Transfer Of Knowledge Through The Lens Of rganizational Culture: A Literature Review

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Abstract:
This study aims to summarize the possible relationship between the transfer of knowledge and organizational culture and highlight the empirical relevance between them. For this purpose, a literature review of 169 articles (both qualitative and quantitative studies) has been conducted that have attempted to provide evidence of their relationship. Future empirical research suggestions for understanding the relationship between organizational culture and transfer of knowledge are also provided

Keywords: Organizational Culture, Transfer of Knowledge, Literature Review, HEI

1. Introduction

In today's dynamic environment Knowledge is considered as the lifeblood of organizations and has been established as an important element in their survival. Thus, managing knowledge is equivalently important as managing other assets of an organization. Organizations are totally dependent on knowledge both as a critical success factor and resource for attaining sustained competitive advantage (Nahapiet&Ghoshal, 1998). Effective knowledge management in organizations has resulted in positive outcomes in shape of higher productivity, improved performance and increase in innovative capabilities and thus has created a substantial interest in the field of knowledge management (Cummings, 2004; Mesmer-Magnus &DeChurch, 2009). However, knowledge deteriorates if not managed and transferred effectively. Especially, tacit knowledge which lives in the minds of the employees and is gained over time must be transferred and shared. Long term goals can be achieved by improving the ability to create and manage knowledge assets effectively (De Long & Fahey, 2000) however, organizations that champion transfer of knowledge within the organization (via creating and following transfer processes) enjoy the likelihood of attaining sustainable competitive advantage over a period of time (Argote & Ingram, 2000).

Although the positive outcomes of transferring knowledge within organizations have been realized long ago (Burmeister, Wang &Hirschi, 2019; Ilvonen, Jussila, &KärkkäinenH 2019), the effective transfer of knowledge nevertheless faces many challenges (Stadler, 2019). Scholars agree that an organization's culture poses a big challenge to the effective transfer of knowledge (Ajmal&Koskinen, 2008). Organizational culture is considered as pre-understood assumptions, collective communal patterns of meaning among the members of the organization and the manifestation of these assumptions (Slocum, 1995; Gundykunst& Ting- Toomey, 1988). Although many knowledge transfer interventions (processes

development and maturity) fail on account of organizational cultural factors as compared to technological adaptabilities, yet, very little is understood about the organizational cultural perspective of transfer of knowledge, partially because organizational culture is a complex and vague concepts with multiple perspectives and interpretations(Ajmal&Koskinen, 2008). Given the importance of effective transfer of knowledge and the role of organizational culture on the transfer of knowledge, this article reviews prior scholarly literature on the transfer of knowledge and organizational culture to develop a theoretical framework in order to establish a relationship and make various contributions.

Firstly, systematic review of available literature is conducted to analyze the state of the available literature. Secondly, theoretical and empirical relevance between the transfer of knowledge and organizational culture. Lastly, recommendations for conducting empirical research regarding measurement of the under discussion constructs are also provided. Researchers are urged to (1) apply alternative methodologies, (2) conduct empirical research to examine the relationship between sub-covert cultures on transfer of knowledge processes, and (3) examine any probable negative relationship between organizational culture an transfer of knowledge.

This review article consists of six main sections in addition to this introduction and conclusion. The second section outlines the literature review process and search. Section three and four provide a discussion on the findings from 179 research articles which includes a brief history, definitions, types, dimensions, differentiation from similar constructs and characteristics of organizational culture, and transfer of knowledge respectively. This is followed by section five which outlines the relevance between OC and KT as well as a map of subject matters that have been published, research methods that have been used, dimensions of their studies, and their findings. Section six outline discussion ad critique on various measurement instruments used to measure OC and KT.

2. Literature Review Process

Prior to undertaking the literature review, the selection criteria of the study was designed as follows:

Table-2.1 Studies Selection Criteria

Inclusion Criteria	Exclusion Criteria
• Studies that defined organizational culture, its type, and characteristics • Studies that defined knowledge management, transfer of knowledge, characteristics of transfer of knowledge • Studies that empirically tested the relationship of organizational culture and transfer of knowledge post-2000. • Studies that explained the measurement instruments of organizational culture and transfer of knowledge.	• Studies that proved the relationship between Organizational Culture and Knowledge Management. • Book reviews and introductory papers were excluded. • Papers assessing the relationship between Organizational culture with other variables e.g. performance, workplace stress, commitment, etc. • Empirical studies that were not in English.

Search for studies to be included in literature review was carried following available best practices. Higher Education Commission of Pakistan's (HEC) digital library was used for locating the studies fulfilling the stated criteria. Given the limited access to search engines, it was decided to use multidisciplinary search engines limited to SAGE publications, Emerald, ELSEVIER (Science Direct), JSTOR, Springer Link, and open access journals on Google

Scholar. Within each of the search engine following search strings within abstracts and titles were used for retrieving studies: "transfer of knowledge and organizational culture", "determinants of knowledge transfer", "relationship between organizational culture and transfer of knowledge" and "knowledge sharing and transfer of knowledge", "measurement of transfer of knowledge". In total, 161 papers were selected for the literature review, the following table provides the details of the database accessed;

Table- 2.2 Summary of the Search Process

Sources	**Selected Papers**
Google Scholar	63
Emerald Insight	25
ELSEVIER (Science Direct)	20
Wiley Online Library	14
SAGE Journals	10
JSTOR	8
Springer Link	7
Taylor and Francis Online	6
Proquest	4
Semantic Scholar	4
Total	**161**

Each of the downloaded studies was thoroughly read and their findings were reported as it is. For empirical studies, the details of author and study title, population & sampling, dimensions of variables, measurement instruments, and findings were reported.

3. Organizational Culture

3.1 Roots of Organizational Culture

The term culture first appeared in the Oxford English Dictionary around 1430 AD. Culture meant cultivation. The same meaning was used until the 19th century for referring to the high cultures of society, the context was the cultivation of manners, values, and mindset. The trend held its ground till the 20th century, however by mid-20th century American Heritage English Dictionary redefined the term. The culture was now defined as "the totality of socially transmitted behavior patterns, arts, beliefs, institutions, and all other products of human work and thought." However British anthropologist Edward Tyler was the first (1871) to give a modern definition of culture i-e. "that complex whole which includes knowledge, belief, arts, morals, law, custom, and any other capabilities and habits acquired by man as a member of society.

Though the academic interest in culture and organizational culture has a long history as per anthropology and social science, for business organizations the roots of organizational culture dates back to 1979 when Pettigrew introduced anthropological concepts of "Symbolism, myths and rituals" for analyzing an organization's culture. The formal use of the word organization culture/corporate culture started when two famous books: "*In Search of Excellence*" by Tom Peters & Robert Waterman (1982) and "*Corporate Cultures*" by Terrence Deal and Allen Kennedy (1980) were published.

