each other and the knowledge to be shared. In this context, KS is considered in terms of the willingness of the sender to share his knowledge as well as his reliability in the eyes of the recipient (Kostova, 1999, p. 317; Yu et al. 2010, p. 40).

Even with sufficient willingness and the right systems to share knowledge, Dixon (1994, p. 22) reckons that a seamless transfer depends on the nature of the knowledge to be transferred, the intended receiver of the knowledge as well as the nature of the task to which the knowledge is to be applied. Dixon considers the tacit and explicit nature of the knowledge as well as its scope in terms of the number of people or functional units impacted by the knowledge as some of the knowledge factors that may affect how it is transferred. While explicit knowledge has been shown to require simpler systems to transfer, transferring tacit knowledge, like transferring manufacturing capabilities

(Zander and Kogut, 1995, p.79) or knowledge on new products (Hansen, 1999, p. 82) has been found to be more difficult.

Zander and Kogut (1995, p. 81) consider other dimensions of knowledge that may affect how effective its transfer is implemented, including *codifiability*, which implies the ease with which a given item of explicit knowledge could be documented, and *teachability*, which is the ease with which any form of tacit knowledge could be taught to other employees given its documentation difficulties.

For the harmonious transfer to take place, the intended recipient needs to have the absorptive capacity to appreciate the knowledge being shared. This may be a factor of the intellectual or technical capacity of the receiver or the degree of shared experience between the knowledge traders. The recipient needs to adequately comprehend the language and the cues of the sender. The complicatedness and reoccurrence of the tasks involved also have an impact on knowledge transfer, as sharing where routine tasks are involved takes less effort from both the sender and the receiver.

Dixon (2000, p. 7) observes that people are naturally inclined to share information that they have and feel somebody may need because humans are a 'teaching species' by nature. Why then, is it such an uphill task to get different parts of the organization to share knowledge which is eventually intended to benefit the whole organization?

The sharing of tacit knowledge is often dependent on proximity as it is generally achieved through observation. An aspiring chef would learn more from observing the master chef at work than anything said or learned from books. There is, therefore, a need for an atmosphere of shared experiences between the parties to an extent where gestures and emotions associated with certain actions carry universal meanings to all parties. Some forms of knowledge may lose their intended meaning if they are dissociated from the rooted emotions. This is the observation made by Nonaka (1994, p. 19) when trying to highlight the role of shared experience in the transfer of tacit knowledge.

Cabrera and Cabrera (2002, p. 698) look at KS from the economic concept of the *public good problem*. A public good is a common resource that does not decline in quantity or value with use and from which all members of the group can benefit whether they contribute to its continued existence or not. The problem here is that certain individuals within the group will be tempted to exert the least effort or none at all since

their usage of this resource will not be impacted either way. Looked at in this manner, the knowledge that exists in an organizational database free for all members to use is a form of a public good. Members will be reluctant to share their knowledge under these circumstances unless they are assured that everybody will indeed contribute their share into the pool. This willingness to share knowledge within a community from which one has previously received or intends to receive knowledge also appears in the sharing behaviors among online communities as demonstrated by Yu et al. (2010, p. 39)

Whereas the physical distance may frustrate KS by limiting access or introducing numerous cost factors, social distance encumbers KS even when both parties are in the same physical location. Lack of a common language between the parties involved in sharing the language may also slow down or entirely hinder the sharing of knowledge or may even lead to a misunderstanding of the informational content (Hendrik, 1999, p. 92). Hendriks discusses various ICT fixes that could eliminate the access issues through a knowledge database that allows storage of knowledge assets and systematic retrieval. He also highlights the role of the motivation of knowledge workers on KS (ibid, p. 94).

Ultimately, everything falls on to the integration of the organization's goals and strategy. Riege, (2005, p. 26) points that the level of a shared objective has a way of bringing people together in an organization. Senior management should thus seek to transmit the goals and strategies transparently to all employees imparting the notion of equifinality among the employees and encouraging them to share. In this context, sharing is best done in open and flexible organizations. Structured high hierarchical organizations discourage KS.

Also of importance are the technological barriers including deficiencies in information systems integration, lack of technical and maintenance support, unrealistic expectations from information technologies, incompatibility between information systems and processes, lack of experience and training in both current and new information systems in employees (Riege, 2005, p. 23).

Organizations grow or change over time. Growing or changing organizations' way of doing business, strategies, goals, plans, and environments are also affected. The presence of qualified personnel and necessary information and technological systems alone does not automatically lead to positive KS. There should also be a culture and

necessary infrastructure that encourages KS. It is important that leaders and each manager at the management level provide the necessary resources and create the appropriate infrastructure to facilitate KS.

Incentivizing people to share has the potential of balancing off the costs involved in sharing. As highlighted by Hendriks (ibid, p. 94), the various motivational avenues should be explored. The *public good problem* could also be eradicated by making contributions to the knowledge pool a responsibility of all employees (Cabrera and Cabrera, 2002, p. 698)

2.2. Culture and Organizational Culture

Culture is the natural subject matter of anthropology, and as such, the anthropology literature is littered with elaborate descriptions of various aspects of culture which would have meaningful ramifications on various modern organizations. Culture defines how man perceives his surroundings. All men are meant to look at the world through a prism defined by a set of beliefs and customs which dictate their comprehension of right and wrong. One of the early anthropological assertions of culture is that it is 'located in the minds and hearts of men'. Geetz (1973, p. 10), one of the most prominent anthropological voices that influenced how culture is viewed today, stated that as much as culture may be ideational and unphysical, it neither exists in someone's head nor is it an occult entity, rather, it is what is formed when human behavior takes on a symbolic action. He goes ahead to quote *Goodenough's* description of culture as that which one 'has to know or believe in order to operate in a manner acceptable' (1973, p. 11) to the members of the group, ranging from the pigments they use in their paintings, how they enunciate in their language or the harmony in their music. By Tylor (1871, p. 1)'s definition, the list of items that define culture extends to include habits, customs, art, morals, and laws that qualify one as a member of a particular society.

More theories have arisen from the field of anthropology that have sought to define and categorize culture based on various assumptions and perspectives. One such viewpoint can be found in Keesing (1974)'s typology of schools of thought which sought to bring together the various persuasions around culture. The typology (as seen in figure

2.2) provides a comparative view of theories that view culture as a social system and those that consider it a system of ideas (Allaire and Firsirotu, 1984, p. 195).

As a social system, four distinctive schools emerge based on the time and space notion (synchronic and diachronic). Malinowski's *functionalism* uses an organic analogy to describe the functionality of the society and its different parts. In this perception, humans have biological needs (food and shelter), and culture exists as an institutional device with a set of norms whose main function is to help satisfy these needs. Culture is also viewed as part of the social structure (Allaire and Firsirotu, 1984, p. 197; Firth, 1959, p. 16). In Radcliffe-Brown's *structural-functionalism*, culture plays the role of an adaptive mechanism that allowed people to exist together within certain social structures. In this understanding, culture, as an institution, implies the system of relationships whose main function is to maintain the equilibrium of the society and keep it existing as a system, and men as just momentary occupants of social roles (Allaire and Firsirotu, 1984, p. 197).

Keesing (1974) identified three schools under the theories that view culture as a system of ideas, with Allaire and Firsirotu (1984, p. 198) adding a fourth. The *cognitive school* regard culture as a system of knowledge or thinking patterns that determines how people understand their environment and how they act. In the words of DiMaggio (1997, p. 267), "…our heads are full of images, opinions, and information, untagged as to truth value, to which we are inclined to attribute accuracy and plausibility." Culture is, therefore, just a system of stored memory, schematic organization of material phenomena that already exist.

The *structuralized school* looks at the mental process of man as an amalgamation of various elements. It examines the relationships that exist between the terms that make up the whole. In cultural anthropology, Levi-Strauss proposed an understanding of culture as a structural relationship of the various basic elements which unite to make up the manifested form of culture. At the very core of culture are a set of hidden rules that govern all human thought and the relationship between the elements, and which are understood only by the members in ways they cannot articulate (Allaire and Firsirotu, 1984, p. 198).

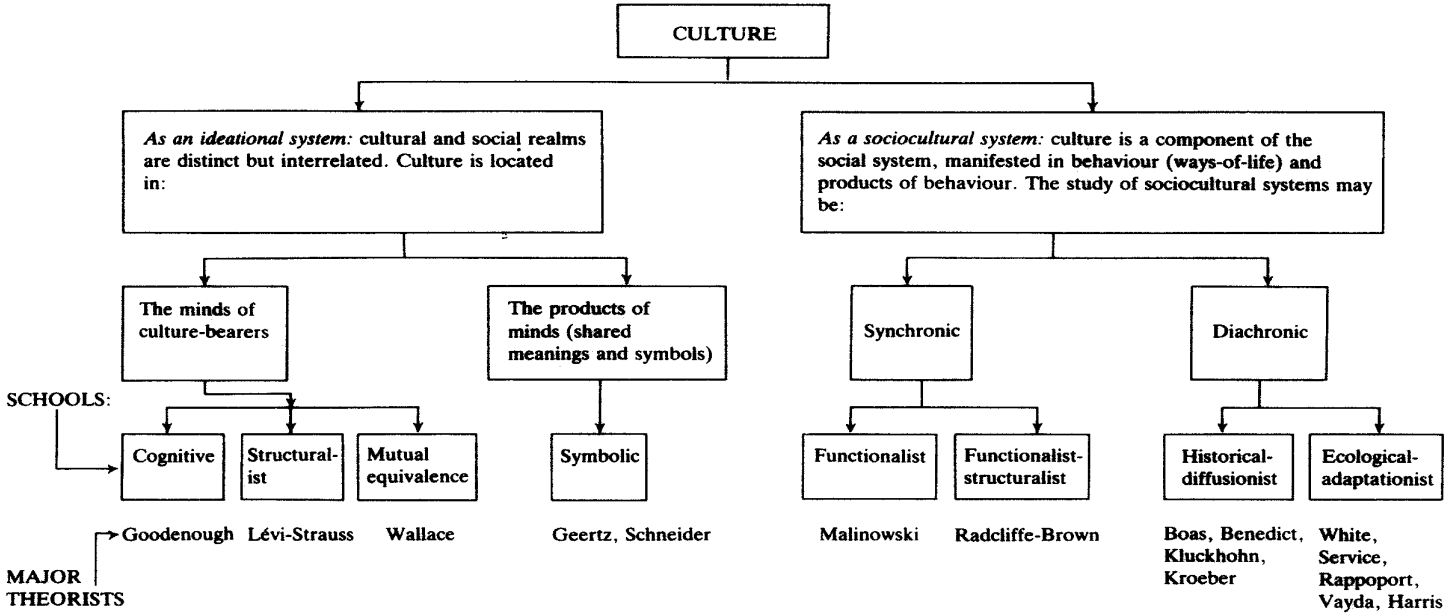

Figure 2.2. A Typology of Concepts of Culture (Allaire and Firsirotu, (1984, p. 196)

The definition by Malinowski (1941, p. 185) of culture as "*an extensive instrumental system of organized activities… exercised by a system of related institutions … following rules … and contributing towards the work of the culture as a whole*" embraces the idea of culture as a creation of the contributive efforts of all the members of the group, which also reflects what Taylor (1871, p. 1) termed as *uniform actions of uniform causes*. Malinowski (1941, p. 195) further notes that culture is formed as a result of a habit being transformed into a custom. However, for this to succeed, the artifacts, skills, and norms that form the habit must be transferable between members of a given organized group, also implying the need for a means of communication.

The performance, by man, of tasks in any given setting, is predicated upon certain environmental forces that govern the practice within that context. Whatever we do, whatever is considered right or wrong depends on the collective rules that have been agreed upon by the members of that group. By considering organizations as human groups, it is possible to view them as tribes with some shared meanings. Organizational culture has become a key discipline in organizational theory but is yet to obtain an unambiguous definition of its own. Pettigrew (1979, p. 570) provides a view of organizational culture as that from which the organization itself arises. Without culture, there is just an aggregate of people and not a group or organization to speak of (Schein, 2004, p. 88). The symbolism within the group, ranging from rituals, relationships (which determine the distribution of power and power distance), myths, and the language used by the members determines what becomes of the organization formed. Hofstede, Neuijen, Ohayv, and Sanders, (1990, p. 286) point to the vogue status that organizational culture has enjoyed among academics and managers with no definition capable of substantially holding it down. They proffer an understanding based on the basic characteristics of organizational culture which include being holistic, historically determined, related to anthropological concepts, socially constructed, soft, and difficult to change.

One of the studies that attempted to provide a comprehensive of organizational culture in a way that somehow included the characteristics outlined above was done by Schein (2004). While remaining cognizant of the abstract nature of culture itself, Schein (2004, p. 14) views culture in terms of how it is formed and the elements it contains

therein. He defines culture as a pattern of shared assumptions that have stood the test of time and have been proven to work and can thus be transferred to new members of the organization. Schein's definition echoes that given by Eliott Jacques, as referenced by Duncan (1989, p. 229):

"The customary or traditional ways of thinking and doing things, which are shared to a greater or lesser extent by all members of the organization and which new members must learn and at least partially accept in order to be accepted into the service of the firm".

Organizational culture, thus, is the glue that holds together the different units of the organization into a unified code of behavior and practice. What defines the culture of an organization may range from subjective factors like the shared assumptions, beliefs, values, and norms, to objective ones like buildings and organizational stories, to the perspectives of the outsiders regarding what they see in the organization (Schein, 2004, p 15; Duncan, 1989, p. 230).

The historical determination of organizational culture starts from the visions, actions, and feelings of the founder at the establishment of the organization. The leader forms his vision based on his experience and adaptation to the environment. They create the ideologies, symbols, beliefs, and values with which the organization will be identified. They then seek to bring people together under this vision to accomplish the goals of the organization. The leader then initiates the indoctrination of behavior by facilitating the adoption of the vision (Schein, 2004, p. 227).

2.2.1. Cultural typologies

Since the determination of culture as a discipline of organization theory, there have been numerous attempts to classify the culture. The complexity of culture and the lack of consensus on its definition makes it difficult to explore and gives way to the numerous approaches proposed by different scholars. The profusion of dimensions seeking to describe and categorize culture may be attributed to its ambiguity, complexity, and wide scope covering different disciplines (Cameron and Quinn, 2011, p. 32).

The classifications and the different perspectives consider the distinctive characteristics of culture which distinguish the ways things are handled in different

organizations (or groups), highlights how the culture is experienced or manifested within the organization as well as highlight the strengths and weaknesses of the organization in its interaction with the environment.

Martin and Meyerson (1988)'s three perspectives of how the various aspects of culture are manifested and understood in the organization. These, they describe in three paradigms.

The first paradigm of *integration* represents a strong culture in which consistency of the espoused values is strongly held throughout the organization. Action, symbolism, and consistency of informal and formal practices are key components of this cultural paradigm. In this paradigm, culture is that (practices, contents, and artifacts) which is shared by the members of the organization. The higher the consensus the stronger the culture is likely to be considered (Martin and Meyerson, 1988, p. 12).

The second paradigm of *differentiation* brings the idea of the subculture, which implies inconsistency and possible conflict. Consensus stop being an organization-wide issue, but rather a factor of smaller units as functional and status differences begins to appear. Espoused values and formal and informal practices may seem uniformly reflective, but their implementation, as well as the interpretation of the artifacts, will be indicative of functional or status differences. The different manifestations of the organizational culture may be enhancing, conflicting, or indifferent to each other.

The *ambiguity* paradigm houses both consensus and discord. The existence of the different subcultures identified in the differentiation paradigm shows the conflicts that exist within the organization. However, ambiguity advocates for a situation where members of the subcultures understand the various areas of disagreements and as well as the unifying factors of the organization that holds them together, hence helping avoid an all-out war. Ambiguity thrives on the knowledge of the inevitability of conflict and the potential for positive outcomes of controlled conflicts.

Another of the most prominent and earliest classifications of culture is Hofstede's (1980) national culture which considered the cultural differences observed among organizations in different countries and come with a distinction in the realms of *large*

versus small power distance; individualism versus collectivism; masculinity versus femininity; strong versus weak, and uncertainty avoidance. In a study that considered 100,000 people in over 40 countries, Hofstede emphasized the role of country values in the classification of organizational culture. He found that the values that made up organizational culture stemmed from community culture (Hofstede, 1980, p. 44). Initially, Hofstede divided the cultural values into the four dimensions mentioned above, but later added another dimension (*short- and long-term orientation*) upon conducting similar studies in East Asian countries (Hofstede, 1994, p. 4).

Power distance shows the extent to which a society accepts the unequal distribution of power in institutions and organizations (Hofstede, 1980, p. 45), or rather the extent to which the less powerful members of the organization have come to accept this unequal distribution (Hofstede, Hofstede, and Minkov, 2010, p. 61). Societies with larger power distances are characterized by socially less powerful people being subject to stronger people, hierarchies in organizations, inequality between the upper and lower levels. In organizations that adopt this cultural dimension, employees are generally afraid of disagreeing with their seniors and the leadership is autocratic making all the decisions. In societies with low power distances, the degree of dependence between the socially strong and the weak is low (there is an increased interdependence relationship as employees often consult their bosses), the privileges and status symbols are minimal, and the decentralized understanding is dominant (Hofstede, 1980, p. 46; Hofstede et al., 2010, p. 61).

The *level of avoidance uncertainty* describes the degree to which societies avoid uncertainty. How threatened are the members of the organization by the unknown (Hofstede et al., 2010, p. 61)? High levels of uncertainty are associated with feelings of anxiety and nervous stress that pushes the limits of tolerance such that people develop various coping strategies against this tension, such as reliance on religion, technology, and law to beat or lessen the burden of the stresses. In countries with high scores in avoidance of uncertainty, people tend to be visibly more aggressive, have more anger, and everything that is out of the normal may be considered as different. This implies a preference for more stable environments for organizations. On the other hand, in countries with low uncertainty avoidance scores, uncertainty is a normal part of life, and every experience is lived as it comes. Anxiety and stress levels in daily life are low. Society is

generally flexible. People are largely more agreeable and, in some instances, even welcoming of unfamiliar risks. (Hofstede, 1994, p. 6; Hofstede et al., 2010, p. 203).

The *individualism-collectivism* is the degree to which people in a social group choose to either act as individuals and fulfill only their individual goals or be *integrated into strong cohesive in-groups, which throughout people's lifetime continue to protect them in exchange for unquestioning loyalty* (Hofstede et al., 2010, p. 92). In collectivist societies, an individual learns to respect the group to which they belong, usually the family, and to separate the members of the group and the non-group members (in other words all other members). Children grow up as group members when they grow up and expect the group to protect them when they are in trouble. In turn, they must remain faithful to their groups throughout their life. In individualist societies, a child learns to think of himself as "me" instead of "us." He knows how to stand up on his feet in one day, and he no longer needs protection from his group and therefore does not feel the need for strong loyalty (Hofstede, 1994, p. 6). In organizations where individualism is at the forefront, the individual has a high level of thinking about their own interests and objectives. The structures, systems, and processes in an individualistic organization are set up to encourage individual performance whereas organizations with a social structure emphasize values such as group commitment, group goals, group performance, and success.

The gender perception dimension considers the values attached to the *masculinity versus femininity* opposites in the group (organization). In a masculinity-oriented group, gender roles are clearly defined with men expected to display qualities such as assertiveness, performance, focus on material success and competition while women are expected to be more modest and tender. The degree of dominance over values such as quality of life, warm personal relationships, care for the service, care for the weak, and solidarity are more related to the role of women in almost all societies. In a masculine society, even women have very difficult values, but not as men. If the differences between female roles and male roles in a country are relatively small, the dominant values are more feminine. In a feminine culture, men have very sensitive and soft values (Hofstede, 1994: 6).

The fifth dimension of long-term vs short-term orientation was the result of a later study by Hofstede that considered 23 countries based on survey instruments developed

by Chinese scholars. This new study was prompted by the fact the Hofstede's previous IBM study did not adequately cover the West-East cultural divide and that did not have a clear perspective of the Asian cultural orientation (Hofstede et al., 2010, p. 236). In defining these two dimensions Hofstede stated that:

> "*long-term orientation stands for the fostering of virtues oriented toward future rewards—in particular, perseverance and thrift. Its opposite pole, short-term orientation, stands for the fostering of virtues related to the past and present—in particular, respect for tradition, preservation of "face," and fulfilling social obligations*" (Hofstede et al., 2010, p. 239).

A long-term oriented culture is characterized by a strong sense of perseverance and forward-looking planning made in the anticipation of future rewards. Adaptiveness is a core part of the business and what is considered good, or evil is determined by the circumstances the business is in. On the other hand, a short-term orientation culture is built on preserving the values/virtues of the past and present. Emphasis is on saving face and quick results in the now, and personal loyalties change depending on the present needs of the organization. There is a sense of absolute right and evil, a statement captured in; "i*f A is true, its opposite B must be false*. In the short-term orientation, traditions are sacred, while in long-term orientation traditions can be adapted to changing conditions (Hofstede et al., 2010, p. 251).

Arnold and Capella (1985)'s typology considered culture in two dimensions; strong-weak and internal-external focus dimension. Cooke and Rousseau (1988, p. 252) also outlined 12 different cultural traits which mostly emphasized individual tendencies, giving light to the existence of a variety of subcultures within the organization, but which ultimately play a significant role in building a semblance of the organizational culture visible to outsiders. The styles included *Humanistic-Helpful, Affiliative, Approval, Conventional, Dependent, Avoidance, Oppositional, Power, Competitive, Competence/Perfectionistic, Achievement, and Self-Actualizing*.

Another notable model that seeks to distinguish the different cultural traits is The Denison Organizational Culture Model. This model, introduced by Denison (1990), highlights the cultural traits that are understood to influence the effectiveness of the organization. The Denison model of organizational culture presents the four main cultural

traits as *Involvement, Adaptability, Mission,* and *Consistency* (Denison, Janovics, Young and Cho, 2006, p. 6).

Involvement refers to a culture model where the individual in the organization has a sense of belonging to the group. Commitment to the goals and autonomy run high in this structure as people feel that there is a connection between their work and the purpose of the organization. This trait is divided into three constituents that mainly focus on a cordial relationship with an empowered workforce (empowerment, group orientation, capacity development).

Adaptability culture places on the flexibility/external orientation quadrant and represents an organization that is more amenable to the happenings in its environment. They are driven by the need to satisfy the demands of the customers. There are high levels of innovation and change to match the pace of the environment. The constituents of this cultural trait are customer focus, creating change, and organizational learning.

Mission represents a cultural position that emphasizes the orientation and purpose of the organization with a clear definition of the organizational strategy. With an external orientation and focus on stability, this type of culture is made of strategic direction and intent, goals and objectives, and vision.

Consistency is in the internal orientation and stability quadrant and is the definition of a culture whose main building blocks are the systems and the values that birth coordination and integrity among members. Core values, agreement and coordination, and integrity are the constituents of this culture. Successful organizations of this type generally have a strong culture and the behavioral norms of members are established in core values.

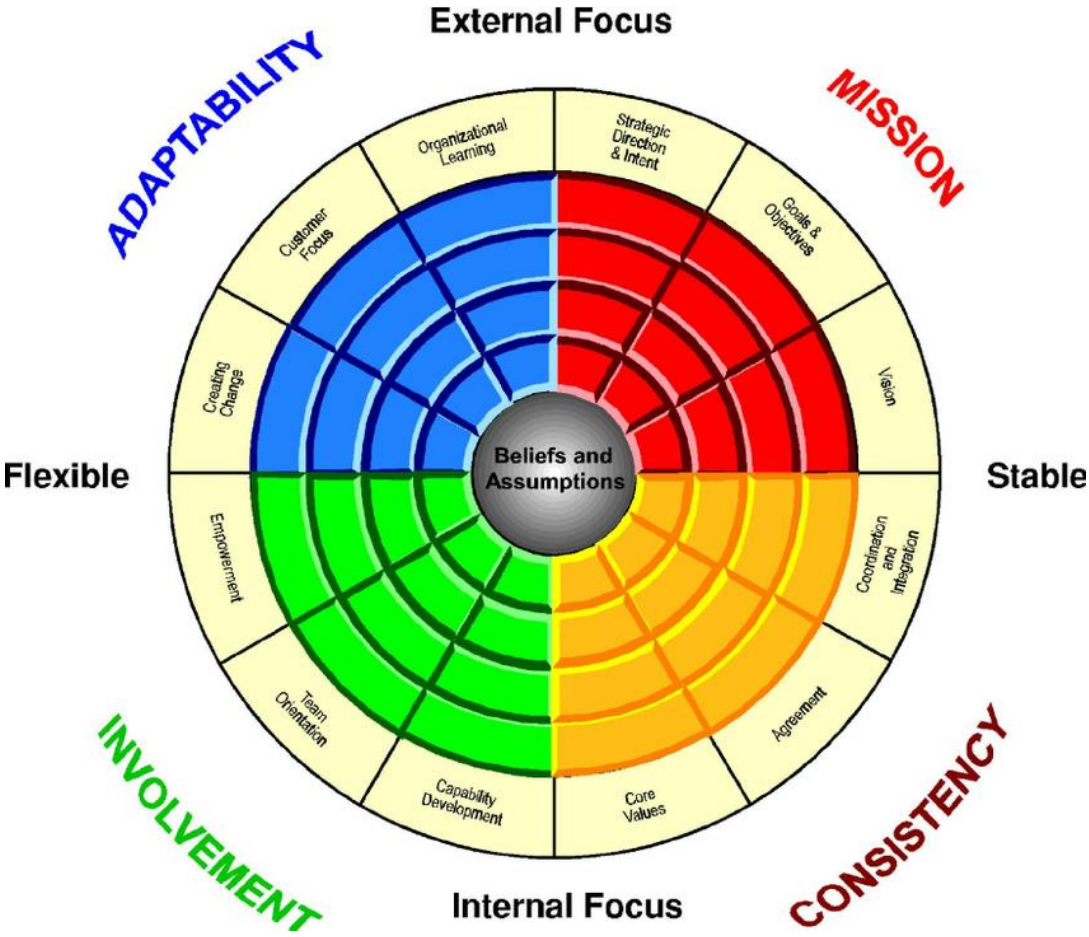

Figure 2.3: Denison's Culture Model (Denison et al, 2006, p. 36)

2.2.2. The competing values framework

Ouchi (1980, p. 130) came up with three approaches of categorizing culture depending on the level of ambiguity and incongruence between individuals within a group to try to predict the behavior of the group (organization). These are *Markets, Bureaucracies, and Clans*. In a related classification, Cameron and Quinn, (2011) presented the Competing Values framework which has become one of the most widely accepted models of organizational culture. The framework was developed by Quinn and Rohrbaugh (1983) as an approach for the exploration of organizational effectiveness based on the studies that covered both organizational effectiveness (Campbell, 1977) and psychological archetypes (Jung, 1923). These studies guided the classification which considered both the classification of the groups and the values included in the framework. The framework is established around two dimensions, the first one built on a competing flexibility-stability continuum. Whereas one end of this continuum emphasizes the need for order, control, and stability leading to predictable and a more mechanical

organization, the other end of the axis believes that the effectiveness of the organization requires flexibility, ductility, and spontaneity. The is dimension comparable to the mechanical and organic organizational types propounded by Burns and Stalker (1968). In the second dimension, the manager is faced with the choice of whether to build their organization on an internal or external orientation. The internally oriented organization focuses on structural stability and control, integration and unity, and ways to preserve the position of the organization while external orientation emphasizes interaction with the environment and rivalry. The interaction of these dimensions gives rise to four divergent and often competing culture types in the lines of effectiveness, organizational leadership, and commonly held beliefs (Cameron and Quinn, 2011, p. 34). The culture types include:

Hierarchy Culture

The hierarchy culture is defined on the stability/control and internal orientation dimensions. It focuses on the stability of the organization and is characterized by its focus on control and the internal functions of the unit. Organizations following hierarchy culture are the typical Weberian bureaucracy of orders and rules and as such, they are usually associated with information management, documentation, work schedule, stability, centralization, continuity, and control. There are rules the strictly specifies what ought to be done by whom and individuals are expected to abide by these rules. Individual efforts are awarded by the predictable nature of the jobs and job security.

Market Culture

A market culture implies that the organizational nature emphasizes external orientation, competitiveness, and efficiency, while at the same time seeking stable and controlled aspects (Berrio, 2003). The external orientation implies that the organization is more focused on its transactions with parties external to the organization and as the name suggests, they are easily impacted by the changes in the environment in which they operate. Profitability and competitive edge are attained by getting the job done and satisfying the needs of the customers. Success is measured in tangible terms like the market share and profits. The pursuit of personal success is an integral part of this culture type. The functioning market mechanism in the organization will measure the contribution of each employee to common interests and everyone will be rewarded for their personal contribution. If a person does not contribute at all, he will not receive an

award so that equality will be ensured. Leaders in this culture are quick thinkers and competitive by nature.

Clan Culture

The clan culture is characterized by inward-orientation, unity and teamwork, informal control processes, and a family-like environment. Such organizations are like a family, and leaders, like parents. Friendly relations dominate in these organizations and the people are traditionally loyal. Profit, harmony, and morale are of great importance for human resources development in the organization, and success is rewarded not to the individual but to the unit that makes the team. In a clan-type culture, the spirit of the society towards a common goal is so strong and the system so fair to the efforts of the members in the long term that no one would want to imagine themselves out of this system of service. The glue that holds the group is so strong that it would break the team spirit to bring a leader from outside. The leader players the role of empowering the employees and facilitating their commitment to the organization and team (Cameron and Quinn, 2011, p. 41).

