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Assessing the Influence of Knowledge Management on Learning Organization

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Abstract
Change and its role in organizations, is always increasingly significant. Change requires new knowledge and advanced ways of strategic action. The purpose of this paper is to check the influence of different dimensions of knowledge management on learning organization in textile sector of Pakistan. The impact of knowledge management dimensions on learning organization is found to be statistically significant. All dimensions of knowledge management positively impact on the dimensions of learning organization according to proposed hypotheses. All results are highly significant except leadership in knowledge management that shows insignificant results for vision and strategy and work practices. The main limitation of this study is that the data are taken only from textile organizations of Faisalabad to represent the textile sector of Pakistan.
Keywords: Knowledge management, Learning organization.

1. Introduction

Huge changes have been occurring in organizational thinking and technology due to globalization and technological advancement. The survival is only possible when organizations adopt the unpredictable and new dynamics more quickly and learn faster than their competitors can. Learning is the greatest competitive edge in this abruptly changing environment. According to the organizational learning theory, organizations should change their actions and goals in response to changing circumstances in order to remain competitive in a dynamic and volatile environment. Initial learning starts from the individual level and after sharing, storing of knowledge and information to organizational memory that is used to achieve organizational goals, it becomes organizational learning.

Tahir and Ismail (2005) found that organization's learning rate, knowledge content and information technology system are the factors that provide an organization with a sustainable competitive advantage. According to Tomislav et al. (2008) the organizations that deal vigorously in a volatile environment, are not only processing information efficiently and effectively but are also creating new knowledge and information. Dobson (2008) stated that learning organizations are related to benevolent features of organization such as the learning ability, positive behavior towards change and authorization.

Peter Drucker was the pioneer who saw that knowledge can create the economic benefits for the society and organization. Today, organizations are facing a tough competition with continuous changes and knowledge management is hereby an important prerequisite (Selen, 2000). According to Heghe (2011) future organizations are those who are able to raise the value of their information and knowledge in the fastest and more efficient way than others.

Knowledge-based theory states that organizations survive, grow and succeed by exploiting and storing internal knowledge, skills and abilities. The exponents of this theory argue that it is difficult to reproduce knowledge based means so heterogeneity in knowledge bases and competences are the key elements of superior business performance and sustainable competitive edge. Hakanson (2010) stated that this theory emphasizes on the formation of new knowledge competencies, utilization of skills and abilities of individuals and finally on the process of knowledge exchange within "epistemic" communities.

2. Literature review

Learning and knowledge are the concepts studied by researchers for decades. Davenport and Prusak (2006) differentiate these three terminologies "knowledge," "information," and "data". Peddler (1995) stated that learning is about how we change and we are different after learning from we were before. Knowledge management is considered as an essential subject and asset in twenty first century (Dyer & McDonough, 2001). Practitioners and scholars have been expressed significant interest in practices of knowledge distribution and have debated the advantages of managing the knowledge (Hicks et al., 2007).

American productivity and quality center, (1995) proposed a framework that supports knowledge management operations and factors including culture, process, technology, leadership and measurement. Hasanali (2002) found some factors for knowledge management success as structure, roles, leadership, measurement, information technology and culture. Culture, leadership, training, information technology system are the main components of knowledge management from those as identified by Lee & Choi (2003).

Learning Organization has appeared with unique features that are suitable for today's enterprises to manage the uncomfortable and hectic situations. Due to globalization and technological advancement changes

are occurring and these changes are enforcing the organizations to bring transformation and maintain themselves according to the environment (Marquardt, 2002).

Serrat (2009) stated people, knowledge, technology and organization as building stones of the learning organization. Five disciplines are the foundation and essential elements of human behavior in learning organization, as personal mastery, mental model, team learning, shared vision and system thinking (Senge, 1990). Chawla and Joshi (2011) tried to integrate and understand the relationship between these two concepts and find out learning organization practices across different industries.

Knowledge and learning are entwined in mutually supporting process in which knowledge is produced by learning and future learning is influenced by learning (Vera & Crossman, 2003) and Cavaleri (2004) stresses on a very close alliance between knowledge management and learning organization. According to Maqsood and Walker (2007), an environment of trust and commitment is created by knowledge management in an organization and this continuous learning brings up a learning environment in an organization.