3.2 Defining Organizational Culture

Several definitions exist of organizational culture depending on the level of analysis of organization culture i-e. individual level, group level, or organization level. Although there is no consensus on the definition yet several researchers have defined organizational culture, table 3.1 provides a summary as follows:

Table-3.1 Definitions of Organizational Culture

Author & Year	Definition	Focus
Kroeber &Kluckhohn (1952)	Organization culture is about communicating values and ideas that set up the behavior of an organization.	Sharing and communication of values and ideas
Geertz (1973)	"*Culture is the creation of meaning through which human beings interpret their experiences and guide their actions, while the social structure is the form which action takes or the network of social relationships which actually exists*" (Greetz, 1973, p. 145)	The breeding ground of value system and social interactions
Swartz & Jordon (1980)	Organization culture is the product of members believes and expectation that result in behavioral norms.	Collective value system
Ouchi (1981)	It's the communication of organization symbols, myths, values, believes and ceremonies.	Symbolism
Deal & Kennedy (1982)	The way things are done in an organization makes its culture.	Provides a basis for action
Uttal (1983)	Shared values (what is important) and beliefs (how things work) that interact with an organization's structures and control systems to produce behavioral norms (the way we do things around here)	Collective values and norms
Frost et al. (1985)	'Talking about organization culture seems to mean talking about the importance for people of symbolism – of rituals, myths, stories and legends – and about the interpretation of events, ideas, and experiences that are influenced and shaped by the groups within which they live.'(Frost et al, 1985, p.17)	People-focused
Adler (1986)	(a) Organization culture is something shared by everyone (b) Something that is transferred from the older members to the younger ones (c) Something that makes the behaviors and structures of an organization.	Transference
Denison (1990)	Organization culture are embedded values, believes, and principles that form the organization's management system, practices, and behaviors.	Value system
Trompenaars (1993)	It's the problem-solving techniques of organization members, their shared system of values and meanings.	A shared collective value system
Goffee (1996)	Organization culture is the result of inter-organization relationships.	Social Networks
Gareth Morgan (1997)	"The set of the set of beliefs, values, and norms, together with symbols like dramatized events and personalities that represent the unique character of an organization, and provides the context for action in it and by it." (Morgan, 1997, p.41).	A shared collective value system
Schneider	Shared patterns of behavior and the meaning of that	Transference

(1997)	behavior.	
Cameron & Quinn (1999)	Organization culture is everything from values, leadership styles, language, processes, and the way things are seen in an organization.	Collective
Sullivan (2001)	It is about the complete code of living from values to ideas, knowledge, behaviors, and all that they share.	Collective and comprehensive
Hill & Jones (2001)	Organization culture comprises of artifacts, experiences, and values of an organization.	Symbolism
Wiesner (2002)	It is looking at the organization from the lens of values and believes.	Value System
Thomas & Tung (2003)	Refers to evolving set shared beliefs, values, attitudes and logical processes which provides cognitive maps for people within a given societal group to perceive, think, reason, act, react and interact	Shapes behaviors
Edgar Schein (2004)	*"A pattern of shared basic assumptions that was learned by a group as it solved its problems of external adaptation and internal integration, that has worked well enough to be considered valid and, therefore, to be taught to new members as the correct way you perceive, think, and feel in relation to those problems"(Schein, 2004, p. 17).*	A pattern of valuable and transferable behaviors
Anthon (2004)	Is the set of values, beliefs, and understanding shared by an organization's employees and it ranks among an organization's most powerful	Shared value system
Taylor (2004)	Refers to what is created from the messages that are received about how people are expected to behave in the organization	Context
Wagner (2005)	An informal, shared way of perceiving life and membership in the organization that binds members together and influences what they think about themselves and their work	Shapes behaviors
Modaff, Butler, & DeWine (2011)	Organizational culture can be viewed as a root metaphor assuming what the organization is; culture is a sum of personnel experiences viewed differently by organization members, created through communication and symbols	Collective value system
Brown, Melian, Solow, Chheng& Parker, 2015	Organizational culture is like a filter, all that happens in an organization passes through it.	Foundation of an organizational sensemaking
Kinicki & Mel (2016)	A set of shared believes that can be learned and has an influence on people behaviors and impacts results at multiple levels.	Org. culture is shared, transferrable, and has an impact.
Groysberg, Lee, Price & Cheng, (2018)	Organizational culture is an effect of the collective and common believes, behaviors norms, and values of the people working in an organization. This	Collective behavioral system

	collective system regulate employees in how they perform and serve customers	

In the backdrop of mentioned organizational culture definitions, it can easily be inferred that organizational culture is people-based, people who come together in an organizational context and shape up the overall culture of that organization by their collective and transferrable value systems. This collective behavior and value system define what an organization looks like, how it plans, interacts, and defines values and norms within the context of the organization as well as how an organization wants to be referred to from the outside while interacting with other organizations.

3.3. Types of Organizational Culture

Literature has identified several types of organizational culture. The following table has summarized the most prominent types as follows:

Table-3.2 Types/Categories of Organizational Culture

Author & Year	**Types/Categories of Organizational Culture**
Deal & Kennedy (1982)	i. Work Hard Play Hard: Employees themselves take a few risks; however, the feedback on how well they are performing is almost immediate. ii. Tough Guy Macho Man Culture: This culture contains a world of individualists who enjoy risk and who get quick feedback on their decisions. iii. Process Culture: Slow Feedback, low risk iv. Bet The Company Culture: decisions are high risk but employees may wait years before they know whether their actions actually paid off.
Schneider et al, (1996)	i. Control: Certainty and control set the framework for knowledge; ii. Collaboration: Stakeholders synergies are linked to knowledge acquisition and use; iii. Competence: Distinctiveness in terms of competencies forms the setting for knowledge; iv. Cultivation: Cultural enrichment is sought through the attainment of knowledge-based goals
Cameron & Quinn, (1999)	i. Clan Cultures: characterized by loyalty, commitment, teamwork, and consensus ii. Adhocracy Cultures: characterized by entrepreneurialism, innovation, and freedom; iii. Hierarchical Cultures: characterized by formalism, structure, and stability; iv. Market Cultures: are goal- and results-oriented and competitive
Dalkir, (2005, pp.181-182).	i. Communal culture is driven by a sense of belongings, leaders are generally very inspirational. The negative impact of such inspirations results in organizational silence ii. Network culture is all about friendships and family-like relationships. People help and trust one another. Information is easily shared. The negative impact is the lack of criticism on poor performance. iii. Mercenary Culture enforces strict goals. Goals are placed for quick achievements. People are expected to act on goals objectively. The negative side is that people with poor performance are dealt inhumanely.

	iv. Fragmented Culture is about committing to individuals first and tasks the second. As a result sense of belonging with an organization. Lack of cooperation is the negative side of such cultures.

Each of the organizational culture categories defined in table-3.2 has a measuring tool that defines or divides organizations into the mentioned categories. Jung et al., (2009) concluded that there is no ideal instrument that measures an ideal type of organizational culture, therefore whatever is considered fit for the purpose should be followed.

3.4 Organizational Culture Dimension

Organizational culture is a multilayered phenomenon with complex processes therefore literature has identified a number of dimensions for its measurability. A short summary is provided as follows:

Table-3.3 Organization Culture Dimensions

Author & Year	Cultural Dimensions
Deal & Kennedy (1982)	Developed a model based on four different types of organizations. The crux of the model lies in quick feedback, level of risk that an organization takes, and rewards system. The dimensions are; work hard play hard, tough guy macho man culture, process culture, and bet the company culture.
Edgar Schein (1985-2005)	Schein explained culture from an observer view and developed three cognitive levels; artifacts, values, and tacit assumptions.
Daniel Denison's Model (1990)	Four general dimensions of organization culture i-e. Involvement, Consistency, Adaptability, and Mission. Each dimension is further divided into three subcategories; Involvement: Empowerment, Team Orientation and Capability Development; Consistency: Coordination & Integration, Agreement, and Core Values; Adaptability: Creating Change, Customer Focus, and Organizational Learning; Mission: Strategic Direction & Intent, Goals & Objectives and Vision
O'Reilly, Chatman & Caldwell (1991)	Seven categories for organization culture; innovation, stability, respect for people, outcome & orientation, attention to detail, team orientation, and aggressiveness.
Goffee& Johns (2000)	Two dimensions: Sociability: helping one another without expectations (connected with people orientation), Solidarity: regardless of personal disputes and conflicts people can still work together (connected to task orientation).
Cameron & Quinn (2005)	Based on the competing value framework, four types of cultures as clan, adhocracy, market, and hierarchy culture.

