

Knowledge-Centered Culture and Knowledge-Oriented Leadership as the Key Enablers of Knowledge Creation Process: A Study of Corporate Sector in Pakistan

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Abstract: The purpose of this study is to analyze the role of knowledge-centered culture and knowledge-oriented leadership as the key enablers of knowledge creation process for enhanced organizational performance in corporate sector in Pakistan. The notion is that there is an immense need of effective knowledge creation process for organizations if they have to survive in the dynamic markets. Numerous such initiatives have already been undertaken in this research arena. However, the study is unique as it examines the antecedents that steer the execution of knowledge creation process in order to translate better organizational performance. In this regards, the study considers knowledge-centered culture and knowledge-oriented leadership as the key factors that stimulate knowledge creation process and hence, results in an efficient as well as effective knowledge creation process. The study adopted hypothetico-deductive approach and primary data is collected from respondents in corporate sector in Southern Punjab, Pakistan. The study employed SPSS 20.0 and AMOS 20.0 for data analyses and found encouraging results. Finally, the study provides future directions and practical implications for the theoretical framework.

Keywords: Knowledge-Centered Culture; Knowledge-Oriented Leadership; Knowledge Creation Process; Knowledge Management; Organizational Performance

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1. Introduction

1.1 Background

Knowledge creation process has attracted the attention of researchers and practitioners due to increasing competitive eccentricity, globalization, and the paramount significance of knowledge in the knowledge intensive industries especially in the developing countries. By the time, organizations are susceptible to failures without being responsive to harnessing, stipulating, and converting existing knowledge to the new knowledge. Organizations therefore, necessitate their internal systems to be strategically leveraged by a sound knowledge infrastructure that steers the conversion of knowledge *such as* from tacit to explicit, from explicit to tacit *i.e.* from use to reuse; in order to bring creativity and efficiency for sustainable competitive advantage (Nonaka & Toyama, 2003). A massive stream of studies has shown evidences that top managers have increasingly exploited knowledge conversion systems which have maneuvered organizations to manage valuable knowledge embedded within organizational confines (Andreeva & Ikhilchik, 2011; Bratianu & Orzea, 2010; Gavrilova & Andreeva, 2012; Nold III, 2012; Nonaka & Takeuchi, 1995; Rusly, Corner, & Sun, 2011). Organizations have brought into play the use of such sort of activities in broader context for gathering information and knowledge about current and new aspects of businesses (Pandey & Dutta, 2013).

A repercussion to this is the growing acknowledgement of the literature of knowledge creation process since the last decade of 20th century. Not only has the proposition taken a dominant prominence in the existing body of literature but has also been incorporated and embedded within the confines of organizations of all levels. In order to enhance the understanding about knowledge creation process, knowledge management is a prerequisite to comprehend. In this milieu, Davenport and Prusak (1998) defined knowledge management as an unsolidified mix of framed experience, expert insights, contextual information and values that yield a new framework for incorporating and evaluating new information and experiences. The authors further argued that knowledge is what's being the possession of knowers only. Furthermore, knowledge in organizations is not only stored in repositories or documents such as yellow pages but also in organizational norms and practices (Davenport & Prusak, 1998).

Knowledge management is crucial for companies because it points the way to comprehensively and clearly understand management initiatives and procedures. When companies fail to utilize their tangible assets they suffer the economic consequences and this failure is clearly observable to competitors (Osborne, 2004). Organizations in the 21st century entirely count on the quality of knowledge and the knowledge process that companies apply to their key businesses and activities (Nonaka & Toyama, 2003). For example, maximizing the efficiency of supply chain depends on applying knowledge on diverse areas such as raw material resources,

planning, manufacturing and distribution. Likewise, product development requires knowledge of consumer requirements, recent scientific developments, and new technologies, and marketing (Personal Communication).

The focal of knowledge management is on the belief that organizational performance can only be achieved through exploiting the resources *i.e.* the skills of their potential employees (Pandey & Dutta, 2013) through an efficient and effective knowledge creation process (Nonaka & Toyama, 2003). Many research scholars including Nold III (2012); Sandhawalia and Dalcher (2011); Nonaka & Toyama (2003); Nonaka & Takeuchi (1995); Sun (2010); Sun & Anderson (2010) stipulated that knowledge creation process steers organizations about how to enthrall experts' knowledge that resides within the organization and formalize as well as disseminate it for being capable of reuse by other employees in order to achieve shared objectives for enhanced organizational performance. Thus, organizational performance is at the heart of this replica whereas, knowledge creation process is the strategic resource for carrying out this objective.

In lieu of competitive peculiarity, businesses have to envisage their visionary slant beyond the developed constructs of these traditional approaches and move the emphasis to managing valuable knowledge through knowledge process so as to cope up the dynamic business environment that prevails in any knowledge economy. The current study thus proposes a framework that well fits within organizational confines in Pakistani corporate sector. As well as the study intends to empirically investigate the theoretical model being incorporated in this study. From a practical perspective, the theoretical framework proposed in this study is useful for management to realize that apart from a traditional knowledge management system, knowledge infrastructure capability such as knowledge oriented leadership and knowledge centered culture are another crucial aspects to consider in the effort to knowledge creation process for increased organizational performance.