The leaders having a vision of learning play an essential role in the creation of knowledge as an intimate part of culture and organizations need those leaders who really value learning, practice based organizational learning policies and support intelligent managerial interferences (Prusak, 2006).

According to Garvin (2008), these are three building stones of learning organizations. One is an encouraging environment of learning, second is solid and definite practices and processes of learning and third is behavior of leadership that strengthens and support learning. In learning organization, training and development is affected by knowledge driven process and organizational culture with the support of leadership. Organizational culture and leadership affect work practices in learning organization while sharing of knowledge affects performance in learning organization.

Gorelick and Tantawy-Monsou (2005) stated that the learning can be ensured if within a given culture, the basis of a knowledge management organism integrate people, process and technology. So, the culture of a learning organization is ultimately influenced by knowledge driven culture.

Peddler (1995) describes the mandate of learning organization to exchange information from one department to another internally, reward system on the basis of performance, learning from other's experiences and best practices, an environment of feedback and continuous improvement. In addition, rewards are awarded to those who have contributed in the creation and application of knowledge in organizations.

On the basis of above theoretical contextual, following hypotheses can be formulated:

- H_1: There is a positive impact of knowledge management process and leadership on vision and strategy in learning organization.
- H_2: There is a positive impact of knowledge management culture and leadership on work practices in learning organization.
- H_3: There is a positive impact of knowledge management culture on climate in learning organization.
- H_4: There is a positive impact of knowledge management culture and technology on information flow structure in learning organization.
- H_5: There is a positive effect of knowledge management measurements and culture on performance improvement process in learning organization.
- H_6: There is a positive impact of knowledge management process, leadership and culture on training and development in learning organization.
- H_7: There is a positive impact of knowledge management measurement, leadership and culture on reward and recognition in learning organization.

3. Methodology

3.1. Sample

Textile sector of Pakistan is the focus of this study. Ten major textile learning organizations were contacted for response of these two instruments named as Ibrahim fibers limited, Sitara textile, Masood textile mills, Crescent Bahuman limited, Kohinoor industries limited, Interloop limited, Ittehad textile, Nishat mills Ltd, Kamal Ltd and Manoo textile. 320 questionnaires were distributed among those 306 were received properly. The response rate was 94 % and the whole process of data collection took two months.

3.2. Development of instruments

The study used two instruments. The instrument related to knowledge management is selected after reviewing various researchers' studies as how do you measure the knowledge maturity of your organization by Hoss and Schlussel (2009), Knowledge management tools and techniques manual by Young (2010). The instrument used for measuring knowledge management dimensions is knowledge management assessment tool developed by American productivity and quality center and Arthur Anderson in 1995. Five knowledge management dimensions; knowledge management process, leadership, technology, culture and measurements are measured

by using 5-point Likert scale (1 = strongly disagree to 5 = strongly agree).
Various studies of researchers are taken into consideration for selecting instrument for learning organization such as the learning company questionnaire developed by Pedler(1991), learning organization diamond by Moilanen(2001) and dimensions of learning organization questionnaire by Marsick and E. Watkins (2003). Learning organization practice profile by Micheal O' Brien (1994) is found best and suitable for Pakistan context. It has seven sections; vision and strategy, training and development, work practices, performance improvement process, climate, information flow structure and reward and recognition. These are measured on 5-point Likert scale.

3.3. Analysis of data
Data are analyzed using SPSS 20.0. Multiple linear regression is conducted to estimate t effects of independent variables on dependent variables.

4. Results

4.1. Descriptive statistics
Table 1 shows the results of mean and standard deviation of all variables. In table 1 reliability test was conducted on both instruments. Cronbach's alpha can be considered a perfect suitable index of inter item consistency and reliability in almost all cases (Sekaran, 2000). The values of cronbach's alpha exist in between 0.75 to 0.86 for knowledge management. The values of cronbach's alpha range in between 0.83 to 0.92 for learning organization. Analysis of correlation is conducted to check the relationship between variables. SPSS is used to calculate the Pearson correlation. Hinkle et al. (2003) stated that "correlation coefficient is an index that describes the extent to which two variables are related". Correlation coefficient indicates the magnitude and direction of relationship between variables. In table 1, all variables show positive relationship to other variables. Vision and strategy has

