
The Role of Knowledge Management in Raising the Saudi Universities Performance Efficiency: An Applied Study on the Administrative Body of King Abdulaziz University

Maher Saif Alsharyofi *

College of Business, Department of Human Resources Management, King Abdulaziz University, Saudi Arabia
msalsharyofi@uj.edu.sa
* corresponding author

(Received: December 15, 2021 Revised: January 12, 2022 Accepted: February 24, 2022, Available online: March 22, 2022)

Abstract

This study aimed at identifying the role of knowledge management in raising the efficiency of the performance of the administrative body at King Abdulaziz University. In light of this goal, a number of hypotheses were developed and tested by preparing a questionnaire comprising two variables, namely knowledge management (information technology, organizational culture, organizational structure) and the performance of the administrative body (personal elements, performance elements, knowledge of job requirements). This study was conducted at King Abdulaziz University. The necessary information was obtained through the questionnaire tool prepared for this purpose. Data were collected from 304 individuals of the administrative body of King Abdulaziz University. The results were analyzed using correlation and regression analyzes of the SPSS program. The snowball sample method was relied upon, and the link was sent to a number of the administrative body with a recommendation for them to distribute it among their university colleagues. In light of this, 315 responses were obtained, 11 responses were excluded because they were not valid. Consequently, the responses valid for analysis were 304 questionnaires. Then the student concluded with a set of recommendations related to the research variables.

Keywords: Knowledge Management; King Abdulaziz University; Performance Efficiency; Administrative Body

1. Introduction

The world is witnessing great, rapid and successive developments at all levels and fields, most notably the trend towards knowledge management, which has become the most important resource to achieve the competitive advantage of organizations. The rapid growth of information has resulted in highlighting the importance of knowledge management in organizations. Organizations have to realize the value of knowledge and experience of their individual employees, through capturing, organizing, storing the knowledge within the organization, and making it available to everyone in the organization. Knowledge management deals with the process of how to make the best use of knowledge in the organization.

Organizations are looking for effective knowledge management and organizational learning practices and tools in order to adapt quickly to those changes from both internal and external perspectives, meet the ever-changing knowledge demand of business clients, improve their sustainable organizational performance, and seek local and global leadership [1]. The knowledge-based sector plays an increasing role in today's developed economies, and its contribution to the added value of business in developed economies is constantly growing. Besides, knowledge-based sectors view intellectual resources as enablers of sustainable performance since knowledge is considered the essential assets of organizations. Effective knowledge management benefits those organizations by reducing human and

infrastructure costs, improving innovation, efficiency and effectiveness in their operations, and leading to sustainable organizational performance [2].

Previous studies confirmed that organizational learning is an essential factor that positively affects knowledge management processes, such as knowledge acquisition, creativity, storage, transfer, and utilization. In light of this, and based on the results of previous studies, knowledge and its management are the most important ingredients for the success of organizations and have the ability to make changes and create a competitive advantage for the organization and push it to make decisions in a timely manner.

Today, more than ever, organizations are facing various problems. Meanwhile, they can achieve success by taking advantage of opportunities and taking advantage of threats to their benefit. Changes in recent decades, increased competition, dynamics, and environmental uncertainty lead organizations to be agile and respond to market needs and innovations quickly in order to survive in the competitive arena. In this regard, the role of human knowledge and knowledge management in organizations is becoming clearer than ever. Business leaders increasingly believe that knowledge of human capital is the most important organizational capacity and the basis of all competitive advantages [3]. Knowledge is one of the most important sources of organizations and companies to achieve competitive advantages and because of its dynamic nature requires careful management [4]. This strategic resource contributes to organizations gaining and maintaining an appropriate competitive advantage. If organizations are able to create and disseminate knowledge, their capacity and ability to respond to today's changing conditions will increase [5].

In light of this, the main and long-term successes of enhancing the efficiency and innovation of the administrative body of educational institutions are increasingly shaped around the many actions of the pioneering staff in the cycle of change and innovation. This is because inculcating the idea of knowledge management in the minds of employees is one of the main challenges faced by the organization's management. One of the explicit goals of knowledge management refers to the creation of value in organizations. Thus, knowledge management is useful for creating a competitive advantage in the administrative body of educational institutions.