Therefore, in this study the researcher has focused on knowledge-centered culture to be an eminent capability in steering knowledge creation process. In addition, another crucial factor which may be detrimental for organizations if not considered significant is the knowledge oriented leadership. In this regard, Shin (2004) demonstrated that only knowledge-centered culture is not enough for an effective knowledge process; an effective communication throughout the organization also requires knowledge-oriented leadership (Singh, 2008). Thus, the theoretical framework presented in this paper proposes that knowledge infrastructure capability *i.e.* knowledge centered culture and knowledge oriented leadership enables knowledge process that translates superior organizational performance.

1.2 Gap Identification

Knowledge process impacts organizations in a number of ways and the principal outcome of knowledge process is organizational performance. For this reason,

organizations are involved to build the sound knowledge infrastructure capability that facilitates the flow of knowledge within the organization. Conversely, a study conducted by Donate and Guadamilla (2011) provided evidence that knowledge process regardless of its utmost importance and significance has not yielded the desired outcomes in many organizations. The authors witnessed few barriers as poor organizational culture, lack of leadership, lower sense of responsibility and accountability of employees and lack of organizational (Donate & Guadamilla, 2011).

However, few studies have rationalized the present research due to various gaps the researchers have found in the existing body of literature. For instance, a study conducted by Tseng (2010) directed and filled the gap for this study because of the limitations of the study as the research had been conducted on Chinese-centric culture and therefore reasons the foundation for conducting study in other cultures for contributing in the empirical investigation of knowledge-centered culture and its influence on knowledge creation process. In the similar stream, Nold III (2012) sanctioned that the research community is facing challenge to generalize the construct because of the “missing link” of the empirical investigation of knowledge-centered culture.

Likewise, for the second independent variable of this study *i.e.* knowledge-oriented leadership; the current study has found a reasonable support from Kumar *et. al.*, (2013) who have conducted research on leadership and knowledge process and advocated that the generic model they had theoretically conceptualized has a greater potential to be furthered and empirically analyzed. Therefore, the current study is based on the fusion of two inter-related as well as independent research frameworks that enables knowledge creation process to enhance organizational performance.

1.3 Problem Statement

The significance of knowledge-centered culture and knowledge-oriented leadership are eminent factors that enable knowledge creation process for an increased organizational performance, hence, contributing substantial upshots in corporate sector in Pakistan. Therefore, knowledge centered culture and knowledge oriented leadership are the key enablers of organizational performance that is mediated through knowledge creation process and hence are the areas of concern for researchers and practitioners to conduct research in Pakistani corporate sector. There is a need to examine the extent to which knowledge creation process is cushioned by knowledge-centered culture and knowledge-oriented leadership.

Thus, the current study seeks to examine the impact of knowledge-centered culture and knowledge-oriented leadership in organizational performance through mediating role of knowledge creation process.

1.4 Research Objectives

- To examine the extent to which knowledge process is incorporated in corporate sector in Pakistan
- To analyze the impact of knowledge-centered culture and knowledge-oriented leadership as the key enablers of knowledge creation process in enhancing organizational performance
- To examine the extent to which knowledge-centered culture and knowledge-oriented leadership influence organizational performance
- To examine the impact of knowledge creation process in organizational performance

1.5 Research questions

- RQ1. What is the influence of knowledge-centered culture on knowledge creation process?
- RQ2. What is the impact of knowledge-oriented leadership on knowledge creation process?
- RQ3. What is the influence of knowledge-centered culture and knowledge-oriented leadership in enhanced organizational performance?
- RQ4. What is the impact of knowledge creation process as a mediator between knowledge-centered culture and knowledge-oriented leadership and increased organizational performance?

2 Literature Review

Nonaka and Takeuchi (1995) have pioneered and presented an SECI model *i.e.* “Socialization, Externalization, Combination, and Internalization”, demonstrating an organized knowledge creation process for its effectiveness. Knowledge creation can be facilitated by the activities and processes of feedback, interaction, benchmarking, brainstorming, and innovation. Hence, integration, refinement, synthesis, distribution, coordination, combination, and restructuring knowledge processes and activities results in efficient knowledge conversion (Sandhawali & Dalcher, 2011). The intriguing predisposition of knowledge creation process is the cyclic process that converts tacit knowledge into explicit knowledge and explicit knowledge back into tacit knowledge for reuse as new-fangled knowledge. The SECI model is presented in Figure 1.1 and Table 1.1 (Appendix I) Cited in (Takeuchi, 2006).

Basically, the classification of knowledge constitutes two categories: tacit and explicit. Explicit knowledge is knowledge that is stored, codified, and shared in accessible forms such as documents and repositories. Whereas, tacit knowledge is that knowledge which is possessed by individuals and is not codified and stored therefore, can't be reused by other employees in the organization (Nold III, 2012). Therefore, knowledge process translates tacit knowledge into explicit knowledge so that the intellectual insights, perspectives, and exposures of people can be made available for reuse by other employees in the form of new and inventive knowledge. Ultimately, effective knowledge creation process results in increased organizational performance (Gold *et. al.*, 20010; Nold III, 2012; Kumar *et. al.*, 2012; Ringel-Bickelmaier & Ringel, 2010).