Table 1: Descriptive statistics

		Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12
1	Vision and Strategy	3.94	.486	(.83)											
2	Work Practices	3.94	.480	.75**	(.91)										
3	Climate	3.99	.563	.73**	.82**	(.86)									
4	Information flow structure	3.93	.452	.74**	.79**	.79**	(.89)								
5	Performance improvement process	3.84	.409	.64**	.74**	.72**	.80**	(.88)							
6	Training and development	3.91	.508	.56**	.64**	.65**	.68**	.77**	(.92)						
7	Reward and recognition	3.87	.547	.58**	.64**	.66**	.69**	.73**	.80**	(.85)					
8	Knowledge management process	3.89	.545	.59**	.63**	.65**	.68**	.69**	.79**	.88**	(.86)				
9	Leadership in knowledge	3.85	.512	.40**	.46**	.44**	.48**	.47**	.58**	.58**	.59**	(.75)			
10	management	3.86	.505	.56**	.65**	.61**	.66**	.65**	.73**	.76**	.79**	.63**	(.84)		
11	Knowledge management culture	3.89	.45	.47**	.52**	.53**	.56**	.62**	.66**	.64**	.67**	.61**	.71**	(.81)	
12	Knowledge management technology	3.88	.471	.37**	.44**	.43**	.48**	.54**	.59**	.55**	.57**	.58**	.61**	.71**	(.76)
	Knowledge management measurement														

** P < 0.01 *P < 0.05 (values on diagonals represent Cronbach's alpha)

a positive and moderate relationship with knowledge management process while it is positive and weak with leadership. Work practices has positive and moderate relationship with knowledge management culture but positive and weak with leadership in knowledge management. Climate has positive and moderate relationship with knowledge management culture. Information flow structure has positive and strong relationship with knowledge management culture and moderate relationship with knowledge management technology. Performance improvement process has positive and strong relationship with knowledge management culture while moderate with knowledge management measurements. Training and development has positive and strong relationship with knowledge management process, culture while moderate with leadership. Reward and recognition has positive and strong relationship with knowledge management culture while moderate relationship with knowledge management measurement and leadership.

Regression analysis
Ordinary least square method of regression analysis is used to check the impact of knowledge management dimensions on learning organization. The impact of knowledge management dimensions on learning organization is measured by multiple linear regression analysis.

To test first hypothesis, knowledge management process (KMP) and leadership in knowledge management (LKM) are regressed on vision and strategy (VS). Regression coefficient of knowledge management process is showing a positive and significant effect on vision and strategy ($\beta = 0.538$, $p < .01$) while regression coefficient of leadership shows positive but insignificant effect on vision and strategy ($\beta = 0.086$, non-significant). The value of R^2 is 0.35 indicating that 35% variance in vision and strategy is explained by knowledge management process and leadership.

In second hypothesis, knowledge management culture (KMC) and leadership in knowledge management (LKM) are explaining the work practices (WP) dimension of learning organization. Regression coefficient of knowledge management culture is showing a positively significant effect on work practices ($\beta = 0.598$, $p < .01$) while regression coefficient of leadership shows positive but insignificant effect on work

practices (β = 0.078, non-significant). The value of R^2 is 0.42 indicating that 42% variance in work practices is explained by knowledge management culture and leadership.

In third hypothesis, the effect of knowledge management culture (KMC) is checked on climate (C). Regression coefficient of knowledge management culture is showing a positively significant effect on climate (β = 0.612, p < .01). The value of R^2 is 0.37 indicating that 37% variation in climate is explained by knowledge management culture.

In fourth hypothesis, information flow structure (IFS) is explained by knowledge management culture (KMC) and knowledge management technology (KMT). Regression coefficient of knowledge management culture is showing a positively significant impact on information flow structure (β = 0.534, p < .01) and regression coefficient of knowledge management technology is also showing positive and significant impact on information flow structure (β = 0.180, p < .05), The value of R^2 is 0.45 indicating that 45% variance in information flow structure is explained by knowledge management culture and technology.

In fifth hypothesis, knowledge management culture (KMC) and knowledge management measurement (KMM) is regressed on performance improvement process (PIP). The regression coefficient of knowledge management culture (β = 0.510, p < .01) is positively significant and knowledge management measurement (β = 0.078, p < .01) is also showing positively significant impact on performance improvement process. The value of R^2 is 0.46 indicating that 46% variance in performance improvement process is explained by knowledge management culture and measurement.