3.5 Organizational Culture Characteristics

Oxford English Dictionary defines characteristics as a distinguishing feature or quality. Whereas, dimensions refer to the measurability of a construct (Swanson & Holton III, 2005) i.e. how will a specific characteristic of a construct be measured? Research refers to dimension as a number ray, some concepts require one single number ray e.g. height is measured with the help of a ruler, but others may require multiple number rays e.g. Learning or motivation, etc. (Trochim, 2006). Given the nature of this study, it is pertinent to understand the characteristics of organizational culture as it will help in understanding the challenges and facilitations that it provides to the transfer of knowledge. Following is the list of organizational culture characteristics (qualities/attributes/elements) as explored by a

number of researchers. The table provides the organizational culture characteristic, description, and source of the description.

Table-3.4 Organizational Culture Characteristics

Characteristics	Description	Source
People create an organizational culture	Organizational culture is about people, their personalities, experiences, interactions within the organization, communication style, and their emotional and intellectual expressions. Organizational culture is a psychological contract between the organization and individuals working within the organization.	• Sackman, (1991) • Rousseau, (1995) • Robbins, (2009)
Organizational culture is collective	Though organizational culture is formed by individuals it is a shared experience, something common and collective.	• Schein, (2010) • Alvesson&Sveningsson (2015)
Organizational culture is a living phenomenon	Organizational culture is a living phenomenon through which people jointly create and recreate the worlds in which they live within the organization. It can be transferred and is acquired from old members to new.	• Morgan, (1997) • Schein, (2010)
Organizational culture is transferred	It learns to solve problems of external adaptation and internal integration, something that has worked enough to be considered valid and to be transferred to new members as organization knowledge.	• Schein, (2010)
Organizational culture is about behaviors	Since organizational culture is related to people, therefore, it is a pattern of behaviors involving; means of cooperation, a sense of direction, and meaning to the actions of organization members.	• Schein, (2010) • Warrick, Milliman& Ferguson, (2016)
Organizational cultural has a content	Organizational culture is distinguished with certain content that forms the basic assumptions of working in an organization. It consists of artifacts, value systems, standards or rules, and regulations, etc.	• Morgan, (1986) • Hofstede, (1991) • Trice & Beyer, (1993) • Schein, (2010)
Organizational culture is symbolic	Organization culture is expressed in symbols	• Morgan, (1986) • Schein, (1985)
Organizational culture is difficult to change	Since organizational culture is the collective behavioral expression of members of the organization, it is difficult to change. Culture change requires people to change their behaviors. It is often difficult for people to unlearn their old way of doing things, and to start performing the new behaviors consistently. Organizational culture has a durable and more stable character.	• Kilmann, (1985) • Hope & Hendry, (1995)
Organizational culture has an impact	Organizational culture has a more stable and durable character therefore it impacts a number of processes and functions in an organization. Empirical research has proved the importance of culture in enhancing organizational performance. The impact of organizational culture on individualsi-e. Employee morale, commitment, productivity, physical health, and emotional wellbeing is also known.	• Cameron &Ettington, (1988) • Denison, (1990) • Trice & Beyer, (1993) • Daft, (2015)
Overt and covert	Organizational culture is a complex phenomenon. It is	• McDermott & O'Dell,

organizational culture	difficult to observe culture as some part of it is overt while some covert. Schein (1985) described organizational culture as an iceberg, just the tip is visible and all the rest invisible. Organizational values, vision, philosophy, organization structure, etc. are visible whereas the unspoken set of values, the perception of good and bad as termed by the members of the organization are invisible.	(2001) • Schein, (2010)
Organizational culture is difficult to measure	Given the overt and covert nature of organizational culture, it is difficult to measure organizational culture. There is no way to determine which organizational culture dimensions are important in anyone organization.	• Stanford, (2010)

4. Transfer of knowledge

4.1 What is Knowledge?

Knowledge is a multi-dimensional construct, with enormous connotations and interpretations (Neta& Pritchard 2009). Being the driver of the modern world, knowledge is anything but easy to grasp and define (Sun & Scott, 2005; Van den Berg, 2013). Knowledge is becoming a corporate asset like brand identity, customer information, and corporate reputations (Bhatt, 2000). When organizations merge, downsize, or reorganize priceless knowledge is lost or buried under new information, employees who leave take valuable knowledge with them (Smith, 2001).

The term knowledge has been defined in several different ways in literature, there is no consensus on the definition of knowledge (Qvortrup, 2006). For example, Propp (1999, p. 227) defines knowledge as "content + structure of the individual's cognitive system". Content can be viewed as disorganized information, which becomes knowledge when meaning is provided by the cognitive system of the individual. Similarly for Bates (2005) knowledge is giving context to information and integration with other content of understanding.

Table-4.1 provides a summary of knowledge definitions with details of authors as follows:

Table-4.1 Definitions of Knowledge

Author & year	Definition	Focus
Sveiby (1997)	Knowledge is an intangible resource that exists within the mind of the individual.	Intangible in nature and generated by people
Davenport (1998)	Knowledge is a fluid mix of framed experience, value, contextual information, and expert insights that provides a framework for evaluating and incorporating new experiences and information.	The output of experiences or context
Alavi&Leidner, (2001)	"Justified personal belief that increases an individual's capacity to take effective action"	Personal believes
Sharratt&Usoro (2003)	"knowledge is directly related to understanding and is gained through the interpretation of information"	Product or output of experiences
Iske&Boersma, (2005)	"Knowledge is someone's ability to make decisions necessary to execute a specific task. This ability can, therefore, be seen as the interaction between insights (from the past), information (the present) and imagination (the future)"	A person-specific and output of experience

Based on the aforementioned definitions it can easily be inferred that knowledge is person-specific and is the output or product of people's experiences.

4.2 Types of Knowledge

Drawing on the work of Polanyi (1962, 1967), Nonaka (1994) explained two dimensions of knowledge in organizations i-e. Explicit Knowledge and tacit Knowledge. Explicit knowledge can be expressed in numbers and words and is codified (Polanyi, 1967; Nonaka, 1994; Choo, 2006; van den Berg, 2013). These are then easily shared formally and systematically in the form of data, specifications, manuals, etc. (Boone &Ganeshan, 2008). Essentially, explicit knowledge is knowing about (Connell, Klein, & Powell, 2003). An example of explicit knowledge is an owner's manual accompanying the purchase of an electronic product. The manual contains the knowledge of the appropriate operation of the product (Alavi&Leidner 2001).

Tacit knowledge, on the other hand, is knowing how and includes insights, intuition, and hunches which are often built by experience and difficult to formalize and share (Connell, et al., 2003; van den Berg, 2013). Tacit knowledge which comprised of both cognitive and technical elements is sourced in action, experience, and involvement in a specific context (Nonaka, 1994; Alavi&Leidner, 2001; van den Berg, 2013). The cognitive elements in tacit knowledge refer to an individual's mental model and technical component consists of know-how, skills, and crafts that apply to specific contexts (Nonaka 1994; Alavi&Leidner 2001). An example of tacit knowledge is knowledge of the best means of approaching particular customer-using flattery, using a hard sell, using a no-nonsense approach (Alavi&Leidner 2001).