In order to lay down the foundation of the theoretical framework, the authors find it necessary to define organizational performance. Organizational performance can be defined from a number of perspectives *i.e.* short term/long term performance, financial performance, non-financial performance, marketing performance, and relationship building performance (Deshpande *et. al.*, 1993). In general organizational performance is measured by organizational competitiveness as compared to industry performance standard (Herciu & Orgean, 2008).

For the present study, the authors incorporated organizational performance as efficiency and effectiveness of the knowledge process. As a great deal of relevance has been witnessed on the bonding between effectiveness and efficiency of knowledge process and the antecedents of knowledge creation process such as knowledge centered culture and knowledge oriented leadership. The basic underlying proposition about organizational performance is a consequence of compliance between organizational strategy, structure, system, environment, and the culture (Van de Ven and Drazin, 1985).

In order to strengthen the aforementioned construct, Ringel-Bickelmaier and Ringel (2010) endorsed that successful knowledge creation strategy impacts efficiency gains, effectiveness, and improved results. In addition, they argued that for achieving effectiveness and efficiency as components of organizational performance, organizations are required to lay down procedures and strategy that best describe the role, aim, and scope knowledge creation within organizational confines (Ringel-Bickelmaier & Ringel, 2010).

The critical concern of knowledge process is the conversion of tacit knowledge to explicit and back to tacit knowledge as discussed above. However, the process of knowledge conversion is highly dependent on certain factors that stimulate as well as hinders the applications of knowledge management systems in organizations. As revealed by Gold *et. al.* (2001) that organizational culture is the most substantial impediment in an effective knowledge management. Therefore, the factors including knowledge-centered culture (Sandhawalia & Dalcher, 2011) and knowledge oriented

leadership (Gold *et. al.*, 2001) are the key enablers of an effective knowledge process.

Culture has been considered a basic criterion for integration and collaboration of behaviors and useful insights and actions (Sandhwalia & Dalcher, 2011). Nold III (2012) defined culture as values, beliefs, and meanings that shapes and impacts individual as well as collective behaviors which are based on shared experiences of individuals that create a system. The author further deliberated organizational vision and values as the key determinants of knowledge-centered culture (Tseng, 2010). In addition, self-possessed visions and values explicitly stating knowledge management results in emboldening the management of knowledge within organizational confines (Nold III, 2012).

Similarly, Shin (2004) stated that employees' behaviors and attitudes towards sharing knowledge is steered by organizational culture that takes into account organizational practices and policies for enabling knowledge process and results in superior organizational performance. Extending the idea, Sandhwalia and Dalcher (2011) endorsed that decision-making and group problem solving can be facilitated through knowledge conversion which is enabled through common representations and shared contexts of individuals. Therefore, knowledge-centered culture has a substantial positive influence on knowledge process and organizational performance. Nonetheless, Gold *et. al.*, (2001) argued that organizational culture may also be the most significant hurdle for an effective knowledge process. Similarly, Shin (2004) confirmed that only knowledge-centered culture is not enough for an effective knowledge process; an effective communication throughout the organization also requires knowledge-oriented leadership (Singh, 2008).

In the analogous stream, knowledge-oriented leadership has also been considered an eminent key enabler of knowledge process resulting in increased organizational performance. Studies exhibit that knowledge-oriented leadership remarkably results in an efficient management as well as creation of knowledge in firms (Singh, 2008). For the present study, knowledge-oriented leadership has been viewed in terms of knowledge oriented trainings and organizational rewards. Kumar *et. al.* (2012) postulated that the significance of training and empowering employees has been the fundamental concern of leaders from diverse sectors. Ottersten and Mellander (1999) found positive relationship between productivity growth and training programs' implementations. In another study conducted by Nonaka and Toyama (2003); the authors posited that knowledge-oriented training yields significant results. As such training helps in internalization *i.e.* the impartation of explicit knowledge. The authors reasoned that during training sessions the experts' experiences and insights can be documented and hence, can be utilized as the tacit knowledge of employees working on the jobs (Nonaka & Toyama, 2003). Similarly, Fong (2003) emphasized that during trainings a diverse group of people combine under one roof for some

shared cause and thus this helps in providing a better environment for knowledge conversion in organizations.

Furthermore, Zarraga and Bonache (2003) knowledge creation can be cushioned by certain factors such as leniency, care, trust, and empathy and this can be done so by the presence of leaders in teams in order to create such knowledge sharing environments. The underline proposition for leadership is that the leaders are attributed as the developers of social interactions (Moitra & Kumar, 2007) and studies propose evidence that social interaction is a prerequisite for the conversion of knowledge (Moitra & Kumar, 2007; O'Dell & Grayson, 1998; Orlikowski, 2002; Zarra & Bonache, 2003).

Basically, leaders who have the ability to provoke knowledge process play central roles in the management and creation of knowledge hence result in results in building competitive powers for organizations (Kumar *et. al.*, 2013). Kumar *et. al.*, (2013) proposed few leadership attributes more closely associated with knowledge process including, as leadership;

- Advocates attract, retain, and reward employees who indulge in knowledge-creation process;
- Renders a common platform for employees to share knowledge; and
- Invests in strategically important training programs.