Table 2: Regression

Dependent Variables		KM Process	Leadership	KM Culture	KM Technology	KM Measurements	R^2
1	VS	.538**(.051)	.086(.054)	.351			
2	WP		.078(.053)	.598**(.054)			.422
3	C			.612**(.048)			.375
4	IFS			.534**(.054)	.180*(.06)		.453
5	PIP			.510**(.043)		.238**(.046)	.462
6	T&D	.558**(.051)	.117*(.043)	.216**(.057)			.670
7	R&R		.131*(.053)	.610**(.055)		.108*(.056)	.598

** P < 0.01 * P < 0.05

Entries are standardized coefficients and values in parenthesis are standard error

To check sixth hypothesis, knowledge management process (KMP), knowledge management culture (KMC) and leadership in knowledge management (LKM) are regressed on training and development (T&D). Table shows positively significant regression coefficient of knowledge management process (β = 0.558, p < .01), knowledge management culture (β = 0.216, p < .01) and leadership in knowledge management (β = 0.117, p < .01) on training and development. Value of R^2 (0.67) is satisfactory, indicating that 67% variance in training and development is explained by knowledge management process, culture and leadership.

To check seventh hypothesis, knowledge management culture (KMC), leadership in knowledge management (LKM) and knowledge management measurement (KMM) are regressed on reward and recognition (R&R). The table shows positively significant regression coefficient of leadership in knowledge management (β = 0.131, p < .01), knowledge management culture (β = 0.610, p < .01) and knowledge management measurement (β = 0.108, p < .05) on reward and recognition. The value of R^2 is 0.59 indicating that 59% variance in reward and recognition is explained by knowledge management culture, leadership and measurement.

5. Discussion

Knowledge management works as prerequisite to become competitive in business world. To become a learning organization, it is necessary to find where actually learning is required. For effective learning, it is important to have clarity of vision and support of top management. Leadership support and knowledge management process are important to achieve vision of organization. According to the significant result indications, knowledge management process is influencing on vision and strategy. Leadership in knowledge management is impacting on reward and recognition, training and development. Knowledge management culture has an impact on work practices, climate, information flow structure, training and development, performance improvement process, reward and recognition. Knowledge management technology rationalizes information flow structure. Knowledge

management measures has positive impact on performance improvement process and reward and recognition. All dimensions of knowledge management are important to for creating, sharing and disseminating the knowledge in learning organizations. In this study, at most all dimensions of knowledge management have positive impact on the dimensions of learning organization.

6. Managerial recommendations

After keeping in view the statistical analysis and empirical findings, it is recommended that Pakistani textile organizations should have to align the human resources as intellectual capital with other resources to be competitive in dynamic and changing business environment. It is crucial to motivate the employees for learning and a system is required to support the creation, usage and dissemination of new knowledge. Leadership is very important for managing the knowledge. Long term goals cannot be achieved without the proper support of leadership while the contribution of all employees is similarly vital in contribution towards continuous learning and the creation and dissemination of knowledge.

7. Research limitations and suggestions for future research

The limitation of this research is that only textile sector is taken with limited sample size for research and other sectors are ignored. Other sectors can be used for conducting the same study. Study can be conducted in different cities of Pakistan for the confirmation of this research. Further, different statistical tools like structural equation modeling can be used for analyzing the data. For the future research some other factors like qualification, hierarchical levels and work experience may also be considered to find more accurate and deeper results.

8. Conclusion

After analyzing the data, it is found that knowledge management dimensions has a positive impact on the various dimensions of textile learning organizations of Pakistan. The results are with the connections of many researchers as Linda Levine (2001) found that knowledge management process and technology support the continuous improvement and learning while Chawla and Joshi (2011) found that knowledge management leadership has a positive impact on rewards system, training of employees and work practices of learning organization of India.

References

APQC (1995). Knowledge management: Executive summary, *Consortium Benchmarking Study Best-Practice Report, American Productivity & Quality Center*, available at: www. apqc.org (accessed 10 October 2003).

Cavaleri, S.A. (2004). Leveraging organizational learning for knowledge and performance, *The Learning Organization*, 11(2), 159-76.

Chawla, D. & Joshi, H. (2011). Impact of knowledge management on learning organization practices in India, *The Learning Organization*, 18(6), 501-513.