Adhocracy Culture

The adhocratic culture represents an organic structure that is marked with innovation, flexibility, and entrepreneurship. As opposed to hierarchy and market cultures, centralization of power is uncommon in an adhocracy, creating an environment where guidance and control are reduced to the individual or task team levels and the emphasis is on individual creativity and innovation. In this culture where there is a dynamic, creative business environment, people are expected to integrate with experience, innovation, and risk. The organizational status and positions (structure) are often non-existent or are considered temporary, with most of them disintegrating at the end of the projects they were intended for (Cameron and Quinn, 2011, p. 44). Within this structure, employees are encouraged to take initiative and risk, be innovative. Organizations involved in marketing and electronics often embody this culture type due to their need to quickly perceive the changes in the environment and enact changes in response in order to meet the growing and changing demands of their customers (Daft, 2010, p: 382). The main emphasis of adhocracy culture is on growth, innovation, and the delivery of cutting-edge products. The leader should be a risk-taker and a visionary.

The four categories in the competing values model are based on the compatibility and harmony between the different cultural values. Each of them may be applicable and may prove successful depending on the needs for stability and interaction with the external environment. It is, however, possible to have each of the four facets of organizational culture in varying amounts in an organization at the same time; one may be more dominant.

While describing ideologies (cultures) that prescribe what goes on in the organization and how, Harrison (1975) highlights four such ideologies that separate one organization from the other; power orientation; role orientation; task orientation; and person orientation. A similar approach was later given by Handy (1993) which provided a link between the structure of the organization and the ensuing culture. *A power-oriented* culture encourages the pursuit of dominance among organizations in the environment and within the organization. The organization prides itself in being able to respond quickly to the demands of its environment and this is mostly possible through centralization and its emphasis on individuality which then gives rise to competition (Harrison, 1995, p. 7). In a *role-oriented* culture, rationality and order reign with clearly defined rules and procedures of conduct. Operations are based on standardization (predictability), efficiency, and speed. *Task-orientation* values goal achievement and hence all part of the organization structured towards the accomplishment of the common task. What is to be done is determined by the requirement of the task and employees enjoy a level of independence that may even allow them to deviate from rules and regulations if that becomes necessary for the accomplishment of the task. When the needs of the members become more important than achieving tasks, then the organization is operating under the *person-orientation*. This culture emphasizes equality and meeting the needs of the employees including training and development (Handy, 1993, p. 185).

The classification by Handy (1993) is also mirrored in the works of Trompenaars (1993) who also presented a four-way classification of organizational culture generated in the dimensions of *equality-hierarchy* and *orientation to the person-orientation to the task*. The four resultant corporate cultures include *the family, the Eiffel Tower, the guided missile, and the incubator*.

The *family* is the equivalent of Handy (1993)'s power orientation in that it represents a hierarchical, authoritarian structure with the leader occupying the role of the

father in a family setting who gets the job done based on the power he wields. Personal relationships are given weight. The power itself is based on an authoritarian system as opposed to the role played by the leader. This culture values effectiveness at the expense of efficiency. The key to the *Eiffel tower* is the procedures and rules that result in a bureaucratic system with clearly prescribed roles, similar to Handy (1993)'s *role orientation*. As opposed to the family culture, authority here arises from the roles which are clearly defined, and rewards based thereupon. Personal relationships are frowned upon as they are considered to cause distraction and biases. In a *guided missile*, everything that can be done to achieve the end result is encouraged. Members are tasked to do whatever it takes to accomplish the goal. The *tasks*, not being clearly defined implies the need for creativity and competency in order to achieve the desired end. Suitable for projects and team works, the guided missile embraces a harmonious working environment although the relationships formed are not permanent and end as soon as the project does. The *person-oriented incubator culture* operates at the personal convenience of members, intended to free them from routine and create an environment for innovation and creativity (Trompenaars, 1997, p. 1

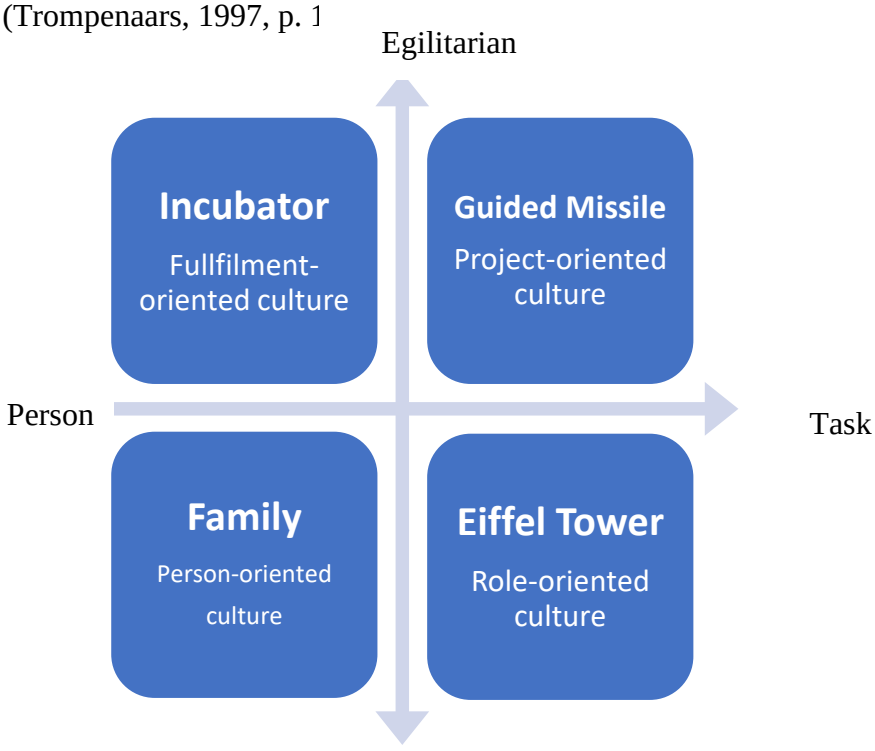

Figure 2.4: Trompenaar's Corporate Cultures

Deal and Kennedy (1982) describe a culture classification based on the relationship between the culture and the environment. The success of the organization depends on factors of the environment such as uncertainty and speed of feedback, and this relationship leads to four cultural types: *The Tough-Guy Macho Culture, The Work Hard/Play Hard Culture, The Bet your Company Culture* and *The Process Culture*. The tough-guy macho is a cultural type for organizations in uncertain environments where members often take high risks expecting the returns (positive or negative) in a short time. This kind of culture embraces risk-taking among its employees as can be seen among stockbrokers chasing the market (Deal and Kennedy 2000, p. 12). In the work hard play hard structure, the risks are not as high but the returns equally faster. Teamwork and persistence are encouraged here as the main source of culture as seen in the automotive industry (Deal and Kennedy 2000, p. 13). In the bet your company culture, big and wide-ranging decisions are made whose returns take time to be realized leading the organization to enter high-risk high-stake situations whose outcomes are slow to come (Deal and Kennedy 2000, p. 13). The focus is on the future, like organizations in the construction industry and investment banks. As the name suggests, the process culture values attention on the nature of work and in achieving operational quality as opposed to the result. The nature of work is that it cannot be measured hence, there is, often, no feedback and the associated risks are quite low as experienced in pharmaceuticals (Deal and Kennedy 2000, p. 13).

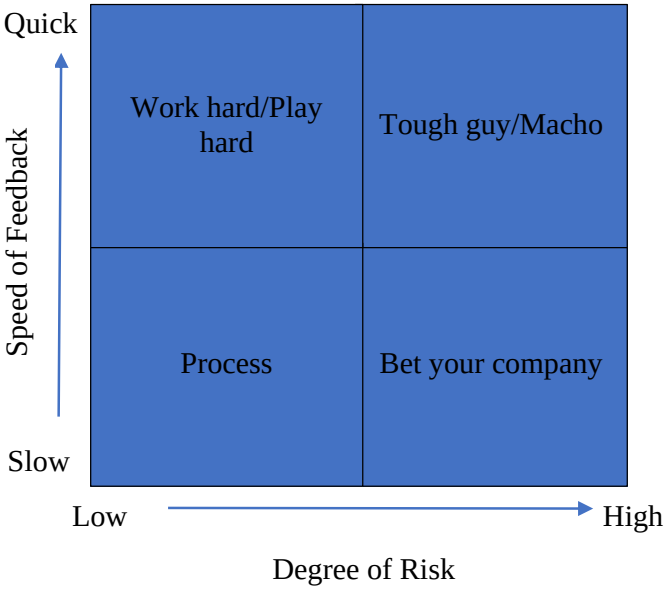

Figure 2.5: Deal and Kennedy Organizational Culture Model

Another study that borrows from the works of Handy (1993) as well as Deal and Kennedy (1982), and which has received its share of attention among researchers is by William Schneider in which he tried to improve on the efficiencies of the other models and generate a model with the more universal application of corporate culture (Schneider, 1999). The model also identifies four classifications of culture: *control, collaboration, competence, and cultivation*.

In the control culture, predictability, trust, reliability, and accuracy are valued. The most important thing in this culture is the material reality, actual experience, things that can be applied, and their usefulness. The decision-making process is impersonal and follows a decisive, rule-driven, and analytical order relying on externally generated data. The main aim of this culture is to maintain, protect and improve the success of the organization hence it abhors competition and may thrive in a stable, mature market. As a system, the organization comes first. The achievement of the organizational goals is the central role of organizational members. This culture is focused on achieving organizational goals. Control culture can be seen in large manufacturing companies and financial companies (Schneider 1999, p. 35).

Competence culture: The key element of this culture is the need for achievement and the drive to outperform others in the market. An organization in the culture would be much better if they had the best products and the largest market share, and to achieve this, they pay a great deal of attention to theoretical insights, creative thinking, design alternatives, and quality. The decision-making process in this culture follows a scientific, rule-oriented, and analytical path. The main subjects of competence culture are intellectual goals. Information and communication structures are designed as intellectual goals and their realization. This culture is focused on the realization of intellectual goals. Such cultures are seen in consulting organizations, research organizations, and advertising agencies where there is a strong sense of accomplishment (Schneider 1999, p. 63).

Collaboration culture: This culture aims to provide unity and build a congenial team in which members benefit from each other's experiences and skills as well as close dialogue with customers. In addition to the affectiveness of this culture, there exists a great awareness of reality and the combination of the experiences of the people and the facts. Organizations continue their paths both within the organization and outside with different experiences. This culture is focused on achieving customer objectives. As in the control culture, the emphasis is placed on material reality, actual experience, and usefulness. However, the difference from the control culture is that the decision-making processes are informal, organic, and human-oriented (Schneider 1999, p. 50).

Cultivation culture: The core of cultivation culture is a greater mission and the enrichment of its members. It advocates for better recognition of ideals, values, and higher objectives. The subject of this culture is the relationship between the ideals and values of the organization and the transfer of these ideals and values to the application. The basic point in this culture is the relationship between what is planned and what is being implemented. Competence culture is focused on the realization of value-centered tools. In these cultures, creative preferences, beliefs, ideals, high goals, inspiration, and quality are given value. Decision-making processes are subjective, open-minded, organic, and human-oriented. This type of culture can be seen in religious and health organizations where human development is strongly emphasized (Schneider 1999, p. 82).

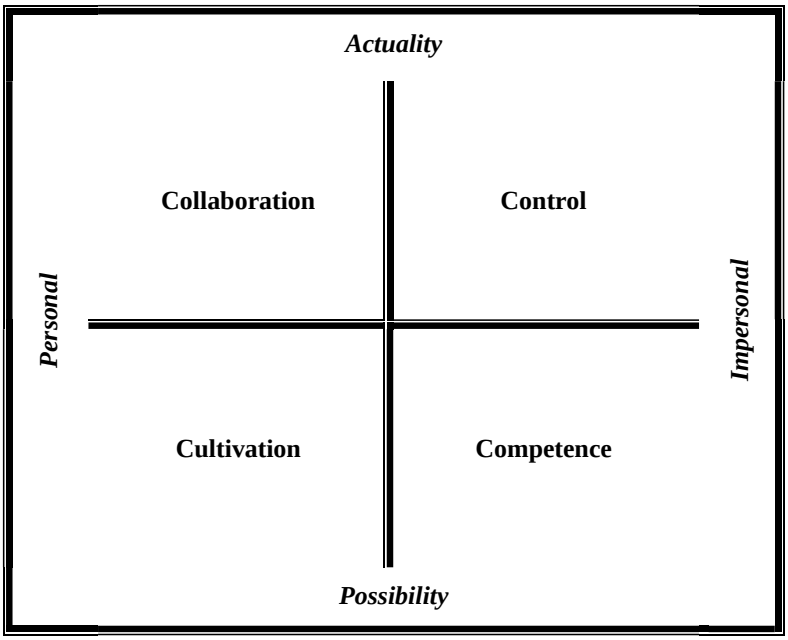

Figure 2.6: Schneider's culture model

The frame of reference of organizational cultural understanding introduced by Wallach (1983) formed a framework from which many studies in the literature have borrowed in their insight into cultural dimensions. Later studies (Handy, 1985; Hofstede et al., 1990; O'Reilly, Chatman, and Caldwell, 1991) put forward models of organizational culture which in some sense emulated the three dimensions by Wallace; *bureaucratic, innovative, and supportive culture*. A bureaucratic structure is represented by high levels of hierarchy, systematic control, and procedures with clear lines of authority. The power-orientated nature of this structure makes it suitable for large stable organizations in a stable market. The innovative culture is more enterprising, allowing for risk-taking among members and gives room for more creativity and ambition. Supportive culture creates a team structure in a family-like system that encourages collaborative work (Wallach, 1983, p. 33).

In a bid to determine the right organizational-individual fit, O'Reilly, Chatman, and Caldwell, (1991, p. 502) outline the eight factors that form the characteristic features of an organization and which forms "easily interpretable patterns of personality and cultural preference". The factors highlighted here include innovation and risk-taking; attention to detail; orientation toward outcomes or results; aggressiveness and competitiveness;

supportiveness; emphasis on growth and rewards; a collaborative and team orientation; and decisiveness.

2.2.3. Schein's scope and levels of cultural analysis

One of the most conceptually elaborate descriptions of culture in recent literature was provided by Edgar Schein from his experience in consulting work. Schein considers culture as a vital tool in understanding the ostensibly incomprehensible and somewhat irrational practices of members of an organization. In order to express the depth of the organization, he emphasized the basic assumptions shared by the members of the organization, but often taken for granted, to be the building blocks of culture. Even though it has been criticized for being an oversimplification of a complex phenomenon (Hatch, 1993, p. 658), Schein's model has provided the background for several cultural research.

According to Schein (2004), culture exists, and can therefore be perceived by the observer, in three levels as shown in figure 2.7. The *basic assumptions* are buried deep in the unconscious of the members, while the *espoused beliefs and values* describe the set of principles of intrinsic worth the members would want the outsiders to associate them with, while the *artifacts* are the visible manifestation of the values and basic assumptions.

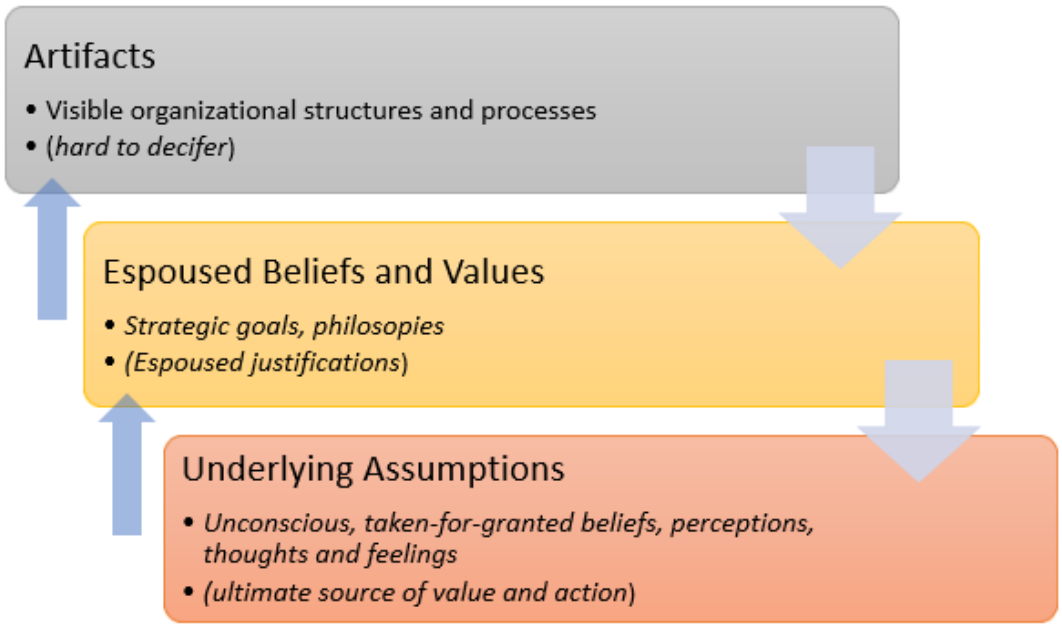

Figure 2.7: Levels of Culture (Schein, 2004)

Artifacts represent all the visible, tangible, and audible aspects of an organization as can be perceived by outsiders, ranging from its architecture, dressing code, language used, the technology used as well as the values portrayed in its official documents. As visible as they are, artifacts derive their existence from the underlying shared assumptions, leading to an ambiguity which helps to make them virtually indiscernible to outsiders with no intricate knowledge of the organization's values and shared beliefs.

The espoused beliefs and values that all individuals in the organization believe and share are an important element of the corporate culture. Culture starts with the values and beliefs people share. All these values constitute the basic understanding system in the organization. Values in a broad sense constitute the invisible, subjective, internal aspect of the culture, and show the forms of remedies that are accepted as reasonable and appropriate for the problems of the organization. Some of these values could be reflected in other cultural elements (symbols) of the organization. The values themselves reflect the general goals, ideals, and standards of an organization and are expressed in various forms within the organizational identity or management philosophy. Organizational culture is a system of values shared in an organization (Güçlü, 2003, p. 151).

One of the strongest cultural elements in organizations that affect the attitudes of employees and therefore the concrete results of their daily actions are the underlying assumptions. Assumptions are indisputable truths that direct the perceptions, thoughts, feelings, and behaviors of the members of the organization and form their presuppositions such as true-false, meaningful-meaningless, possible-impossible. The assumptions are adopted so strongly that the possibility of the members of the organization violating them is unthinkable. Another feature of assumptions is that they are generally unconscious. Members of the organization may not be aware of their own assumptions, may be reluctant to discuss or change them. Assumptions have deeper mental implantation than values. For this reason, assumptions also guide values with the validity they gain over time. Hence, assumptions constitute an important area of resistance in cultural change.

2.2.4. Comparing the cultural typologies

O'Toole 1985	Quinn & McGrath 1985	Hirsh 1985	Schneider 1994	Deal & Kennedy 1982	Harrison, 1972 (Handy, 1976)	Bennis and Nanus 1985
Meritocracy	Rational	Intuition Thinking NT	Competence	Tough Guy Macho	Task	Collegial
Egalitarian	Consensual	Sensation Feeling (SF)	Collaboration	Work Hard Play Hard		Collegial
Humanism	Ideological	Intuition Feeling (NF)	Cultivation		Person (Dionysus)	Personalistic
Behaviorism	Hierarchical	Sensation Thinking (ST)	Control	Bet your company	Role (Apollo)	Formalistic
				Process	Power (Zeus)	

Figure 2.8: Organizational Culture Typologies (Hawkins, 1997, p. 423)

The typologies outlined above present organizational culture as a multifaceted concept without a common definition, but a collective of subjective models developed by researchers based on their own perspectives. The subjective nature of the models may lead to an understanding of a varied concept when the models actually do have shared parallels. It is striking that most of the models with a typological approach of categorizing organizational culture consist of four similar categories. The similar categories make it possible to compare the organizational culture models as highlighted in Figure 2.8 above.

2.2.5. Significance of culture to organizations

After understanding an organization as an embodiment of culture, there has been a need to determine how to make the culture a management tool in organizations. One of the areas this has attracted attention is to determine how culture contributes to the performance of the organization, or how culture influences relations and operations within the organization. Each organization creates its own beliefs, traditions, and customs, which transform overtime into shared values, and eventually become the shared assumptions that make up the organizational culture. The culture, thus created, forms a

framework, an explanatory variable that distinguishes the behavior and expectations in the organization from others, and from which the activities of the members are judged. Culture is the social glue holding the members together as it determines what passes as the right thought and behavior, and the practices that should be followed by the members of the organization. Employees feel that they belong within a particular cultural environment, and this has been associated with higher levels of job satisfaction and commitment to the organization (Lok and Crawford, 2004; Lund, 2003; Tzeng, Ketefian and Redman, 2002).

Technological and economic resources, organizational structure, innovation, and timing are vital to the success of the organization. However, basic philosophy, spirit, the extent to which members believe in the values of the organization, and the extent they seek to embody these values, are equally significant to what becomes of the success story. Deshpande and Webster Jr, (1989, p 4) identify the role of culture in the functioning of an organization as a mediating variable to the four main interacting variables that make the organization: tasks, structure, technology, and people. The cultural aspects that mostly drive change in an organization are the nature of values and beliefs adopted by the members and the depth and breadth to which these values are embraced and taken to influence action (Sorensen, 2002, p 70). The values shared in the organization enable the organizational culture to be transferred to later generations and thus contribute to the continuity of the organization.

Several studies have found both direct and indirect links between culture, performance, and efficiency (Fey & Denison, 2003; Flamholtz & Kannan Narasimhan, 2005; Parry & Proctor-Thomson, 2002). Organizational culture has been used to imply the entirety of the internal performance, customer satisfaction, and economic performance of an organization, with the internal performance, in particular, referring to efficiency, cost structure, technology, innovation, and human resources that make up the organization. The nature of the human resources management practices of an organization to achieve organizational objectives helps determine other factors of organizational performance like customer satisfaction, market share, and profitability, hence the impact of human resources on organizational performance is considered to be quite high. First, organizational productivity gives the employees the financial power they desire, which in turn creates employee satisfaction. A satisfied employee is likely to contribute more

towards the creation of quality goods and services and thus leads to customer satisfaction (Neagu and Nicula, 2012, pp. 422-423; Marcoulides and Heck, 1993, p. 222). Organizational culture affects the employees' perceptions of climate which then impacts their attitude towards performing tasks.

Ogbonna and Harris (2000) examined the link between organizational culture, leadership, and organizational performance, and found strong evidence that asserts the significant role culture plays in the organization. They find organizational culture, especially that with external orientation on responsiveness, to have a strong positive link to performance. They even go further to suggest that efforts of organizational cultural change should focus on generating external focus just as they do consistency and internal cohesion (Ogbonna and Harris, 2000, p. 782).

Organizational commitment implies a strong desire and willingness to maintain organizational membership while actively accepting and strongly advocating for the organizational goals and exerting sufficient effort to help achieve these goals (Angle and Perry, 1981, p. 2). Committed employees feel a sense of belonging to the organization and the call to loyalty. As a form of psychological tie to the organization, the level of organizational commitment is determined through its components of identification, involvement, and loyalty (Buchanan, 1974, p. 533). A strong culture predicates an organizational environment in which members share a genuine agreement and intense care for the values. This may contribute to the improved effectiveness of the organization, as this level of coordinated agreement advances the levels of motivation to cooperate and achieve the objectives of the organization (Angle and Perry, 1981, p. 2; Kotter and Heskett, 1992, p. 16). When employees are not satisfied with their work environment, their levels of commitment drop, and they start looking for a way out. Yiing and Ahmad (2009, p. 79) find a link between organizational commitment and supportive organizational culture, results which resonate with the findings by Silverthorne (2004, p. 597). Both studies also find strong links between organizational commitment and job satisfaction, which leads to the conclusion of a possible indirect link between organizational culture and job satisfaction.

Organizational culture is seen as an important factor in shaping the behaviors of the individuals (such as commitment, satisfaction, productivity, and duration of service) within a group or organization (Veiga, Lubatkin, Calori, and Very, 2000: 541; Van Dyne,

Graham and Dienesch, pp. 765-802). Organizational culture affects the nature of organizational norms. Organizational culture plays an important role in the development of interpersonal relationships within the organization, strengthens the organizational integration and communication among the members leading to increased personal initiative, assistance, and voluntary support (Karambayya, 1990, p. 222).

Organizational culture creates a unique environment of shared experiences that can often only be understood by the members of the organization making it difficult to imitate. Sustainable competitive advantage and superior performance are created based on the idea that the cultural practices of an organization may establish these advantages and that it may be difficult for other organizations to engage in activities that would create a similar cultural environment (Barney, 1986, p. 657).

"Culture eats strategy for breakfast" is a famous quote fondly associated with Peter Drucker as an implication of the significance of organizational culture, given how it compares to strategy, which is considered the framework upon which the organization operates and survives. Organizational culture plays an important role in the formation of the objectives, strategies, and policies of the organization, but it is also a tool that may facilitate or complicate the execution of the strategy chosen by the management. Strategies should be based on the shared values and beliefs of the organization and there should be active measures to align them to the organizational culture and climate, as the lack, thereof, would certainly negatively impact the execution of the said strategy (Yammarino and Dansereau, 2011, p. 68). The strategic planning process itself, especially when changing strategies, should be aware of corporate culture and seek to integrate into it, if the trouble of conflict during implementation is to be avoided (Deshpande and Parasuraman, 1986, p. 28). While examining how organizational culture and strategy affect effectiveness and knowledge management, Zheng, Yang, and McLean, (2010, p. 769) find culture to be more impactful than strategy and that the impact of strategy is significantly reduced when considered alongside organizational culture. Smircich, L. (1983, p. 346) points to the growing number of researchers who look for the link between culture and strategy on the belief that an internal culture that supports strategy will likely carry the organization to successful ends. Other studies like Davenport and Prusak, 1997; Fey and Denison, 2003; and Shrivastava, 1985) sought to establish the link between culture and strategy, with the resulting positive finding being an indication that a change

in strategies can only be effective if it is followed by a change in organizational culture. From the formulation stage, strategic decision-making entails an integration of rational thought (based on existing knowledge and expectations) and subjective interpretation by the managers which are shaped by the culture of the organization (Shrivastava, 1985, p. 105). Planned change, thus, begins with the change in beliefs and values and is thus reflected in new strategies and activities (Şimşek, Akgemci, and Çelik, 2005, p. 34). Therefore, as long as organizational culture and strategic management are in the same parallel, the organization is bound to achieve success because the strategies are fed by the values found in the organizational culture, and this needs to be supported by an appropriate mentality and environment for the successful implementation of the strategies. If the strategy to be implemented does not match the current culture, it becomes paramount to revise the strategy by adapting it to the culture.

Organizational culture allows an organization to maintain its existence and creates differentiation according to enterprises operating in the same national culture (Shahzad et al., 2012, p. 976).

Another aspect of the organization which is related to commitment, and which may be impacted by the nature of the organizational culture is organizational citizenship behavior. Organizational citizenship behavior refers to the acts of employees that go beyond role behaviors and which may not be seen to directly contribute to the organizational assessment of job performance, and subsequently not considered in reward and promotion processes. Conscientiousness, courtesy, fairness, altruism, and civic virtue are some of the dimensions of organizational citizenship behavior. (Barksdale and Werner, 2001, pp. 146-148).

Other studies have also found organizational citizenship behaviors to differ according to organizational culture types. Employees generally feel more at home in employees-oriented organizations rather than organizations in which rules and procedures are strictly implemented, rather than employees-oriented participatory management approach, and act in extra-role behaviors by going beyond the roles and tasks assigned to them. Lai, Lam, and Lam (2013, p. 1050) also find team cultures, where the value of interpersonal relationships, workplace harmony, and peer support are emphasized, positively impact the employee's organizational citizenship behavior.

2.3. Leadership

Leadership can be said to be one of the most interesting topics in modern social sciences and this is evidenced by the large volumes of studies that have been conducted in the area. The profound interest in leadership as an area of study has led to its examination viz a viz numerous aspects of human and organizational lives, and the various ways to enhance its effectiveness. The fascination among researchers over the years on how leadership affects different aspects of the organization has remained alive fueled by the lack of consensus and the general contradictory nature of the findings (Bowers and Seashore, 1966, p. 237). The attempt to find a uniting definition of leadership is futile as scholars in different fields have advanced definitions ranging from behavior, traits, and influence on followers among other aspects, with influence seemingly remaining the common factor, and 'little else in common' (Yukl, 1989, p. 252). This fascination has also led to the numerous possible definitions of leadership in existence - *almost as many… as there are persons who have attempted to define the concept (*Zaccaro and Klimoski, 2002, p. 6). This multiplicity of leadership definitions come with a challenge for researchers as every finding they make is only attributable to a particular definition of leadership and thus not easily generalizable to fit the whole concept of leadership (Johns and Moser, 1989, p. 116).

In their definition of leadership, most researchers have sought to distinguish it from management, which has been taken to mean the accomplishment of daily tasks and perfecting routines (in the context of this study, the term Management leadership will be used interchangeably with the terms Leadership and Management despite the apparent distinction that exists between the terms). At its root, Bowers and Seashore (1966, p. 240) conceive leadership as a term in the organizational context whose existence depends on the existence of more than one person, and in which the behavior of one person seeks to usefully influence the behavior or actions of the other(s) towards achieving a common goal. It is this influencing behavior that constitutes leadership. This basic understanding of leadership doesn't carter for positional differences between the members of the organization like rank or title, neither does it feature personal characteristics, as later observed by Nahavandi, (2016, p. 25). However, according to Stogdill, (as cited in Miburn, 1983, p. 415), an average person who ascends to a position of leadership is distinguished from the other members of the organization by his level of (*1) intelligence;*

(2) scholarship; (3) dependability in exercising responsibilities; (4) activity and social participation; and (5) socioeconomic status".