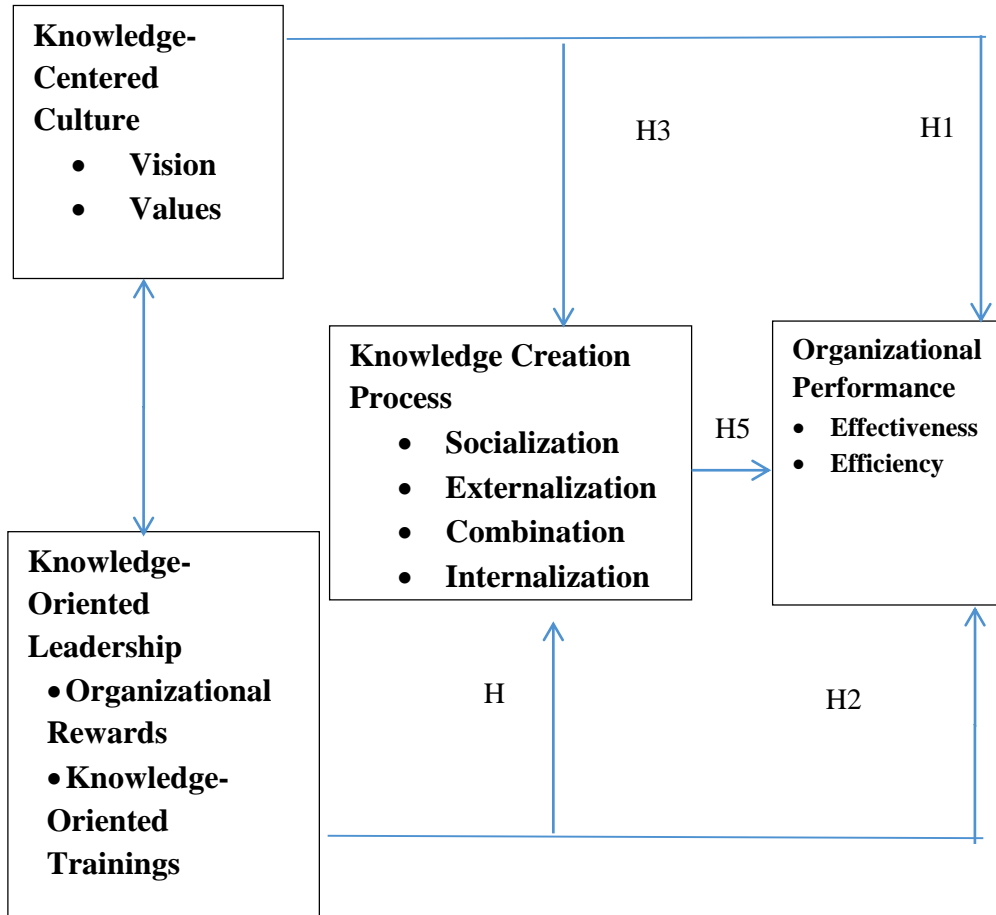
Kumar *et. al.*, (2013) concluded with the paramount importance of knowledge-oriented leadership for an increased organizational performance through an efficient knowledge creation process. In addition, a study conducted by Srivastaya and Bartol (2006) knowledge-oriented leadership results in transferring powers to subordinates hence, resulting in enhanced intrinsic motivation. The authors witnessed strong correlation between knowledge sharing and knowledge-oriented leadership (Srivastaya & Bartol, 2006).

Therefore, the current study proposes that knowledge-oriented leadership has a substantial positive influence on knowledge process and organizational performance.

2.2 Hypotheses Statements

- H1. Knowledge-centered culture significantly impacts organizational performance;
- H2. Knowledge-oriented leadership significantly impacts organizational performance;
- H3. Knowledge-centered culture significantly influences knowledge process;
- H4. Knowledge-oriented leadership significantly influences knowledge process;
- H5. Knowledge process is positively correlated with increased organizational performance.

2.3 Theoretical Framework



3 Research Methodology

This section includes a detailed discussion of the empirical research methodology including data collection and data analysis procedure. The data collection section is described in five parts as:

- (a) Data collection
- (b) Sample selection and participation
- (c) Developing the survey questionnaire
- (d) Measurement scales.

Reliability and validity is employed to justify the data. The chapter also discussed what kind of data is required to examine the variables. Then, data analysis process and statistical techniques are selected to analyze the data.

The methodology section of research study is concerned with the choice of appropriate methodology by which the validity of research can be judged. Thus, it requires a clear and comprehensive rationalization of how the study is done and why particular procedures are preferred. This research has been developed on the basis of literature review and conceptual approach which is previously discussed in the earlier chapter. With the support of literature review, few hypotheses have been developed. In order to select methodological approach, initially a philosophical stance was reviewed to understand the relationship and justification of approach which is adopted. This justification provided foundation to an explanation for the use of methods adopted.

This study is hypothetico-deductive approach. As initially the problem was identified, and rationale of study gave nudge to the extension in the body of literature which resulted in the generation of hypotheses. Hussey and Hussey (1997) argued that research process is normal when literature is reviewed to establish an appropriate theory and construct hypotheses.