In the given background, the following characteristics of types of knowledge are summarized:

Table-4.2 Characteristics of Types of Knowledge

Tacit Knowledge	**Explicit Knowledge**
Subjective	Objective
Knowledge of Experience (Body)	Knowledge of Rationality (Mind)
Simultaneous Knowledge (Here & Now)	Sequential Knowledge (There & Then)
Analog Knowledge (Practice)	Digital Knowledge (Theory)

Source: Adapted by Nonaka& Takeuchi (1995, p.61)

4.3Knowledge Management (KM)

Knowledge Management (KM) is a multi-dimensional construct, consisting of several elements (Frank &Ribeiro, 2014). That's why there is no single definition for KM (Nesheim&Gressgard, 2014). Knowledge management is a methodology for creating, maintaining, and exploiting all possible opportunities of knowledge that each organization uses in its activities (Choo, 2006; Dalkir, 2011; Evans & Ali, 2013; Nesheim&Gressgard, 2014). Liss (1999, p.1) defines KM as "A formal, directed process of determining what information a company has that could benefit others in the company and then devising ways of making easily available". Whereas, Bhatt (2001, p.71) defines KM as a phase-wise process i-e. "A process of knowledge creation, validation, presentation, distribution, and application". The same phase-wise procedural definition of KM is supported by Alavi and Leidner (2001), Watson (2003), Sedera, Gable, and Chan (2004), Nicolas (2004), Brelade and Harman (2007), Dalkir (2011) and Evans and Ali (2013) i-e. KM involves: development of knowledge, distribution of knowledge, retention of knowledge and usage of knowledge.

i. Development/ Creation of Knowledge

Knowledge creation is the ability of an organization to develop novel and useful ideas and solutions (Marakas, 1999). Knowledge creation involves activities that range from developing new substances while replacing the existing substance within the organization's tacit and explicit knowledge and to identify external knowledge and previously unnoticed trends so that they can become the part of organization knowledge (Evans & Ali, 2013). Whereas, Watson (2003) advocates that knowledge creation or development includes: learning, creating, or identifying knowledge.

ii. Distribution / Sharing / Transfer of Knowledge

Trautman (2014) defines knowledge transfer as a planned movement of the right kind of skills at the right time to keep workers competitive, motivated, and able to implement the organizational strategy. Argote and Ingram (2000, p. 151) define it as "Knowledge transfer in organizations is the process through which, one unit (e.g., group, department, or division) is affected by the experience of another". Knowledge transfer is evident when experience acquired in one unit affects another (Argote, McEvily& Reagans, 2003). Knowledge transfer is also viewed from the tactical perspective of converting knowledge into working solutions others see it as the ability to move knowledge from one place to another, whether physical as from one office, unit or division to another or mental that is from one person to another (Brelade& Harman, 2007). To enhance an organization's performance, knowledge must be shared, distributed, or transferred so that it becomes a potential asset (Sedera, Gable & Chan, 2004; Swap et al, 2001; Peroune, 2007). Knowledge Transfer leads to knowledge creation (Argote, McEvily& Reagans, 2003) and it's the continuous creation of new knowledge that gives sustained competitive advantage to the firms in the dynamic and constantly changing globalized markets (Argote & Ingram, 2000; Sun & Scott, 2005; Rhodes *et al*., 2008). Organizations can create new knowledge and gain a competitive advantage over other firms by creating an organizational culture that will promote the transfer of knowledge (Alavi&Leidner, 2001).

iii. Retention/ Knowledge Storaging

According to Argote, McEvily& Reagans (2003, p. 572), "Knowledge retention involves embedding knowledge in a repository so that it exhibits some persistence over time." Knowledge Storage refers to the verbalization of tacit knowledge into formats such as formulae, manuals or documentation that is clear and available to others (Marwick, 2001; Dalkir, 2011; Evans & Ali, 2013). Thus Knowledge needs to retain or store for its use and reuse over the period of time again and again (Sedera, Gable & Chan, 2004).

iv. Usage/Analysis/ Validation of Knowledge

Knowledge needs to be continuously used, valued, validated and updated for its effective use in an organization because with time some part of knowledge may be obsolete that needs to be updated, reconfigured and refined to the existing realities (Lahti &Beyerlein, 2000; Bhatt 2001; Watson 2003; Sedera, Gable & Chan, 2004). Thus the knowledge possessed by an organization is an active unit, which changes over time as new knowledge is added and knowledge not in use fades (Dalkir, 2011; Evans & Ali, 2013). Thus, to survive, firms must sustain their capacity to produce through ongoing assessment, valuation, and development of their knowledge, and to do so they utilize their knowledge, which otherwise deteriorates (Augier &Vendelù, 1999).

4.4 Characteristics of Transfer of Knowledge

Kang, Rhee, and Kang (2010) identified three characteristics of transfer of knowledge based on knowledge-based view and organizational learning as tacitness, difficulty, and the value attached to knowledge. The mentioned characteristics are the characteristics of knowledge since the transfer of knowledge involves knowledge as the content to be transferred therefore

the characteristics involve the characteristics of knowledge. Thus the characteristics of transfer of knowledge are subject to the nature and type of knowledge to be transferred.

Table-4.3 Characteristics of Transfer of Knowledge

Characteristic	Description	Source
Transfer of Knowledge is a Process	A process that includes a sequence of events, activities, and actions. Thus it is a process where the holder of knowledge (sender) transmits knowledge via a certain medium to the receiver of knowledge.	• Argote & Ingram (2000)
Transfer of Knowledge Is About People	ToK requires people, at least two. One offering, sending, teaching, or showing knowledge and another to receive, acquire, learn, or adapt knowledge.	• Lane et al. (2001) • Goh (2002)
Transfer of knowledge is About Behaviors	The transfer takes place between and among people, therefore it is directly related to behaviors of people e.g. trust, feeling of obligation to share knowledge, norms that encourage open exchanges of knowledge among organization members, sense of group identity, the perceived reward of sharing knowledge, willingness to share (reciprocity and beliefs regarding various individual competencies and skills, etc.	• Lane et al. (2001) • Goh (2002) • Cabrera (2003) • Szulanski et al. (2004) • Narteh (2008) • Tangarajast al. (2015)
Transfer of Knowledge is About Social Relationships and Communication	For knowledge transfer mechanisms to be effective, close, tight interactions between individuals, teams, and organizations are critical in organizations	• Suppiah& Sandhu (2011) • Ryan, & O´Connor (2013) • Li, Chang, Lin & Ma (2014)
Transfer of Knowledge has a Content	Transfer of knowledge is about transferring knowledge, thus knowledge is the content of the process. The process is defined by the nature and type of knowledge.	• Nonaka and Takeuchi (1995) • Boone &Ganeshan (2008) • Mikhailovich&Mustafa (2011)
Transfer Of Knowledge has an Impact	Transfer of knowledge impacts several processes, functions, and behaviors in an organization e.g. strategic alliance	• Li (2008) • Li, Chang, Lin & Ma (2014)

5. Organizational Culture and Transfer of Knowledge

5.1 Characteristic Relevance

Organizational culture is a universe comprising of people, their shared assumptions, beliefs, value systems, experiences, customs, and conventional knowledge (Alavi, Kayworth&Leidner, 2005; Schein, 2010). Therefore, organizational culture is considered as an antecedent to transfer of knowledge as the former provides context and meaning to the later (Cavaliere& Lombardi, 2015). The characteristics of organizational culture and transfer of knowledge reveal the organizational culture and transfer of knowledge have similar building blocks e.g. both are dependent on people for creation and continuity, both are the result of collective behaviors, both require networking or social ties to originate and flourish and similarly, both are processes that require structures and channels. Similarly,

organizational culture and transfer of knowledge are difficult to measure especially when tacit knowledge is being transferred or covert culture is being observed.