Bass and Bass, (2009, p. 41) outline how the definition of leadership has developed from the 1920s where leadership was all about the will of the leader being inculcated on the followers to achieve the desired level of loyalty, obedience, and respect, to the 1990s where the definition emphasized on the common goal and the influence of the leader and the followers who seek to work towards this shared end.

"a leader as any person who influences individuals and groups within an organization, helps them establish goals and guides them toward the achievement of those goals, thereby allowing them to be effective" (Nahavandi, 2016, p. 25).

While organizations are formed to work towards the achievement of a predetermined collective purpose, leadership seeks to identify or establish the direction of such action, define it, and translate it to the other organizational members in a way that facilitates its accomplishment, hence the measure of leadership effectiveness is the extent of attainment of the shared goal *(*Zaccaro and Klimoski, 2002, p. 6). In the organizational context where the main goal is wealth creation and growth, the effectiveness of the leadership is thus objectively and subjectively measured by the profit margin, sales revenue, market share, and return on investment as well as turnover rates, product quality, and the number complaints regarding the organization and its leadership among other factors (Bass and Bass, 2009, p. 37). This attribution of the performance of the organization to the efficacy of a leader has been contradicted by equally plenty of studies that have very little or no evidence (Allen et al. 1979; Lieberson and O'Connor, 1972). Allen, Panian, and Lotz (1979, p. 178) conclude that there is little evidence that supports the supposition that the entry of a new manager should translate to improved performance of teams. Lieberson and O'Connor (1972, p. 129) warn against emphasizing the role of leadership on the determination of the success of an organization as this may diminish the roles played by other more powerful environmental influences. They see the effectiveness of leadership to be inhibited by a variety of situational factors. They, for instance, find leadership to strongly affect profit margins but only bear a slight impact on sales and net earnings.

2.3.2. Evolution of leadership theory

The search for a complete and unifying leadership theory that is able to explain the various traits of leader behavior, follower drive, and productivity has weighed on many a scholar over the years. As our understanding of how organizations work has changed over the years, so has our understanding of their leadership, leading to several theories that attempt to explain this phenomenon. The main theories that have been postulated to explain leadership can be categorized into four main approaches that show the change in the leadership paradigm over the decades (Van Setters and Field, 1990; Horner, 1997). The categories include *trait, behavioral, contingency, and integrative*. As Stogdill (1975, p. 5) concludes, as different as these theories are, and as biased as some of them may seem, they all seek to bring a better understanding of leadership and all to contribute to the solution of legitimate problems.

2.3.3. Trait approach

The trait approach represents one of the first leadership eras in which certain traits or characteristics were attributed to various aspects of leadership including emergence into leadership, effectiveness, leadership style, leader behaviors, or leadership outcome. The main focus of this approach was the leader. Research in the trait school focused on identifying personality traits that distinguished leaders from non-leaders. Over the years, several traits have been identified to be associated with different aspects of leadership, including *masculinity, dominance, extraversion, adjustment, conservatism, leadership motivation, honesty and integrity, self-confidence, intelligence, knowledge of business, sociability, ambition or achievement, diplomacy, cooperative, emotional control, mood, and surgency* (Yukl, 1989; Bono et al. 2014).

A review by Mann (1959) of studies conducted on the trait approach reveals that certain traits including intelligence, adjustment, extroversion dominance, masculinity, and interpersonal sensitivity all have a positive relationship with leadership, giving credit to this approach. Yukl (1989, p. 261) cites empathy, memory, and charm as some of the traits that lead to success in a leader.

One of the criticisms presented for the trait approach came from its endorsement of personal attributes, which are often lifelong, to the effectiveness of leadership, and the implication that "*since leadership is specific to the individual, it will remain constant for*

the individual regardless of the situation in which he finds himself' (Mann, 1959, p. 246). Research has however proved that a fearless, dominant, and decisive military leader may not really be successful, for example, as head of a hospital despite both institutions' need for decisiveness. Another of its cited failures is the numerosity of the possible traits which make a leader. With such a large number (more than 70 by some accounts), it is difficult to identify what actually contributes to leader effectiveness.

2.3.4. Behavioral approach

Once it was apparent that the traits approach could not adequately explain the concept of leadership due to the lack of identifiable traits that separated a leader from his subordinates (Jenkins, 1947, p. 75) or which could explain effective leadership, researchers began to examine the role a leader's behavior played on his ability and success. The research focused on the observed behaviors of successful leaders and what made them so. The leader is not independent of the group to which he belongs. He leads the group but is also influenced by it. The essence of this approach was therefore the interaction between the follower and the behavior of the leader and how this interaction determined the effectiveness of the leader. The behavior was examined with reference to the nature of his communication with his subordinates, whether he delegates authority to his subordinates and to what extent, the way he plans and controls, and the way he determines the organizational objectives. The behavioral approach examines how the behavior of the leader affects how he operates when planning, organizing, coordinating, supervising, decision making, motivating, and determining the objectives of the organization. Studies in this area focused on the behavior patterns of both effective and less effective leaders. According to Yukl (1989, p. 258), most behavioral studies have followed the two-factor approach of task-orientation and people-orientation to establish the most effective leader behaviors.

The early and the most popular behavioral leadership approaches are the Ohio State University Research and the University of Michigan Studies (which are briefly highlighted below) while later behavioral approaches include the Blake and Mouton's Network Model, McGregor's X and Y Theories, and the Likert's System 4 Model.

2.3.4.1.Ohio state university research

The Ohio State leadership studies program initiated in 1945 by the Bureau of Business research led to the conception of the Leader Behavior Description Questionnaire (LBDQ) which sought to outline some of the behavior patterns in leaders. The result was some 1800 leader behaviors (descriptive statements) which were later reduced to 150 considered under 9 dimensions (Fleishman 1953; Bowers and Seashore, 1966, p. 240). The LBDQ, which has over the years become the most cited instrument for understanding leader behavior, led to the conceptualization of leader behavior under two factors, namely *initiating structure*, and *consideration* (Yukl, 2002, p. 50). These two represent the observed leadership behaviors of how the leaders are perceived by their subordinates as well as their own self-assessment of their behaviors and attitudes towards their roles (Johns and Moser, 1989, p. 117).

Whereas the *initiating structure* dimension emphasizes the behaviors of the leader regarding his attempt to achieve the organizational goals by defining the role of the subordinates and how tasks should be accomplished, the *consideration* dimension emphasizes his behavior relevant to his understanding of the needs of his subordinates and apprehension of their welfare (Fleishman and Harris, 1962; pp. 43-44). Some of the *initiating* behaviors include laying down standards and rules and requiring subordinates to abide by them, assigning roles, clarifying them, and monitoring how they are performed, planning, coordination, problem-solving, criticizing bad work, and generally putting pressure on subordinates. On the other hand, *consideration* behavior includes showing concern for the general welfare of subordinates, consulting subordinates, and maintaining open communication channels with subordinates (Feldman and Arnold, 1983, p. 299). A leader, therefore, is conceptualized as one who draws the framework in which their subordinates operate as well as nurture them to achieve the desired results (Northouse, 2015, p. 72).

The virtual polarity of the dimensions shouldn't however be taken to imply their mutual exclusivity as Fleishman and Harris (1962) among other studies concluded that these two dimensions are independent and do not necessarily affect each other. Northouse (2016, p. 72) points to their existence as elements of a continuum in which the extent to which one is practiced does not amplify or inhibit the extent of the other, meaning that a

leader may act determinately towards his subordinates regarding task performances and the accomplishment of goals whilst still maintaining a friendly and approachable demeanor.

The quest to find the superior of the two behaviors has resulted in contradictory results as both behaviors have been found to be effective under different situations and industries.

2.3.4.2.Michigan university studies

The over 500 studies conducted between 1950 and 1977 through interviews with both superiors and subordinates also proved de be another defining stage of understanding how the behaviors of supervisors affected the productivity of their teams. Two main leadership behaviors (employee-orientation and production-orientation) were identified from these studies. The task-oriented leader monitors whether the group members are working following the principles and rules previously set. His basic instruments are punishment and the use of his position to influence action. A relationship-oriented leader, on the other hand, seeks to improve performance by creating working environments that increase the satisfaction of the subordinates similar to the requirements of the consideration behavior determined in the Ohio State Studies. The general results found that the employee-oriented leadership behaviors lead to higher productivity.

While the Ohio State studies considered initiating structure and consideration as independent behaviors that do not affect each other (elements of a continuum), the Michigan studies termed the two behaviors as part of a continuum in which the presence of one set of behavior diminishes the other. A leader can only be employee-oriented or production-oriented, and not both.

Various studies have tried to integrate the Ohio State and Michigan University studies to a unified understanding of leadership (Bowers and Seashore, 1966; Yunker and Hunt, 1976). Bowers and Seashore, (1966, pp. 238-263) attempted to draw a conceptual connection between both studies by identifying four dimensions which they brought together to form the four-factor theory of leadership. Yunker and Hunt (1976, p. 46) summarized the dimensions of the theory as shown:

Table 2.1. Integrating Ohio and Michigan Studies

Michigan Four-Factor Theory Questionnaire (F-FTQ) Bowers and Seashore (1966)	Ohio State Leader Behavior Description Questionnaire (LBDQ) Halpin and Winer (1957)
pport: Behavior that enhances someone else's feeling of personal worth and importance.	*nsideration*: Behavior indicative of friendship, mutual trust, respect, and warmth.
eraction Facilitation: Behavior that encourages members of the group to develop close, mutually satisfying relationships.	*nsitivity*: (Social awareness) Sensitivity of the leader to, and his awareness of, social interrelationships, and pressures inside and outside the group.
al Emphasis: Behavior that stimulates enthusiasm for meeting the group's goal of achieving excellent performance.	*oduction Emphasis*: Behavior that makes up a manner of motivating the group to greater activity by emphasizing the mission or job to be done.
rk Facilitation: Behavior that helps achieve goal attainment by such activities as scheduling, coordinating, planning, and providing resources such as tools, materials, and technical knowledge.	*tiating Structure*: Behavior that organizes and defines relationships or roles, and establishes well-defined patterns of organization, channels of communication, and ways of getting the job done.

Source: Yunker and Hunt (1976, p. 46)

2.3.5. Situational leadership

The failure by both the trait and behavioral theories to fully bring a clear understanding brought about by their clear deficiencies led researchers to seek more inclusive approaches. Stogdill, (as cited in Miburn, 1983, p. 415) asserts that leadership does not depend on readily available skills, but the skills are rather shaped by the situation in which the leader finds himself. This led to a move that steered away from the hitherto

focus on the leader as the only way of understanding the leadership phenomenon and moved to the consideration of the contingent variables that could affect leadership styles and their effectiveness. The contingency era, which started with the works of Fiedler (1964, pp. 149-190), sought to establish how a leader would perform when faced with a different situation from what he already knows, or how two different leaders could perform when presented with a similar situation.

Situational leadership considers the nature of the situation in defining what passes for good leadership. In the situational understanding of leadership, contextual factors of the environment, the nature of works performed under his headship, and the characteristics of the followers, as well as the influence of superiors, are given more weight as they are said to determine the behavior of a leader (Yukl, 1989, p. 261). The leader has to adjust his behavior to the demands and limitations of these factors. And, due to the possibility of wide variations in these situational factors, it is highly improbable to arrive at a leadership style that could be applicable to all leaders in all situations. This is one of the factors that distinguish situational theories from behavioral theories which insist on a single best leadership style.

Jenkins (1947, p. 75), while highlighting the limitations of the Traits Approach of theorizing leadership, pointed out that leadership and the characteristics of the leader are a factor of the specific situation. Even so, he points out leaders in similar situations may display diverging behavior and this divergence only increases with the changing situation, implying that there is a possibility that different leaders exhibiting different characteristics in the same situation may still end up being effective.

One of the factors determining the nature of a leader's behavior towards employees in the situational context is the characteristics of the subordinates (Zaccaro and Klimoski, 2002, p. 15). The major characteristics identified in the literature that determines the leadership behavioral approach include maturity (Hersey and Blanchard, 1969, 1982), experience, ability, and commitment levels of the followers (Kerr and Jermier, 1978; Howell and Dorfman, 1981).

In singling out maturity as the single-most-important factor that determines the behavior of a leader, Hersey and Blanchard (as cited in Graeff, 1983, p. 285) identified the two aspects of follower maturity as job maturity and psychological maturity. While

job maturity is the level of knowledge acquired through education or experience which grants the employees the necessary capacity to perform their tasks, psychological maturity represents the emotional state of the follower with regards to the willingness, motivation, and level of confidence in performing the task (Graeff, 1983 p. 285). How much of which maturity an employee possesses should determine how the leader will treat such an employee.

Other than determining the style the leader must adopt to guarantee the best chances of success, the maturity level of the employees also dictates the *power base* that the leader will call upon in order to influence the followers to action (Hersey, Blanchard and Natemeyer, 1979, p. 420). It is incumbent upon the leader to determine the level of maturity of the subordinates and then adjust their own behavior to much such level of maturity. And since the high maturity of the followers is always preferable, situational leadership holds that it is still the role of the leader to help the subordinates improve their maturity levels over time (ibid, p. 422).

2.3.5.1.Fiedler's contingency model

According to Fiedler, the effectiveness of a leader (his ability to influence the actions of his followers to achieve results) or the leadership style he chooses to follow is mostly influenced by the level of situational 'favorableness' of the group he is leading (Fiedler, 1964, p. 371). The Least Preferred Co-worker scale (LPC), obtained by having the leader rank the person with whom he least prefers to work from all the people he has worked, is used to measure the leadership style (or the leader's inclination toward group task situation)- whether they are task-oriented or whether they value interpersonal relationships in group situations.

The study presents three dimensions that affect how a leader performs his role or whether the situation will be favorable to him; the leader-member relationship, which implies how likable the leader is by his followers, task structure (how well structured the tasks that he assigns to his followers are), and leader's position power (his authority). The leader's performance on these variables is then rated on an eight-octant continuum of favorableness which rates the three dimensions. Situational favorableness is achieved with a high score in all three dimensions: the leader is highly liked by his followers; the tasks are clearly structured, and the leader's authority is formally recognized.

Consequently, Fiedler found that the leader's style and a combination of all the three dimensions will determine the effectiveness of the group tasks. Leaders with low LPC (task-oriented) exhibit better performance in favorable or unfavorable situations while high LPC (relationship-oriented) leaders excel in moderately favorable situations as shown in the model below.

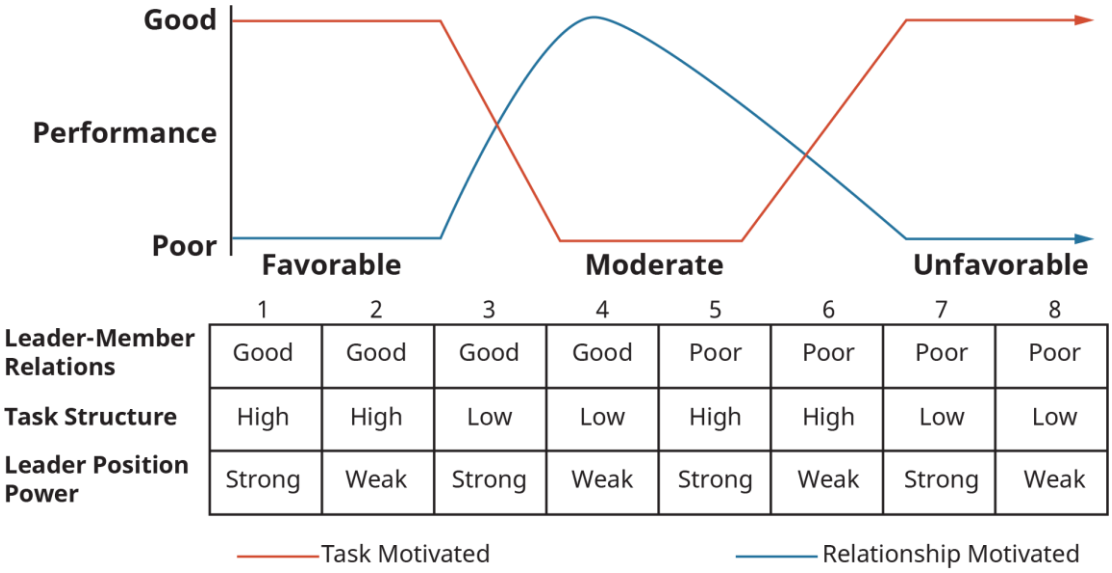

Figure 2.9: Fiedler's Contingency Model of Leader-Situation

The contingency theory was not without its criticisms, mostly due to its simplicity and the inability for the results to be replicated in similar experiments (Graen et al. 1970, p. 285), the difficulty of translating LPC scores to actual leader behavior as well as its consideration only of short-run relationships (Barrow, 1977, p. 234). However, the proponents of the model are willing to ignore its shortcomings and focus on its role as one of the pioneering studies to consider the idea of matching a leader with a situation more suitable to his style (Horner, 1997, p. 271). It has also led to the emergence of research of similar models that look at leader behavior and situations (Luthans, 2011, p. 426).

2.3.5.2.House and Evans' path-goal theory

This theory emphasizes the significance of a leader's behavior on the effectiveness of his subordinates. House focuses on how the leader's behavior is capable of influencing

the perception of the subordinates regarding the attractiveness of the goals of the organization and the paths leading to the said goals (House and Mitchell, 1975, pp. 1-24).

This theory sought to extend Vroom's (1964) expectancy theory of motivation by testing it against leadership as an organizational mediating factor as had earlier been attempted by Evans (1968, 1970). On his part, House tried to examine how different leadership dimensions impacted the components of Vroom's theory of motivation. The expectancy theory is based on the assumption that people feel motivated when they feel that their efforts will lead to something of great value. House, thus, examined how four dimensions of leader behavior (directive, supportive, achievement-oriented, and participative) may influence the value the subordinates put on the goals that result from their work. According to the theory, leaders are flexible and can easily shift between different behaviors depending on the subordinate's motivational needs and the requirements of the path to reach the intended goals (Northouse, 2016, p. 118).

The theory concludes that each leader's behavior affects employee motivation differently, and this depends on both the follower characteristics and task structure (Northouse, 2016, p. 117; House and Mitchell, 1975, p. 5). The relationship between the leadership styles and subordinate characteristics is outlined below:

- *Supportive leadership*: the leader cultivates a friendly and pleasant environment for the followers. He shows concern and treats them as equals. This style is suitable and leads to improved motivation where the task is frustrating and stressful.
- *Directive leadership*: the leader instructs the followers on how the task is to be performed, outlines the expectations from performing the task, and the timeframe for the performance. This approach is applicable when the task is ambiguous, and the environment is full of uncertainty. The guidance of the leader is necessary. However, in a clear task and predictable environment, directive leadership becomes a hindrance (House and Mitchell, 1975, p. 9).
- *Achievement-oriented leadership*: the leader sets high standards of performance that he expects his followers to achieve, and he shows continuous confidence in their ability to achieve more challenging goals. This style is suitable when the tasks are ambiguous and nonrepetitive.
- *Participative leadership*: the leader invites the followers to the decision-making process and always seeks their opinions which he then integrates into the new decision.

This style is suitable for a professional work environment and where the followers seek autonomy and self-control.

Table 2.2. Path-Goal Theory (Northouse, (2016, p. 121)

Leadership Behavior	Follower Characteristics	Task Characteristics
Directive	Dogmatic	Ambiguous
Provides guidance and	Authoritarian	Unclear rules
psychological structure		Complex
Supportive	Unsatisfied	Repetitive
Provides nurturance	Need affiliation	Unchallenging
	Need human touch	Mundane
Participative	Autonomous	Ambiguous
Provides involvement	Need for control	Unclear
	Need for clarity	Unstructured
Achievement-oriented	High expectations	Ambiguous
Provides challenges	Need to excel	Challenging
		Complex

2.3.5.3.Reddin's 3D leadership theory

Reddin's leadership theory adds to the list of situation-based theories of leadership which contend that a leader's effectiveness is based on factors other than traits and behavior. In addition to Task-orientation (TO) and Relationships-orientation (RO) propounded by the other leadership theories, Reddin added a third dimension-effectiveness, hence the 3D model. The 3D model of leadership is in agreement with other situational models of leadership (like Jenkins 1947, p. 75) which state that no single

leadership style checks all the boxes. A behavior considered proper in one situation may be entirely unsuitable in another.

The aim of every leader is a success, and leaders are always in search of the most appropriate style to attain the necessary success. Reddin suggests that a leader should examine their present style in light of the situational elements (organization, technology, superiors, subordinates, co-workers), and decide whether to change their style or seek to alter the situation (Cummings, 1971, p. 132). This implies that a leader should operate on a flexible ideology, stating that "*Management is too complex to be encapsulated by a single belief*".

Based on the TO-RO continuum, Reddin described four possible leadership styles which were described as being *Separated, Dedicated, Related and Integrated.* These styles vary in their levels of task and relationship orientation. In a *separated* style, the leader is low on both task and relationship orientation. A *dedicated* style has a high task-orientation and low relationship-orientation. *Related* leadership focuses more on the relationship aspect with a low focus on tasks while the *integrated* approach has a high focus on both aspects.

But when the third dimension of *effectiveness* is added, the result is 8 possible leadership styles which result from either the appropriate or inappropriate application of the original four styles to achieve effectiveness. Reddin based the 8-style model on the belief that effectiveness is achieved when a style is appropriate to the situation. The figure below shows an illustration of all the possibilities in the 3D model.

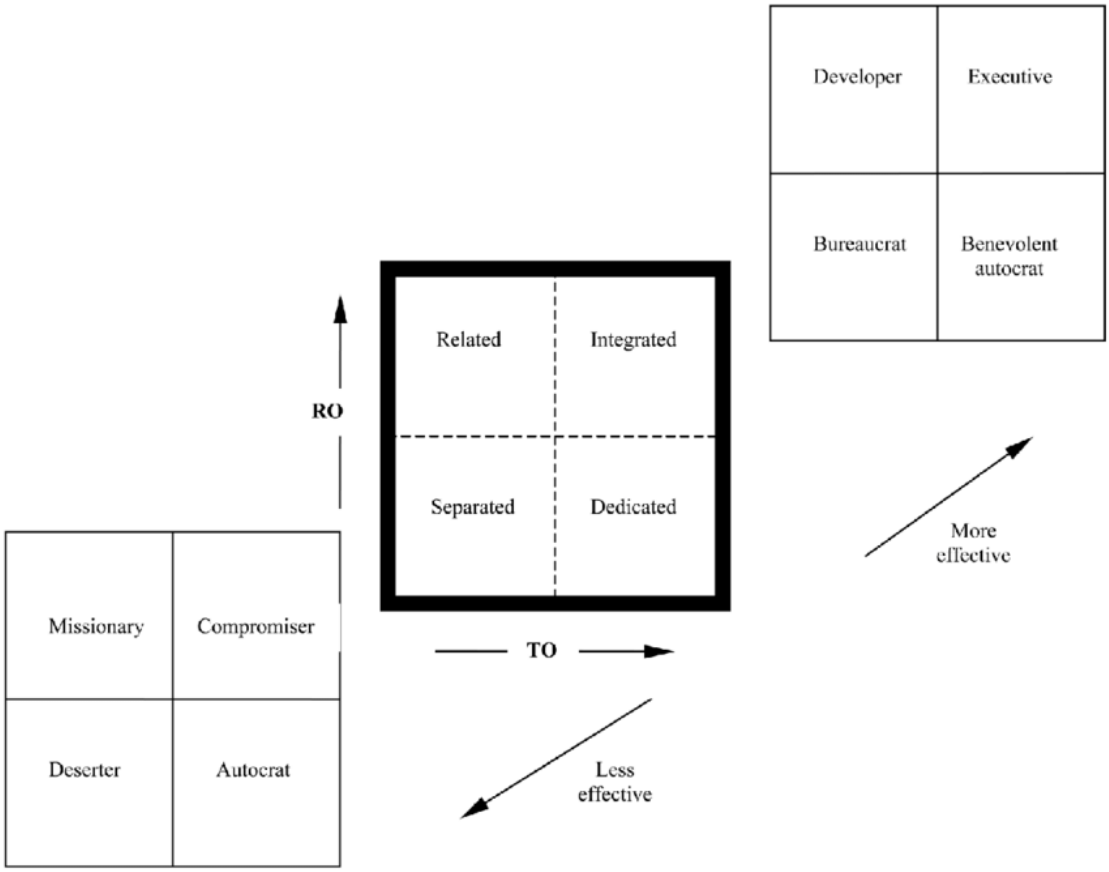

Figure 2.10: Reddin's 3-D Theory Leadership Styles (Reddin, 1970, p. 13)

The styles in the upper right and lower left grids are not new leadership styles in themselves but represent variations of the main styles in the central grid when implemented in the *appropriate* or *inappropriate* situations. For instance, whereas a dedicated leader comes out as a benevolent autocrat in the appropriate situation, this same style would be ineffective in an inappropriate situation where the leader would be seen as an outright autocrat.

The basic leadership styles are based on whether a leader's focus is on TO or RO. But to achieve effectiveness, which is the third dimension of this model, Reddin contends that a leader's diagnostic skills and their situational flexibility are more important than the leadership style.

Table 2.3. A 3D Leadership model (Reddin, 1970, p. 17)

When used inappropriately and therefore less effectively	Basic Style	When used appropriately and therefore more effectively
Deserter	Separated	Bureaucrat

Missionary	Related	Developer
Autocrat	Dedicated	Benevolent autocrat
Compromiser	Integrated	Executive

2.3.5.4.Hersey and Blanchard's situational theory

The most popular modern-day conception of the situational leadership theory, and one which has garnered extensive popularity among management practitioners and captured the attention of researchers, was developed by Paul Hersey and Ken Blanchard. Borrowing immensely from the work of William Reddin (1967), Hersey and Blanchard developed the Life Cycle model which they later renamed Situational Leadership® in 1972 and which they have continued to improve (both together and individually) ever since (Blanchard, Zigarmi and Nelson, 1993; p. 24; Graeff, 1983, p. 285). Like the other forms of contingency leadership theories, the Situational Leadership® theory was inspired by the displeasure resulting from the pragmatic resolutions that pegged effectiveness on traits and behavior and ignored all else.

According to Hersey and Blanchard's Situational Leadership® Theory (SLT), TO and RO go hand in hand with follower maturity in determining the effectiveness levels of the leader (Vecchio, 1987, p. 444). Maturity refers to the extent of skills and experience possessed by the followers regarding their task performance in a given situation. The level of maturity can be distinguished on the one hand by the ability and willingness of the followers to perform the task as derived from their education and experience. This gives them the requisite knowledge and impacts their ability to perform the assigned task (job maturity). The other aspect of maturity reflects the follower's willingness and ability to take responsibility towards the achievement of goals. This is a reflection of the individual's level of self-esteem, also known as psychological maturity (Graeff, 1983, p. 285). Maturity, as a term, was later updated to *development* to avoid the confusion in which the term was often associated with age (Blanchard, Zigarmi and Nelson, 1993; p. 27).

A leader's effectiveness derives from his ability to adjust and combine TO and RO in such a way that best utilizes the development level of his followers. The development level of employees will increase over time, and this will indeed change the leader's

behavior. As employees develop, their need for task structuring decreases as their need for *supervisory social-emotional support* increases, i.e., there is a need for the leader to move from TO behavior to more RO behavior (Vecchio, 1987, p. 444).

The follower development levels run on a continuum of four stages based on their levels of competence - task-relevant knowledge and skills, otherwise known as job maturity and commitment – confidence and motivation to perform the task, also known as psychological maturity. The levels are outlined below.

- *D1(Enthusiastic Beginner- Low competence – high commitment*): Refers to followers with low competence and skills to perform the tasks, and hence sometimes they feel insecure about their ability to perform. However, these followers are highly committed, enthusiastic, and willing to take directions, and are usually employees who have just entered the organization or who have been posted to a new position.
- *D2 (Disillusioned Learner- Low competence – low commitments):* They possess some level of the necessary skills but not to the level of competence hence may need some help. They may get easily frustrated or overwhelmed with tasks.
- *D3 (Capable but Cautious Contributor- Moderate to high competence – variable commitment*): They may have the experience and the capacity for the task but lack the confidence or the motivation to perform unaccompanied. May be hesitant to take new tasks or get bored with current ones.
- *D4 (Self-Reliant Achiever- High Competence – High commitment):* They have all the experience necessary for the job, at times more competent than the leader. They are self-driven and confident in their own ability.

Pairing off with these development levels are the behaviors of the leaders which combine along the *directive* (TO) and *supportive* (RO) axes to form four distinct leadership styles. Directive leadership behavior refers to acts of leadership that emphasize setting goals, defining the roles for the followers, and giving directions on how to accomplish them. Supportive behavior, on the other hand, describes how the leader listens to, encourages, motivates, and involves the followers in the decision-making process. The four leadership styles, corresponding to the development levels, which result from the combination of the directive and supportive behavior are:

- **S1- Directing (High Directive- Low Supportive**): The leader pays more attention to task than to relationship. He sets the task and the goals, shows/tells the follower how it should be done, and stays around to give feedback regarding suggestions and corrective measures on the performance.

- **S2- Coaching (High Directive- High Supportive**): the leader transitions to offering advice and seeking suggestions from the follower. He encourages the follower and gives praise for the performance while still maintaining a focus on the performance of the task. This style is still somewhat leader focused.

