

Role of Knowledge Management in Organizational Effectiveness: A Case of Public Sector Universities of Pakistan

Syeda Rizwana Hussain Tirmizi, Prof. Dr. Syed Manzoor Hussain Shah & Dr. Saghir Ahmad Ch.

Hazara University Mansehra, Pakistan

Received: 13th November 2021

Revised: 21st December 2021

Accepted: 07th February 2022

Abstract: The purpose of the study was to explore the role of knowledge management in organizational effectiveness in public sector universities of Pakistan. It was a quantitative and correlational study. To meet the purpose, the present study has been designed through which the key factors influencing the effectiveness of public sector universities of Pakistan through the role of knowledge management have been searched out. The population of the study comprised all heads of academic and administrative departments of public sector universities of Khyber Pakhtunkhwa. By applying the stratified sampling technique, the 150 respondents were selected as a sample of the study. The organizational culture has a positive relationship with knowledge management. It is concluded that knowledge management plays a vital role in the effectiveness of universities. It was observed that public sector universities can meet different challenges by introducing knowledge management in various aspects. There is a general phenomenon that good structure, culture, and strategies of any public sector organizations attract customers for their active involvement to cope with the challenges of the new era.

Keywords: Knowledge management, Organizational effectiveness, Universities, Pakistan.

1. Introduction

Knowledge Management

Knowledge is regarded as a crucial metric to build prosperity and success in the knowledge economy, which is rapidly developing (Abubakar et al., 2019). Institutional performance and success are best driven by knowledge (Zaim et al., 2019). Wahda (2017) asserts that information is a critical component of a university's competitive advantage and maximum outcome. The explicit and successful management of valuable knowledge is defined as knowledge management. Knowledge production, transforming, creativeness, and absorption are all factors that contribute to an institution's knowledge competency. So, when all are combined, the knowledge management methods that result define the association of effectiveness of an institution (Alaarj et al., 2016; Ngah et al., 2016).

The practices of KM aid in the development of all types of organizations and activities, allowing them to become effective over time. Researchers looked at the influence of knowledge management techniques on organizational performance in the past and discovered that it was favorably related to company success (Antunes & Pinheiro, 2020; Cerchione & Esposito, 2016; Serrat, 2017; Abuaddous et al., 2018). According to knowledge-based theory, when knowledge management procedures are successfully and efficiently achieved, they generate unique capabilities that lead to improved departmental performance through innovation (Kane, 2017). As a result, businesses that excel at knowledge management are more likely to achieve success (Lopes et al., 2017; Shujahat et al., 2019). The practices of KM such as sharing, acquisition, transfer, and application, lead to new ideas, which ensures the effectiveness of the institution (Akhavan et al., 2016).

Byukusenge and Munene (2017), knowledge sharing is a source in which information is transmitted to society. Furthermore, Centobelli et al. (2019) defined innovativeness as the transformation of an effect into a reality that results in the process of innovation or service that fits the needs and desires of individuals in the department. Capacity is defined as an institution's ability to value, integrate, and use new knowledge to improve its performance. However, the relationship between information sharing, inventive capacity, absorptive capacity, and organizational success has been examined (Lopes et al., 2017; Santoro et al., 2018).

Knowledge management is a strategy that applies knowledge and experience more dynamically to produce value and increase efficiency (Rasula et al., 2012). Knowledge management competencies are more likely to boost an economist's productivity by amassing, establishing, and gaining a deep understanding of actionable knowledge. The practices KM are crucial not just to the firm's success but also to the success of entrepreneurs. The operation of knowledge management is complicated and entrepreneurs are in charge of it. However, this research is on the important methods that companies learn and apply to increase their knowledge (Shujahat et al., 2019).

Organizational Effectiveness

Effectiveness is a multifaceted and difficult term to grasp. It means putting a lot of emphasis on attaining a company's aim (Gebauer et al., 2012). It also highlights the mark to which the target may be met through the deployment of organizational resources, as well as the transformation between real and likely production (Qu, 2012). The importance is an organization's goal is met. It is defined as the ratio of input to output, or the capacity to provide the desired result with the least amount of work or cost (Agrawal, 2012).

According to Jacobsen et al. (2014), the performance or effectiveness of any institution refers to how well it achieves its goals. The primary goal of numerous actions and methods used in business operations is to improve the enterprise's efficiency. The primary goal of policies is to increase performance, the relation between a plan and its effectiveness is a significant component of planned research. A leader must not only strives for efficiencies and cope well with the organization's social and physical environment but also employ active and stable strategic management which ensures that all features of institution. An institution must be able to manage with productivity with performance being the accomplishment of the aim.