Dobson, R. (2008). Assessing the impact of organizational learning capability on product innovation performance: an empirical test, *Tec novation*, 28(2), 315-326.

Dyer, G. & McDonough, B. (2001). The state of knowledge management, *Journal of Knowledge Management*, 4(5) 31-36.

Garvin, D., Edmondson, A.C. & Gino, F. (2008). Toolkit – is yours a learning organization?, *Harvard Business Review*, 1-10.

Gorelick, C. & Tantawy-Monsou, B. (2005). For performance through learning, knowledge management is the critical practice, *The Learning Organization*, 12(2), 125-39.

Hakanson, L. (2010). The firm as an epistemic community: the knowledge-based view revisited, *Industrial and Corporate Change,* 19(6), 1801-28.

Hasanali, F. (2002). Critical success factors of knowledge management, available at: www. kmadvantage.com/docs/km_articles/Critical_Success_Factors_of_KM.pdf (accessed 20 November 2003).

Heghe, H. V. (2011). Is there really a need for knowledge management?, *Knowledge board*. Retrieved from http://www.knowledgeboard.com/item/3149/23/5/3.

Hicks, R., Dattero, R. & Galup, S. (2007). A Metaphor for Knowledge Management: Explicit Islands in a Tacit Sea, *Journal of Knowledge Management*, 11(1), 5-16.

Hinkle, D. E., Wiersma, W. & Jurs, S. G. (2003). *Applied statistics for behavioral sciences* (5th ed). Boston, MA: Houghton Mifflin.

Hoss, R. & Schlussel, A. (2009). How do you measure the knowledge maturity of your organization?, *USAWC.*

Lee, H. & Choi, B. (2003). Knowledge management enablers, processes, and organizational performance: an integrative view and empirical examination, *Journal of Management Information Systems,* 20(1), 179-228.

Levine, L. (2001). Integrating knowledge processes in a learning organization, *Information System Management*, 18(1), 1-13.

Maqsood, T. & Walker, D. (2007). Extending the knowledge advantage: creating learning chains, *The Learning Organization*, 14(2), 123-41.
Marsish, V.J. & Watkins, K.E. (2003). The dimensions of learning organization questionnaire, *Advances in Developing Human Resources*, 5(2), 132-151.
Marquardt, M. (2002). Five Elements of learning Executive Excellence, *Information and Management*, 42(2), 179- 196.
Moilanen, R. (2001). Diagnostic tools for learning organizations, *The Learning Organization*, 8(1), 6-20.
O'Brien, M.J. (1994). Learning Organization Practice Profile, *Pfeiffer & Company, San Diego, CA.*
Pedler, M. (1991). The learning company: A strategy for sustainable development, *McGraw-Hill, London*.
Pedler, M. (1995). A guide to the learning organization, *Industrial and Commercial Training*, 27(4), 21-5.
Prusak, L. (2006). The Knowledge Notebook- How Does a Learning Organization Learn?, Retrieved from http://askmagazine.nasa.gov/pdf/pdf23/NASA_APPEL_ASK23d_kn.pdf
Selen,W. (2000), Knowledge management in resource-based competitive environments: a roadmap for building learning organizations, *Journal of Knowledge Management,* 4(4), 346-353.
Senge, P.M. (1990). The Fifth Discipline: the Art and Practice of the Learning Organization, *Doubleday, New York, NY*.
Sekaran, U. (2000). Research methods for business, *John Wiley& Sons, Ins*, ISBN: 0-471-20366-1.
Serrat, O. (2009). Building a learning organization, *Knowledge Solutions*, 46, 1-8.
Tahir.A, Ismail. D. (2005). Could knowledge management provide an organization with a competitive advantage?, *European and Mediterranean Conference on Information Systems.*
Tomislav H., Miha S.J & Vlado D. (2008). Relationship between organizational learning and organizational performance: the case of Croatia, *International Journal of Business and Management,* 4(2), 1-17.
Vera, D. & Crossan, M. (2003). Organizational learning, knowledge management, and intellectual capital: An integrative conceptual model", *Richard ivey school of business, The University of Western Ontario, London, ON.*
Young, R. (2010). Knowledge management tools and techniques manual, Asian *Productivity organization*, ISBN: 92-833-7093-7.

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