- **S3- Supporting (Low Directive- High Supportive**): This is a collaborative style in terms of decision making. The leader focuses on the relationship with the group. He listens to them, encourages them, and incorporates them in the decision-making process.

- **S4- Delegating (Low Directive- Low Supportive**): When the followers are at a high degree of competence and are willing to perform the tasks without any external influence, the leader can empower them and sit back (minimal follow up), only monitoring the task performance, and only coming in to reaffirm some of the decisions that have been made.

The figure below outlines the pairing off that happens between the follower development levels and the leadership behavior to form four distinct Situational Leadership® styles.

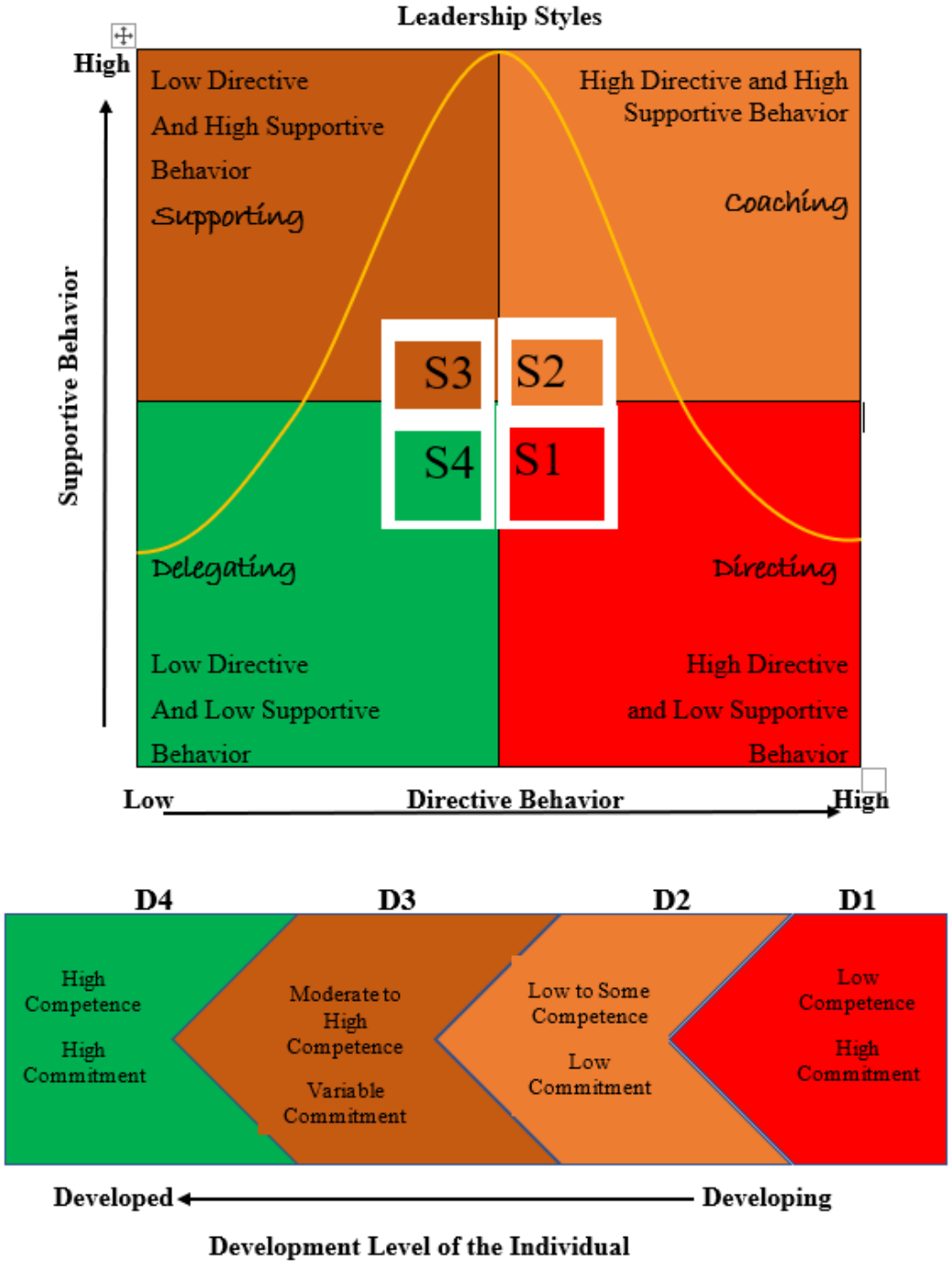

Figure 2.11: Hersey and Blanchard's Situational Leadership® Styles

CHAPTER III

THEORETICAL FRAMEWORK

3.1. The Relationship between the Variables

This section outlines conspicuous studies that have looked at the links between the variables considered in this study.

3.1.1. Organizational culture and knowledge management

The main goal of any organization today is to meet the increasingly personalized and specialized demands of its consumers which calls upon them to be in a state of consistent innovation. The need to innovate necessitates the organization to maintain and use the most current knowledge in their products and processes. However, as the basis upon which the organization's ideas about itself and the outside world are built, the organizational culture itself may impede the process of knowledge management. As Chase (1997, p. 46) reports from a study on drivers of establishing knowledge-based organizations, organizational culture is cited by a majority of respondents as the major hindrance to the knowledge management practices of the organization and the process of creation of a knowledge organization. This echoes the observation by Mullin (1996, p. 59) who asserts that Knowledge Management as a concept can easily be handled through technological advancement. It is the cultural aspect of the organization the remains to determine the success of the process. The study regards good leadership to be more about modeling culture than creating new systems.

According to DeLong and Fahey (2000, p. 116), culture affects both the relationship between members of the organization and the knowledge within the organization. They state that on the knowledge side, culture shapes the production and adoption of knowledge as well as acting as an intermediator between the levels of knowledge. On the human side, culture shapes the assumption about the aspect of knowledge that should be regarded as important and creates an environment for social interactions. They, therefore, call for a clear understanding of the impact of culture on knowledge should there be a need to adapt the objectives of the KM to the existing cultural environment, or if there is a need to initiate cultural change to align with the KM objectives.

Organizational culture is an important factor in establishing and strengthening knowledge management in organizations. Organizational culture supports knowledge management by influencing the way members of the organization learn and share information. But organizational culture has been paradoxically treated as the main obstacle to knowledge management, and yet little is known that organizational culture supports knowledge management. There is a lack of theory in clarifying the effect of organizational culture on the production and transfer of knowledge in organizations (Rai, 2011, p. 779)

One of the most important aspects of KM is knowledge sharing. A smooth flow of knowledge between parts of the organization depends on the forces of cohesion that holds these parts together, and according to Goffee and Jones (1998, p. 15), culture acts as the binding force in modern organizations. As such, the success of KS efforts in the organization depends on the cultural practices that encapsulate the organization, or which may exist in its subunits. Malinowski (1941, p. 186) sees culture as a determinant of the goings-on in the organization with regards to how members cooperate as well as how they redistribute the 'products of their labor'.

Culture is never a homogenous phenomenon. Different units within the organization may have different cultural practices that share the same core values as the dominant organizational culture but are inherently different from each other, sometimes even to the extent of opposing each other (McDermott and O'dell, 2001, p. 77). While some cultures in the organization encourage KS, some may help hinder KS practices. McDermott and O'dell (2001, p. 84) suggest putting culture at the center of the organizational culture and incorporating KS values as part of the core values of the organization. By making KS part of the core values, the doubt of whether one may gain by sharing knowledge is eliminated and instances of hoarding are reduced. These sentiments are reiterated by Janz and Prasarnphanich (2003, p. 373) who advocate for the creation of a knowledge-centered culture. Such an environment is created by implementing "the supporting work climate" and granting freedom to employees to exercise authority over their knowledge. These are characteristics often found in the market and clan-type cultures.

It is the responsibility of the leadership to build their knowledge sharing practices around the existing culture of the organization. However, as Yoo and Torrey (2002, p.

421) notes, not all cultures embrace knowledge management or the tools and technology that make knowledge sharing possible. Organizations that find themselves in these cultures are disadvantaged, and consequently, the leadership needs to build a cultural dimension that encourages an uninterrupted flow of knowledge to parts of the organization where it would create more value. However, there still seems to be no consensus as to how specific cultural orientations affect KM practices. There have been contradictory results in the literature on how the different cultural types affect KM.

Knowledge is power, and sharing knowledge is to share or entirely give the power to others. The motivation to share knowledge can only be derived from the feeling that no harm will befall the sharer. Knowledge sharing, therefore, is a matter of trust and integrity between the parties involved (Yoo and Torrey, 2002, p. 421).

In a study that examined how the introduction of a group-ware technology would affect changes in the working of an organization, Orlikowski (1993, p. 7) notes that a competitive culture doesn't inspire knowledge sharing, as employees who are in pursuit of promotion and advancing their careers seek to distinguish themselves from the flock and deem sharing a form of giving away their power. Román-Velázquez (2005, p. 91) found the hierarchical culture to carry the least chance of success for KM systems in organizations. He also found the strength of culture in the organizational units to be more influential in the successful implementation of KM systems as compared to the dominant organizational culture. Román-Velázquez (2005, p. 91) also found that the dominant culture also affects the approach for the flow of knowledge. For instance, whereas adhocracy culture was suitable for the personalized approach, hierarchy and market cultures were well suited for the codification approach. In a similar study that examined the KM practices in libraries in Qatar, Chidambaranathan, and Rani (2015, p. 368) found clan and market-type organizational cultures to encourage KM whereas adhocracy and hierarchy- type organizational cultures hindered KM efforts in libraries. They point to the values of clan culture which encourage employee development and teamwork alongside the values of a market culture focused on the achievement of goals as some of the reasons which may lead to their enhancing KM practices. While emphasizing the role of knowledge sharing in Software Process Improvement, Lee, Shiue, and Chen (2016, p. 469) also found the culture to be an important factor in influencing how the KS process takes place regarding distribution and integration. In comparing clan and hierarchy-type

cultures, the clan- type organizational culture was found to have a stronger influence on knowledge sharing than a hierarchy-type culture. They found a hierarchy culture not to have any significant relationship with KS. This contradicts the findings by Shao, Feng, and Liu (2012, p. 2409) where a significant positive relationship was observed between both the market and hierarchy-type cultures. The study went further and sought the impact of the different aspects of culture on the specific type of knowledge (explicit-tacit). The results of this test revealed the existence of a relationship between market and clan-type cultures on the one hand with tacit knowledge, and hierarchical culture with explicit knowledge on the other. The control and documentation orientation nature of the hierarchical culture was considered to be the likely reason why they impacted the sharing of explicit knowledge.

Abili et al (2011, p. 1704) find cultures associated with creative, innovative, and supportive traits to encourage KS while bureaucratic culture hinders KS efforts. Their results follow the work of Lin (2008) who used the non-linear fuzzy neural network to determine the factors affecting KS. While discounting the rejection of the hypothesis that a centralized organization structure is negatively related to KS levels, Lin attributes the discrepancy to the organizational culture which may have worked to counter the effect of centralized authority.

While taking cognizance of the dual cultural orientation (production and people), Park (2005, p. 155) points to the need to find a balance between the two orientations if success is to be achieved in the implementation of KM technology. However, he points further that if the balance cannot be achieved, people-orientation (*friendly work environment, low levels of conflict, and trust*) stands a better chance of ensuring success.

As well as being directly related to organizational culture (a stronger positive influence compared to that of organizational structure and strategy), Zheng et al (2010, p. 768) found KM to be a strong mediator in the relationship between organizational culture and knowledge effectiveness, pointing to a more complex relationship between organizational culture and knowledge management. They use this finding to call on the management to create a knowledge management environment aligned to the organizational culture and the other enabling factors.

Allameh, Zare and Davoodi, (2011, p. 1220) investigate how different enablers affect KM and its different components. Culture, as one of the enablers, is found to be linearly related to KM in general, with a significant relationship with the components of KM including knowledge creation, knowledge capture, knowledge organization, knowledge storage, and Knowledge application. The relationship between culture and knowledge dissemination (knowledge sharing) was however found to be insignificant.

Al-Alawi et al. (2007, p. 37) cite trust, communication, information systems, reward system and organizational structure as the components of organizational culture that are likely to influence the success of knowledge sharing in organizations. They highlight how emphasis on these factors could be created and how this contributes to enhanced KS. For instance, to build trust in the organization, they suggest occasional activities that bring employees together and create an environment for socialization and open doors for informal relationships. Job designs like job rotations could also create mobility within the organization hence helps in knowledge transmission (Al-Alawi et al., 2007, pp. 37-38).

While looking at effective knowledge management in organization, Gold et al. (2001, p. 205) seek to determine the impact of the organizational knowledge infrastructure consisting of technology, structure and cultural elements on knowledge management programs in the organization. The study follows a structural equation modeling to reveal that culture is the main element of the knowledge information infrastructure when it comes to effecting a knowledge management program. The study finds a positive and strong relationship between infrastructure, process and effectiveness of the KM process. The study goes further to point that organizations with more open and supportive values (culture) facilitate positive behaviors in knowledge management, such as sharing their views with others.

Yang (2007, p. 537) examined the KS processes in 9 international tourist hotels in Taiwan regarding the effects of organizational culture and leadership. A collaborative culture between the employees was found to be one of the most important factors that affect KS. KM attitude and desire to share knowledge were found to subordinate the collaborative environment. Impulsive conversation between the members of the staff was found to be more effective in sharing information than the structured channels in the organization. This adds emphasis on the need to create an organizational culture that

allows for group collaboration as opposed to the individualization of tasks and competition between employees or units.

Based on the survey of over 60,000 respondents, Balthazard et al. (2004, p. 7) present a study that seeks to understand the impact of culture on various outcomes, both at the individual and at the organization level. While one aspect of the study focused on the quantifiability of cultural elements, the overall findings of the study find culture to impact knowledge exchange within the organization and subsequently the entire KM apparatus of the organization.

Tseng (2010, p. 278) goes into her study with a clear statement of impact of organizational culture on the KM practices of the organization but seeks to study the impact that the organizational culture will have on knowledge conversion as an aspect of KM. Knowledge conversion, as has been discussed in the previous chapters refers to the postulation by Nonaka (1994) that different forms of knowledge could be converted into each other. Knowledge is understood to exist in two forms- tacit and explicit. The conversion process that describes the transformation of knowledge between the forms in a model that Nonaka called the SECI. Tseng, thus seeks to present an understanding of how the transformation process could be impacted by culture, which is presented in three dimensions- adhocracy, hierarchy and clan. The findings of the study reveal that adhocracy culture supports the knowledge conversion process better. This is attributed to its external orientation that encourages creativity and goal achievement. A hierarchy culture, on account of its formality and requirement for control stifles the relationship between people hance lacks the personal environment in which people can freely share tacit knowledge. The cohesion and team spirit pertinent to the clan culture encourages sharing of knowledge. However, the study cites the conservative nature and the internal orientation of the clan culture as some of the issues that reduces its extent knowledge conservation.

Islam et al (2015, pp. 67-88) studies the impact of organizational culture, structure and technology infrastructure on knowledge sharing in multinational corporations in Malaysia. While learning and development orientation is found to encourage knowledge sharing, formalization with often rigid hierarchical systems tend to discourage knowledge sharing. Collaboration was found to have a positive albeit insignificant impact on knowledge sharing.

In a study that follows Hofstede et al. (1990)'s cultural dimensions (of results-orientation, tightly controlled, job-orientation, closed system and professional-orientation) Chang and Lin (2015, pp. 433-455) present a study that examines the impact of culture on the KM processes. The findings show that culture affect the different aspects of KM differently. For instance, whereas cultures that emphasize closed system and professional orientation were found not to have any impact on the intention of members to share knowledge, job-oriented cultures were found to positively influence the intention to share. A results-oriented culture will move employees towards knowledge storage contrary to a culture that stresses tight control.

According to Hendriks (2011), organizational culture has a vital role in the choice of which knowledge is worth sharing. The nature of the work environment can affect both the supply and demand of various forms of knowledge. On the supply side, culture influences the willingness to share expertise, the time taken to evaluate the events, cataloging important knowledge documents, making presentations about the lessons learned at the end of the completed projects and tasks. On the demand side, organizational culture has a role to encourage the scanning and reuse of existing knowledge.

3.1.2. Organizational culture and leadership style

Leadership has always been defined through the ability of one to influence the actions of others, resorting back to the assertions by Bowers and Seashore (1966, p. 240) on the need for the existence of more than one person for the concept of leadership to exist. Lewis et al. (1994, p. 5) refer to the art of getting things done through people in their definition of management while Hitt et al. (1989, p. 15) define effective management based on one's ability to effectively combine various resources (including human resource) to reach desired goals. As pointed out earlier, despite the distinct dissimilarity that has been documented between the terms, this study draws from the areas of the likeness of leadership and management to consider them as the same. A manager is therefore considered a leader and is examined within the same qualities that prove a leader's effectiveness.

As leadership derives its existence from people, effective management is defined more by the management of people than that of other material resources. The existence of people in the organizational setup opens the way for an interactive action between

management and organizational culture. Just as organizational culture can influence the management practices in an organization, management can similarly influence the culture of the organization. Management and organizational culture, thus, are interrelated concepts and there is a need to adequately comprehend the nature of this interaction. Sarros, Cooper, and Santora (2011, p. 294) highlight the two schools of thought in the literature of leadership, where the functional school looks at leaders as the architects of organizational culture while the anthropologist school looks at leadership as a part of the culture and hence influenced by it. They, however, contend that the functional school has more sway as they propose that the leaders create the environment for the culture to thrive in, influence its application, and can effect its change. Lewis (1998, p. 257) is one of the proponents of the influence of organizational culture on the leadership of the organization. According to Lewis, elements such as norms, ceremonies, symbols that make up the organizational culture give meaning to leadership and determine the role of the leader.

The core values that make up the organizational culture may originate from an individual or a group within the organizational structure and go on to influence the system that manages the organization, while at the same time, the philosophy, vision, and strategy of the leader, especially founders, may play a major role in developing, shaping, encouraging or overall influencing the core values that the culture is based on (Şimşek and Fidan, 2005, p. 105; Conger and Kanungo, 1987; Lord and Maher, 1993, p.129). Smith and Vecchio, (2007, p. 494) outline how the personal values and dreams of the founders culminate into the culture that is then adopted by the organization. The founder(s) seek to populate the organization with people who share in their mission and vision and who believe in the quality of their ideas. As more members join and start creating a shared history in the organization, the founder(s) then purposefully initiate processes and procedures to ensure the harmonious and coordinated existence of all organization units (Schein, 2004, p. 226). In these early years of the founding of the organization and the beginning of its history, the founder(s) hold an important role in solving the internal integration and external adjustment problems of the organization. They have the mission of the organization at hand to guide them to where the organization needs to go. Given this clear vision of the future of the organization and the external

environment, it is easy for the members to accept and follow the paths set out by the founder(s) (Schein, 2004, p. 227).

Organizational culture is the indicator of the value and belief underlying the structure of an organization. Members of an organization in a particular cultural environment share a set of assumptions, beliefs and values originating from the local environment. These cultural values arising from this environment have a very strong effect on the behavior of the people in the organization. Corporate culture manifests itself in the suggestions and practices of the managers, the attitudes and behaviors of the employees, the values and business principles formed by the legends repeated by the people about the events happening in the organization. In order to effectively meet the demands of the environment, managers need to have better insight of the cultural environment (Sharma and Sharma, 2010, p. 98).

There are two main ways through which leaders can influence the culture of the organization by entrenching their beliefs and values on the members. The primary mechanisms of doing this, according to Schein (2004, pp. 246, 247) is by paying attention to, allocating more resources, and giving rewards for the performance of the preferred actions as well as deliberately and directly coaching the followers how the said tasks ought to be performed. In a more secondary role, the leader isn't directly involved in pointing out what he considers a good practice. Rather, the leader focuses on the environment. By influencing the organizational structure, processes, working environment, stories, and narratives that are related to the environment in general, the leader is still capable of controlling the course of cultural development.

When the culture that the organization has operated within has become unattainable due to the changes in the environment and it becomes necessary for a new form of culture to be embraced, it falls on the leader to determine the kind of cultural change necessary, get rid of obstacles to its implementation and initiate the change while monitoring its acceptability. Schein (2004, p. 291) outlines the role of a leader in a cultural change by outlining the different course they could follow to initiate cultural change in ways that ensure minimum resistance.

Neumann (1995, pp. 251-279) outlines the process of the interaction between organizational culture and leadership through a case study at a college. The study presents

two perspectives regarding the entry of a new president to the college. It seeks to understand how the new entrant tries to understand the established organizational culture, his efforts to interrelate to it, how he is influenced by it, and even his attempts to change parts of it as well as how the members of the college react to these changes and lessons from the resultant relationship between the new leader and members of the organization. The understanding of the perspectives of the different parties in the organization is presented in a carefully woven story derived from interviews and observations over some time following the integration of the new president into the organization. The study concludes by outlining the difficulty of both sides adjusting to the ways of the other, but eventually accepting to have been affected by the other and altering their ways appropriately.

Numerous studies have made the implicit assumption that various aspects and traits of leadership can affect organizational culture as well. The literature considered in this study is meant to bring to light the perception that leadership may affect some aspects of culture while remaining constrained or even affected itself. Bass and Avolio (1994, p. 542) observe that while transactional leaders seek to attain effectiveness by reinforcing the existing norms and rules, transformational leaders have a vision that they try to align the organizational culture to by effecting cultural change.

The leader plays a very important role in the creation of the organizational culture to the extent that no understanding of the organizational culture could be considered complete without concurrently considering the organizational leadership. A leader creates an environment for specific cultural practices to thrive. The leader nurtures and encourages cultural practices that back and uphold his visions. Such norms and practices receive the leader's attention and thrive. Those practices that the leader does not seem to favor are seen to fizzle and die away. In some cases, the leader encourages the adoption of certain qualities of the organizational culture (Bass and Avolio, 1994, p. 543). Schein, (2010, pp. 225-394) outlines the interdependence that exists between organizational culture and leadership by describing the development of a new organization to its maturity. He highlights how the founder establishes an organization based on his beliefs, how he drives the cultural experience, discourages practices that may not agree with his vision, and how, later on, when the organization is mature and has an established cultural

identity, the leader is forced to conform to the cultural requirements when making decisions.

Culture, especially, strong organizational culture dictates how decisions are made in the organization. The values beliefs and norms shared by members of the organization often shed light on decisions that will affect the future of the organization. Despite the variety of paths and possible departmental goals that may exist in the organization, it is apparent that the decisions made in these departments are shaped by the values, norms, and behaviors adopted by members of the organization. Decisions regarding management functions like recruitment, placement, training, and promotion often follow established practices in the organization. The basic functions of organizational culture as a source of coordination, integration, and motivation bring success in line with common goals. The unification of the members of the organization around common values, beliefs, and norms enables them to integrate with the goals of the organization and serve to develop the spirit of cooperation. (Ataman Unutkan, 2000, pp. 78-79).

The culture that exists within a group can also affect the type of leadership that comes upon that group. Looking at the emergence of charismatic leaders, Pillai and Meindl (1998, p. 648) find that leaders are perceived as charismatic or otherwise depending on how their dominant values fit into the group values. For instance, they observe that collectivistic cultural orientations embrace leaders whose values are linked to the sacrifice of the individual to the good of the team, and any leader who does not embody the team's values may not be regarded well. The existing culture affects the emergence of a leader. Hodgetts (1997, pp. 340-341) clarifies why a leader needs to understand and possibly embrace the culture of the organization. He cites culture as the glue that helps the leader hold the organization together as well as the guide that will inform the courses to take should there be a need for effecting change in the organization.

The pressure from the organizational culture or the conditions in the organization may decide whether a leader chooses to utilize an autocratic, participatory or a laissez fair style of leadership. As pointed under situational leadership, no one style may be applicable in all conditions, leadership should be a flexible phenomenon, leading to the conclusion by Learned and Sproat (1972, p. 60) that as much as the leader's 'perspective and understanding of the organization and its values can occasion the creation or the

modification of its culture, the organizational culture itself may also influence the leaders' decisions and style of leadership.

In a study that examined how the interactions between transformational leadership and different cultural orientations (humanistic, achievement, and adaptive orientations) affect organizational performance, Xenikou and Simosi (2006, p. 576), found that transformational leadership creates a high-performance expectation (achievement cultural orientation) among the employees, which then leads to better performance. They then conclude that organizational culture is the filter through which leadership can influence other aspects of the organization. Another study that examined the relationship of both transformational and transactional leadership and organizational culture was conducted by Casida and Pinto-Zipp, (2008, p. 12) among the nurse managers (leaders) and nurses working in acute care hospitals of the largest health care system in New Jersey. They used Leadership Questionnaire (MLQ) and Denison's Organizational Culture Survey (DOCS) and found that while both transformational and transactional leadership were positively correlated to organizational culture, the relationship with transformation leadership was stronger, while laissez fair leadership was found to be negatively correlated to the organizational culture of the nursing units observed.

Taormina (2008) found leader behavior to change with organizational culture. While following Quinn's (1998) leadership behavior facets of control (Monitor, Coordinator, Producer, and Director) versus flexible (Innovator, Facilitator, Broker, and Mentor), and Wallach's (1983) facets of organizational culture (bureaucratic, innovative, and supportive), certain leadership behaviors were found to be more pronounced in specific cultural dimensions. Control- oriented leader behaviors were found to be correlated to bureaucratic culture, supporting the premise bureaucratic cultures nurture leadership that espouses adherence to rules and procedure. The innovative culture had significant correlations with flexible-oriented leader behaviors. The supportive culture was found to have a significantly higher correlation with control leader behavior than flexible leader behavior (Taormina (2008, p. 97).

The nature of leadership in the organization influences how the followers perceive their cultural orientations. The same sentiments are shared by Ogbonna and Harris (2000, p. 781) who also found the organizational culture to influence how leadership interacts with organizational performance. In their study that considered various organization in

the UK, they found that no leadership style by itself could influence performance directly, but when mediated by organizational (competitive and innovative) cultures. The same study also found competitive and innovative cultures to directly, strongly and positively influence performance whereas clan and bureaucratic cultures had no direct impact on the performance. Golden and Shriner (2019, p. 372) showed the effect of transformational leadership on augmenting the creative performance of employees to be more pronounced when the accompanying culture "*is less structured with an external focus, such as an adhocracy*" as compared to hierarchical. They conclude that transformational leadership will struggle to achieve effectiveness if it lacks the support of the culture.

According to a study by Acar (2012, p. 224), Market and Adhocracy are the dominant cultures in the Turkish logistics industry while transformational leadership is the most prominent. Based on the study which takes charisma, intellectual stimulation, and individualized consideration as the sub-dimensions of transformational leadership, even in the absence of any direct links between culture and leadership, the two phenomena still interact to impact other aspects of the organization- organizational commitment in this case. A study similarly conducted to determine how leadership interacts with an organizational culture based on the Competitive Values Framework concludes that different cultural dimensions have certain leadership style preferences to attain success. Schimmoeller (2010, p. 135) found a significant positive correlation between both transformational and transactional leadership with clan and adhocracy cultures. The low rate of restrictions and fewer rules in these cultural dimensions call for involved leadership. This may also explain the finding, in the same study, of a significant negative relationship between transformational leadership and hierarchical culture. This is because whereas hierarchical culture is based on set down rules and procedures, part of the success of transformational leadership lies in the inspirational motivation of the leader. Transformational leadership, again, comes highly regarded among radiological technologists at hospitals in Busan, South Korea, so it is a consensual culture type. In the study by Kim et al. (2011, pp. 201-206) with a sample of 305 radiological technologists spread in over 16 hospitals in Busan, organizational culture and leadership were used as the predictor variables for organizational effectiveness as highlighted by job satisfaction and organizational commitment. The objective of the study was to determine the right leadership style and culture that would boost organizational effectiveness. The results

showed the importance of the right mix of leadership and culture in influencing other elements of the organization.

Bell, Chan and Nel (2014, pp. 1970-1985) surveyed 246 participants from Fort Hare University in a study on the how organizational culture was impacted by participative and directive leadership styles. The study considered involvement, consistency, mission and adaptability as the main factors of organizational culture. The findings revealed that there was an overall positive and significant relationship between both participatory and directive leadership and organizational culture. The impact of participatory leadership alone is however much stronger than the combination of both forms of leadership. Also, whereas participatory leadership had a positive relationship with all the cultural dimensions, directive leadership had a negative but insignificant relationship with adaptability.

It is amply clear that organizational culture influences leadership, but several pertinent questions remain unanswered in this regard; what cultural attributes influence leadership and to what extent? What extent of the variation of leadership styles could be attributed to culture and, how and to what extent does culture moderate the relationship between leadership and other organizational processes (House et al. 2004, p. 9)? These and more questions could also be asked when the nature of the relationship is reversed to look at its reciprocity. An answer to this question interrelationship can be found in the study conducted by Sarros et al. (2002, pp. 1-26) with a sample of 1918 business executives who had membership to the Australian Institute of Management (AIM). The objective of the study was to find out how much change in organizational culture could be attributed to leadership and vice versa by using the variables interchangeably as dependent and independent variables. The results of the study revealed that variations in either phenomenon could be attributed to the other to a certain extent, but the effect of leadership as a predictor of organizational culture was more pronounced than that of culture on leadership (Sarros et al., 2002, p. 15).