A culture is a shared set of values, beliefs, and interpretations by all individuals of an institution. A culture may have a big impact on a lot of things (Borges, 2013). It is the concept that guides the firm and embodies

the core values and standards. A healthy culture helps to attract and retain workers. Structural cultures are becoming more essential in modern companies for prompting and guiding worker behavior (Achillas et al., 2014). A culture consists of three components: structure, environment, and value. An organization uses a variety of methods to perform its activities at the structural level (which contain technical, economic, and managerial). It comprises objective backdrops that enhance comprehension of organisation, at the level of surroundings. It includes the members of the organization's earlier beliefs and customs. The excellence management is the most visible presence on departmental activities. Institutional culture is made up of a variety of factors. Values, on the other hand, maybe the foundation of it and can be considered as its personality (Chung et al., 2013). An organization is a group of individuals and their actions are also a part of the culture. The corporate culture has an impact on colleagues' conduct. Thus, institutional cultures have the potential to change and influence people (Sussan, 2012). Toro and Joshi (2012) claimed that the majority of individuals of a corporate culture that values knowledge management exhibit creative and learning behaviors.

Three important studies assisted as the objectives for facts division within the department and knowledge management in study of Wang (2014). He found that the knowledge improved the degree of knowledge sharing. The production could be increased to maximize revenues and improve its effectiveness. It aims to maximize the use of knowledge (Torgusa & Arundel, 2013). Yu et al. (2013) stated that it is a method for maximizing the use of an organization's internal knowledge assets. The purpose of KM is to transform a company into a learning organization by sharing resources. The institutions can lead the future progress chances through knowledge management efforts, resulting in increased organizational effectiveness (Gebauer et al., 2012).

Knowledge management is an important factor that has been included by different organizations in their strategies. Organizational strategy is concerned with how the organization needs to change over time to perform in a better way. In the strategy setting, the organizations compare the present status and targets set for the future. Organizational strategies measure vision, mission, objectives, and change initiatives which are based on the interdependent theory.

Alawamleh and Kloub (2013) stated that organizational effectiveness measures flexibility and span of control based on the organizational theory and complexity and team structure are based on the classical contingency theory. It is a framework of power effectiveness and relevance among organisational units that dictates the shape and nature of the organization's activities. The authority refers to the structure of interrelations between the elements and duties of an organisation to achieve of achieving effective goals. Different factors influence organizational effectiveness. These include organizational structure, culture, and strategies. Organizational effectiveness comprises an organizational structure, culture, and strategies. Most of the research is on the effectiveness of the organizations. Scholars have not given attention to the mediational role. Knowledge management gives serious thought to organizational structure and strategies with its effectiveness. To meet the purpose, the present study has been designed to explore the role of knowledge management in the effectiveness of public sector universities in Pakistan.

Research Question

The study was planned to follow up the main question; what is the role of knowledge management in the organizational effectiveness (structure, strategies, culture) of public sector universities in Pakistan?

2. Method

The population of the study comprised all heads of academic and administrative departments of public sector universities of Khyber Pakhtunkhawa. A stratified sampling technique was used for selecting respondents. The sample of this study consisted of one hundred and fifty heads of administrative and academic departments (seventy-five from both strata) from Abdul Wali Khan University, Hazara University, Peshawar University, Banu University, Haripur University, and Abbottabad University of Khyber Pakhtunkhawa. Questionnaires comprising different aspects of organizational structure, culture, and strategy were utilized for getting data from the respondents. These were adopted from different research papers including Organizational strategy measures (vision, mission, objectives, initiative change) Organization effectiveness measured nine dimensions are adopted from the CVF model (Quinn & Rohrbaugh, 1983). Knowledge management measures adopted from knowledge management performance index considering knowledge cycle process by (Lee et al., 2005). The unit of analysis is the organization with a separate set of strategies, culture, structure, and knowledge management. For the data analysis, the bivariate correlation was used.