The influence of knowledge management on the administrative performance of Saudi universities and the length of its impact on showcasing distinguishing abilities. Assuring all workers have access to complete knowledge available in Saudi universities, and building a better administrative body capable of making excellent judgments. Increasing the administrative body's capacity to identify and address issues in new and creative ways. The study's findings help human resource management apply knowledge management to administrative bodies at Saudi institutions to increase productivity and efficiency. Focusing on the administrative body's intellectual capital and supporting innovation and high performance. Increasing administrative efficiency and effectiveness by giving necessary information. Providing the administrative body with the essential information by recording and disseminating success elements, allowing them to focus on other tasks. Encourage the administrative body to share information, experiences, and skills with others to maximize performance efficiency. Obtaining outcomes that illustrate the importance of knowledge management in improving the administrative body's performance. Providing knowledge management advice to improve efficiency.

This study seeks to clarify the role of knowledge management in developing the performance of the administrative body and raising their efficiency and effectiveness in Saudi universities in light of the great challenges we face, by clarifying the importance of knowledge management and its elements and its relationship to the performance of the administrative body. In fact, this would have a positive impact on improving and developing the level of performance of the administrative body. King Abdulaziz University was selected in this study for several main factors. One of the reasons is related to the lack of studies analyzed in this field in raising the efficiency of the performance of the administrative body through the requirements and dimensions of knowledge management (information technology, organizational culture, organizational structure). The second reason relates to the near future challenges that the university will witness, which include complete privatization and dependence on its own resources.

2. Literature Review

2.1. Knowledge Management

Knowledge management is mainly delivering the right knowledge to the right person at the right time. This in itself may not seem too complicated, but it involves a strong connection to the corporate strategy, understanding where and in what forms the knowledge is located, creating processes that include organizational functions, and ensuring that initiatives are accepted and supported by members of the organization. Knowledge management may also include the creation of new knowledge, or it may focus solely on sharing, storing, and refining knowledge [6]. It is important to remember that knowledge management is not about managing knowledge for the sake of knowledge. The overall goal is to create value, utilize the company's knowledge assets and fine-tune them to meet organizational goals.

Knowledge management (KM) is an interdisciplinary process of creating, using, exchanging and maintaining an organization's information and knowledge. It is a multifaceted strategy to make the best use of organizational knowledge assets in order to achieve business objectives such as enhancing competitive advantage, improving performance, promoting innovation, sharing ideas, and continuous improvement of the organization [7]. Therefore, knowledge management systems are part of the organizational learning process, although they focus more on the strategic management of knowledge as a shareable business asset. The primary objective of knowledge management is to connect the people who seek knowledge within the organization with those who possess it, with the ultimate goal of increasing the overall level of knowledge of the team and the organization. It was defined by Valenti et al. [8] as the process of creating, sharing, using and managing the knowledge and information of an organization.

This familiar definition of knowledge management appears as the processes that help organizations to generate, select, organize, use and disseminate knowledge, and finally transfer important information and experiences that the organization possesses, which are necessary for various administrative activities such as decision-making, problem-solving, learning, and strategic planning. As for Corderio et al. [9], knowledge management is “An intellectual development that moved us from the common idea of constraining the information value chain to the knowledge value chain. The first represents the technical systems which are key elements that drive work processes while dealing with people as performers of work. The second deals with human systems as basic elements that work on a continuous evaluation of the information stored in the technical systems.”

This definition shows a kind of differentiation between information management and knowledge management, as it sees knowledge management as a development of information management. The latter depends on technical systems and considers the human resource merely as a performer of work, while knowledge management deals primarily with the human resource that works on the renewal and continuous creation of knowledge saved in technical systems.

2.2. Knowledge management processes

Knowledge management processes are a series of activities developed by an organization to facilitate and use knowledge. Knowledge management is a continuous process in which one form of knowledge is transformed into another. Knowledge management processes support the transformation of tacit knowledge into explicit knowledge and explicit into tacit. Many scholars like [10-12] among others, named some knowledge management processes including:

2.2.1. Acquisition and generation of knowledge

Acquisition in knowledge management mainly deals with tacit knowledge although it also acquires explicit knowledge. Tacit knowledge can be transferred into explicit knowledge extrinsically, that is, tacit knowledge is converted into a recorded form, in documents or databases for reference by others [13]. However, before acquiring knowledge, it is necessary to determine what knowledge the organization possesses and needs to achieve its objectives, which is called “knowledge identification”.