Sveiby (1997) suggests that knowledge is an intangible resource that exists within the mind of the individual, therefore, it requires a conducive environment for transfer before it is lost with the retirement, death, or layoff of members of an organization. Thus conceptually knowledge is one of the components of organizational culture; created by members of the organization, transferred by them, used, and re-used.

Organizational culture has similar building blocks as that of transfer of knowledge but at the same time organizational culture has an influencing relationship with a transfer of knowledge as well e.g. if a culture is innovative it will support the new idea creation, sharing and implementation, otherwise, transfer of knowledge is difficult to initiate (Cameron & Quinn, 1999). Transfer of knowledge also influences organizational culture in return e.g. transfer of knowledge enables an organization to generate new ideas for new product development (Tsai, 2001), as it stimulates the combination of existing and newly acquired knowledge and augments a unit's capacity for making novel linkages and associations (Jansen et al., 2005). Similarly, if knowledge is valued by members of the organization they will transfer it more swiftly.

Although organizations can realize remarkable performance benefits by transferring knowledge, successful knowledge transfer can be difficult to achieve (Wijk, Jansen & Lyles 2008). Strong social identities and in-group partiality, lack of communicational channels and invisibility of embedded organization cultures values, may slow down knowledge sharing across groups and divisions in organizations (Ashforth&Mael, 1989; Brewer, 1979; Messick& Mackie, 1989). Management and decision making styles in a given organization culture influence the transfer of knowledge as "Knowledge is someone's ability to make decisions necessary to execute a specific task. This ability can, therefore, be seen as the interaction between insights (from the past), information (the present), and imagination (the future)" (Iske&Boersma, 2005, p.128). The creation of new knowledge is dependent on the transformation process of tacit and explicit knowledge involving individuals (Nonaka& Takeuchi, 1995).Organizations can create new knowledge and gain a competitive advantage over other firms by creating an organizational culture that will promote the Transfer of Knowledge (Alavi&Leidner, 2001).

5.2 Empirical Relevance

Literature has proved the influencing relationship between organizational culture and the transfer of knowledge. The literature has not only proved this relationship via qualitative and quantitative methodologies but also through the mixed methodology. For example, Alavi, Kayworth&Leidner (2005) conducted a study to empirically test the effect of organizational culture on knowledge management (KM) technology, tools, and outcomes, with the help of case study methodology. The conceptual framework of the study, derived from literature, presumed that organizational values shape knowledge management behaviors that eventually affect the knowledge management outcomes. Data was collected through semi-structured telephonic interviews with 20 professional employees at various company locations, white papers written by organizational members, and other papers such as case studies commissioned by the organization but written by others. The study concluded that cultural values influence an organization's approach to KM. The results are in line with the previous literature, however, the significance of the study lies in the fact that it proved that cultural values affect the very choice of technology or tools to be used for km application.

Similarly, "The impact of organizational culture on knowledge management in higher education" was measured by Biloslavo and Prevodnik (2010). The study was conducted in two Slovenian higher education institutions by studying three business faculties, a faculty of

organizational sciences, a faculty of social sciences, and a faculty of sports. A Questionnaire was used as the only instrument for data collection. The instrument was divided into three sections; 1) organizational culture assessment instrument (OCAI) developed and validated by Cameron & Quinn (1999). The Pearson correlation analysis showed the only clan and market culture types have a significant correlation with KM processes.

Other empirical studies are divided into three categories as qualitative, quantitative, and mixed methods, details as follows:

Table-5.1 Quantitative Studies in Organizational Culture & Transfer of Knowledge

Author & year	**Measurability of variables**	**Findings**
Darin A. Ladd (2002)	**Organizational Culture:** Openness to Change /Innovation, Task-Oriented Organizational Growth, Bureaucratic and Competition/ Confrontation **TOK:** Relational Channels, partner Similarity, Organizational Self-Knowledge and Divergence of Interests	• Openness to Change/innovation is positively related to relational channels, and organizational self-knowledge and negatively to a divergence of interests. • Task-oriented organizational growth is positively related to relational channels, organizational self-knowledge, and negatively to a divergence of interest. • Bureaucratic culture has an insignificant relationship with all the four factors that may influence knowledge transfer. • Competition/confrontation demonstrated a negative relationship to relational channels and organizational self-knowledge and a positive relationship to a divergence of interest.
Brian D. Janz and PattarawanPrasarnphanich (2003)	**Knowledge-centered culture**: Autonomy: People related, Planning related and Process related Organizational climate: Risk, Reward, Warmth, and Support **Cooperative Learning Process:** Positive interdependence, Promote interaction and Group process **Knowledge learning/outcomes** Work satisfaction: Job satisfaction and	• The relationship between autonomy and cooperative learning was statistically significant • The relationship between organizational climate and cooperative learning was statistically significant • The cooperative learning–work performance relationship and the cooperative learning–work satisfaction relationship were statistically significant

	Growth satisfactions Work Performance: Efficiency, Effectiveness, and Timelines.	
Hsu and Huang (2005)	**Organizational Culture:** Sociability Customer Focus, Empowerment, and Lateral Integration Solidarity Shared Vision, Team Orientation and Adaptability **KT Performance:** The improvement of Individual Capability, Organizational Capability, and Product & Service Capability **Organizational Characteristics:** IT Support, Organizational Structure and Task Interdependence	Sociability factors of organizational culture directly influence KT, while solidarity factors indirectly influence KT activities via structural complexity and information technology support. Finally, trust is the basis of organizational culture and indirectly affects KT.
Ming-Fong Lai and Gwo-Guang Lee (2007)	**Organizational Culture:** Entrepreneurial, Tasks-goal-accomplish, Smooth-running	Enterprises should adopt an entrepreneurial culture when establishing knowledge activities.
Roberto Biloslavo and MojcaPrevodnik (2010).	**Organizational Culture:** Clan Culture, Adhocracy Culture, Market Culture, Hierarchy Culture. **knowledge management:**	• HEI1 confirmed a statistically significant correlation between Knowledge storage and market culture, knowledge transfer and clan culture, knowledge transfer and market culture, knowledge application and clan culture, knowledge application, and market

	Knowledge generation, Knowledge storage, Knowledge transfer, and Knowledge application	culture. • The analysis of HEI2, None of the types of organizational culture was in a statistically significant correlation with any of the knowledge management processes.
Raid. M. Al-Adaileh and Muawad S. Al-Atawi (2011)	**Organization Culture:** Openness to change, Innovation, Teamwork, Morale, Information flow, involvement, supervision, Customer service, Trust and Reward	• Trust, reward, information flow, supervision, and innovation were found to have a statistically significant impact on knowledge exchange • Openness to change, teamwork, involvement, customer orientation, and morale were found to the statistically insignificant impact of knowledge exchange. • Stepwise regression proved trust to be the most important variable bringing 53% variation in knowledge exchange, trust, and reward explained 56% variation, innovation, trust, and reward explained 60% variation independent variable.
Christina Ling-Hsing Chang and Tung-Ching Lin (2015)	**Organizational Culture:** Result Oriented, Tightly Controlled, Job-Oriented, Closed System and Professional –Oriented	Results- and job-oriented cultures have positive effects on employee intention in the KM process (creation, storage, transfer, and application), whereas a tightly controlled culture has negative effects.
Sergey Morgulis-Yakushev, H. EmreYildiz, and Carl. F. Fey (2017)	**Organizational Culture:** Internal Integration and External Adaption **Knowledge Transfer:** knowledge inflows and knowledge implementation	• Dimensions of organizational culture create the greatest fit when different degrees of dissimilarity exists between the HQ and its subsidiaries. • The optimal amount of similarity varied depending on the direction or stage of knowledge. • High degrees of distance between HQs and subsidiaries ipsative all knowledge transfer outcomes. • A moderate degree of differences in the organizational culture between the HQ and a subsidiary is more conducive to knowledge transfer.