3. Findings and Results

Table 1

Means and Standard Deviations of Factors of Effectiveness

Sr.	Factors	<i>M</i>	<i>SD</i>
1	Organizational Effectiveness	4.22	1.05
2	Knowledge Management	4.11	.84
3	Org. strategy	3.93	.75
4	Org. structure	3.16	1.23
5	Org. Culture	4.20	.93

Table 1 shows the means and standard deviations of factors of effectiveness. There were $M=4.22$, $SD=1.05$ of institutional effectiveness; $M=4.11$, $SD=.84$ of knowledge management $M=3.93$, $SD=.75$ of institutional strategies; $M=3.16$, $SD=1.23$ of institutional structure; and $M=4.2$, $SD=.93$ of the culture of the organization. It seemed that three factors (effectiveness, knowledge management, and institutional culture) had high mean scores almost near to strongly agree.

Table 2

Relationship among Variables for Effectiveness

Sr.	Factors	1	2	3	4	5
1	Organizational Effectiveness	1				
2	Knowledge Management	.63**	1			
3	Org. strategy	.51**	.81**	1		
4	Org. structure	.22**	.32	.41**	1	
5	Org. Culture	.53**	.84**	.87	.83	1

**P<0.01

In table 2, the findings of this study pointed out that knowledge management, organizational culture, structure, and approaches are all very closely related to the efficiency of the organizations. The table showed the association of variables with each other and especially relating knowledge management. All factors had a strong relationship with variable knowledge management. The organizational culture ($r = 0.84^{**}$) have a positive relationship with knowledge management. The organizational structure ($r = .32$) was related to knowledge management. It is concluded that knowledge management plays a vital role in the effectiveness of universities. It is the utmost basic element to achieve institutional efficiency.

4. Discussion, Conclusion, and Implications

This study was about to explore the role of knowledge management in the organization's effectiveness in public universities. All factors of organizational effectiveness had a strong relationship with knowledge management. The organizational culture has a positive relationship with knowledge management. It is concluded that knowledge management plays a vital role in the effectiveness of universities. It is the utmost basic element to achieve institutional efficiency. The results of the current study are in favor of the past study conducted by Vorobyova and Raju (2018) in Malaysia. According to them, organizations can get profit from implementing effective knowledge management in order to promote effectiveness. The reason was that knowledge management and institutional effectiveness both are interrelated.

The findings of the study revealed that knowledge management and autonomous managerial practices are significant aspects of controlling university culture. The impact of the organization's framework and techniques on the efficacy of departmental approaches can be seen. Although its effect is diminished when culture and structure are evaluated together. It has a significant impact on the efficiency of the department. It influenced knowledge management and strategy investigation can be linked to knowledge management. The study also highlights visions such as resource and knowledge-based perspectives. In the road leading from resources to organizational efficiency and knowledge is closer to efficiency. Knowledge management plays a significant role in the effectiveness of the university. In this study, knowledge management was correlated strongly with interaction with culture and institutional efficiency. This study also claims that well-

organized information has a good impact on cultural values. In addition, culture has a strong association with knowledge management. This could be because cultural attitudes, values, and norms about knowledge generation, sharing, and application in the institution are highlighted. It also raises awareness of the importance of knowledge in terms of the culture and efficiency of the organization.

It is concluded that knowledge management, organizational culture, structure, and approaches are all very closely related to the efficiency of the organizations. The relevance of information in a favorable environment linked to cultural, structural, and strategic aspects of the institution is highlighted in this study. It also shows that knowledge management has a sound impact on the efficiency of an institution. A bundle of creative ideas on knowledge management activities that provide appropriate instruments for creativity will be beneficial in shifting the influence of institutional resources to the bottom line. Culture and strategy are the two elements that have the greatest positive impact on knowledge usage. It should concentrate on integrating culture and developing methods that benefit the environment by making it more knowledge-friendly.

According to the findings, public institutions can address a variety of difficulties by incorporating knowledge management into numerous elements. Customers are attracted to public sector companies with solid structure, culture, and strategies because they are actively involved in dealing with the issues of the new era. Adoptability, consistency, involvement, and mission are the four characteristics of institutional culture that, when combined contribute to knowledge management. They provide road maps to knowledge management specialists which become part of the university's culture in order to improve performance. The findings reveal that a university's culture, structure, and strategy are all intertwined. The study's implications include three components that work together to form an interconnected system, allowing for changes in one or two aspects while also allowing for flow in the third. There is a need to develop a framework to ensure knowledge management for getting and promoting effectiveness in universities. The university administration should prioritize effectiveness and ensure that knowledge management is implemented. The study is a source of inspiration for other researchers to work on the remaining aspects of this study and particularly to develop model for the implementation of the public sector universities.