The tests applied are regression weights, structural equation model, and correlations analysis.

3.1 Research Design

Based on theoretical framework and the developed research model the research design came into formation such as hypothesis testing leading to measurement of association, “dependent”, one dependent and multiple independent variables and correlational analysis. In order to follow the study in the systematic way this research design was established which helped in identification of tests to be applied in this study. The choice of research design is very important in the overall research process to carry on the quantitative analysis (Hussey and Hussey, 1997).

3.2 Research Population and Sample

The current study is conducted to examine the impact of knowledge-centered culture and knowledge-oriented leadership in organizational performance through the mediating role of knowledge creation process. Therefore, the population of this study is corporate sector (service/IT/Telecom) in Pakistan and personnel working in corporate sector in Pakistan. However, the sample of this study has been drawn out from Bahawalpur and Multan due to convenience of conducting this research study, therefore, the target population contains respondents from Southern Punjab in Pakistan.

3.2.1 Size of Sample

Statistical sample is drawn out of the population which represents the complete population in the statistical analysis (Pratt et. al., 1995). Sample size of this study is appropriate to justify the results and to generalize the data.

3.3 Measurement and Instrument

The instrument to measure knowledge-centered culture (KCC) has been adapted from Quinn (1988) and it contains 7 items which is ranked on 5-point Likert scale (1 for strongly disagree and 5 for strongly agree).

The instrument to measure knowledge-oriented leadership contains 5 items for organizational reward (OR) and has been adapted from Davenport and Prusak (1998) and is ranked on 5-point Likert scale (1 for strongly disagree and 5 for strongly agree). The instrument to measure knowledge-oriented leadership for knowledge-oriented training (KOT) contains 3 items and has been adapted from Kamhawi (2012) and is ranked on 5-point Likert scale (1 for strongly disagree and 5 for strongly agree).

In addition, the instrument to measure knowledge creation process (KCP) contains 4 items for socialization (SOC); 3 items for externalization (EXT); 4 items for combination (COM); and 3 items for internalization (INT) and has been adapted from Li *et. al.* (2009) and is ranked on 5-point Likert scale (1 for strongly disagree and 5 for strongly agree).

Finally, the instrument to measure organization performance (OP) with respect to organizational effectiveness has been adapted from Gold *et. al.* (2001) and contains 13 items and is ranked on 5-point Likert scale (1 for strongly disagree and 5 for strongly agree).

Table 1. Items for Variables

Variables	Items	Sources
Knowledge-Centered Culture		
KCC1	My organization provides a good place to share things with others like a family	Quinn (1988)
KCC2	My organization respects every employee's participation and team spirit	//
KCC3	Our working environment is open and harmonious (pleasant) as the employees highly support and believe in one another	//
KCC4	Our company is extremely formalized and structured and manages employees' tasks based on certain procedures	//
KCC5	Our company values each employee's creativity and challenges	//
KCC6	Our company possesses a high level of support and trust on employees	//
KCC7	Our company owing to extremely open working environment, dares to take high risks and accepts huge revolutions	//

Knowledge-Oriented Leadership		
OR1	Employees receive a better work environment for their knowledge contribution	Davenport and Prusak (1998)
OR2	Employees receive a higher salary in return for their knowledge contribution	//
OR3	Employees receive a higher bonus in return for their knowledge contribution	//
OR4	Employees receive increased promotion opportunities in return for their knowledge sharing	//
OR5	Employees receive increased job security in return for their knowledge sharing	//
KOT1	Our organization provides enough training to make sure its managers familiar with knowledge management logic and concepts	Kamhawi (2012)
KOT2	Our organization provides enough training for knowledge based system features and functionalities	//
KOT3	Our organization provides enough hands-on training on knowledge management systems and initiatives	//
Knowledge-Creation Process		
SOC1	My firm usually adopts cooperative projects across directorates	Li, Huang, and Tsai (2009)
SOC2	My firm usually uses apprentices (trainees) and mentors to transfer knowledge	//
SOC3	My firm usually adopts brainstorming retreats or camps	//
SOC4	My firm usually adopts employee rotation across areas	//
EXT1	My firm usually adopts a problem-solving system like case-based reasoning	//
EXT2	My firm usually adopts groupware (collaboration software) and other learn collaboration tools	//
EXT3	My firm usually captures and transfers experts' knowledge	//
COM1	My firm usually adopts web-based access to data	//
COM2	My firm usually uses web pages	//
COM3	My firm usually uses databases	//
COM4	My firm usually adopts repositories of information, best practices, and lessons learned	//
INT1	My firm usually adopts on-the-job training	//
INT2	My firm usually adopts learning by doing	//
INT3	My firm usually adopts learning by observation	//

Organizational Performance (Over the past few years, my organization has improved its ability)		
OP1	Innovate new products/services	Gold <i>et. al.</i> (2001)
OP2	Identify new business opportunities	//
OP3	Coordinate the development efforts of different units	//
OP4	Anticipate potential market opportunities for new products/services	//
OP5	Rapidly commercialize new innovations	//
OP6	Adapt quickly to unanticipated changes	//
OP7	Anticipate surprises and crises	//
OP8	Quickly adapt its goals and objectives to industry/market changes	//
OP9	Decrease market response time	//
OP10	React to new information about the industry or market	//
OP11	Be responsive to new market demands	//
OP12	Avoid overlapping development of corporate initiatives	//
OP13	Streamline its internal processes	//
OP14	Reduce redundancy of information and knowledge	//

3.4 Data Collection Procedure

The researcher contacted at random the selected sample of the population for their willingness to participate in this study. After their acceptance, the researchers administered 200 research questionnaires and received 167 completely filled questionnaires to be run for analyses with a response rate of 83.5%. In order to get maximum response, the researchers gave numerous reminders to respondents. Robson (1993) described subject error and bias, which is related to neutral time and date for carrying out data collection. Henceforth, any biasness in data collection is minimized by using this approach.