Yihui Wei and Stefano Miraglia (2017).	**Organizational culture:** Artifacts, Norms, and Shared Beliefs **Knowledge Transfer:** Knowledge reservoirs	• The systematic management and transfer of knowledge made a significant contribution to project performance and helped expand and leverage its knowledge reservoirs. • When knowledge was reused effectively, many project-related problems and pitfalls could be avoided, resulting in a reduction in reworks waste and costs. • Artifacts played an important role in enhancing and encouraging knowledge transfer practices. • Certain shared beliefs prompted the staff to be selective in their knowledge transfer initiatives.
Mohammad Habibur Rahman, Immanuel AzaadMoonesar, MdMunir Hossain and MdZahidul Islam (2018).	**Organizational Culture:** Trust, Communication between Employees, Reward, Leadership, Learning, and Development.	• The effect of communication between employees, reward, and trust as significant predictors of knowledge transfer. • Socialization plays a moderating role in all the hypothesized relationships except between reward and transfer of knowledge. • The impact of socialization on the relationship between communication, trust, and knowledge transfer holds true in the current context where employees showed differences in their degree of socialization and its effect on the corresponding dependent variable.

Table-5.2 Qualitative Studies in Organizational Culture & Transfer of Knowledge

Author & Year	Variable dimensions	Findings
David W. De Long and Liam Fahey, (2000)	**Organizational Culture:** Practices, Norms, and Values **Knowledge:** Human knowledge, Social knowledge, and Structured knowledge	• Culture and particularly subcultures-shape assumptions about what knowledge is and which knowledge is worth managing. • Culture defines the relationships between individual and organizational knowledge, determining who is expected to control specific knowledge, as well as who must share it and who can hoard it. • Culture creates the context for social interaction that determines how knowledge will be used in particular situations. • Culture shapes the processes by which new knowledge-with its accompanying uncertainties-is created, legitimated, and

		distributed in organizations.
Richard Mcdermott and Carla O'Dell (2001)	**Organizational Culture:** Visible culture: organization values, vision, philosophy, organizational structure, and famous stories that could be heard in the corridors of the company's time and over again. Invisible culture: The unspoken set of values, the perception of good and bad as termed by the members of the organization	**Visible Culture:** • There is a visible link between knowledge sharing and problem-solving practices of organizations • The approaches and tools used by organizations to support their knowledge sharing tend to match the overall organizational style • Organizational reward system both monetary and non-monetary support knowledge sharing. **Invisible Culture:** • Knowledge sharing is linked with the pre-existing core values of the organization, • Knowledge sharing networks are built on existing networks among people.
Maryam Alavi, Timothy R. Kayworth and Dorothy E. Leidner (2005)	**Organizational culture:** Values, Basic assumptions, and Artifacts	• Organizational member's values affect the ways in which they used km technology. • The members who valued collaboration demonstrated the use of communities for more informal, unstructured sharing of tacit knowledge wherein the absence of collaboration values the same communities were used for organizational explicit problem solutions. • Informants who embraced the organizational value of innovation used intellectual capital teams for developing and accumulating intellectual capital whereas those who valued collaboration used the technology for networking building through emails and chatting. • Groups with different values using km tools for different purpose experienced diverse km outcomes.

Table-5.3 Mixed Method Studies in Organizational Culture & Transfer of Knowledge

Author & Year	Variable dimensions	Findings
Al-Alawi, Marzooqi, and Mohammed (2007)	**Organizational Culture:** Trust, communication, information systems, rewards, and organization structure	Trust, communication, information systems, rewards, and organization structure are positively related to knowledge transfer.

Based on the aforementioned tables (table 5.1, 5.2, and 5.3) following key factors and types of organization culture that affect the transfer of knowledge process in an organization are inferred:

Table-5.4 Summary of Influencing Factors and Types of Org. Culture

Organization Factors Influencing Transfer of Knowledge	**Types of Org. Culture and ToK**
• Communication between org. members • Existing networks among people • Information flow • Information systems • Interpersonal trust • Involvement • Language similarity • Members autonomy • Morale • Openness to change /innovation • Organizational member's values • Organizational reward system both monetary and non-monetary • Overall organizational management style • Pre-existing core values of the organization, • Problem-solving practices of organizations • Senior management support • Teamwork • Willingness to share (reciprocate)	• Clan & Market support transfer of knowledge (ToK) • Clan & Market culture support knowledge application • Market Culture support knowledge storage • Sociability culture (customer focus, empowerment, lateral integration) directly influence ToK • Solidarity culture (shared vision, team orientation, adaptability) indirectly influence ToK • Entrepreneurial culture directly influences ToK

5.3 Knowledge-Based Organizational Cultures

Knowledge-centered cultures are known to support the transfer of knowledge (Ferreira Peralta & Francisca Saldanha, 2014), several studies have identified the characteristics of knowledge-based cultures or knowledge-centered cultures (e.g. De Long, 1997; Wiig, 1997; Davenport &Prusak, 1998; Cohen, 1998; Pfeffer& Sutton, 2000; Alavi&Leidner, 2001; Janz&Prasarnphanich, 2003; Smith &Mckeen, 2003). De Long (1997) considered the importance of knowledge in an organization and the norms and values attributed to the use of internal and external knowledge as the most important characteristic of a knowledge-based culture. Organizations that consider the knowledge and learning important and value the use of knowledge at the workplace are considered as knowledge-based cultures. De Long (1997) was of the opinion that sub-cultures within the organization conceives or deals knowledge differently, few consider it as an object to be used as a part of a process, others recognize and favor knowledge as a product of social interaction. The author stated that organizational cultures not only define and value knowledge but also decides what kind of knowledge should be kept inside the organization for creating core competencies and what should be transferred outside the organization for strategic advantages. Similarly, De Long advocated that its culture that decides the distribution of knowledge within and among organizations.

Wiig (1997) described four areas that are focused on knowledge-based cultures. Firstly, such cultures have a top-down monitoring governance strategy for managing knowledge management activities that include incentives for knowledge sharing, identification of knowledge assets, restructuring plans (if required). Secondly, knowledge-based cultures have a knowledge-based staff development strategy focusing on the creation and maintenance of knowledge infrastructure. The strategy includes lessons learned programs, development of professional resource pool, and implementation of knowledge base plans. Thirdly, such

cultures have an operational knowledge management strategy that focuses on managerial responsibilities, training and development plans, research and development, acquisition, innovation, and transformation of knowledge. Lastly, knowledge-based cultures have knowledge leverage strategies that focus on the introduction of best practices for knowledge management, a collaboration that yields productive use of knowledge assets.

Contrary to Wiig (1997), Bollinger and Smith (2001), were of the opinion that instead of management focus, knowledge management activities should be an HR function i-e. initiated and implemented by the human resource department. The authors supported a meaningful role in the HR department in knowledge-based cultures. Bollinger and Smith (2001) supported the reward and compensation systems based on knowledge sharing and nurture. They suggested that training and development should be led by the sole aim of educating employees about the use of knowledge. In knowledge-based cultures, line supervisors are trained and empowered to promote knowledge sharing. Jobs are designed as teams with administrative autonomy, to take advantage of individual know-how. The leadership of knowledge-based cultures values knowledge sharing, retaining people, loyalty, and commitment towards the organization.