2.2.3. Knowledge capturing

Knowledge acquisition is another important aspect or component of knowledge management in knowledge-based organizations. As referred to by [14], the acquisition of knowledge includes :

- 1) Technology: Several technologies exist to facilitate knowledge creation and exchange. Information technology is a useful tool in knowledge management and effective use of services in an organization.
- 2) Knowledge Mapping: Knowledge mapping is a method used to determine where knowledge resides within an organization. Knowledge mapping techniques require questionnaires, interviews and sometimes notes. The questionnaires should identify persons within an organization with special knowledge or experience. Corderio et al. [9] described knowledge mapping as a navigation aid for systematizing information and tacit knowledge, showing the importance and relationship between knowledge stores.

2.2.4. Knowledge organizing

The knowledge acquired or created must be properly organized for easy access and retrieval, which is the essence of knowledge organization. [13] has identified a number of aspects involved in organizing knowledge such as: defining messages, defining texts, and describing content. Tools for such an organization of knowledge include the technique of indexing, summarizing, and indexing.

2.2.5. Knowledge storing

The knowledge that is created, acquired and saved must be properly stored for later access and use, and for future generations. Knowledge storage as a process in knowledge management that involves capturing, transcribing, and coding knowledge. [13] has emphasized that the idea of knowledge storage, which has also been called “knowledge repository” as it is used in knowledge management, is to take documents with knowledge embedded in them and store them so that they can be easily retrieved in the future.

2.2.6. Knowledge sharing

Knowledge sharing is an essential component of knowledge management. Yee et al. [14] described knowledge exchange as a basic priority of knowledge management and defined it as an act through which acquired information, knowledge, ideas, skills and experiences are exchanged and shared between people, organizations and institutions. Knowledge sharing allows for the benefit of knowledge gained by Irum and Pandey [13]. The main reason for sharing individual knowledge with the entire organization is that the knowledge should not disappear if that employee leaves the organization [15]. The organization must put some measures (incentives) in place to ensure knowledge sharing and discourage hoarding and monopoly.

2.2.7. Knowledge application

Once knowledge is shared between people in organizations, the shared knowledge must be applied to solve a problem. According to Wahyuningsih [15], if the knowledge that is collected, stored, created and shared is not applied properly, the whole process will be in vain and for proper knowledge application, the knowledge management process must be communicated to users. That is, knowledge must be put to effective and efficient use to fill a gap or a need.

3. Methodology

In this study, the student adopted the descriptive analytical approach to achieve the study objectives and hypotheses using various scientific references. The quantitative approach was used by preparing a questionnaire containing a set of questions and distributing it to the target sample at King Abdulaziz University and measuring the results using the (SPSS) program to extract statistical analyses.

3.1. Sampling

The study community and sample are selected in order to distribute the questionnaire to them.

- 1) Study community: It consists of all members of the administrative body, including male and female employees of King Abdulaziz University. It is a methodical scientific term intended for everyone to whom the results of the research can be generalized, i.e. the total group of elements that the student seeks to generalize about the results related to the problem studied. It included our study community at King Abdulaziz University, and the number of male and female employees was obtained from the General Administration of Human Resources, which comprises 2004 male and female employees.
- 2) The sample: a partial group of the research community, in which all the characteristics of the original community are available and it is chosen in a certain way to conduct the research on it, and generalize its results to the whole community. The researcher resorts to using the sample when it is sometimes not possible to study all the members of the original community due to its vastness, lack of time, and high cost. Thus, the tendency is to study a sample in a random or non-random manner, such as the sample selected by the researcher. The original community of the study was the 2004 male and female employees of King Abdulaziz University. Due to the difficulty of obtaining a list of the names of the administrative body at King Abdulaziz University, the snowball sample method was relied upon, and the link was sent to a number of the administrative body with a recommendation for them to distribute it among their colleagues at the university. In light of this, 315 responses were obtained, 11 responses were excluded because they were not valid. Henceforth, the valid responses for analysis were 304 questionnaires.