A study conducted with nearly 500 managers in contracting firms in Turkey ventured into the examination of the interlink between leadership and organizational culture. They used Cameron and Quinn's (2005) “Organizational Culture Assessment Instrument (OCAI)” which is based on the “Competing Values Framework” (CVF) to measure organizational culture and Hofstede’s (2001) leadership continuum to measure

leadership to determine what kind of leadership style would best fit into what type of culture (Giritli, 2013, p. 234). The results reveal that clan and hierarchy cultures alongside consultative and authoritarian leadership are the most common in Turkish contracting companies. The results further revealed a positive link between clan culture and consultative leadership styles and no link between control-oriented leadership in adhocracy culture. The study then concludes that different leadership styles could be effectively utilized in different cultural frameworks, and shown by the managers, a single individual can possess and practice different leadership styles where and when necessary.

Armed with real-world examples of crisis leadership where some organizations came up on top with a stroke of genius and others stumbled, Bowers et al. (2017, p. 561) seek to draw a link between the organizational culture and crisis leadership. By presenting a crisis leadership matrix - Crisis Response Leadership Matrix (CRLM), they make the determination that although transformational leadership is superior at handling crises, an understanding of the organizational culture goes a long way in dictating the right leader to drive the organization through the crisis, lending to the position of the link between organizational culture and leadership.

3.1.3. Management leadership and knowledge sharing

Organizations that are considered competitive are those that are constantly innovating and developing quality business processes compared to their peers. In the new economy, finding and developing the best practices to ensure that organizational knowledge is retained and applied within the organization is one of the ways to achieve these goals. According to experienced leaders, sharing knowledge is as important as the distribution of products and services. The shared knowledge potentially puts the organization on a path to effectiveness, success and creates a competitive edge. Members of the organization need some form of leadership that can stimulate and encourage the knowledge sharing process. The leadership should make known its desire about the sharing of knowledge with other members of the team.

Organizations need leadership that can adapt to environmental variables, solve the problems of the organization, and help it achieve its goals by developing strategies and drawing a road map to lead it to success (Benator & Thomann, 2003, p. 104). The leader plays a major role in organizational internal and external dynamics. While helping the

organization adapt to the pressures and changes in the external environment by providing tools and the means to adapt to the changes, he also has to hold the internal dynamics intact by providing an environment of cooperation among the employees and instill self-confidence. In building a learning organization, the leader is also expected to build and encourage a philosophy of experimentation and sharing. Knowledge sharing dictates how individuals in the organization acquire new knowledge, the sum of which eventually leads to organizational learning (Stonehouse and Pemberton, 2000, p. 188). This helps in building and strengthening social relationships by increasing the bond in the social work network. The nature of this network may become instrumental in how knowledge is transferred within the organization. Johnson (2002, p. 246) emphasizes the importance of personal attention by the leader towards learning, which in turn is expected to motivate the members of the organization to pay more attention to the learning.

Knowledge is power. The leadership needs to impress the notion of more strength in sharing. In every business process, knowledge from different sources needs to be retained and managed. Technology plays a very important role in ensuring the communication of the employees in the digital environment and sharing the knowledge quickly. However, technology is not a complete solution. The organization should be aware that technology will never replace interpersonal interaction in sharing knowledge and thoughts. This necessitates structural and non-structural arrangements that support individual interaction.

Leaders are not unaware of the role of knowledge in their organizations, in fact, they rely on various information and knowledge management technologies to ensure effectiveness in organizational operations. With this realization and the elevation of knowledge to the position of a strategic organizational asset, comes the recognition of improved role leaders and managers in knowledge management from creation to dissemination and in some cases even to the application (Shokrzadeh, Sabbaghian, Pardakhtchi, and Abolghasemi, 2012, pp. 1667-1668). A study by Lakshman (2007, p. 71) rooted in grounded theory and based on the interviews with 37 CEOs, indicates a strong role of knowledge management in leader effectiveness. The study thus advocates for a stronger role of leaders in the knowledge management of the organizations. The increasing role of knowledge has necessitated a special focus that practitioners and scholars alike have agreed can be handled by specialized knowledge leaders.

It is the duty of the leaders to create a knowledge-based organization. Managers should therefore put forward systems and human resource management approaches that facilitate access to information and enable the creation, dissemination and sharing of information. Managers should adopt human resources practices that encourage flexibility, increase the autonomy of employees, create an atmosphere of trust, give importance to cooperation, encourage the management of processes on the basis of knowledge, the training of human resources, and the continuous collection of information from internal and external environmental conditions. Because without such applications, it is not possible to even be aware of information, let alone establishing a knowledge-based organization. In a sense, managers, by displaying appropriate leadership behavior; will be able to develop a culture of creating, sharing and managing knowledge (Naktiyok, 2009).

In organizations where knowledge is the key currency, there need to be the positions of the Chief Knowledge Officer and Chief Learning Officer who are tasked with leading the knowledge management initiative of the organization (Bonner, 2000, p. 36). Bonner outlines in detail the roles to be performed by the holders of these positions to ensure that the organization thoroughly explores and exploits its knowledge resources. They are tasked with locating the knowledge wherever it is in the organization, securing it, and ensuring its dissemination as well as application to the benefit of the organization (ibid. p. 37), this is in addition to ensuring that the knowledge is not lost or wasted. The creation of these positions and other forms of knowledge leadership positions is a signal of the organizational awareness of the role of knowledge. While these studies emphasize the leader's understanding of the role of knowledge management in the effectiveness of the organization, they fail to mention actions necessary for the leader to attain any level of knowledge management effectiveness.

Guns (1998, pp. 315-316) reckons that the primary task of the leader is to benefit from knowledge by mobilizing the knowledge assets of the organization. To fully reap the benefits, the leader has two approaches that play a role in sourcing and maintaining the knowledge while also enhancing its mobility. The leader is tasked with creating a learning organization and developing a knowledge infrastructure. Building a learning culture is more concerned with the attitudes and movements of individuals in the organization, whereas building the infrastructure is more about technology. There needs

to be a balance between these approaches to achieve any substantial success in knowledge management. The main responsibility of the leader at the strategic level, thus, is to develop a process that can benefit from knowledge by transforming it into organizational knowledge.

According to Viitala (2004, p. 529), in recent years the main challenge for leadership has been to preside over an organization with the ability to constantly learn, create and renew. In a study to design a knowledge leadership model based on both qualitative and quantitative thoughts, Viitala (2004, p. 537) creates an ideal model in which four types of leadership dimensions vital in organizational learning are identified, based on the leader's ability to create a conducive environment for learning, to act as a coach or a facilitator of learning, to encourage and support learning among individuals and groups as well as to act as a role model in the learning environment.

In a study the sought to link leadership with the entire realm of knowledge management, Crawford (2005, pp. 6-16) surveyed a group of 1046 *non-traditional* students from different professional fields. To determine how much KM practices predicted leadership, three leadership styles (transformational, transactional, and laissez-faire) were regressed against KM. The findings of the study revealed a positive correlation between transformational leadership and KM to the extent that 30.8% variation in transformational leadership could be explained by knowledge management. While there was no significant relationship between transactional leadership and KM, laissez-faire leadership was negatively related to KM practices. The implication of these findings, like Crawford (2005, p. 14) explains, is the presumed need for a follower-centered leadership in KM which makes transformational leadership the perfect fit for an effective KM system while laissez-faire leadership lacks the effectiveness due to limited leader involvement.

Politis (2001, pp. 354-364) examined the role of leadership in KM, especially regarding how different leadership styles affect knowledge acquisition. Apart from transformational and transactional leadership, other styles considered were consideration and initiation structure leader behavior (factors of situational leadership) and self-management leadership. Using a sample of 227 employees of a high-tech manufacturing company in Australia, the results revealed a link between transformational and transactional as well as self-management leadership with certain attributes of knowledge

acquisition. The study concluded that leadership styles based on trust, and participation of followers encourage knowledge acquisition as compared to those autocratic in nature.

Roth (2003, p. 43) looks at the transfer of knowledge across boundaries or different teams in different geographical locations. In the position of leaders, Roth puts knowledge facilitators whose role should be to create a caring environment in which knowledge creation and transfer could take place. Despite not being originators of knowledge themselves, the facilitators are tasked with creating a personal environment in which the knowledge transfer can take place. Grant (1996, p. 117) points to the need for leaders to change the organizational structure such as to create workgroups or teams that will bring people into an interactive environment where they can share knowledge.

Yang, (2007, p. 537) looked at the different roles performed by a leader (facilitator, mentor, innovator, broker, coordinator, monitor, producer, and director) and how they affected the knowledge sharing practices in the organization. He found Mentor and Facilitator leadership roles to be strongly positively related to KS while the monitor role was negatively related. In essence, subordinates are encouraged to share knowledge when their leader displays mentoring and coaching traits. Yang emphasizes the importance subordinates attach to the human interaction approach by the leader and the concern the leader shows for their morale as one of the ways to inspire knowledge sharing. A leader who is able to cultivate a personal relationship with his team by showing empathy and taking a keen interest in their personal affairs is likely to build a team with stronger bonds and thus encourage sharing. In a similar pattern, Palmer (1997, p. 299) looks at collaborative leadership as opposed to control and hierarchy as the best way to implement KM practices and in turn stimulate KS among employees.

Li et al. (2014, p. 560) divided transformational leadership into individual-focused leadership and group-focused leadership and examined how they affected the KS practices of employees in different workgroups in China. They found transformational leadership to facilitate knowledge sharing both at the individual and group levels. They found affiliation climate (the equivalent of clan culture in Quinn's classification) to mediate the relationship between group-focused leadership and KS while the leader-member exchange (LMX) mediated the positive relationship with the individual-focused leadership. They concluded that leadership practices that promote a positive group

environment in group situations and *personalized consideration* which improve the leader-member relationship are likely to facilitate knowledge sharing in organizations.

Bavik et al. (2018, p. 328) find ethical leadership to influence employee knowledge sharing and that this relationship is mediated by employee motivation. The implication is that while doling out punishment and reward intended at promoting ethical behavior among employees, leaders should engage the employee and practice ethical role modeling to guide the employees to be considerate to one another while still remaining motivated to generate and share knowledge.

Suri Babu et al. (2008, pp. 83-92) look at how leadership capabilities influenced the KM capacity of the organization. Leadership capabilities are measured based on Core skills, Emotional intelligence, Strategic planning, and execution whereas KM is measured based on Knowledge generation and Knowledge sharing. The study finds that emotional intelligence is the most vital aspect of leadership capabilities as knowledge sharing shapes KM efforts of the organization. As to the relationship between two factors, there is a positive relationship between leadership capabilities and knowledge management.

Leaders could foster KM practices in various ways. Recruiting from outside the organization in order to fulfill the knowledge gap within the organization is one such way. Birasnav (2014, p. 1627) looks at how transformational leadership affects KM practices and finds that other than creating an environment within the organization in which knowledge can be transferred, the leader also assumes the role of acquiring the missing knowledge from the external environment by bringing in employees they feel will fill the gap. The results of the study also find that the KM practices of the organization may mediate the relationship between leadership and organizational performance, which is the ultimate goal of all KM practices. Bryant (2003, p. 39) conducted a study in which he outlined how various leadership styles impact knowledge management. Among the propositions outlined in his work, he states that a transformational leadership style positively impacts knowledge sharing at both the individual and group levels. This is based on the motivational nature of the leader which encourages innovation and the need to collaborate with others. The transactional leadership style, on the other hand, is detail-oriented and emphasizes policies and rules which stifle individual creativity. Respectfully, the transactional leadership style has a positive impact on KS only at the group level.

On their inquest into how communication styles of charismatic leadership affect the KS practices in organizations, De Vries, Bakker-Pieper, and Oostenveld (2010, p. 376) make a clear distinction between human-oriented leadership and task-oriented leadership (the two most important aspects of situational leadership). They first look at the relationship between the leadership styles and their communication styles and find both charismatic leadership and human-oriented leadership to be characterized, to different degrees, by supportive and non-supportive styles whereas task-oriented leadership comes out as more precise and more assured in their communication styles with a tinge of aggressiveness. Looking at the effect on outcome variables, they found supportive communication styles, as found in charismatic and human-oriented leadership, to improve instances of subordinates collecting knowledge from the leader and how this knowledge and others within the organization is shared. While the assuredness behavior seen in task-oriented leaders benefited the perception of leader's performance and subordinated team commitment, it did not do much in the way of KS.

A different study by Srivastava, Bartol, and Locke (2006, p. 1241) looks at support from the perspective of and empowering leadership. Teams should have a natural flow of knowledge between members, but even this is not a given. The type of leader within the team will determine how the flow of knowledge within the team, and even with outsiders, is affected. The findings of this study show that an empowering leadership style is likely to improve the team efficacy and knowledge sharing among members. An empowering leader's inclination towards participative decision making, informing, showing concern, coaching, and leading by example (Xue, Bradley and Liang, 2011, p. 302) motivates subordinates and creates a climate in which KS becomes natural. At the same time, knowledge sharing was also found to be a mediating variable in the relationship between leadership and performance. They conclude by stating the potential strategic role of empowering leadership to the organization. Similar results are obtained by Xue et al (2011, p. 306) who find direct links between empowering leadership and KS behavior and well as between team climate and KS behavior. Similarly, both variables are found to directly affect KS behavior indirectly by influencing KS attitude. The authors emphasize the importance of empowering skills when selecting or evaluating team leaders.

Lee, Gillespie, Mann, and Wearing (2010) go beyond the effect of leadership style. They look at how the leader's role enhances knowledge sharing among engineers in an automotive company in Australia. The study focused on the leader's performance regarding providing an environment in which knowledge and expertise could be created as well as encouraging knowledge sharing by building an atmosphere of trust among the members of a team. They find that when the leader plays his role well as a knowledge builder then the members of his team are encouraged to share the knowledge they hold. The knowledge builder role is achieved by encouraging them to be creative in how they look at things, discover and commence new ways through which the team could share and introduce new knowledge into the team from the external environment (Lee et al. 2010, p. 484).

There is also support for an indirect relationship between leadership and KS. For instance, Carmeli, Atwater ad Levi (2011, p. 268) find that transformational leadership and good quality of leader-member exchange improve employee relational identification and organizational identification. The two factors of the organization then have a strong positive impact on KS.

Lee et al. (2016, p. 469) found a positive relationship between management support and knowledge sharing in the implementation of software process improvement (SPI).

McDermott and O'Dell (2001, p. 84) found direct and stronger management support to lead to effective knowledge sharing. However, they emphasize that this effect is only observed in organizations that have knowledge sharing as part of their overall corporate focus.

Islam et al (2015, p. 79) cite leaders as role models in the knowledge sharing process in the organization. They say that top management support plays an important role in encouraging subordinates to share knowledge or to take part in activities that will aid in knowledge sharing.

3.1.4. Leadership mediating organizational culture and knowledge management

Communication breakdown within organizations, barriers to the effective transfer of knowledge, disagreements on similar issues, differences of understanding, or misunderstandings causes organizations to fail. Communication breakdowns especially

create problems of trust between leaders and subordinates. One of the biggest factors in communication breakdown is the culture of the organization. In an organization where indirect communication and gestures are common, and implied communication rather than frankness is preferred, it will be difficult for the leader to express some issues clearly.

Leadership is tied to organizational culture in more ways than one, and as Block (2003, p. 329) finds, the leadership style may be able to explain up to 36% of the variance in employees' perceptions of organizational culture. Especially employees who work under transformational leaders tend to perceive their cultures more positively according to the findings of the study. Looking at the possible connection between these three variables, Nguyen and Mohamed (2011, pp. 206-221), examined the effect of leadership behavior and organizational culture on knowledge management practices in small and medium-sized enterprises. They examined leadership within transformational and transactional contexts while organizational culture was examined with reference to harmony, hierarchy and duty, and knowledge management within the dimensions of change, socialization, and internalization. They found a positive relationship between leadership behaviors (transformational and transactional leadership) and knowledge management practices; charismatic leadership, and conditional reward leadership behavior were found to have a great effect on all dimensions of knowledge management; leadership effectiveness in the success of knowledge management practices was found to be dependent on the type of organizational culture. They found that the behavior of the leader contributed significantly to organizational culture, that leaders can influence knowledge management practices directly or indirectly through organizational culture, and that the relationship between transactional leadership and knowledge management practices is mediated by hierarchy and task culture.

Chang and Lee (2007, p. 179) look at different industries in Taiwan in which they take organizational learning as the center of their study and examine how it would be affected by organizational culture and leadership. They find both factors to be influential in determining how an organization learns. Good leadership, especially transformational leadership, creates a favorable structure and an environment of shared vision in which members feel free and comfortable to collaborate. This effect is aided by the clan culture which also fosters cooperation. A different study conducted along the same lines looks at the impact of transformational leadership and culture on organizational learning in

schools. They considered factors of transformational leadership like '*fostering group goals', 'developing shared norms'*, and '*encouraging collective decision making*', and the findings indicate that the extent to which leadership influences organizational learning is affected by culture and structure (Lam, 2002, p. 449).

CHAPTER IV

METHODOLOGY AND RESEARCH DESIGN

In this chapter, the significance and aim of the study, its model and variables, the hypotheses that the research is based on, the scope and limits of the research, the sampling method used in the research, and the analysis of the data obtained at the end of the research are outlined.

4.1. The Significance and Aim of the Study

While seeking a deeper understanding of the relationship between knowledge management (as represented by Knowledge sharing) and organizational culture, this study also incorporates management leadership support as one of the success factors of KM with the intent of examining its role in the relationship between the two main variables. Other than motivating employees towards knowledge sharing, leaders also play the role of exemplary role models with their behaviors and action pertaining to knowledge sharing. This study is grounded on the hypothesis that leadership has a role in the relationship between organizational culture and knowledge sharing. The aim of the study, thus, is to determine the role played by management leadership in the relationship between knowledge sharing and organizational culture.

By examining their application at firm levels and understanding the interplay among the factors, we hope to scrutinize the applicability of the theoretical knowledge and gain significant insight from the study to make recommendations on how the different variables can be handled in a way that enhances the effectiveness of the others. Based on the hypothesis, the study intends to put forward an understanding of the interaction between the four aspects of culture spelled out in the competing values framework with the knowledge sharing behaviors of organizational members as well as determining how these relationships are enhanced or otherwise by the two leadership styles espoused by the situational leadership model.

4.2. Research Model

Culture is defined by Malinowski (1941, p. 185) as a system of organized activities within a system of related institutions and which results from the contributive efforts of all members. The members of the institution (organization) are bound by the set of practices to some extent and new members coming into the organization have to learn these beliefs and values to be accepted as part of the organizational family. As a social construct, culture then defines the behaviors and nature of the interaction of humans in any given social structure (Allaire and Firsirotu, 1984, p. 197).

The understanding of culture has been presented in different topologies by diverse scholars over the years. Hofstede's (1980) consideration of national cultures is one of the most popular comprehensive approaches looking at how this learned phenomenon differs from country to country. Other approaches that have established their place in the literature include Denison's (1990) model, Schneider's (1999) model, Schien's levels approach, and Cameron and Quinn's competing values framework.

As culture dictates the nature of cooperation between members of the organization, it can thus be said to influence how members of the organization may choose (or not) to share the knowledge they possess (Malinowski (1941, p. 185). A topological examination reveals that the different classes of culture under the different models have different effects on the KS practices of the members. Going by the competing values framework that is utilized in this study, a hierarchical culture doesn't regard knowledge sharing the same way as clan or adhocracy cultures, hence there is a need to understand how the different distinctions of culture will impact the knowledge sharing behaviors of the members of an organization.

Leadership plays a vital role in the knowledge management practices of an organization and this has been the subject of many studies (Bonner, 2000, p. 36; Guns, 1998, pp. 317-319; Politis, 2001, pp. 354-364) with most studies associating attitude of the leader as well different leadership styles to different knowledge management practices. Li et al. (2014, p. 560) for instance, found transformational leadership to facilitate knowledge desires of both groups and individuals whereas Bryant (2003, p. 39)

found transactional leadership to encourage knowledge transfer only at the individual level.

On a different front, leadership has also been found to play a strong role in influencing the culture of the organization. Sarros, Cooper, and Santora (2011, p. 294) look at leaders as part of the subject of the organizational culture, influenced by its application while at the same time contending to the architectural role of the leader in building the culture. Different leadership traits and styles have also been found to affect or lead to the emergence of different cultures. (Taormina (2008, p. 97) reported control-oriented leadership to be correlated to bureaucratic culture while innovative culture had significant correlations with flexible-oriented leader behaviors.

Based on these established relationships between the various leadership styles with both knowledge sharing and organizational culture, this study seeks to examine if the ype of leadership may play a role in the relationship between the two variables. This study thus sought to create a model that integrates knowledge sharing, management leadership, and organizational culture. To this end, the study adopts the situational leadership approach which categorizes leaders as either relationship or task-oriented.

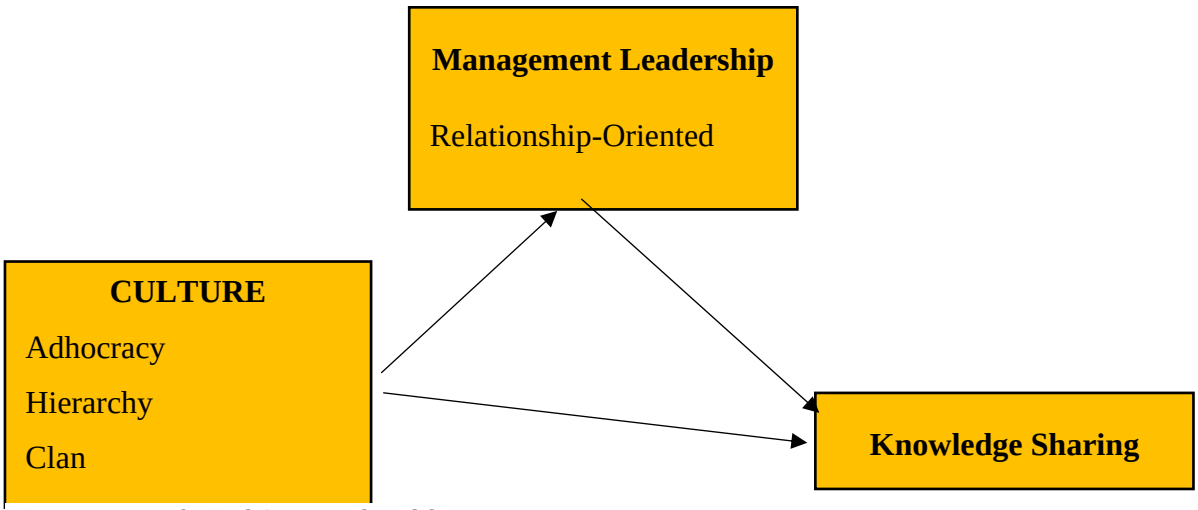

Figure 4.1: Hypothesized Conceptual Model

4.3. Model Variables and Hypothesis

The model identifies three main variables: organizational culture, leadership, and knowledge sharing.

4.3.1. Culture and Knowledge Sharing

Cameron and Quinn's proposed categorization classifies organizational culture along two dimensions of effectiveness which creates the competitive values framework of culture which has been adopted for this study. According to the framework, organizational culture is divided into four quadrants- hierarchy, clan, adhocracy, and market - each with distinct features (Cameron and Quinn, 2011, pp. 37-47).

An *adhocracy culture* focuses on the solution to the problem at hand and emphasizes innovation and acting fast. There is a general tendency for risk-taking and a platform that encourages sharing of ideas.

The *clan culture* is built around shared values with an emphasis on member participation and collaboration. The organization is committed to the employees and team accomplishments are revered over individual achievements. Sharing is part and parcel of the clan culture.

In their intensive case study that focused on four Australian organizations and which utilized three methods of data collection (questionnaire, interviews and review of existing documents), Wiewiora et al (2013, pp. 1163-1174) examined how culture defined by the Cameron and Quinn's dimension affected knowledge sharing between members of a project. The study finds the clan-oriented culture based on its emphasis for collaboration and teamwork to spur knowledge sharing between projects.

A study of 115 Chinese firms by Shao et al (2012, p. 2411) find knowledge sharing to be affected differently by different cultural forms. Their study considers knowledge in its basic forms as either tacit or explicit. They find clan culture positively impacts the sharing of tacit knowledge. This results from the trust-orientation nature of this cultural dimension in which members can casually and easily interact which is often how tacit knowledge is exchanged.

Glomseth et al (2007, p. 106) conducted a survey with over 100 police officers in Norway to determine how occupational culture affected knowledge sharing in the police

force. In the research which classified occupational knowledge in four categories (team culture, planning culture, theoretical culture, and traditional culture), the team culture, the equivalent of Cameron and Quinn's clan culture was found to considerably influence knowledge sharing and by extension the performance of the officers.

In the *market culture*, competition with the outside environment is the key driver of operations and leaders give goals to their followers whose achievement they monitor closely. The motivation of the employees is based on the potential reward or punishment that results from the performance or non-performance of the given tasks.

Wiewiora et al (2013) point to the goal-orientation nature of the market and the desire to win as one of the reasons for the hesitancy of members to share knowledge with each other.

The *hierarchy culture* follows Weber's bureaucracy in its demand for internal focus, stability and control, and the predictability of outcomes. There are formalized systems dictating how things should be done.

Even though systems of procedures may provide channels for controlling the nature and sharing of knowledge, control-oriented cultural dimensions like the hierarchical culture have been found to hinder the sharing of tacit knowledge (Shao et al, 2012, p. 2411) and by extension, knowledge sharing in general.

Jones et al. (2006, p. 430) also conducted a case study in of four firms using the ERP in the petroleum industry in which they found hierarchical culture to impede knowledge sharing on account that those who hold higher positions in the hierarchy may often be unwilling or less open to obtaining information of value from those considered subordinates.

A study by Jones et al. (2011) determined that there is a significant and positive relationship between each of the cultural dimensions (clan culture, adhocracy culture, market and hierarchy cultures) and knowledge management. They found the correlation values to be highest for adhocracy culture the lowest in the hierarchy culture. Further analysis found that adhocracy, clan and hierarchy cultures were important predictors of knowledge management with varying levels of significance, whereas market culture was not statistically significant.

On account of the above relationships as established in the literature, the study provides the following hypothesis regarding the relationship between organizational culture and knowledge sharing:

$H1_a$: There is a significant relationship between organizational culture and knowledge sharing.

$H1_b$: There is a positive relationship between adhocracy culture and knowledge sharing.

$H1_c$: There is a positive relationship between clan culture and knowledge sharing

$H1_d$: There is a negative relationship between market culture and knowledge sharing.

$H1_e$: There is a negative relationship between hierarchical culture and knowledge sharing.

4.3.2. Leadership and knowledge sharing

The study employs the use of situational leadership which is predicated on the fact the effective leadership demands an in-depth awareness of the situation and formulating a response thus (McCleskey, 2014, p. 118). Depending on the situational approach, the leader may exhibit task or relationship-oriented traits. In *task-oriented* leadership, the leader is focused on the performance of the given task and does everything for its successful completion. A *relationship-oriented* leader shows more interest in the welfare of his subordinates and strives to build a great relationship with them. The two traits make up the extent of the leadership variable.

While it is a well-accepted fact that leadership has significant influence on the knowledge management process of the organization, how the different leadership styles influence knowledge sharing still remain a topic of debate. Effective knowledge sharing should be a voluntary activity and should not exist an obligation hovering over the employees with every task they perform. It remains inconclusive whether a leader who outlines the tasks to be performed and communicates the importance of knowledge sharing is better or worse than he who engages employees at a personal level in their performance of the tasks (Smith and McKeen, 2003, p. 12). How the employees perceive their management usually affects their perception of the knowledge sharing culture of the

organization (Connelly and Kevin 2003, p. 299). The interaction between the leader and the employees determines how the employees interact among themselves and how they will collaborate and potentially share the knowledge they possess.

While reviewing how culture impacts the success of information technology, Harper (2000) finds that people-orientation (as cultural attributes) are more critical to the success of the IT systems that production-orientation.

Rai (2011, p. 794) heaps the greatest burden of finding a balance between human relations and task achievement and an appropriate cultural framework that will support the SECI model described by Nonaka. By these findings of this study, a leader stands in the middle position to ensure that the existing organizational culture supports the knowledge sharing efforts by the employees. A leader may also undertake the ultimate task of initiating cultural change to one that will support knowledge management.

Chang and Lee (2007, p. 177), find a significant positive relationship between leadership and organization learning-recognized in some studies as an aspect of organizational knowledge management.

The results by Lee et al. (2014, p. 560) from a study of 90 work groups drawn from different industries in China speak to the impact of situational leadership in knowledge sharing. The study finds that a group-oriented transformational leadership style does well in positively influencing the knowledge sharing attitude of employees at the group level whereas individual-oriented leadership has significant positive effects on the knowledge sharing attitude of employees at the individual level. They also found that the relationship is mediated by the group climates (has been associated with organizational culture) and leader-member exchange.

In accordance with situational leadership, there is a belief that relationship-oriented and task-oriented leadership will have different impacts on the knowledge-sharing attitudes of the employees. The hypotheses developed from the relationship between leadership and knowledge sharing are:

$H2_a$: There is a positive relationship between relationship-oriented leadership and knowledge sharing.

$H2_b$: There is a negative relationship between task-oriented leadership and knowledge sharing.

4.3.3. Organizational culture and leadership

Culture determines how an organization responds to environmental stimuli. A leader is at the forefront of shaping the cultural understanding of the employees through what he rewards and what he punishes and well as what he outlines as his visions and strategy for the organization. The nature of culture in the organization may also impact the leadership approach taken by the leader. As Taormina, (2008, p. 99) points out in their research, leaders portray controlling behaviors in bureaucratic cultures whereas they are more flexible in supportive cultures.

Among MBA students and academicians of a Malaysian university, Huey et al. (2009, p. 75) find organizational culture to have a moderating influence on how leadership interacts with organizational commitment. The understanding derived from this study is that different leadership behaviors affect organizational commitment levels of employees. Innovative and supportive cultures were found to have higher moderating impact on directive, participative and supportive leadership behaviors compared to bureaucratic culture.