3.5 Data Analysis

The research instrument is adapted for this study. Then, the data is collected from respondents and fed into SPSS 20.0. Dummy coding has been assigned to the items covering each variable. Then, the items have been transformed and then the appropriate tests are employed on the collected data. Cronbach’s Alpha was analyzed on all the items of the research instrument. In addition, Pearson’s Correlations analysis was used to find the correlation among variables which ensures the authenticity of the research model. Then, AMOS 20.0 has been used to generate the results and Structural equation modeling technique to confirm the model fit of the study.

4. Results and Discussion

The current study is undertaken to examine the impact of knowledge-centered culture and knowledge-oriented leadership in organizational performance through mediating role of knowledge creation process in corporate sector in Pakistan.

Cronbach's Alpha is used to confirm the reliability of the measurement scale. Nunnally (1978) posited that the value of 0.70 or above is good for better and reliable results. All the values of Cronbach's Alpha are far above 0.70 which ensures the reliability of the adapted scale as presented below in Table 2.

Table 2. Reliability Analysis

Dimension	No. of Items	Cronbach's Alpha
KCC	7	0.733
KOL	8	0.757
KCP	14	0.842
OP	14	0.892

The correlations analysis is produced in Table 3. Table 3 shows positive correlations between knowledge centered culture, organizational performance, and knowledge creation process, knowledge oriented leadership, organizational performance, and knowledge creation process, knowledge creation process and organizational performance. The analysis of data *i.e.* regression weights is presented in Table 4 and SEM is shown in Figure 2. Encouraging results can be seen in Table 4. As for significance results, the value of P should be less than 0.05, and all the values presented in Table 3 are below 0.05 therefore, all the proposed hypotheses are accepted. Such as H1 refers to Knowledge-centered culture significantly impacts organizational performance, which is confirmed by this analysis. H2. Knowledge-oriented leadership significantly impacts organizational performance, which is confirmed by this analysis. H3. Knowledge-centered culture significantly influences knowledge process, which is confirmed by this analysis. H4. Knowledge-oriented leadership significantly influences knowledge process, which is confirmed by this analysis. H5. Knowledge process is positively correlated with increased organizational performance, which is also confirmed by this analysis.

Table 3. Correlations

		KCC	KOL	KCP	OP
KCC	Pearson Correlation	1	.687**	.741**	.812**
	Sig. (2-tailed)		.000	.000	.000
	N	167	167	167	167
KOL	Pearson Correlation	.687**	1	.862**	.902**
	Sig. (2-tailed)	.000		.000	.000
	N	167	167	167	167
KCP	Pearson Correlation	.741**	.862**	1	.938**
	Sig. (2-tailed)	.000	.000		.000
	N	167	167	167	167
OP	Pearson Correlation	.812**	.902**	.938**	1
	Sig. (2-tailed)	.000	.000	.000	
	N	167	167	167	167

** . Correlation is significant at the 0.01 level (2-tailed).

Table 4. Regression Weights: (Group number 1 - Default model)

	Estimate	S.E.	C.R.	P	Label
KCP <--- KOL	.565	.042	13.496	***	Accept
KCP <--- KCC	.269	.047	5.664	***	Accept
OP <--- KCC	.245	.032	7.645	***	Accept
OP <--- KOL	.309	.037	8.268	***	Accept
OP <--- KCP	.558	.048	11.648	***	Accept