Davenport and Prusak (1998) supported the idea of reward management systems based on knowledge sharing, encouragement of risk-taking, and innovative ideas implementation in knowledge-based cultures. Cohen (1998) supported Nonaka and Takeuchi (1995) and advocated socialization and interaction opportunities provisions as a pre-requisite for knowledge sharing in knowledge-based cultures. The authors supported face-to-face relationships, cooperative and collaborative interactions among individuals.

Pfeffer and Sutton (2000) were of the opinion that there is a gap between what people know and what people do in an organization, therefore the focus of knowledge-based cultures should be on the actual ability of individuals to turn knowledge into effective action. Alavi and Leidner (2001) supported the same theme and advocated that there may be occasions where organizational members are not only knowledgeable but are also willing to share knowledge yet, they do not act upon it or materialize the intention of sharing. Thus, the actual conversation of knowledge into action and knowledge sharing activities should be included in incentivizing knowledge-based activities.

Aligned with the mentioned literature, Janz and Prasarnphanich (2003) also supported an organizational culture based on risk-taking, support, warmth and rewards, collaborative learnings focusing on positive interdependence, promotive interactions, and group processes, autonomy related to people, planning and process as characteristics of the knowledge-based cultures.

Smith and Mckeen (2003) identified four categories of factors i-e. Social, organizational, managerial, and technical that assist in instilling a knowledge-based culture. The socialization category focuses on orientation and socialization of new employees, job rotation policies, team-based structures, and the provision of an interactive, informal environment in an organization. The organizational category focuses on incentives and rewards, governance and accountability structures, the flow of information and tracking, and integration of knowledge resources. Whereas, managerial factors include continuous communication about the use and importance of knowledge by leaders and management that is shown via training programs, job designs and incentives, and rewards strategies. Lastly, the technical category includes the introduction of well-designed, user-friendly technological interventions that complement the social, organizational, and managerial categories mentioned before.

Based on the discussion of the knowledge-centered/based culture, characteristics of knowledge-based cultures are summarized and adapted as follows:

Table-5.5 Characteristics of Knowledge-Based Cultures

Intervention Level	Knowledge-Based Strategies and Activities	Source
Organizational Level	Risk-taking and innovative ideas supportive leadership	• Wiig (1997) • Smith and Mckeen (2003)
	Top-down knowledge monitoring and governance strategy	
	Knowledge leverage strategy based on collaboration and cooperation (within and outside the organization)	
	Reward and Incentives Strategy based on knowledge sharing and new knowledge product and processes development	
	A well-designed and a user-friendly central database for knowledge tracking and integration	
Managerial Level	Knowledge management based orientation and socialization policy	• Wiig (1997) • Davenport and Prusak (1998) • Pfeffer and Sutton (2000) • Bollinger and Smith (2001) • Alavi and Leidner (2001) • Janz and Prasarnphanich (2003) • Smith and Mckeen (2003)
	Autonomous team-based job designs	
	Knowledge-based staff development policy	
	Promotive interaction opportunities provisions	

The study considers an organizational culture that is knowledge-based if, at the organizational level, the leadership of the organization supports and emphasizes risk-taking and innovation for new idea development and transference. The organization has a top-down knowledge monitoring and governance strategy, knowledge leverage strategy that promotes and supports collaboration (via networking) and cooperation for creating and transferring knowledge, a rewards and incentives strategy driven by knowledge transfer and new knowledge products and processes development and lastly the organization has a centralized database for tracking and integrating knowledge. At the managerial level, the organization has an orientation and socialization policy based on knowledge management, team-based jobs are designed and incentivized, knowledge-based staff training and development are designed and implemented and interaction opportunities are provided within and outside the organization.

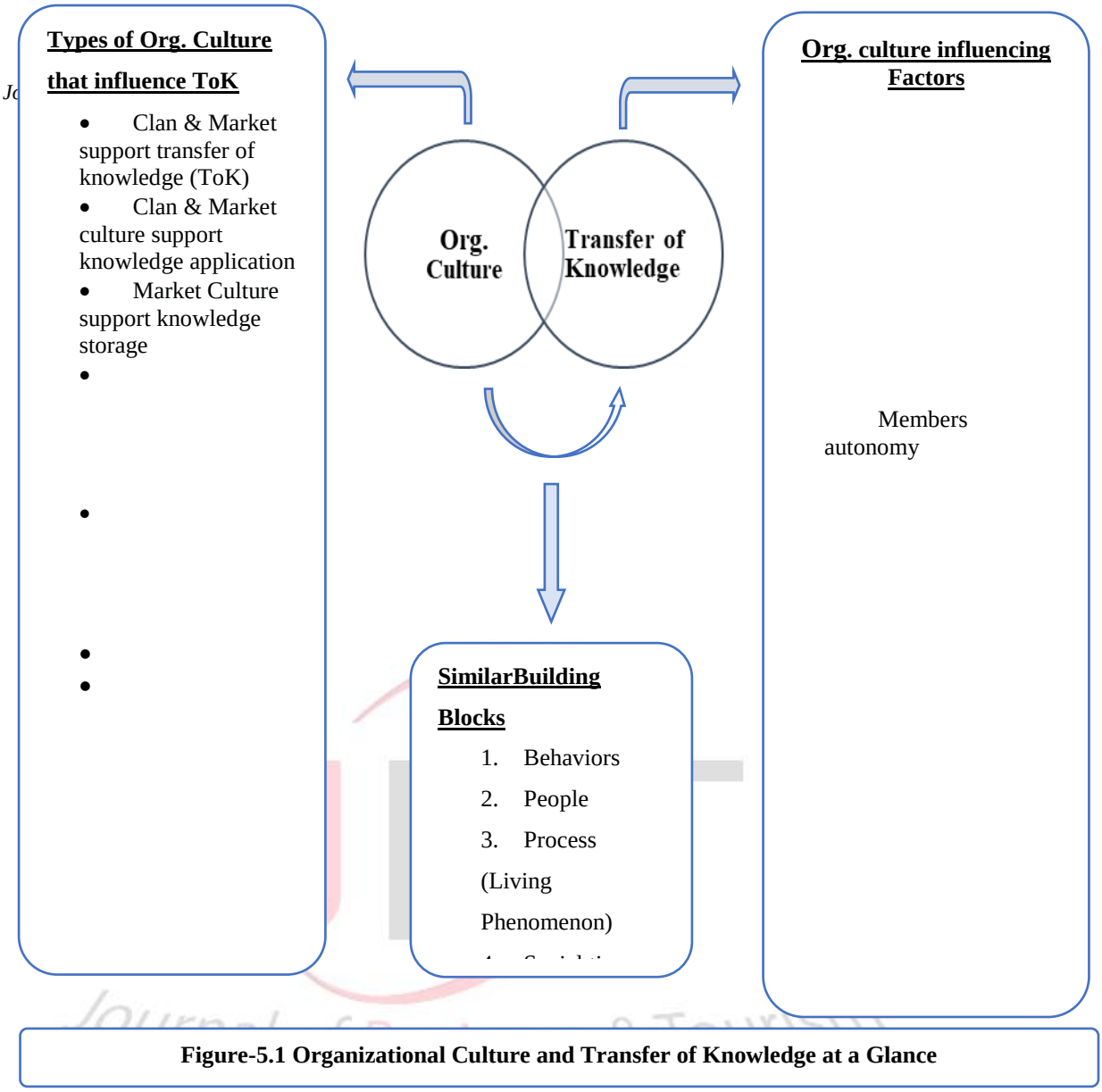

Figure-5.1 Organizational Culture and Transfer of Knowledge at a Glance

6. Measurement Instruments and Critique

6.1 Organizational Culture

Of the papers reviewed for this study, diverse methodologies and research designs can be identified among the various instruments measuring organizational culture. Some instruments adopt a *typological approach*, which classifies organizational cultures into types, while others adopt a *dimensional approach*, which describesculture according to its position on various continuous variables (Fletcher & Jones 1992). Most papers adopting a typological approach have used ipsative measures that include 4, 5, and 6 statement versions. Respondents are usually asked to distribute a set number of points (usually 10 or 100) across the given statements. While those adopting the dimensional approach have used simple Likert scales in order for respondents to signify their agreement with predetermined statements. The items usually range anywhere from 13 to 135 and the range for grading answers on such scales ranges from 3 to 10.