Shim et al. (2015, p. 768) find a link between transformational leadership and organizational culture. Their study seeks to find whether organizational culture is capable of mediating the relationship between transformational leadership and organizational commitment of South Korean police officers. Following Quinn's competing values framework to measure culture and Bass and Avolio's (1995) Multifactor Leadership Questionnaire to measure transformational leadership, they find a strong link between group, developmental and rational cultures with transformational leadership and none between hierarchical culture and transformational leadership. As of the mediating powers of organizational culture in the relationship between transformational leadership and organizational commitment, only group culture is found to have a significant indirect effect on the relationship.

Quinn's competing values framework presents culture in four dimensions. The first of these is the clan culture. An organization dominated by the clan culture exhibits close-knit, family-like structure where collaboration, commitment to each other, trust and participation in team activities are valued. Leaders in these kinds of organizations play

the father figure role and are looked upon to provide guidance. It is therefore anticipated that a task-oriented leader to whom the results and market share are more important would not thrive in such a cultural environment that emphasizes friendly working place, family consciousness, parent leadership over the pursuit of market share and financial gains.

According to Cameron and Quinn's format, for a leader to be effective in an organization dominated by clan culture, they need to play a facilitator, mentor role in which they offer counsel to the subordinates, just as a father would; they pay special attention to the abilities, goals and needs of each of their followers in order to enable them to adequately respond to the problems they encounter (Conger & Kanungo, 1987; Masood et al., 2006). In this framework, a positive relationship is expected between clan culture and relations-oriented leadership.

An adhocracy culture refers to a dynamic, entrepreneurial, and creative organizations that requires and rewards innovators and risk-takers. Flexibility, creativity and risk-taking in the face of turbulent environments are features expected from both the employees and leaders of such organizations (Stoica et al., 2004, pp. 251-266.). In this advanced organic structure, status and positions are ignored or temporarily suspended for the sake of the achievement of the set tasks. An effective leader in an adhocracy culture is one who encourages intuitiveness, competition and goal-orientation among employees. Pillia and Meindl (1998, pp. 643-671) found that there is a positive relationship between the organic structure owned and the formation of charismatic leadership in the business units of large organizations (Hoogh et al., 2005). It is therefore hypothesized that there will be a positive relationship between adhocracy culture and task-oriented leadership.

Organizations with a dominant hierarchy culture advocate respect and legal power for rules and tradition as opposed to initiative, creativity and risk taking. Hierarchy culture consists of mechanical processes such as control, order, and balance. It is important to do things properly and on time in accordance with the rules and to reach the determined goals. The role of leader in this culture is to explain to their followers what tasks and duties are expected of them and to guide them and motivate them in achieving the determined goals. An effective leader in a hierarchy culture is one who prefers the security offered by the stability and the rules and pushes the employees to accomplish goals while obeying the set rules. According to Cameron and Quinn (1999), when an organization is

governed by a hierarchical culture, the leadership roles become those of organizing, controlling, monitoring, coordinating and maintaining effectiveness.

Market culture focuses on success in terms of expanded market share. The culture exhibits both control and external orientation. This implies that even though the culture emphasizes using everything to chase opportunities that will take the organization ahead of the competition, everything must be done within the set rules of the organization. This type of culture is focused on identifying the tasks of the organization and achieving them. The culture therefore requires strong and uncompromising leaders who are both decisive and practical. It requires being task and success oriented and having a high level of curiosity, motivation, energy and personal drive. Leaders have to motivate themselves and their followers to perform the assigned tasks and achieve the determined goals.

The description of market culture point to an environment in which a task-oriented leader is likely to be more effective given the desire for chasing goals and focus on performance. It is therefore thought that there will be a positive relationship between market culture and task-oriented leadership.

The literature provides a few instances where there is two-way causality between leadership and organizational culture.

$H3_a$: There is a significant positive relationship between adhocracy culture and task-oriented leadership

$H3_b$: There is a significant positive relationship between clan culture and task-oriented leadership

$H3_c$: There is a significant positive relationship between market culture and task-oriented leadership

$H3_d$: There is a significant positive relationship between hierarchical culture and task-oriented leadership

$H3_e$: There is a significant positive relationship between adhocracy culture and relationship-oriented leadership

$H3_f$: There is a significant positive relationship between clan culture and relationship-oriented leadership

$H3_g$: There is a significant positive relationship between market culture and relationship-oriented leadership

$H3_h$: There is a significant positive relationship between hierarchical culture and relationship-oriented leadership

4.4. Scope and population of the study

The study takes within its scope three widely and often separately considered organizational phenomena- leadership, organizational culture, and knowledge sharing. The study relies on the hypothesis that the knowledge-sharing habits of the members of the organization is influenced by the existing organizational culture. Subsequently, this study is intended to determine is leadership plays any mediating role in the hypothesized relationship. It is therefore in the interest of the study to determine the direct or indirect relationship between the four forms of culture based on Cameron and Quinn's competing values framework (adhocracy, clan, market, hierarchy) and knowledge sharing. The study also, within its scope, tries to find the direct relationship between leadership with both organizational culture and knowledge sharing.

The study draws its population from the manufacturing firms in the industrial zone of Eskişehir province of Turkey. All respondents were employees pensionable employees who had been with the organization for more than 6 months.

A short description of the Industrial zone is given below.

4.4.1. About the Eskişehir industrial zone

Plans for the establishment of Eskişehir Industrial Zone started in 1969 under the Eskişehir Chamber of Industry and only materialized in 1973. Due to the rapid growth and swift occupation, the originally dedicated area of 1 million square meters was expanded to 3 million square meters by 1979. As the industrial momentum of the city grew, so did the area. By 1996, the total dedicated area had increased to over 32 million square meters of which 17 million square meters are in active use today.

Over the years, the Zone has focused on industrial development as well sustainability. To this end, some of the most significant developments that have been witnessed in the area include;

- The establishment of the Eskişehir Technology Development Zone in 2003. The Park is considered a cornerstone in technological development for both industrial establishments and Turkey as a whole.
- The establishment of the Natural Gas Power Plant in 1998. Producing power to the tune of 60MW, the power plant is capable of providing uninterrupted power to the whole industrial zone.
- The creation of SME-Industrial zone in 2005. Now occupied by 98 companies, this part of the Zone was intended to encourage the industrialization of SMEs.

4.5. Development and Application of the Survey

The questionnaire used in this study was divided into four parts. The first part was seeking information on the demographic characteristics of the participants. Of interest to the study were characteristics regarding gender, age, level of education, the duration worked, and the position of the participant in the firm. The three scales that completed the questionnaire were ***Knowledge Sharing Scale, Organizational Culture Scale,*** and ***Situational Leadership Scale.***

4.5.1. The knowledge sharing scale

The scale knowledge sharing was adapted from the work of Bock et al. (2005) in which they sought to find out the drivers or impediments to the knowledge sharing intentions and behaviors by members of the organization. While the scale used in the original study used 39 items to evaluate different aspects of knowledge sharing, this study was only interested in the attitude of employees towards sharing knowledge hence only adapted the relevant part of the scale that had five questions.

The choice of the scale was advised by the short and straightforward nature of the questions contained. The five questions that make up the Knowledge Sharing Scale are listed below.

1. My knowledge sharing with other organization members is good
2. My knowledge sharing with other organization members is harmful
3. My knowledge sharing with other organization members is an enjoyable experience
4. My knowledge sharing with other organization members is valuable to me

5. My knowledge sharing with other organization members is a wise move

The questions were based on a 6-point Likert type scale with 1 representing Strongly Agree and 6 representing Strongly Disagree.

Table 4.1. Reliability of KS Scale

	Mean if Item Deleted	Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
KS1	17.8304	17.977	.835	.706	.808
KS2	17.3450	27.568	.230	.119	.933
KS3	17.6433	19.666	.812	.725	.816
KS4	17.4854	19.604	.827	.776	.813
KS5	17.5789	19.245	.813	.702	.815

The overall Cronbach's Alpha of the scale was 0.872 As shown in the table above, the second item of the scale had the smallest item-total correlation of 0.230 deleting it would lead to the largest change in the Cronbach's Alpha for the scale. This is not an anomaly but an expected outcome due to the fact that the second question was presented in the negative and was reverse coded as required before further analysis.

4.5.2. Organizational culture scale

Helfrich et al. (2007, pp. 1-14) conducted a cross-sectional study of the Veterans Health Administration (VHA) data collected using a version of the Competing Values Framework. The scale used to collect the data was an adaptation that had gone through different reviews by different researchers as outlined by Helfrich et al. (2007, p. 4). This study adapted the version whose data Helfrich et al. (2007)'s analysis was based on. The scale consists of 14 items that cover the four cultural dimensions of the CVF.

Similar to the sentiments by Helfrich et (2007), the choice of the scale for this study was based on length concerns and the ability to be translated without losing any of the original meaning.

The items in the scale are hereby given.

Table 4.2. Organizational Culture Scale

Entrepreneurial Culture
My facility is a very dynamic and entrepreneurial place. People are willing to stick their necks out and take risks.
Mangers in my facility are risk-takers. They encourage employees to take risks and be innovative.
The glue that holds my facility together is the commitment to innovation and development. There is an emphasis on being first.
My facility emphasizes growth and acquiring new resources. Readiness to meet new challenges is important.
Hierarchical Culture
My facility is a very formalized and structured place. Bureaucratic procedures generally govern what people do.
Managers in my facility are rule-enforcers. They expect employees to follow established rules, policies, and procedures.
The glue that holds my facility together is formal rules and policies. People feel that following the rules is important.
My facility emphasizes permanence and stability. Keeping things the same is important.
Team Culture
Mangers in my facility are warm and caring. They seek to develop employees' full potential and act as their mentors or guides.
The glue that holds my facility together is loyalty and tradition. Commitment to this facility runs high.
My facility emphasizes human resources. High cohesion and morale in the organization are important.

Rational Culture
Managers in my facility are coordinators and coaches. They help employees meet the facility's goals and objectives.
The glue that holds my facility together is the emphasis on tasks and goal accomplishment. A production orientation is commonly shared.
My facility emphasizes competitive actions and achievement. Measurable goals are important.

Table 4.3. Organizational Culture Cronbach's Alpha

ronbach's Alpha	ronbach's Alpha Based on Standardized Items	N of Items
.862	.859	14

Table 4.4 Item Total Statistics for Organizational Culture Scale

	Item-Total Correlation	nbach's Alpha
My facility is a very dynamic and entrepreneurial place. People are willing to stick their necks out and take risks.	.638	.845
Mangers in my facility are risk-takers. They encourage employees to take risks and be innovative.	.657	.845
The glue that holds my facility together is the commitment to innovation and development. There is an emphasis on being first.	.585	.849
My facility emphasizes growth and acquiring new resources. Readiness to meet new challenges is important.	.500	.853
My facility is a very formalized and structured place. Bureaucratic procedures generally govern what people do.	.017	.879

Managers in my facility are rule enforcers. They expect employees to follow established rules, policies, and procedures.	.223	.867
The glue that holds my facility together is formal rules and policies. People feel that following the rules is important.	.260	.865
My facility emphasizes permanence and stability. Keeping things the same is important.	.194	.869
Managers in my facility are warm and caring. They seek to develop employees' full potential and act as their mentors or guides.	.622	.847
The glue that holds my facility together is loyalty and tradition. Commitment to this facility runs high.	.659	.844
My facility emphasizes human resources. High cohesion and morale in the organization are important.	.686	.843
Managers in my facility are coordinators and coaches. They help employees meet the facility's goals and objectives.	.728	.840
The glue that holds my facility together is the emphasis on tasks and goal accomplishment. A production orientation is commonly shared.	.762	.838
My facility emphasizes competitive actions and achievement. Measurable goals are important.	.688	.842

The overall Cronbach's alpha for Organizational Culture was 0.862. Items **2,5,9,13** which are representative of hierarchical culture, show generally lower correlations with the other items. All the others have correlations of above 0.50 and the Cronbach's alpha is still within the acceptable limits even without removing the items.

4.5.3. Management leadership

This study set out to determine whether and how leadership affected the relationship between organizational culture and knowledge sharing. Leadership being an area of study that has seen extensive research, this study opted to look at the situational approach to leadership. Ideally, the best scale for this measure would have been the Situational Leadership scales by either Hersey or Blanchard which are extensive and measure several aspect of the leader-subordinate relationship. However, for different reasons, the two scales were not available.

The version of the Leadership scale used in this study was adapted from Kaya and Karadağ (2015). Kaya and Karadağ adapted the version used by Onal (1979), which itself was adapted and translated to Turkish from the research by Hemphill and Coons (1957)

on the measurement of leader behavior. After its initial translation to Turkish in the late seventies. The scale used in this study has 14 items, equally divided between the two aspects of leadership considered in this study.

The table below presents the English version of the leadership questionnaire. The Turkish original is included in the index.

Table 4.5. Situational Leadership Scale

Mark your response to the following statements with an X with regard to your immediate boss.
Factor 1
Explain clearly the responsibilities and obligations of their duties to their employees.
Makes efficient short-term plans to achieve the goals of the organization.
The organization monitors the developments to determine whether its activities are achieving their purpose.
Takes initiative in identifying and solving the problems in the organization.
Controls/monitors the general performance of the employees in teamwork (commission, department, project group, etc.) and in the organization.
Quickly resolve issues with the organization to avoid unnecessary costs or delays.
Explains the rules, policies and standard procedures to be followed in the organization.
Factor 2
Shows that he is interested in your feelings and needs.
Consults with you before making decisions that may affect you.
Praises or shows awareness of your effective performance.
Coaches to help you develop your skills and confidence.
He trusts you when you make a decision about an important issue without his approval.
Provides support when there is a difficult and stressful task.
Provides information about the decisions and changes that will affect you.

Table 4.6. Leadership Reliability Statistics

ronbach's Alpha	ronbach's Alpha Based on Standardized Items	N of Items
.967	.967	14

Table 4.7. Cronbach's Alpha for Leadership Scale

	Cronbach's Alpha
1. Explain clearly the responsibilities and obligations of their duties to their employees.	.965
2. Makes efficient short-term plans to achieve the goals of the organization.	.967
3. The organization monitors the developments to determine whether its activities are achieving their purpose.	.964
4. Takes initiative in identifying and solving the problems in the organization.	.964
5. Controls/monitors the general performance of the employees in teamwork (commission, department, project group, etc.) and in the organization.	.965
6. Quickly resolve issues with the organization to avoid unnecessary costs or delays.	.964
7. Explains the rules, policies and standard procedures to be followed in the organization.	.965
1. Shows that you are interested in your feelings and needs.	.964
2. Consults with you before making decisions that may affect you.	.964
3. Praises or shows awareness of your effective performance.	.964
4. Coaches to help you develop your skills and confidence.	.963
5. He trusts you when you make a decision about an important issue without his approval.	.965
6. Provides support when there is a difficult and stressful task.	.964
7. Provides information about the decisions and changes that will affect you.	.966

The leadership scale has a Cronbach of 0.967 and the items in the scale appear generally uniform. A high alpha represents high reliability of the scale. However, measures higher than 0.95 also risk an indication of close similarities between the items in the scale.

4.5.4. Pilot and data collection

The scales were first translated by the researcher to Turkish, which is the native language of the participants, then back translated to English by a researcher at the university who spoke both languages. To ascertain the validity of the translation, the questionnaire, which contained four scales, was taken through a pilot survey with participants drawn from two non-academic departments of the university. Two minor changes were made based on the feedback from the pilot followed by another back translation by a different researcher from the university. There was concern about the length and the nature of the questions in the second part of the leadership questionnaire, but no action was taken at this stage.

The new version of the survey was again tested in the 5 firms found in the Industrial Zone of the Turkish province of Kocaeli. Two main observations rose from this pilot which led to another alteration in the format and wordings of survey questions. The first observation came from the translation of the word *organization*. While the translation of ***Örgüt*** is accepted and widely used in academic research with a meaning similar to the one intended in this study, there was a concern of a political connotation of the word. As a result, an alternative word, ***kurum***, was used. The second observation was that more than half of the respondents complained about the nature of the leadership questions, some even comparing the format to an examination and indicating that they felt pressure and struggled while responding to those questions. While going through the responses, it was observed that this part of the questionnaire had many unfilled or wrongly filled questions. It was therefore decided to exclude the second part of the leadership scale out of the questionnaire.

4.5.5. Limitations of the study

No mention of Situational Leadership in the modern era should be complete without reference to the works of Kenneth H. Blanchard and Paul Hersey. They founded and have continued to develop different versions of the Leader Behavior Analysis II-Self and Leader Behavior Analysis II-Other instruments of Situational Leadership®. This study had hoped to use one of their instruments to measure Situational Leadership given their breadth. However, due to different technicalities from the two organizations that own the instruments, they could not be used here. A similar instrument, developed by Chaudhari

and Dhar (2006, pp. 33-48) was accessed. However, the length of the questions proved to be a problem for most of the respondents in the pilot study. As a result, the study had to rely on a different, less comprehensive scale for measuring situational leadership.

The data collection process for the study was severely impacted by the Covid 19 pandemic. Due to the nature of the survey instrument as initially conceived, it was deemed that the presence of the researcher was necessary for the effective handling of the questionnaires. This led to two occasions in which the process had to be stopped prompted by the restrictions of movement and the consequent lockdowns initiated to curb the spread of the virus. Due to the pressure of time, the last batch of the questionnaires was sent and filled under the guidance of trusted employees from two organizations in which these were done. Even so, forty percent of these were still rendered unusable.

4.6. The Data Analysis Process

Upon the completion of the data collection process, the data obtained were transferred to the SPSS version and AMOS version 24 which were the main programs used for the analysis in this study. The frequency analysis and descriptive statistics available in the SPSS statistical data analysis package were used to evaluate the demographic characteristics of the participants.

The next stage in the analysis process was to determine the validity and reliability of the collected data. The Confirmatory Factor Analysis (CFA) is generally used for the verification of the predetermined or constructed structure in scale development and validity studies. CFA basically follows the same logic and calculation technique as SEM. CFA tests or verifies the compliance of the factor structure of the data with the hypothesized model. Unlike the Exploratory Factor Analysis (EFA), in CFA; (1) observed variables are connected only with predetermined latent variables, (2) correlation between some error terms may be allowed (Blunch, 2012). The Confirmatory Factor Analysis (CFA) was performed using AMOS programs to test whether the constructs formed by the data obtained are consistent with the model formulated for the study based on theory and empirical research. The last bit of the analysis entailed the use of the Structural Equation Model (SEM) to determine the relationship between the variables and to answer the research questions. SEM presents an opportunity to conduct analysis based

on the hypothesized model, and a chance to correct the weaknesses of the model before moving on to determine the relationships that exist between the constructs of the model (Weston and Gore Jr, 2006, p. 723). Additionally, SEM is a comprehensive statistical approach used to test models in which there is causal (indicated by one-way arrow) and correlational relationships (indicated by two-way arrow) between openly observed, measured) and latent (unobservable, unmeasurable) variables (Hoyle, 1995, p. 1, Bryne, 1995, p. 140).

As indicated above, this study followed the steps described by Bryne (1995, pp. 138-157) for the application of the SEM. SEM consists of two parts: measurement model and structural model. The measurement model is tested or validated with CFA. The measurement model measures how the latent variables or hypothetical structures called factors in factor analysis are defined by the observed (composite) variables and defines the measurement properties of the observed variables such as validity and reliability (Jöreskog & Sörbom, 1996). The structural model, on the other hand, uses path analysis to test the existence of the hypothesized relationship. Measurement models should first be tested before testing the relationships between variables in the structural model, i.e., the data obtained is first tested if it confirms the variables' validity before the relationships between the variables is checked.

There are three considerations to follow to ascertain the construct validity of the data. The first is to ensure that all the standardized factor loadings are significant and above 0.5. This is followed by ensuring that the composite reliability (CR) of the factors is greater than 0.70 (Fornell & Larcher (1981, pp. 40-42). The CR is the measure of the internal consistency, validity, and reliability of the part represented by the variance observed within the total latent variables and is calculated as shown below:

$$CR = \frac{(\sum_{i=1}^{n} \lambda_i)^2}{(\sum_{i=1}^{n} \lambda_i)^2 + (\sum_{i=1}^{n} \delta_i)}$$

λ = Standardized factor load

n = number of items

δ = error variance

Lastly, the Average Variances Explained (AVE) of each latent variable should be more than 0.50. The AVE is obtained by dividing the sum of the squares of the covariances (loads) of the items related to the factor by the number of items. A separate evaluation is made for each factor structure. (Hair et al, 2010).

Following the SEM steps outlined above, a model was first drawn that shows the relationship between the observed variables and unobserved constructs. This was followed by drawing the path diagram that shows the hypothesized relationship. The drawn diagram was then converted to structural and measurement models. The next stage entails the determination of the model fit, which determines how close the model depicts the data obtained. The model fit is determined using a series of indices that will be described in the coming sections of this study. SEM allows the user to tweak the hypothesized model in order to achieve model fit. After the necessary modifications have been performed and a sufficient measure of fit has been achieved, it is now to test the hypothesis represented in the model. In this study, SEM was used to examine the relationship that exists between organizational culture and knowledge sharing. The second aspect of the study looked at the mediating role, if any, of management leadership on the aforementioned relationship.

4.6.1. Reliability analysis

To evaluate the data obtained, this study created a structural equation model using the SPSS (Statistical Package for the Social Sciences) AMOS (Analysis of Moment Structures) 24 statistical program. Structural equation models are accepted as the basic method in studies where there are multiple relationships between dependent and independent variables. The main purpose of structural equation models is to perform a statistical test of theoretically created models using the data obtained and to determine how much the theory and research findings match. Structural equation modeling analysis follows two interrelated stages. The first step is to determine the existence of discrepancies between the model with the observed variables, i.e., if there is a relationship between observed variables and latent variables based on the model. The second stage is the investigation of the structural model in which the relationships between different latent variables are revealed. The compatibility of the models or lack of is determined based on different indexes. The most commonly used indexes are presented in the table below (Barret, 2007, pp. 815-824).

Table 4.8. SEM Compatibility Indexes

Fit Indices	Criteria	Acceptable Fit
CMIN	Significant	Significant
CMIN/DF	0≤ CMIN/DF ≤3	3≤ CMIN/DF ≤5
RMSEA	0≤RMSEA≤0,05)	(0.05≤RMSEA≤0.08)
GFI	0,95 ≤ CFI ≤ 1,00	0,90≤CFI≤0,95
CFI	0,95 ≤ CFI ≤ 1,00	0,90≤CFI≤0,95
NFI	≥ 0.95≤ NFI ≤ 1,00	0,90 ≤ NFI ≤ 0,95
TLI	0,95 ≤ TLI ≤ 1,00	0,90 ≤ TLI ≤ 0,95
IFI	0,95 ≤ IFI ≤ 1,00	0,90 ≤ IFI ≤ 0,95

The values of CMIN and CMIN/DF in the fit indices are the most important traditionalized values. CMIN represents the significance and hence the decision point on whether to accept or reject the null hypothesis (Barret, 2007, pp. 815-824; Hu and Bentler, 1998, pp. 424-453). The second most considered fit index is the RMSEA which was developed by Steiger and Lind (1980) and is used to determine the distance between the model posited by the researcher and the perfect model. The other indices include Jöreskog and Sörbom's (1993) GFI (Goodness of Fit Index) which looks at the covariance matrix of the models. The next group of the most referenced indices are known as the Baseline indices and include NFI, RFI, IFI, TLI, and CFI.

4.6.2. Confirmatory factor analysis

Confirmatory Factor Analysis (CFA) was used to test the construct validity of the scales in the study. The CFA is used to verify whether the variables (or factors) and observed measures (test items, test scores, etc.) are compatible with the original (constructed) factor structure. In other words, the purpose of CFA is to test the factor structure of the variables in the models established by the researcher while relying on theory and empirical research (Hoyle, 2000, p. 465).

The path diagram used for the CFA for the study is presented in diagram 14 below. The diagram shows the model of the study as hypothesized based on theory and literature review.

Table 4.9 below shows the factor loadings of the items. Convergent validity requires that the factor loading exceed 0.5. This is the case in all the items except KS2 which had a loading of 0.222. KS2 was, therefore, at this point, exempted from further consideration in the CFA determination.

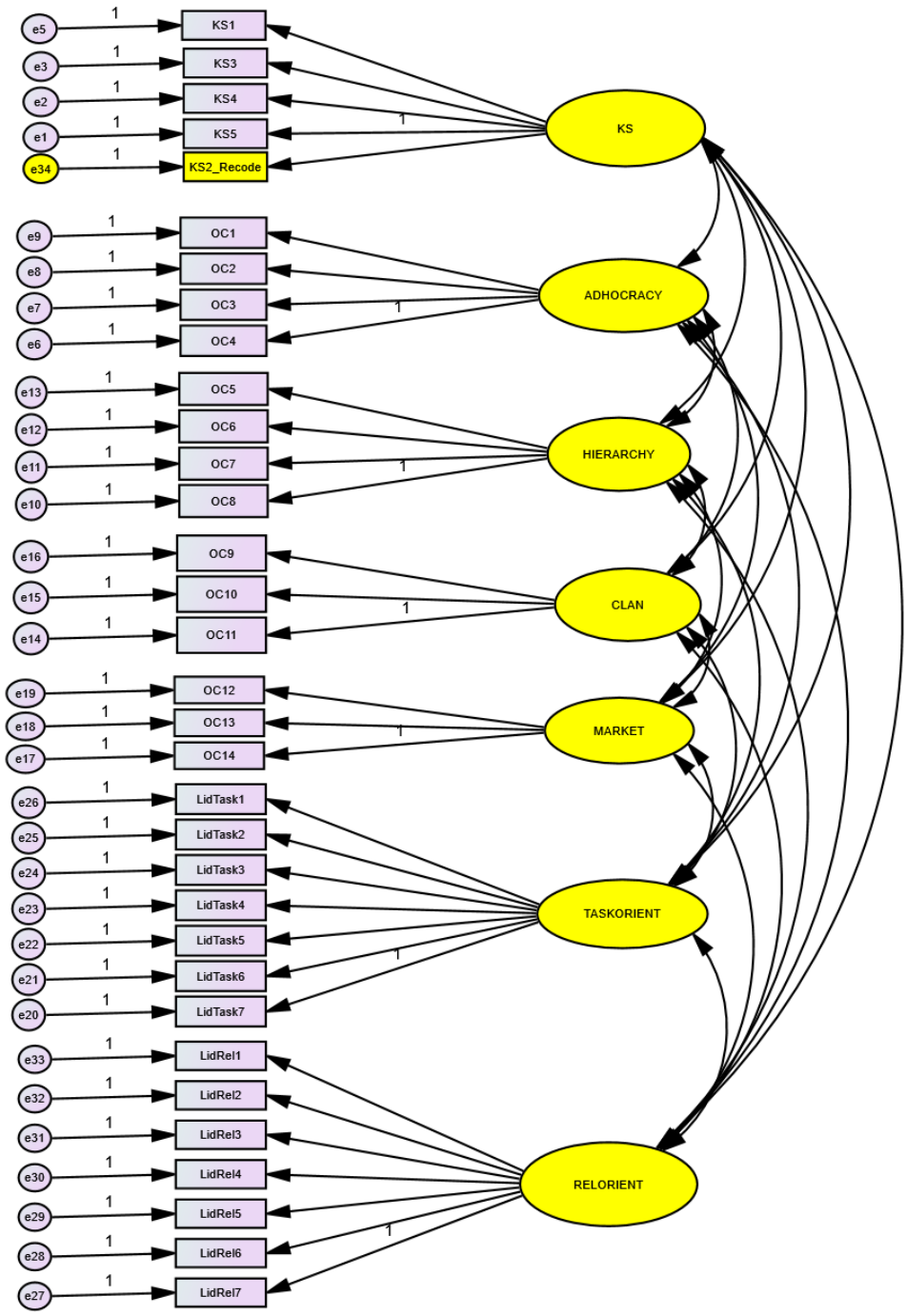

Figure 4.2: Path Diagram for CFA

Table 4.9. Standardized Regression Weights

			Estimate
KS5	<---	KS	.869
KS4	<---	KS	.916
KS3	<---	KS	.884
KS1	<---	KS	.867
OC4	<---	ADHOCRACY	.656
OC3	<---	ADHOCRACY	.723
OC2	<---	ADHOCRACY	.872
OC1	<---	ADHOCRACY	.846
OC8	<---	HIERARCHY	.729
OC7	<---	HIERARCHY	.820
OC6	<---	HIERARCHY	.840
OC5	<---	HIERARCHY	.565
OC11	<---	CLAN	.864
OC10	<---	CLAN	.702
OC9	<---	CLAN	.758
OC14	<---	MARKET	.752
OC13	<---	MARKET	.831
OC12	<---	MARKET	.847
LidTask7	<---	TASKORIENT	.817
LidTask6	<---	TASKORIENT	.876
LidTask5	<---	TASKORIENT	.849
LidTask4	<---	TASKORIENT	.862
LidTask3	<---	TASKORIENT	.869
LidTask2	<---	TASKORIENT	.744
LidTask1	<---	TASKORIENT	.844
LidRel7	<---	RELORIENT	.777
LidRel6	<---	RELORIENT	.863
LidRel5	<---	RELORIENT	.844

			Estimate
LidRel4	<---	RELORIENT	.894
LidRel3	<---	RELORIENT	.873
LidRel2	<---	RELORIENT	.876
LidRel1	<---	RELORIENT	.871
KS2_Recode	<---	KS	**.222**

4.6.3. Measurement model for knowledge sharing scale

The KS scale collects all the items under one factor leading to the measurement model shown in Figure 4.3 below. As previously indicated, the KS scale was made up of five items. However, the second item was not included due to validity issues leading to a path diagram with four items that satisfy the required goodness of fit.