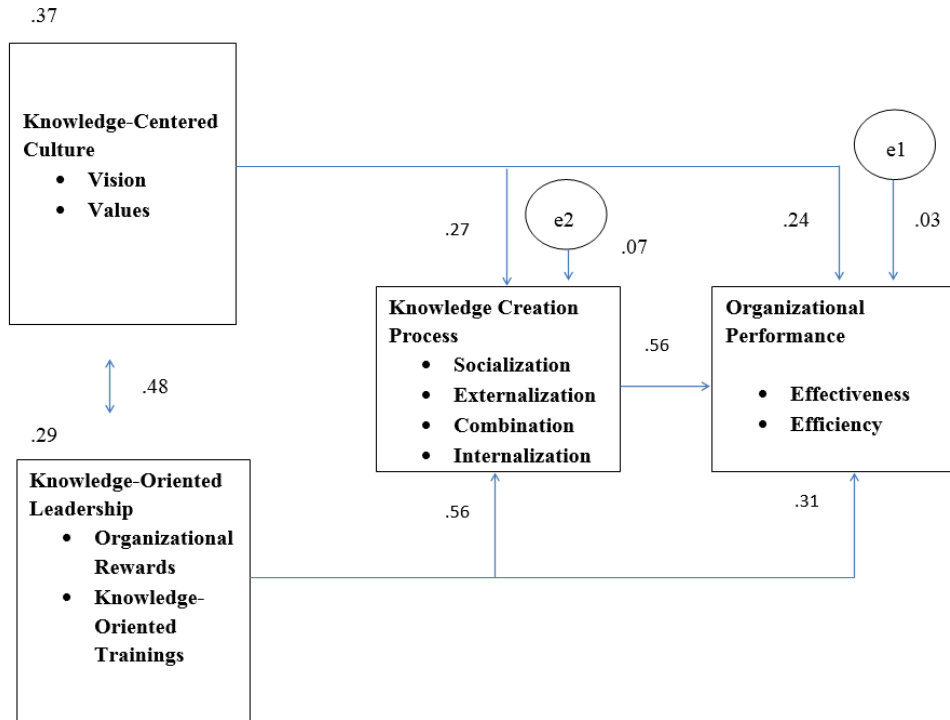


Figure 2. Structural Equation Model

5. Conclusion

The study is conducted to analyze the influence of knowledge centered culture and knowledge oriented leadership as the enabler of knowledge creation process to impact organizational performance. The notion behind knowledge creation process and efficiency and effectiveness with respect to organizational performance lies at the heart of this study as the authors propose knowledge centered culture incorporating vision and values and knowledge oriented leadership incorporating training and rewards as the key components and drivers of organizational performance. The study grounded its foundation by identifying link between knowledge centered culture and knowledge oriented leadership as both constructs are interrelated with each other. For instance, without knowledge centered culture; knowledge oriented leadership cannot stand alone and influence knowledge creation process and vice versa. In addition, considering vision related to effective knowledge management; it is not possible to set directions and foundations of knowledge without knowledge oriented values in organizational confines. Consequently, knowledge oriented values results in empowering the relationship of knowledge

centered culture and knowledge oriented leadership as knowledge related rewards strategy cannot be implemented without knowledge centered values and ultimately knowledge oriented training also possess significant associations with knowledge oriented leadership and knowledge centered culture.

Subsequently, the study found encouraging results from Pakistani corporate sector and the results with highly positive correlations support and strengthen the theoretical justifications provided in the extensive literature review section. The study also proposes various practical implications as the proposed framework has a huge potential of incorporation in organizations especially in corporate sector in a knowledge economy where the usefulness of knowledge has significant influences in organizational performance also ineffective management of knowledge without a regular update of knowledge infrastructure in organizations may result in an abrupt obsolescence of knowledge which can never guarantee a source of sustainable competitive advantage for organizations.

Finally, the study sums up by providing future directions as the study provides a framework that has potential to be furthered in manufacturing industries also where technology management and customer knowledge management are the key concerns for organizations.

References

- Andreeva, T. & Ikhilchik, I. (2011). Applicability of the SECI model of knowledge creation in Russian cultural context: theoretical analysis. *Knowledge and Process Management, Vol. 18, No. 1*, pp. 56-66.
- Bratianu, C. & Orzea, I. (2010). Organizational Knowledge Creation. *Management, Marketing Challenges for Knowledge Society, Vol. 5 No. 3*, pp. 41-62.
- Davenport, T.H. & Prusak, L. (1998). *Working Knowledge: How Organizations Manage What They Know*. Harvard Business School Press, Boston, MA.
- Deshpande, R., Farley, J., & Webster, F. (1993). Corporate Culture, Customer Orientation, and Innovativeness. *Journal of Marketing, Vol. 57 No. 1*, pp. 23-37.
- Donate, M.J. & Guadamillas, F. (2011). Organizational Factors to Support Knowledge Management and Innovation. *Journal of Knowledge Management, Vol. 15 No. 6*, pp. 890-914.
- Fong, P.S.W. (2003). Knowledge creation in multidisciplinary project teams: An empirical study of the processes and their dynamic interrelationships. *International Journal of Project Management, Vol. 21 No. 7*, pp. 479-486.
- Gavrilova, T. & Andreeva, T. (2012). Knowledge Elicitation Techniques in a Knowledge Management Context. *Journal of Knowledge Management, Vol. 16 No. 4*, pp. 523-537.
- Hussey, J. & Hussey, R. (1997). *Business Research, A Principal Guide for Undergraduate and Postgraduate Students*. Palgrave, New York.
- Gold, A.H., Malhotra, A., & Segars, A.H. (2001). Knowledge Management: an Organizational Capabilities Perspective. *Journal of Management Information Systems, Vol. 18 No. 1*, pp. 185-214.