REFERENCES

- Abuaddous, H. Y., Al Sokkar, A. A., & Abualodous, B. I. (2018). The impact of knowledge management on organizational performance. *International Journal of Advanced Computer Science Applications*, 9(4), 204-208. https://www.researchgate.net/profile/Hayfa-Abu-Addous/publication/324967473_The_Impact_of_Knowledge_Management_on_Organizational_Performance/links/5f6b6f40299bf1b53eec1725/The-Impact-of-Knowledge-Management-on-Organizational-Performance.pdf
- Abubakar, A. M., Elrehail, H., Alatailat, M. A., & Elci, A. (2019). Knowledge management, decision-making style and organizational performance. *Journal Innovation & Knowledge*, 4(2), 104-114. <https://doi.org/10.1016/j.jik.2017.07.003>
- Achillas, C., Aidonis, D., Folinas, D., Moussiopoulos, N., & Triantafillou, D. (2014). Identifying the optimal strategy for suppliers' involvement in product design: A case study. *Agricultural Engineering International: CIGR Journal*, 30-41. <https://cigrjournal.org/index.php/Ejournal/article/view/2917>

- Agrawal, D. K. (2012). Demand chain management: Factors enhancing market responsiveness capabilities. *Journal of Marketing Channels*, 19(2), 101-119. <https://doi.org/10.1080/1046669X.2012.667760>
- Akhavan, P., Ebrahim, N. A., Fetрати, M. A., & Pezeshkan, A. (2016). Major trends in knowledge management research: A bibliometric study. *Scientometrics*, 107(3), 1249-1264. <https://doi.org/10.1007/s11192-016-1938-x>
- Alaarj, S., Abidin-Mohamed, Z., & Bustamam, U. S. B. A. (2016). Mediating role of trust on the effects of knowledge management capabilities on organizational performance. *Procedia Social Behavioral Science*, 235, 729-738. <https://doi.org/j.sbspro.2016.11.074>
- Alawamleh, H. S., & Kloub, M. A. (2013). Impact of organizational structure on knowledge management in the Jordanian insurance companies: From the perspective of the supervisory leadership. *International Journal of Business and Social Science*, 4(11), 82-95. https://ijbssnet.com/journals/Vol_4_No_11_September_2013/10.pdf
- Antunes, H. D. J. G., & Pinheiro, P. G. (2020). Linking knowledge management, organizational learning and memory. *Journal of Innovation & Knowledge*, 5(2), 140-149. <https://doi.org/10.1016/j.jik.2019.04.002>
- Borges, R. (2013). Tacit knowledge sharing between IT workers: The role of organizational culture, personality, and social environment. *Management Research Review*, 36(1), 89-108. <https://www.emerald.com/insight/content/doi/10.1108/01409171311284602/full/html>
- Byukusenge, E., & Munene, J. C. (2017). Knowledge management and business performance: Does innovation matter?. *Cogent Business & Management*, 4(1), 1368434. <https://doi.org/10.1080/23311975.2017.1368434>
- Centobelli, P., Cerchione, R., & Esposito, E. (2019). Efficiency and effectiveness of knowledge management systems in SMEs. *Production Planning & Control*, 30(9), 779-791. <https://doi.org/10.1080/09537287.2019.1582818>
- Cerchione, R., & Esposito, E. (2016). A systematic review of supply chain knowledge management research: state of the art and research opportunities. *International Journal of Production Economics*, 182, 276-292. <http://dx.doi.org/10.1016/j.ijpe.2016.09.006>
- Chung, S. H., & Liao, C. C., & Lin, S. Y. (2013). Determinants of knowledge management with information technology support impact on performance. *Information Technology Management*, 14(3), 217-230. <https://doi.org/10.1007/s10799-013-0153-1>
- Gebauer, H., Worch, H., & Truffer, B. (2012). Absorptive capacity learning processes and combinative capabilities as determinants of strategic innovation. *European Management Journal*, 30(1), 57-73. <https://doi.org/10.1016/j.emj.2011.10.004>
- Jacobsen, L. F., Grunert, K. G., Sondergaard, H. A., Steenbekkers, B., Dekker, M., & Lahteenmaki, L. (2014). Improving internal communication between marketing and technology functions for successful new food product development. *Trends in Food Science & Technology*, 37(2), 106-114. <https://doi.org/10.1016/j.tifs.2014.03.005>
- Kane, G. C. (2017). The evolutionary implications of social media for organizational knowledge management. *Information and Organization*, 27(1), 37-46. <https://doi.org/10.1016/j.infoandorg.2017.01.001>
- Lee, K. C., Kwon, S., Chung, N., Joung, S., & Kang, B. U. (2005). Knowledge management performance index considering knowledge cycle process. *France: Inria*. 1-21. <http://www.sop.inria.fr/acacia/WORKSHOPS/ECAI2002-OM/soumissions/ECAI2002-lee-10.pdf>
- Lopes, C. M., Scavarda, A., Hofmeister, L. F., Thome, A. M. T., & Vaccaro, G. L. R. (2017). An analysis of the interplay between organizational sustainability, knowledge management, and open innovation. *Journal of Clean. Prod.* 142, 476-488. <https://doi.org/j.jclepro.2016.10.083>
- Ngh, R., Tai, T., & Bontis, N. (2016). Knowledge management capabilities and organizational performance in roads and transport authority of Dubai: The mediating role of learning