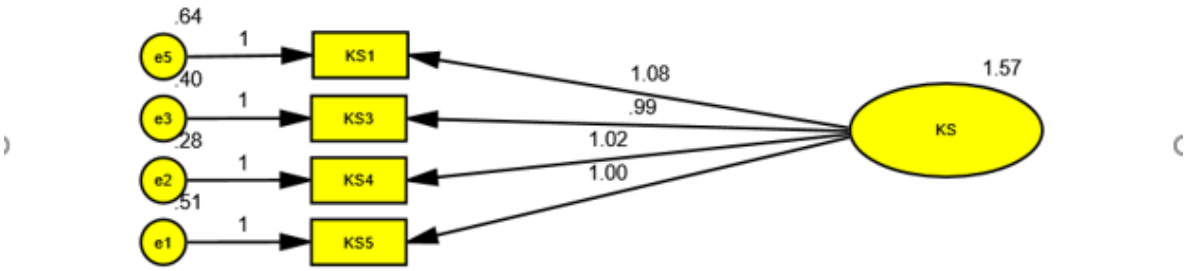

Figure 4.3: Path Diagram for KS Model after Modifications:

Table 4.10 below shows the values for the goodness of fit obtained for the KS scale while Table 4.11 shows the CR and AVE values. The values show that the KS scale has achieved sufficient model fit and can be used in the next step.

Table 4.10. Goodness of fit for KS scale

Fit Indices	Value	Criteria	Acceptable Fit
CMIN		Significant	Significant
CMIN/DF	**1.119**	0≤ CMIN/DF ≤3	3≤ CMIN/DF ≤5
RMSEA	**0.026**	0≤RMSEA≤0,05)	(0.05≤RMSEA≤0.08)
CFI	**1.000**	0,95 ≤ CFI ≤ 1,00	0,90≤CFI≤0,95
NFI	**0.996**	≥ 0.95≤ NFI ≤ 1,00	0,90 ≤ NFI ≤ 0,95
TLI	**0.999**	0,95 ≤ TLI ≤ 1,00	0,90 ≤ TLI ≤ 0,95
IFI	**1.000**	0,95 ≤ IFI ≤ 1,00	0,90 ≤ IFI ≤ 0,95

Table 4.11. CR and AVE for KS Scale

	CR	**AVE**
KS	0.936	0.784

4.6.4. Measurement model for OC scale

In the measurement model for the OC scale, the items are collected under four factors corresponding to the four culture types in the CVF. The scale had 14 items as initially conceived. However, as shown in Figure 4.4, two of the items were deleted to achieve model fit.

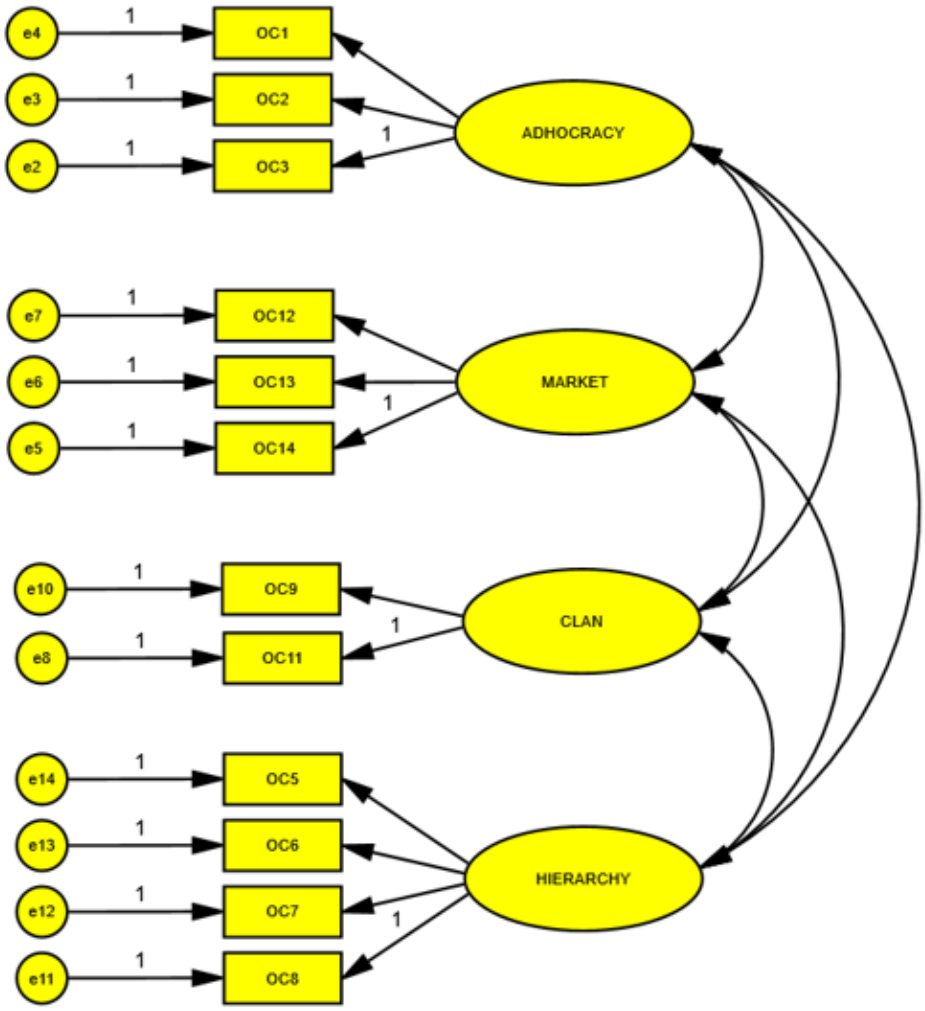

Figure 4.4: Path Diagram for OC Model after Modifications

Table 4.12 below shows the goodness of fit values for the OC measurement model. Table 4.13 shows the CR and AVE values for the scale after the modifications. The values in the two tables indicate that all the validity issues have been satisfied.

Table 4.12.Goodness of fit values for OC scale

Fit Indices	Value	Criteria	Acceptable Fit
CMIN		Significant	Significant
CMIN/DF	**1.735**	0≤ CMIN/DF ≤3	3≤ CMIN/DF ≤5
RMSEA	**0.066**	0≤RMSEA≤0,05)	(0.05≤RMSEA≤0.08)
CFI	**0.969**	0,95 ≤ CFI ≤ 1,00	0,90≤CFI≤0,95

NFI	**0.931**	≥ 0.95≤ NFI ≤ 1,00	0,90 ≤ NFI ≤ 0,95
TLI	**0.958**	0,95 ≤ TLI ≤ 1,00	0,90 ≤ TLI ≤ 0,95
IFI	**0.970**	0,95 ≤ IFI ≤ 1,00	0,90 ≤ IFI ≤ 0,95

Table 4.13. CR and AVE values for OC scale.

	CR	**AVE**
ADHOCRACY	0.861	0.677
MARKET	0.853	0.659
CLAN	0.792	0.657
HIERARCHY	0.831	0.557

4.6.5. Measurement model for leadership scale

The measurement model for the leadership culture shown in Figure 4.5 shows the two factors under which the items have been collected.

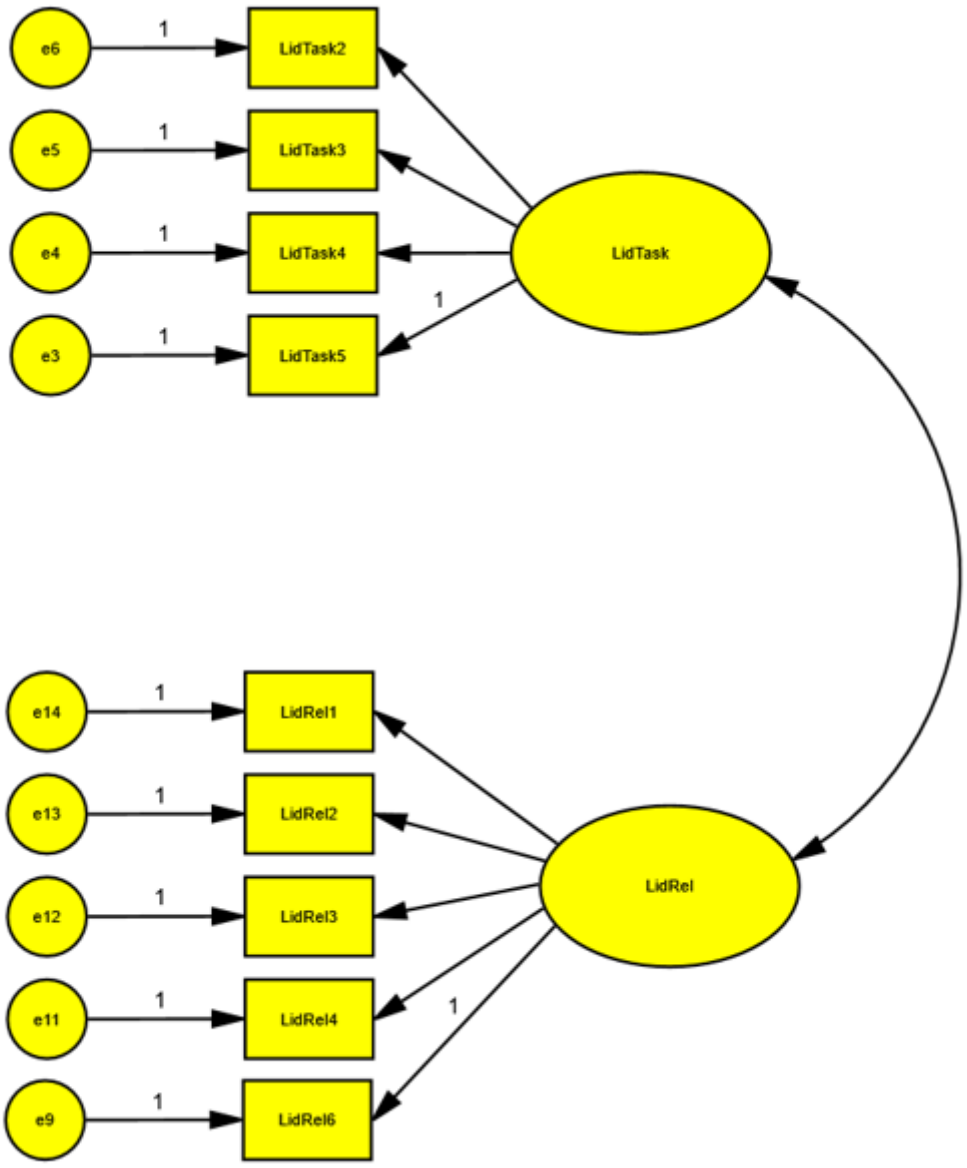

Figure 4.5: Path Diagram for Leadership Model after Modifications

The goodness of fit values shown in Table 4.14 below shows that sufficient model fit has been achieved, and that permits moving forward with the evaluation. The accompanying CR and AVE values in Table 4.15 also indicate the validity of the model.

Table 4.14. Goodness of fit values for Leadership scale

Fit Indices	Value	Criteria	Acceptable Fit

CMIN		Significant	Significant
CMIN/DF	**1.877**	0≤ CMIN/DF ≤3	3≤ CMIN/DF ≤5
RMSEA	**0.072**	0≤RMSEA≤0,05)	(0.05≤RMSEA≤0.08)
CFI	**0.983**	0,95 ≤ CFI ≤ 1,00	0,90≤CFI≤0,95
NFI	**0.966**	≥ 0.95≤ NFI ≤ 1,00	0,90 ≤ NFI ≤ 0,95
TLI	**0.977**	0,95 ≤ TLI ≤ 1,00	0,90 ≤ TLI ≤ 0,95
IFI	**0.984**	0,95 ≤ IFI ≤ 1,00	0,90 ≤ IFI ≤ 0,95

Table 4.15. CR and AVE values for Leadership scale

	CR	**VE**
Task-oriented leadership	0.905	704
elationship-oriented leadership	0.941	763

As can be seen above, there are considerable changes to the indices after the modifications. According to the results of the measurement model tested, the standardized factor loadings of the observed variable and the total explained variances confirm that the construct validity has been achieved. The CR and the AVE values show that reliability, which is a prerequisite of validity, is ensured. Values indicate that the measurement model has been validated., signaling that there is a complete model fit.

Finally, in the structural model, the effect of exogenous (independent) variables on the intrinsic (dependent) variable was examined. The hypotheses developed within the scope of our study were tested in the structural model and the relationship pattern between internal and external variables was revealed.

4.7. Findings of the Study

The following section presents the findings of the study and how they relate to the hypothesis posted in earlier sections

4.7.1. Demographic statistics

Given the timing of the study, raising a sufficient sample from which to conduct the survey proved a difficult task. This study thus relied on snowball sampling with a total of 600 survey questions sent out based on recommendations and introductions of the already investigated groups. 214 questionnaires were returned and of these, 171 were found suitable for analysis. The demographic information of the participants in the study is presented in the tables below.

Most of the participants in the study, at 64.3%, were male. This represents the general outlook of Turkish labor participation. Önder (2013, p. 58) describes a declining rate of women participation in the Turkish labor force clocking 34% in 1988 and falling to about 23% in 2004. However, the trend picks up after 2004 and rises to nearly 30% in 2012. On top of that, most of the organizations surveyed were manufacturing firms where the labor force tends to be male dominated. Participation of 35.7% in this study shows the possibility of an increase. Table 4.16 also shows that in terms of distribution of the participants by age groups, the 26-35 age group had the highest number of participants taking 33.9%51.6%. This is closely followed by the 35-45 age group which had 11.1%.

Table 4.16. Gender and Age of the Participants

Variable	Group	No.	Percentage
Gender	Male	110	64.3
	Female	61	35.7
Age	Below 25 years	19	11.1
	26-35 years	58	33.9
	36-45 years	50	29.2
	46-55 years	32	18.7
	56 years and above	12	7.0

Table 4.17 shows the distribution of the participants in terms of their education levels. Most of the participants, at 38%, have a university degree. High school graduates make the second-highest group at 29.8%. This is followed, respectively by vocational school graduates, postgraduates, and primary school graduates (12.9%, 11.1%, 8.2%).

The table also shows the organizational tenure of the participants. There is a close spread in the number of years the participants have worked in their organizations. At 27.5%, most of the participants have worked in their organizations for between one and five years. This is closely followed at 23.4% by those that have worked for between six and ten years. The bottom of the list is rounded by those in the 16 or more, 11-15 years, and less than 1-year brackets respectively. In terms of position, the bulk of the participants fall in the other category (57.9%). This is the group that has all the workers with no title including assembly line workers, cleaners, and guards among others. Only 4.1% of the top management were surveyed for this study.

Table 4.17. Education Levels and organizational tenure of the participants

Variable	Group	No.	Percentage
Educational Level	Primary School	14	8.2
	High School	51	29.8
	Vocational School	22	12.9
	Undergraduate	65	38.0
	Postgraduate	19	11.1
Organizational Tenure	Less than 1 year	20	11.7
	1-5 years	47	27.5
	6-10 years	40	23.4
	11-15 years	31	18.1
	16 years and more	33	19.3
Position	Top Management	7	4.1
	Middle-Level Management	26	15.2
	Technician/Engineer	39	22.8
	Other	99	57.9

4.7.2. Testing the hypothesis of the study

Upon the determination of the validity of the measurement models based on the measures of fit, a structural model can then be created to determine the relationship between the latent variables by determining the path coefficient between them. In the model used in this study, we hypothesized that organizational culture significantly affects knowledge sharing within the organization. The figure below shows the structural model representing this relationship.

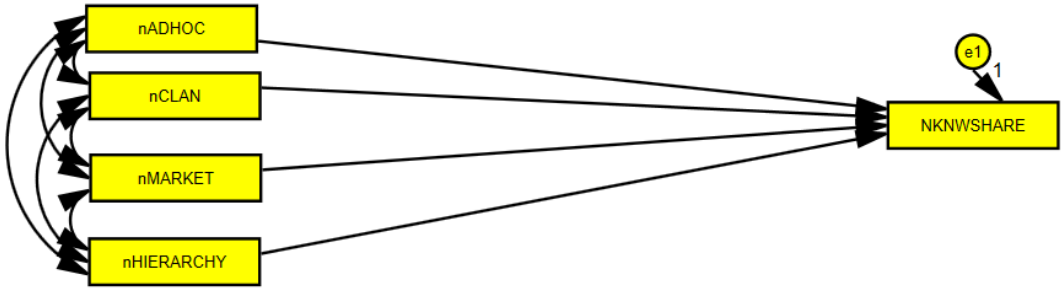

Figure 4.6: Independent and dependent variables relationship model

The model above shows the determination of the direct effect of the four components of organizational culture used in the study on the knowledge-sharing attitudes of employees. The results obtained here will lead to the validation or contradiction of the main hypotheses determined for the study.

4.7.2.1.Relationship between OC and KS

$H1_a$: There is a significant relationship between organizational culture and knowledge sharing.

The first test of the study was conducted to determine the potential impact of OC as an organizational phenomenon on KS and leadership. The result was significantly positive for both dependent variables as shown below. In the figure, OC is seen to have a positive effect on KS with R^2 of 0.19. They hypothesis (***$H1_a$***) is therefore accepted.

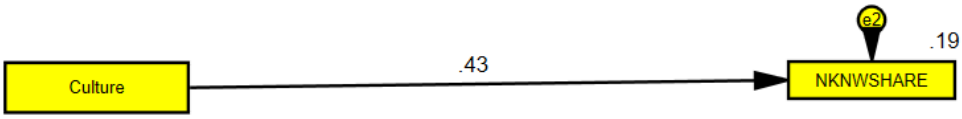

Figure 4.7: Impact of OC on KS

The results of this analysis are tabulated as follows:

Table 4.18. Impact of OC on KS and Leadership

	Estimate	S.E.	C.R.	P	R^2
NKNWSHARE - Culture	.434	.147	3.275	***	0.19

From the table, OC is seen to have a significantly positive impact on knowledge sharing among employees ($\beta = 0.434$, $p<0.001$, $R^2 = 0.19$).

4.7.2.2.Relationship between culture types and KS

The culture type dominant in an organization helps determine the type of knowledge that is considered important, influences how fast or effective the knowledge pyramid works as well as how new knowledge is created in the organization. In addition, OC defines the nature of the relationship among employees thus setting the stage for how they will view knowledge sharing (DeLong and Fahey, 2000, p. 116),

$H1_b$: There is a positive relationship between adhocracy culture and knowledge sharing.

$H1_c$: There is a positive relationship between clan culture and knowledge sharing

$H1_d$: There is a negative relationship between market culture and knowledge sharing.

$H1_e$: There is a negative relationship between hierarchical culture and knowledge sharing.

Table 4.19. Effect of OC Components on Knowledge Sharing

			Estimate	S.E.	C.R.	P	R^2
nADHOC	<- - -	KnwShare	.143	.133	1.169	.242	.294
nCLAN			.455	.179	3.723	***	.343
nMARKET			.073	.068	1.172	.241	.002
nHIERARCHY			-.048	.076	-.753	.451	.022

The table above shows the impact of the various types of cultural dimensions (based on the Competing Values Framework) on knowledge sharing among employees. The results reveal that only Clan culture ($\beta = 0.455$, $p<0.001$, $R^2 = 0.343$) had a significant positive effect on KS. The other culture types did not have any significant relationship with the KS habits of employees. The findings here lead to the acceptance of ***$H1_c$,*** and the rejection of ***$H1_b$, $H1_e$,*** and ***$H1_d$***.

4.7.2.3.Relationship between culture and leadership

Table 4.20. Effect of OC on Leadership

			Estimate	S.E.	C.R.	P
nLIDREL	<---	nADHOC	-.456	.064	-3.570	***
nLIDREL	<---	nCLAN	.713	.086	5.612	***
nLIDREL	<---	nMARKET	.371	.032	5.719	***
nLIDREL	<---	HIERARCHY	.067	.036	1.022	.307
nLIDTASK	<---	nADHOC	-.175	.100	-1.344	.179
nLIDTASK	<---	nCLAN	-.037	.134	-.283	.777
nLIDTASK	<---	nMARKET	.482	.051	7.296	***
nLIDTASK	<---	HIERARCHY	-.142	.056	-2.113	.035

Organizational culture and leadership are intertwined by the very nature that they play a determining role in influencing organizational performance. From the table, relationship-oriented leadership (LIDREL) is found to be positively impacted by three

culture types: adhocracy (β = -.456, p<0.001), clan (β = .713, p<0.001), and market (β = .371, p<0.001). Hierarchy culture doesn't have any significant impact on LIDREL. On the other hand, only market (β = .482, p<0.001) and hierarchy (β = -.142, p<0.05) cultural dimensions were found to have significant relationships with task-oriented leadership.

4.7.2.4.Relationship between leadership types and KS

$H2_a$: There is a positive relationship between relationship-oriented leadership and knowledge sharing.

$H2_b$: There is a negative relationship between task-oriented leadership and knowledge sharing.

Table 4.21. Effect of Leadership on Knowledge Sharing

			Estimate	S.E.	C.R.	P
LidRel	<----	KnwShare	.367	.103	3.984	***
LİdTask			.019	.109	.244	.807

The table shows the relationship between leadership and knowledge sharing among employees. Leadership is considered in this study as a situational phenomenon and as such is presented as either task-oriented or relationship-oriented. According to the findings, there is a significant and positive relationship (β = 0.37, p<0.001) between relationship-oriented leadership and knowledge sharing among employees (R^2 = 0.14) whereas the relationship between task-oriented leadership and knowledge sharing was found to be non-significant.

4.7.2.5.Mediation analysis

After checking the direct effect of the independent variables on the dependent variables, the study also checked the mediating effect of the leadership type on the relationship between the variables. Following the model developed by Baron and Kenny (1986, p. 1176) one can only determine mediation when there is already a significant direct effect between the variables in question (dependent and independent). The

independent variable should also have an impact on the mediator variable. The mediator is then introduced, and the presence of an indirect effect is tested. In this determination, we expect to have a full mediation when the direct effect relationship between the variables is no longer significant after the mediator variable is introduced. A partial mediation occurs when the effect of the independent variable on the dependent variable changes but still remains significant (Rucker et at. 2011, p. 361). However, Zhao et al. (2010, p. 199) came to find fault with this approach stating that there is, in fact, no need for a significant zero-order effect before mediation is considered. Following the Baron and Kenny's approach often leads to the exemption from further research of relationships that could be improved through mediation. As such, this study adopts the approach presented by Zhao et al. in which the possibility of mediation is examined in five patterns. The first is the *complementary mediation* in which there is both a direct and a mediated effect between the variables and both effects are in the same direction. In a *competitive mediation*, both effects exist but point in opposite directions. *Indirect only mediation* is where there is only an indirect effect, but no direct effect between the variables. This implies that a relationship develops between the variables only in the presence of the mediating factor. This is one of the effects that never get to be considered based on Baron and Kenny's approach. The opposite of this is *the direct-only mediation* which describes the presence of the direct effect and the absence of any indirect effect. When no effect can be established between the variables, then we speak of *no-effect non-mediation*.

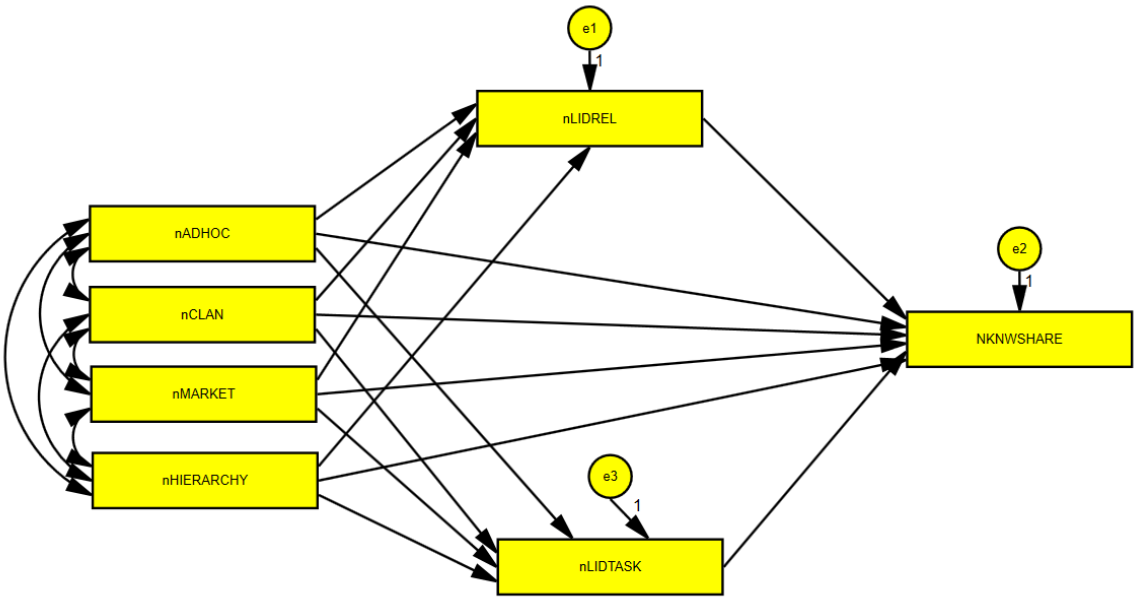

Figure 4.8: The Mediation model

In the mediation model above, we look at the indirect impact of the components of OC on KS through the two types of leadership. For instance, the study seeks to find if the inclusion of either task-oriented (nLIDTASK) or relationship-oriented (nLIDREL) leadership will alter the nature of the relationship that exists between OC and KS by rendering it insignificant or just by changing the degree of impact or direction of the impact. To determine the indirect effects of the model, the study used special plugins (Gaskin and Lim, 2018) in AMOS which automatically estimates all the indirect effects as shown in the table below.

Table 4.22. Indirect Effects between the variables

Indirect Path	Standardized Estimate	Lower	Upper	P-Value
ADHOC --> LIDREL --> KNWSHARE	0.115	0.024	0.272	0.022
ADHOC --> LIDTASK --> KNWSHARE	-0.026	-0.085	0.001	0.116
CLAN --> LIDREL --> KNWSHARE	-0.180	-0.557	-0.043	0.025
CLAN --> LIDTASK --> KNWSHARE	-0.005	-0.067	0.024	0.597
MARKET --> LIDREL --> KNWSHARE	-0.093	-0.179	-0.050	0.001

MARKET --> LIDTASK --> KNWSHARE	0.072	0.018	0.145	0.033
HIERARCHY --> LIDREL --> KNWSHARE	-0.017	-0.068	0.012	0.295
HIERARCHY --> LIDTASK --> KNWSHARE	-0.021	-0.068	-0.005	0.025

The table shows the mediated relationships between OC and KS through both LIDREL and LIDTASK. Task-oriented leadership was found to mediate the relationship between market culture and KS ($\beta = 0.072$, $p < 0.05$) and hierarchy culture and KS ($\beta = -0.021$, $p<0.05$). Relationship-oriented leadership, on the other hand, was found to mediate the relationship between adhocracy culture and KS ($\beta = 0.115$, $p< 0.05$), clan culture and KS ($\beta = -0.180$, $p<0.05$), and market culture and KS ($\beta = -0.093$, $p<0.001$).

The table below shows the accept/reject status of the hypotheses of the study regarding the mediating effect of leadership on the relationship between OC and KS.

Table 4.23. Acceptance and Rejection of Mediation Hypothesis

Indirect Path	**Standardized Estimate**	**Mediation type (Zhao et al.)**	**Mediation type Baron and Kenny)**	**Accept/Reject Status**
ADHOC --> LIDREL --> KNWSHARE	0.115*	*Complementary*	*Partial*	Accept
ADHOC --> LIDTASK --> KNWSHARE	-0.026	*Direct-only*	*No mediation*	Reject
CLAN --> LIDREL --> KNWSHARE	-0.180*	*competitive*	*No mediation*	Accept
CLAN --> LIDTASK --> KNWSHARE	-0.005	*Direct only*	*No mediation*	Reject
MARKET --> LIDREL --> KNWSHARE	-0.093***	*Indirect only*	*Full†*	Accept
MARKET --> LIDTASK --> KNWSHARE	0.072*	*Indirect only*	*Full†*	Accept
HIERARCHY --> LIDREL --> KNWSHARE	-0.017	*No mediation*	*No mediation*	Reject

IIERARCHY --> LIDTASK --> KNWSHARE	-0.021*	*Complementary*	*Partial*	Accept

†Baron and Kenny do not advice proceeding to test for mediation when there is no direct effect between the independent and dependent variables.

Table 4.24 below shows the accept/reject status of all the hypotheses of the study. All the accepted hypotheses are highlighted.