Table-6.1 Categorization of various instruments

Approach	Instrument	Authors
Typological	Competing Values Framework	Cameron and Freeman, 1991
	Harrison's Organizational Ideology Questionnaire	Harrison, 1975
	Quality Improvement Implementation Survey	Shortell et al. 2000
	Organizational Culture Assessment Instrument	Cameron and Quinn, 1999
Dimensional	Organizational Culture Inventory	Cooke and Lafferty, 1987
	Practice Culture Questionnaire	Stevenson, 2000
	Mackenzie's Culture Questionnaire	MacKenzie, 1995
	Survey of Organizational Culture	Tucker, McCoy, and Evans, 1990
	Corporate Culture Questionnaire	Walker, Symon, and Davies, 1996
	Organizational Culture Questionnaire	Hofstede et al. 1990
	Organizational Culture Survey	Glaser, Zamanou, and Hacker, 1987

Apart from the quantitative approach, researchers have also employed qualitative approaches to measure organizational culture. The assumed advantage of the qualitative approach is its ability to analyze structures through patterns that are displayed by individual behaviors (Morey & Morey 1994). Various methods used to identify these patterns are interviews, participant observation, and document analysis (Ott 1989; Morey & Morey 1994). These approaches allow for a detailed examination of underlying values, beliefs, and assumptions resulting in identifying a rich account of an organization's cultural complexity and dynamics. As such qualitative approaches score relatively high on adaptiveness, flexibility and depth (Tucker, et al. 1990).

Although both approaches have their respective advantages, they are not without their shortcomings. Most of the quantitative instruments examine employee opinions and perceptions regarding their working environment, however only a few, for example, the Competing Values Framework and the Organizational Culture Inventory, attempt to examine the beliefs and values that inform those views. These instruments usually fail to address the unspoken assumptions that direct individual attitudes and behavior. Finally, quantitative instruments greatly vary in the degree of their use in empirical studies, the extent to which their validity and reliability have been established, and the approach used to evaluate their scientific properties. Similarly, qualitative measures, due to their immersed and in-depth nature are very time-consuming, both in gathering and the analysis of data, and are often very costly (Hofstede 2001; Sackmann 2001). They also require the researcher to be sensitive to the subtleties and complexities of life which makes qualitative instruments very difficult to design.

6.2 Transfer of Knowledge

To date, there are no specific instruments that measure the transfer of knowledge, because KT is heavily impacted by the types of knowledge. Especially tacit knowledge can be exceptionally difficult to measure as it is embedded in the individual mind such as ideas, skills, and experience. From the literature review, the transfer of knowledge has been measured in various ways. Argote and Ingram, (2000) measured KT from the changes on the recipient side; (i) changes in their performance (ii) the induced changes of the recipient's

knowledge-base (iii) changes in cumulative knowledge that resides in various repositories. KT is also measured by the process and outcome dimensions. The outcome dimension measures transfer of knowledge from the financial and non-financial criteria. The financial criteria measures KT by the stakeholder's equity, cost reduction, number of patents or intellectual property owned (e.g. Perez-Nordtvedt et al., 2008; Lichtenthaler, 2010) and for non-financial criteria, some researchers have measured KT from the amount of successful KT engagements during any period of time (Li & Hsieh, 2009), slight changes in the learning-by-doing knowledge level (Cha et al., 2008) and the frequency of contact with knowledge source (Kang et al., 2010) The process dimension usually divide the KT process into various stages; Initiation, Implementation, Ramp-up and Integration (Szulanski, 2000); Motivation, Match, Implementation and Retentive (Kwan & Cheung, 2006); Search and Transfer (Hansen, 1999) and Socialization, Externalization, Internalization and Combination (Nonaka& Takeuchi, 1995). A process view of KT allows a critical examination of how difficulty evolves over stages of the transfer. It can also provide important insight into the working of various organizational arrangements to transfer knowledge, communicate managerial interventions and help design and implement mechanisms that support effective transfer of knowledge.

Researchers have also measured KT from the perspective of learning capabilities or learning performance (i.e. the speed, type, extent, and nature of the "new knowledge learned" (Martinkenaite, 2011). Out of the approaches used to measure the transfer of knowledge, past researchers have predominantly measured KT from the outcome perspectives as it is tangible with detailed supporting data and largely in documented form as compared to process perspectives.

7. Agenda for Future Research

7.1 Research Design and Methodology

From the literature review, it is quite evident that there is an over-reliance on the cross-sectional quantitative methodology being used to explore the organizational culture and transfer of knowledge, with very limited longitudinal research being conducted. Measuring complex phenomena such as organizational culture and knowledge transfer with close-ended questionnaires alone may cause the researcher to not explore the deeper levels of culture, (e.g. values and assumptions) and how tacit knowledge is transferred among individuals since such measures usually arrive only at superficial meanings of constructs (Yauch&Steudel 2003).

Similarly, there has been a paucity in research conducted on exploring the relationship between organizational culture and transfer of knowledge and the effect of subcultures on the transfer of tacit knowledge. While some research has been conducted on answering said questions, most have heavily relied on quantitative instruments (Ladd, 2002; Rahman, Moonesar, Hossain & Islam, 2018; Wei &Miraglia, 2017; Morgulis-Yakushev, Yildiz, & Fey, 2018). In order to further advance the understanding of the cultural conditions that affect the knowledge transfer process researchers are strongly recommended to employ more qualitative and preferably mix-methodologies in their research designs. A meticulous mix-method approach may reveal distinct nuances to the public face. Qualitative and quantitative approaches may be used in a complementary manner, which may help develop a more comprehensive understanding of the relationship organizational culture and transfer of knowledge might have within the organization. A mix-method approach may also allow the researchers to overcome the fundamental limitations of closed statement questionnaires. Researchers may use qualitative research findings to inform hypotheses that are testable by quantitative methods, and similarly, qualitative research may also be used to further explore the meaning of findings from the quantitative analysis.

Through our review, it is evident that there has been an inordinate amount of focus in prior empirical work on exploring the positive effects of organizational culture on the transfer of

knowledge. However to the best of our knowledge, no research has ever attempted to examine the negative impact organizational culture might have on the knowledge transfer process, hence for theoretical development, we call upon future researchers to conduct research in this direction.

8. Conclusion

This literature review attempts to provide evidence concerning the theoretical relationship between organizational culture and transfer of knowledge in the organizational settings. These constructs have been the area of attraction for scholars and practitioners across many disciplines. This study highlights an obvious research gap in the literature about OC and KT. The current literature focuses mainly on the superficial relationship between OC and KT without delving deeper in order to understand how subcultures/covert cultures affect the transfer of knowledge process (especially tacit knowledge) among the individuals as well as outside the organization. Based on the study, it is quite clear that OC and KT are very important areas for future research. However, the nature and method of such complicated and dynamic processes will greatly vary between different organizations in order for them to adapt to potential challenges. Thus, considerable and exhaustive research needs to be conducted in this direction.

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