- organization. *Knowledge and Process Management*, 23(3), 184-193. <https://doi.org/10.1002/kpm.1504>
- Qu, R. (2012). The impact of integration and responsiveness on MNC subsidiaries' market orientation. *Journal of Global Marketing*, 25(3), 127-140. <https://doi.org/10.1080/08911762.2012.741960>
- Quinn, R. E., & Rohrbaugh, J. (1983). A spatial model of effectiveness criteria: Towards a competing values approach to organizational analysis. *Journal of Management Sciences*, 29(3), 363-377. <https://doi.org/10.1287/mnsc.29.3.363>
- Rasula, J., Vuksic, V. B., & Stemberger, M. I. (2012). The impact of knowledge management on organisational performance. *Economic and Business Review for Central and South-Eastern Europe*, 14(2), 147-168. <https://www.proquest.com/scholarly-journals/impact-knowledge-management-on-organisational/docview/1035303322/se-2>
- Santoro, G., Vrontis, D., Thrassou, A., & Dezi, L. (2018). The internet of things: Building a knowledge management system for open innovation and knowledge management capacity. *Technological Forecasting and Social Change*, 136, 347-354. <https://doi.org/10.1016/j.techfore.2017.02.034>
- Serrat, O. (2017). *Knowledge solutions: Tools, methods, and approaches to drive organizational performance*. London: Springer Nature.
- Shujahat, M., Sousa, M. J., Hussain, S., Nawaz, F., Wang, M., & Umer, M. (2019). Translating the impact of knowledge management processes into knowledge-based innovation: The neglected and mediating role of knowledge-worker productivity. *Journal of Business Research*, 94, 442-450. <https://doi.org/10.1016/j.jbusres.2017.11.001>
- Sussan, F. (2012). Consumer interaction as intellectual capital. *Journal of Intellectual Capital*, 13(1), 81-105. <https://www.emerald.com/insight/content/doi/10.1108/14691931211196222/full/html>
- Torgusa, N., & Arundel, A. (2013). Private- Public collaboration and innovation performance: Does training matter? *International Journal of Innovation Management*, 17(3), 1-20. <https://doi.org/10.1142/S1363919613400112>
- Toro, U., & Joshi, M. (2012). ICT in higher education: Review of literature from the period 2004-2011. *International Journal of Innovation, Management and Technology*, 3(1), 20-23. <http://www.ijimt.org/papers/190-M633.pdf>
- Vorobyova, K., & Raju, V. (2018). Knowledge management and organizational effectiveness as a successful path to globalization for small and medium enterprises. *People: International Journal of Social Sciences*, 4(3), 396-404. <http://grdspublishing.org/>
- Wahda, W. (2017). Mediating effect of knowledge management on organizational learning culture toward organization performance. *Journal of Management Development*, 36(7), 846-858. <https://JMD-11-2016-0252>
- Wang, J. (2014). R&D activities in start-up firms: what can we learn from founding resources?. *Technology Analysis & Strategic Management*, 26(5), 517-529. <https://doi.org/10.1080/09537325.2013.870990>
- Yu, C., Yu, T. F., & Yu, C. C. (2013). Knowledge sharing, organizational climate, and innovative behavior: A cross-level analysis of effects. *Social Behavior and Personality: An International Journal*, 41(1), 143-156. <https://doi.org/10.2224/sbp.2013.41.1.143>
- Zaim, H., Muhammed, S., & Tarim, M. (2019). Relationship between knowledge management processes and performance: Critical role of knowledge utilization in organizations. *Knowledge Management Research & Practice*, 17(1), 24-38. <https://doi.org/10.1080/14778238.2018.1538669>