Table 4.24. *Accept/Reject status of the hypothesis*

Hypothesis	Accept/Reject Status
$H1_a$: There is a significant relationship between organizational culture and knowledge sharing.	Accept
$H1_b$: There is a positive relationship between adhocracy culture and knowledge sharing.	Reject
$H1_c$: There is a positive relationship between clan culture and knowledge sharing	Accept
$H1_d$: There is a negative relationship between market culture and knowledge sharing.	Reject
$H1_e$: There is a negative relationship between hierarchical culture and knowledge sharing.	Reject
$H2_a$: There is a positive relationship between relationship-oriented leadership and knowledge sharing.	Accept
$H2_b$: There is a significant relationship between task-oriented leadership and knowledge sharing.	Reject
$H3_a$: There is a significant relationship between adhocracy culture and task-oriented leadership	Reject
$H3_b$: There is a significant relationship between clan culture and task-oriented leadership	Reject

$H3_c$: There is a significant relationship between market culture and task-oriented leadership	Accept
$H3_d$: There is a significant relationship between hierarchical culture and task-oriented leadership	Accept
$H3_e$: There is a significant relationship between adhocracy culture and relationship-oriented leadership	Accept
$H3_f$: There is a significant relationship between clan culture and relationship-oriented leadership	Accept
$H3_g$: There is a significant relationship between market culture and relationship-oriented leadership	Accept
$H3_h$: There is a significant relationship between hierarchical culture and relationship-oriented leadership	Reject
Relationship-oriented leadership mediates the relationship between adhocracy culture and knowledge sharing	Accept
Relationship-oriented leadership mediates the relationship between clan culture and knowledge sharing	Accept
Relationship-oriented leadership mediates the relationship between market culture and knowledge sharing	Accept
Relationship-oriented leadership mediates the relationship between hierarchy culture and knowledge sharing	Reject
Task-oriented leadership mediates the relationship between adhocracy culture and knowledge sharing	Reject
Task-oriented leadership mediates the relationship between clan culture and knowledge sharing	Reject
Task-oriented leadership mediates the relationship between market culture and knowledge sharing	Accept

Task-oriented leadership mediates the relationship between hierarchy culture and knowledge sharing	Accept

CHAPTER V

DISCUSSION, CONCLUSION AND RECOMMENDATIONS

In this section, the results obtained from the analysis are evaluated and discussed alongside others in the literature to determine areas of similarity and conflict. A conclusion for the study is, then, made based on these evaluations followed by recommendations for both researchers regarding areas of future studies to improve the topic as well as to managers who are charged with influencing KS through their leadership. The study employed the use of questionnaires to interrogate the subject.

5.1. Discussion

The premise of this study was that there exists a relationship between Organizational culture and knowledge sharing among employees. additionally, the study hypothesized that the leadership style followed in the organization will influence the nature of this relationship.

After a false start regarding the population of the study, the Eskişehir Industrial Zone was chosen given its proximity to the researcher and the availability of different organizations that promised an assortment of culture and leadership styles, hence an anticipation of different approaches to knowledge sharing.

The knowledge sharing scale was an adaptation of that used by Block et al. (2005), focusing on the attitude of employees toward knowledge sharing. The organizational culture scale followed in the steps of Helfrich et al. (2007) and was advised by the ability of the scale to answer the questions of the study and the potentiality of the questions to be easily translated to the language of the research (Turkish) without losing meaning. For the leadership scale, the study relied on a version by Kaya and Karadağ (2015) which originally appeared in the works of Hemphill and Coons (1957) and first translated to Turkish by Onal (1979).

The results of SEM used in the study revealed a significant relationship between organizational culture and knowledge sharing, and that leadership has a role to play in the relationship between OC and KS. While there was an overall link between OC and KS,

other than clan culture, the other cultural dimensions were not found to have any significant relationship with KS on their own. This situation was somehow improved in the presence of leadership where, for instance, a significant relationship was found to exist between adhocracy culture and KS in the presence of relationship-oriented leadership. Relationship-oriented leadership was also found to enhance the relationship between clan culture and KS and between market culture and KS whereas task-oriented leadership mediated the relationship between market culture and KS and well as between hierarchy culture and KS.

The findings obtained here reflect several similar results throughout the literature of culture, knowledge sharing and leadership.

For instance, Azeem et al. (2021, p. 7) surveyed nearly 300 industrial managers in the textile sector to examine the interplay between culture and innovation, and knowledge sharing. They emphasize the role of knowledge and innovation in an organization's pursuit of competitive advantage. However, the note that these factors of the organization can only flourish is a supportive platform, a platform that is built on a culture that supports innovation and the various aspects of knowledge management. Areekkuzhiyil, (2016, p. 30) find organizational factors to contribute to over 67% of the KS practices in the organization. Of the organizational factors considered, OC features prominently through its own factors like mutual trust and open communication between members. Al-Alawi et al. (2007, pp. 22-42) used similar OC factors like trust and communication as well as information systems and organizational structure and found a positive link with KS.

Rashid and Bin Yeop (2020, p. 52) conclude in their research that OC forms the anchor upon which different parameters of knowledge management like knowledge sharing stand.

While examining the barriers to knowledge sharing, Ardichvili et al. (2003, p. 71) find organizational culture to be one of the factors and report a supportive culture as one of the essentials of knowledge sharing among other factors. The findings here are reiterated by Razmerita et al. (2016, pp. 1225-1246) who find that whereas a supportive culture can act directly at influencing how knowledge sharing is conducted within the organization, culture also plays a vital role in eliminating the other barriers that may make

employees reluctant to share their knowledge. They assert that in a culture that values cooperation as a norm, free riding may not be looked upon with kindness.

While acknowledging the role of OC in knowledge sharing, McDermott and O'Dell (2001, p. 76) noted that OC doesn't revolve around the KS attitudes of the organization, but rather it is the KS practices that are built around the OC. This implies, therefore, that any KS is tied to OC and any changes in the OC will influence the changes in the attitude and practices of KS.

Al-Kurdi et al. (2020, pp. 217-227) examine how organizational climate influences the intention to share knowledge among academicians in higher learning institutions in the Gulf Cooperation Council countries. Even though organizational culture and climate are distinctively separate concepts, organizational climate is formed based on the observation by the employees of the organizational culture, and by this thought, therefore, an assumption can be made that the impact of organizational climate is the same impact of organizational culture. The study finds that a feeling of trust and a sense of affiliation by the employees is likely to promote KS.

Following a similar cultural approach used in this study, Suppiah and Singh Sandhu (2011, p. 471) find an overall positive influence of OC on the sharing of tacit knowledge. However, in their findings, this is only true if clan culture dominates the other cultural aspects from Cameron and Quinn's competing values framework.

Sackmann and Friesl (2007, p. 149), in their investigation of how culture affects KS among members of a project, find that the lack of a unified culture resulting from the diversity of the teams based on gender, ethnicity, or nationality is likely to negatively impact the KS attitudes of the team members. They posit that there is a benefit to KS of a unified culture when members either start talking about the cultural difference and work towards creating mutually accepted practices. Wang et al. (2006, p. 184) find a link between KS and trust among the team members. Members are more likely to share knowledge with team members if they trust them. Similarly, as knowledge is shared among the members of the team, an environment of trust is created that leads to further instances of free knowledge sharing. They go further to label trust as a culturally motivated phenomenon hence an instance of an indirect influence of OC on KS.

Organizational culture can also impede the rate of transfer of knowledge between members or units of the organization. Ilknur et al. (2017, p. 56) find, in their review, that a culture of resistance and hoarding may make it difficult for employees to choose to share their own knowledge. From this perspective, cultural inclinations that encourage collaboration and trust among employees are likely to be a catalyst for knowledge transfer. In a study that presents a somewhat similar observation, Osupile and Makambe, (2021, p. 133) find that the OC practices embodied by the staff of a government ministry in Botswana do not encourage KS in the organization even though they report a positive correlation between OC and KS. The study sites the non-existence of the key components of organizational culture that would enhance KS.

Ruppel and Harrington examined how organizational culture impacted information sharing on the intranet. They found that clan-type cultures, which emphasize cooperation and trust had a positive relationship with the use of the intranet, and so were development (adhocracy) type cultures. They only found marginal significance with hierarchy-type cultures while the market-type cultures, where competition is important, do not support information sharing on the intranet (Ruppel and Harrington, 2001, p. 45).

Wiewiora et al (2013, p. 1170) take on the task of examining the role of OC in the willingness of members to share knowledge in Project-Based Organizations (PBOs) in Australia. They describe PBOs as dynamic organizations that trade in vibrant knowledge environments hence the need for the knowledge to reach its intended audience before it is overtaken by events. In their study which looked at the cases of four Australian PBOs, clan culture-dominated organizations had positive results regarding knowledge sharing.

A study on the impacts of cultural antecedents on knowledge sharing by Mueller (2014, p. 198) finds that the bureaucracy that makes up the hierarchical culture acts as a hindrance to the free interaction of people within the organization and thus is an impediment to knowledge sharing.

Based on a survey of nearly 500 employees of international tourist hotels in Taiwan, Yang (2007, p. 535) finds a significant positive relationship between cultures with an emphasis on collaboration (clan culture) and knowledge sharing. Whereas Suppiah and Singh Sandhu (2011, p. 471) find a positive link between clan culture and the sharing of tacit knowledge, they also find the market culture, in addition to the

hierarchical culture to negatively impact knowledge sharing. The results of the present study do not find any significant relationship between market culture and knowledge sharing.

In Ershova's study examining tacit knowledge sharing and organizational culture, clan and adhocracy cultures were seen as the two cultures that most supported knowledge sharing. The hierarchy culture in its mechanical form encourages the parts (members of the organization) to be good at performing their tasks and not helping each other. Ershva reckons that this type of culture does not provide a lot of room for personal interaction between members hence a hindrance to knowledge sharing, at least in the implicit sense. (Ershova, 2009, pp 89-911).

Bou Reslan et al. (2021) find leadership to affect the rate of knowledge sharing of employees in Latvian organizations. However, they find that the entirety of the impact is not from the leadership (servant leadership in their case) itself, but rather, the impact is mainly derived from the level of job autonomy the leader gives to his subordinates.

Lee et al. (2016, p. 470) explore the impact of the internal focus culture types (clan and hierarchy) on knowledge sharing. They find that only clan culture encourages KS. They base their findings on the sense of belonging created in organizations where clan culture is dominant thus encouraging communication and dialogue.

Özgözgü and Atilgan (2017, p. 1310) separate the culture types as either mechanistic (stability and control-oriented as in hierarchy and market) or organic (flexibility and spontaneity oriented as in clan and adhocracy) and make the observation that the nature of organic culture that promotes teamwork and loyalty among peers encourages acquisition and sharing of knowledge. They observe that the lack of hierarchical barriers ensures the unobstructed flow of information throughout the organization.

Chatterjee et al. (2018, p. 29) examine how different cultural predispositions impact *work-environment-related transfer factors* (LTE) within organizations. Based on a survey of managers attending a private business school in India, they found that, unlike adhocracy and clan cultures where peer support and rate of feedback is high, stable cultures (hierarchy and market) lack the level of openness and risk-taking that comes with it. In a market culture, for instance, they say, the competitive environment that has been

cultivated turns colleagues into opponents who are only focused on the tasks they have to complete to the extent of, maybe, secretly hoping for the failure of their peers.

Risk-taking and individual initiative are the key components of an adhocracy culture. In its drive to achieve its goal more efficiently, this culture type emphasizes entrepreneurship and creativity. With its external orientation, the movement of knowledge is easily facilitated between individuals and even units within the organization. Adhocracy culture provides an environment in which discussions and debates could be held, knowledge can be received and disseminated to the external environment.

The market culture is all about performance and goal fulfillment. In such an environment, competition is encouraged even among members of the same organization. The literature hasn't reached a general consensus on the exact nature of the impact of market culture on knowledge sharing. While some like Shao et al. (2015) the competitive drive and the need to meet customer needs as a motivation to share knowledge, others like Chang and Lin (2015, p. 440) view the same competitive environment as a hindrance to knowledge sharing as employees would likely consider colleagues as competitors and avoid sharing knowledge that may give them the competitive edge.

The inorganic structure of the hierarchical culture focuses on organizational internal stability and emphasizes security, control, order, and rules. In this cultural arrangement, where the focus is on regulations and laid down procedures, knowledge sharing is mostly performed with the established system. The system thus is only capable of transferring formal and explicit knowledge. The lack of personal interaction in this culture hinders the sharing of tacit knowledge (Tseng, 2010, p. 278).

Leaders are the major influencers of action in any organization. In order to wield any kind of influence though, there are different schools of thought that describe what a leader should look like, how a leader should act or conduct the affairs of the organization, or even the kind of relationship that a leader should nurture with his subordinates. Following the situational leadership approach, a leader can either be task-oriented (sets goals, defines the roles, and lays down procedures and communication channels for followers) or relationship-oriented (shows consideration to the welfare of the followers and offers support where necessary, and shows gratitude when due).

According to Wiewiora et al (2013, p. 1171), relationship-oriented leadership has the capacity to create an environment of support and collaboration among employees, hence potentially eliminating any feelings of competition within the team that may hinder any form of knowledge transfer like those exuded in a market culture.

Renzl (2008, p. 215) cites the fear of losing the unique value that comes with the possession of non-common knowledge. The study suggests that employees are often anxious about documenting their tacit knowledge out of concern that it would rob them of the exceptional status that comes with hoarding it. The study emphasizes the role of leadership in knowledge sharing by claiming that trust in organizational leadership (an aspect of relationship-oriented leadership) enhances knowledge sharing by eliminating the anxiety that creates the resistance to share.

Yang (2007, p. 535) finds Facilitator and Mentor leadership roles to positively impact KS whereas director and monitor roles (attributes of task-oriented leadership) have a negative relationship with knowledge sharing.

Lee et al. (2016, p. 470) find management support to positively impact knowledge sharing. This is because the management draws the framework and provides the necessary resources and rewards that facilitate knowledge sharing among employees. However, they emphasize that even though the top management may influence KS through favorable resource allocation, it is the support of the lower-level management who are in regular contact with the employees that matters more. By working at personal levels with the employees and displaying role model behavior with regard to KS, the management can further enhance KS practices in the organization.

While exploring the knowledge-sharing attitudes of librarians, Kakhki et al. (2020, p. 7) find that whereas attitude influences the intent to share, the attitude can be reinforced through leadership empowerment and motivational drives. The components of leadership empowerment practices like supporting and coaching employees can be equated to the main attributes of relationship-oriented leadership.

In an attempt to identify the determinants of knowledge sharing among hotel workers, Chen and Cheng (2012) surveyed 346 front-line service providers in international tourist hotels in Taipei, Taiwan. Their findings revealed that the key factor in knowledge sharing was employee attitude to KS. They found that most employees are

not instinctively predisposed to sharing the knowledge and experience they have acquired, especially the bad experiences. The study goes to find that a supportive leadership that is perceived by employees as sympathetic of KS creates an environment of freedom where employees interact with their leaders and colleagues leading to free flow of knowledge.

Özgözgü and Atilgan (2017, p. 1310) point out that in organizational systems with a formal structure and wider power distance (leader-subordinate relationship), employees do not feel inclined to share their feelings and thoughts beyond what is formally required of them and this negatively impacts the entire process of knowledge sharing even among the employees.

5.2. Conclusion

This study sought to determine the existence of a relationship between organizational culture and knowledge sharing in the presence of leadership. The study followed a survey conducted with the employees of manufacturing firms found in the Industrial Zone of the Turkish city of Eskişehir. The results were mixed leading to the acceptance and rejection of some of the hypothesis set for the study. Following Quin and Cameron's cultural classification, only clan culture was found to have a direct relationship with knowledge sharing. Leadership was then introduced as a mediating factor. Leadership was examined following a situational analysis which considers leadership styles as either relationship-oriented or task-oriented.

There was a significant positive relationship between relationship-oriented leadership and KS. The analysis between the two types of leadership and culture revealed that task-oriented leadership was positively related to adhocracy, market and hierarchy cultures whereas relationship-oriented leadership was found to be significantly related to clan, adhocracy and market cultures.

As a mediating variable, relationship-oriented leadership was found to mediate the relationship between adhocracy culture and KS as well as that between clan culture and KS, and market culture and KS. Task-oriented leadership on the other hand was found to mediate the relationship between market culture and KS as well as that between hierarchy culture and KS.

A few points stand out regarding the findings of the study. An organization dominated with adhocracy culture is expected to have the characteristics of shared goals and high collaborative behavior among employees. In such an environment, knowledge sharing is expected to be on of the emphasized factors. However, this study couldn't find a significant relationship between adhocracy culture and KS. Similarly, there was expectations of a strong negative relationship between hierarchy culture and KS on account of the formal and controlled nature of a hierarchy culture dominated organizations. The study found no significant relationship between these two variables as well.

As opposed to the mechanical structure that they may appear to be, organizations are essentially living organisms in which people live and various activities and services

are carried out. Each entity has its own management paradigm, system and structure. It is these factors that come together to form the basis of organizational culture. In order for these mechanisms to function properly, the organizational culture must be understood and embraced and adopted by the members as they are.

Organizational culture may not be all visible at first glance of the organization, but upon further examination of the organization, distinct behavior or culture that distinguishes the organization or a part of it from the next emerges. In other words, organizational culture is a concept that requires attention and detail to be noticed.

By itself, culture may never be sufficient to determine the path to the commercial success of any enterprise. The right culture, around which members of the organization can gather, has the potential to provide an important competitive advantage (Mohelska and Sokolava, 2015, p. 1012). Organizational culture therefore forms one of the fundamental frameworks upon which the organizational goals and objectives as well as other organizational phenomena can be established.

Organizational culture is directly related to the effectiveness and performance of the organization. The stronger the organizational culture, the stronger is the will of the members of coalesce together in pursuit for a common agenda and thus by extension, the more efficient the organization becomes (Lapiņa, et al., 2015, p. 771).

Organizational culture may impact different parts of the organization differently, but in the end, the most important impact is the one it has on the employees.

Organizational culture directly affects the attitudes and behaviors of employees, as it points to values, beliefs and behavioral norms and gives meaning to the events encountered in the organization (Tsai, 2011, p. 1). Organizational culture also affects the communication patterns of individuals in an organization. Words and symbols have different meanings and implications in different culture.

From the management point of view, culture usually emerges with the blessings of the leadership as they encourage and reward what they deem good behavior and punish or discourage what is considered bad practice. But the culture, once established, also has an effect on how the managers will conduct their functions. It would be unimaginable to have organizational ethos devoid of the influence of social culture.

Where it was once said that knowledge is power, today, it is shared knowledge that is equated to power. This is because knowledge has become a phenomenon that tends to acquire more value when it is shared. Organizational knowledge, therefore, becomes the knowledge shared among organizational members and is far beyond the knowledge that an individual has or can have. Building organizational knowledge requires sharing the observations made by the members of the organization, the individual experiences and expertise acquired from the events and situations occurring in the internal and external environment of the organization. Knowledge shared informally among the members of the organization also allows the development of new knowledge.

In knowledge sharing, the source, the channel and the destination of the knowledge are all important. This forms the main difference between knowledge sharing and knowledge transfer (although the two concept are often used interchangeably in literature, including in this study). Knowledge transfer is all about the distribution of the knowledge, and whether it reaches its destination or not is not relevant. In knowledge sharing, the process is usually by consensus among the individuals without any coercion between the parties. This requires a given level of collaboration and trust.

In most modern organizations, knowledge is often treated as a commercial asset with promised returns in the form of improved performance and competitive advantage. However, the value of the knowledge in the organization is controlled by the factors in the organization that allow for its acquisition, storage, transfer and application. These processes may be inhibited or encouraged by many individual, organizational or societal factors like organizational climate and culture, managerial support, reward system, diversity, social networks, perceived benefit and harm, interpersonal trust and sense of justice.

While the aim of knowledge sharing is the transfer of the knowledge from the source to the recipient, the knowledge sharing process often becomes a complicated process of knowledge exchange between the parties involved, and at times sets up an opportunity for knowledge creation. An environment needs to be created that allows for the transmission from source and encourage absorption of assimilation by the recipient. In this environment, members need to be assured of the mutual benefits of the knowledge they share. This is achieved through the use of the internal reward system, which is one of the effective ways of motivation in accordance to the literature, as well as building a

knowledge management system that is accessible, easy to use, stable and capable of responding quickly, and gives access to the archive and all kinds of data formats.

Leadership is too complex a concept and to be completely understood within the confines of certain traits and behaviors, hence the idea of situational leadership. No leadership style could be ideal for all situations thus the effectiveness of a leader should be defined by how he is able to respond to different circumstances, especially with regards to his subordinates.

Leadership is an element that directs the organization and other organizational elements. It would therefore only make sense if the relationship between the two other important aspects of the organization is examined within the framework of the concept of leadership from a managerial perspective.

The leader is the most fundamental determinant of the creation, change and management of the organizational culture and the survival of the organization. As has been shown in the literature and similarly emphasized in this study, the nature of leadership defines establishment and development of organizational culture. The assumptions, values, beliefs and language of a strong organizational culture are formed and shaped by the influence of the charismatic leader in the organization.

Once an understanding has been reached of knowledge in the organization as a vital strategic resource, there is a need, therefore, for an organizational attitude in which knowledge is protected, used, and valued like other wealth. Much more can be derived from the knowledge if the organization setting is open to the free flow of ideas, freedom of experimentation, and where new teams are formed spontaneously.

An organization that seeks to benefit from the advantages of its knowledge wealth needs the right support system and structure. One of the systems in the organization that influences the effectiveness of knowledge sharing is organizational culture. Culture affects employee communication and interaction hence their attitude regard what knowledge to share or whether to share at all. In theory, effectively knowledge sharing will be achieved more in a culture that emphasizes less formality and centrality, and one which encourages employee engagement. In this regard, the study found that culture, in general influences the knowledge-sharing attitudes among employees. However, it was only clan culture from Quinn and Cameron's Competitive Value framework that was

found to have a significant direct positive impact on the KS attitudes of employees. Clan culture is dominated by a commitment to the organization and informal control phases. The manager plays the father role tasked with providing advisory authority.

Even though no direct relationship was found between KS and the other cultural dimensions, leadership was found to improve the situation as it was found to mediate the relationship in most cases. For instance, relationship-oriented leadership was found to mediate the relationship between KS and adhocracy and market cultures where that was no direct relationship. Task-oriented leadership was also found to mediate the relationship between KS and hierarchy and market cultures. This points to the significant role played by leadership in the organizational setup.

In the light of the findings, after recognizing the significance of knowledge sharing to the general performance of the organization, an appropriate collaboration should be created of the other organizational factors that support not only knowledge sharing but the other aspects of knowledge management as well. The organization needs to move to a cultural dimension that internalizes knowledge, and which creates the freedom of flow between the parties that need the said knowledge.

5.3. Recommendations

Knowledge sharing is just one single phase in the knowledge management process. Future studies could look into how organizational culture impacts the other aspects of KM in the presence of leadership. Similarly, this study could be replicated by specifically targeting a knowledge intensive sector like technological or pharmaceutical companies. Alternatively, considering the knowledge creation aspect of KM could lead to significant results.

Knowledge exists in implicit and explicit forms. Given the nature of these forms of knowledge, the requirements for their effective transfer vary. It is expected that the transfer of tacit knowledge be a little more demanding and may take longer and necessitate more close encounters between the parties involved. Further research could

be conducted to determine whether culture differently impacts how the different forms of knowledge are shared among employees.

Considering organization located in one place could have led to a somewhat similar outcomes in terms of organizational culture. A study of organizations located in different geographical locations would likely yield different results.

The situational leadership scale developed by Hersey and Blanchard is currently one of the most comprehensive measures of situational leadership in literature. Once simple huddles to application like language the length of the questions have been surpassed, and accurate filling by the respondents is ensured, an encyclopedic understanding of the impact of leadership on the relationship between the main factors considered will be guaranteed.

Given the time and movement constraints resulting from the Covid 19 pandemic, only a smaller than intended number of respondents were reached for this study. Future studies could benefit by expanding the scale of the study to a larger more diversified number of respondents.

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APPENDIX

	Aşağıda, çalıştığınız kurum ile ilgili Bilgi Paylaşımına ilişkin ifadeler bulunmaktadır. Her ifadeyi dikkatlice okuyarak belirtilen ifadelere ilişkin uygun seçeneği (X) ile işaretleyiniz.	**Görüşüm yok**	**Kesinlikle Katılmıyorum**	**Az Katılıyorum**	**Orta Derecede**	**Çok Katılıyorum**	**Tamamen Katılıyorum**
1	Diğer örgüt üyeleriyle bilgi paylaşımı iyidir.	1	2	3	4	5	6
2	Diğer örgüt üyeleriyle bilgi paylaşımı zarar verir.	1	2	3	4	5	6
3	Diğer örgüt üyeleriyle bilgi paylaşımı keyifli bir deneyimdir.	1	2	3	4	5	6
4	Diğer örgüt üyeleriyle bilgi paylaşımı benim için değerlidir.	1	2	3	4	5	6
	Aşağıda, çalıştığınız kurum ile ilgili Örgüt Kültürüne ilişkin ifadeler bulunmaktadır. Her ifadeyi dikkatlice okuyarak belirtilen ifadelere ilişkin uygun seçeneği (X) ile işaretleyiniz.						
5	İçinde bulunduğum organizasyon çok dinamik ve girişimci bir yerdir. İnsanlar, risk almaya isteklidir.	1	2	3	4	5	6
6	İçinde bulunduğum organizasyon büyümeye ve yeni kaynaklar edinmeye önem verir. Yeni zorluklarla karşılaşmaya hazır olmak önemlidir.	1	2	3	4	5	6
7	İçinde bulunduğum organizasyon çok resmi ve yapılandırılmış bir yerdir. İnsanların yaptıkları genel olarak bürokratik prosedürlerle yönetilir.	1	2	3	4	5	6
8	İçinde bulunduğum organizasyon devamlılığı ve istikrarı vurgulamaktadır. Her şeyi aynı tutmak önemlidir.	1	2	3	4	5	6
9	İçinde bulunduğum organizasyon insan kaynaklarına önem verir. Organizasyonda ekip bağlığı ve manevi değerler önemlidir.	1	2	3	4	5	6
10	İçinde bulunduğum organizasyon rekabetçi çalışmaları ve başarıları önemser. Ölçülebilir hedefler önemlidir.	1	2	3	4	5	6
11	İçinde bulunduğum organizasyonda yöneticiler koordinatör ve yol göstericidir. Organizasyonun hedeflerine ulaşması için çalışanlarına yol gösterirler.	1	2	3	4	5	6
12	İçinde bulunduğum organizasyondaki yöneticiler kuralları tamamen uygularlar. Çalışanların belirlenmiş kuralları, politikaları ve prosedürleri takip etmesini beklerler.	1	2	3	4	5	6
13	İçinde bulunduğum organizasyondaki yöneticiler risk almayı severler. Çalışanları risk almaya ve yenilikçi olmaya teşvik ederler.	1	2	3	4	5	6
14	İçinde bulunduğum organizasyondaki yöneticiler samimi ve ilgilidir. Çalışanların potansiyellerini geliştirmeye yönelik danışman veya rehber olarak hareket ederler.	1	2	3	4	5	6
15	İçinde bulunduğum organizasyonu bir arada tutan birleştirici güç sadakat ve geleneklere bağlılıktır. Bu işyerinde organizasyon bağlılık yüksektir.	1	2	3	4	5	6
16	İçinde bulunduğum organizasyonu bir arada tutan birleştirici güç yenilik ve gelişime olan bağlılıktır. Her zaman birinci olma vurgusu yapılır.	1	2	3	4	5	6

17	İçinde bulunduğum organizasyonu bir arada tutan birleştirici güç, resmi kurallar ve ilkelerdir. İnsanlar kurallara uymanın önemli olduğunu düşünürler.	1	2	3	4	5	6
18	İçinde bulunduğum organizasyonu bir arada tutan birleştirici güç, ulaşılması istenilen hedeflerin ve görevlerin açıkça vurgulanmasıdır.	1	2	3	4	5	6
	Birinci dereceden bağlı bulunduğunuz "yöneticinizi" dikkate alarak aşağıdaki ifadelerden en uygun olanını (X) ile işaretleyiniz.						
19	İçinde bulunduğum organizasyon büyümeye ve yeni kaynaklar edinmeye önem verir. Yeni zorluklarla karşılaşmaya hazır olmak önemlidir.	1	2	3	4	5	6
20	Çalışanlarına görevlerinin sorumluluklarını ve yükümlülüklerini anlaşılır biçimde açıklar.	1	2	3	4	5	6
21	Sizi etkileyebilecek kararları almadan önce size danışır.	1	2	3	4	5	6
22	Gereksiz maliyetler veya gecikmeleri önlemek için örgütle ilgili sorunları hızlı bir şekilde giderir.	1	2	3	4	5	6
23	Önemli bir konuda, kendisinden onay almadan, karar verdiğinizde size güvenir.	1	2	3	4	5	6
24	Sizi etkileyecek kararlar ve değişiklikler hakkında bilgi verir.	1	2	3	4	5	6
25	Örgüt etkinliklerinin amacına ulaşıp ulaşmadığını belirlemek için gelişmeleri izler.	1	2	3	4	5	6
26	Zor ve stresli bir görev olduğunda destek sağlar.	1	2	3	4	5	6
27	Etkili performansınızı över veya farkında olduğunu gösterir.	1	2	3	4	5	6
28	Örgütün amaçlarını gerçekleştirmek için verimli kısa dönemli planlar yapar.	1	2	3	4	5	6
29	Örgütte takip edilmesi gereken kuralları, politikaları ve standart prosedürleri açıklar.	1	2	3	4	5	6
30	Çalışanların takım çalışmalarındaki (komisyon, bölüm, proje grubu vb.) ve örgütteki genel performanslarını kontrol eder/gözler.	1	2	3	4	5	6
31	Becerilerinizi ve özgüveninizi geliştirmenize yardımcı olmak için koçluk yapar	1	2	3	4	5	6
32	Örgütteki sorunların tespiti ve çözümünde inisiyatif alır.	1	2	3	4	5	6
33	Duygu ve ihtiyaçlarınızla ilgilendiğini gösterir.	1	2	3	4	5	6