- Kamhawi, E.M. (2012). Knowledge Management Fishbone: A Standard Framework of Organizational Enablers. *Journal of Knowledge Management*, Vol. 16 No. 5, pp. 808-828.
- Kumar, K.K., Jain, K.K., & Tiwari, R.R. (2013). Leadership Activities and their Impact on Creating Knowledge in Organizations. *International Journal of Leadership Studies*, Vol. 8 No. 1, pp. 15-27.
- Li, Y-H., Huang, J-W., & Tsai, M-T. (2009). Entrepreneurial Orientation and Firm Performance: The Role of Knowledge Creating Process. *Industrial Marketing Management*, Vol. 38, pp. 440-449.
- Moitra, D. & Kumar, K. (2007). Managed socialization: How smart companies leverage global knowledge. *Knowledge & Process Management*, Vol. 14 No. 3, pp. 148-157.
- Nold III, H.A. (2012). Linking Knowledge Processes with Firm Performance: Organizational Culture. *Journal of Intellectual Capital*, Vol. 13 No.1, pp. 16-38.
- Nonaka, I. & Takeuchi, H. (1995). *The knowledge-creating company: How Japanese companies create the dynamics of innovation*. New York, NY: Oxford University Press.
- Nonaka, I. & Toyama, R. (2003). The Knowledge Creating theory revisited: Knowledge Creation as a Synthesizing Process. *Knowledge Management Research & Practice*, Vol. 1, pp. 1-10.
- Nunnally, J. C. (1978). *Psychometric theory* (2nd ed.). New York: McGraw-Hill.
- O'Dell, C., & Grayson, C. J. (1998). If only we knew what we know: Identification and transfer of internal best practices. *California Management Review*, Vol. 40 No. 3, pp. 154-174.
- Osborne, M. (2004). Making the most of the best: Formulating a Knowledge Management strategy for a Government Advisory Body. *Australian Journal of Public Administration*, Vol. 63 No. 3, pp.43-52.
- Orlikowski, W. J. (2002). Knowing in practice: Enacting a collective capability in distributed organizing. *Organizational Science*, Vol. 13 No. 3, pp. 249-273.
- Ottersten, E. K. & Mellander, T. L. (1999). Evaluating firm training, effects on performance and labour demand. *Applied Economics Letters*, Vol. 6 No. 7, pp. 431-437.
- Pandey, S.C. & Dutta, A. (2013). Role of Knowledge Infrastructure Capabilities in Knowledge Management. *Journal of Knowledge Management*, Vol. 17 No. 3, pp. 435-453.
- Pratt, J. W., Raiffa, H. & Schlaifer, R. (1995). *Introduction to Statistical Decision Theory*. MIT Press, Cambridge, MA. MR1326829.
- Quinn, R.E. (1988), *Beyond Rational Management: Mastering the Paradoxes and Competing Demands of High Performance*, Jossey-Bass, San Francisco, CA.
- Ringel-Bickelmaier, C. & Ringel, M. (2010). Knowledge Management in International Organizations. *Journal of Knowledge Management*, Vol. 14 No. 4, pp. 524-39.
- Robson, C. (1993). *Real World Research*. Blackwell, Oxford.
- Rusly, F.H., Corner, J.L., & Sun, P. (2011). Positioning Change Readiness in Knowledge Management Research. *Journal of Knowledge Management*, Vol. 16 No. 2, pp. 329-355.
- Sandhwalia, B.S. & Dalcher, D. (2011). Developing Knowledge Management Capabilities: A Structured Approach. *Journal of Knowledge Management*, Vol. 15 No. 2, pp. 313-328.
- Shin, M. (2004). A Framework for Evaluating Economics of Knowledge Management Systems. *Information & Management*, Vol. 42, pp. 179-196.
- Singh, S.K. (2008). Role of Leadership in Knowledge Management: a Study. *Journal of Knowledge Management*, Vol. 12 No. 4, pp. 3-15.

Srivastava, A. & Bartol, K.M. (2006). Empowering Leadership in Management Teams: Effects on Knowledge Sharing, Efficacy, and Performance. *Academy of Management Journal*, Vol. 49 No. 6, pp. 1239-1251.

Sun, P.Y.T. (2010). Five critical knowledge management organisational themes. *Journal of Knowledge Management*, Vol. 14 No. 4, pp. 507-23.

Sun, P.Y.T. & Anderson, M.H. (2010). An examination of the relationship between absorptive capacity and organisational learning and a proposed integration. *International Journal of Management Reviews*, Vol. 12 No. 2, pp. 130-50.

Takeuchi, H. (2006). The New Dynamism of the Knowledge Creating Company. *Knowledge Economy*, Vol. 1, pp. 1-10.

Tseng, S-M. (2010). The Correlation between organizational culture and knowledge conversion on corporate performance. *Journal of Knowledge Management*, Vol. 14 No. 2, pp. 269-284.

Van de Ven, A.H. & Drazin, R. (1985). Alternative forms of fit in contingency theory. *Administrative Science Quarterly*, Vol. 30 No. 4, pp. 514-39.

Zárraga, C. & Bonache, J. (2003). Assessing the team environment for knowledge sharing: An empirical analysis. *The International Journal of Human Resource Management*, Vol. 14 No. 7, pp. 1227-1245.

Appendix I

Table 1.1 The SECI Spiral

Socialization	Sharing and creating tacit knowledge through direct experience
Externalization	Articulating tacit knowledge through dialogue and reflection
Combination	Systematizing and applying explicit knowledge and information
Internalization	Learning and acquiring new tacit knowledge in practice

Figure 1.1. SECI Process of Knowledge Spiral