3.2. Data Collection

For data collection, two sources were used:

3.2.1. Primary sources

To address the theoretical side of the subject of the study, the questionnaire was relied on as a main tool for research, and the following is a simplified explanation of the questionnaire's axes:

- The first axis: demographic information (gender, age, educational qualification, occupation, years of experience).
- The second axis: the dimensions and requirements of knowledge management
- The third axis: the performance of the administrative body and its elements.

3.2.2. Secondary sources

Secondary sources are books, magazines, websites, previous research and others that were relied upon to search for information related to the role of knowledge management and its relationship to the performance of administrative staff, which we relied on in writing the theoretical framework for the study.

4. Result and Conclusion

4.1. Result

Relying on the foregoing, the student reached a set of results, including that knowledge and its management are the most important ingredients for the success of organizations and have the ability to make changes and create a competitive advantage for the organization and push it to take the right decisions at the right time. As well, knowledge management has a close relationship with the performance of the administrative body and has an effective role in developing the performance of the administrative body and thus developing the organization and raising its reputation. This study aimed to identify the role of knowledge management in raising the efficiency of the performance of the administrative body at King Abdulaziz University. In light of this goal, a number of hypotheses were developed that were tested by preparing a questionnaire containing two variables, namely knowledge management (information technology, organizational culture, organizational structure) and the performance of the administrative body (personal elements, performance elements, knowledge of job requirements).

Data were collected from 304 individuals from the administrative body of King Abdulaziz University. Using correlation and regression analyzes the relationship between knowledge management in its various dimensions and the performance of the administrative body in its various dimensions was reached. In more detail, the impact and

contribution of information technology, organizational culture, and organizational structure on the performance of the administrative body was reached in a positive and significant way [16,17].

Moreover, since the study searches for the role of knowledge management in raising the efficiency of the performance of the administrative body at King Abdulaziz University, it used a main hypothesis and three sub-hypotheses. From its field side, the study proved the fulfillment of the main hypothesis according to which knowledge management has a role in raising the efficiency of the performance of the administrative body at King Abdulaziz University. As there is indeed a positive and significant role played by knowledge management in raising the efficiency of the performance of the administrative body at the university and it has a great impact on improving and developing their performance [17-19].

As for the first sub-hypothesis, which is "What is the impact of the application of information technology of knowledge management in raising the efficiency of the performance of the administrative body at King Abdulaziz University", it also proved its validity. As well, there is a presence of a clear, significant and positive impact of the application of information technology for knowledge management in raising the efficiency of the performance of the administrative body at King Abdulaziz University. Regarding the second sub-hypothesis, which is "How can the organizational culture of knowledge management contribute to raising the efficiency of the performance of the administrative body at King Abdulaziz University", it has been proved to be correct and verified. The clarity of the positive and effective contribution of the organizational culture of knowledge management in raising the efficiency of the performance of the administrative body at King Abdulaziz University was also proved.

Finally, the third sub-hypothesis, which is "What is the role and contribution of the organizational structure of knowledge management in raising the efficiency of the performance of the administrative body at King Abdulaziz University" has been proven correct and verified as well through the positive and effective role of the contribution of the organizational structure of knowledge management in raising the efficiency of the performance of the administrative body at King Abdulaziz University.

4.2. Conclusion

The university would work to focus on knowledge management requirements of information technology, organizational culture, organizational structure and leadership that save effort and time for the university and improve the performance of the administrative body. In the future, the university would focus on university and graduate degree holders who acquire more competence and knowledge. The university leaders would continue to encourage and motivate members of the administrative body for creativity and innovation and to provide the appropriate atmosphere for that to exploit their knowledge capabilities. Continuing to clarify the importance of knowledge management in improving the performance of the administrative body, as it is one of the most recent issues, especially with regard to modern management.

Work to create an appropriate organizational culture for the university to exchange and share ideas and knowledge. The university officials should continue to educate the members of the administrative body about knowledge and its types and how to manage it through its operations in order to transfer it from the experienced and specialized to all the male and female employees of the university to be used in the development of the university. It is possible to propose training courses for members of the administrative body to familiarize them with the importance of knowledge management and its dimensions in addition to the distinctive human and material capabilities in order to increase their knowledge to be an intellectual capital for the university. It is possible to benefit from the experts and specialists in the university by transforming their tacit knowledge into an explicit one that is stored at university in easy, organized and motivating ways to extract their tacit and unknown knowledge to face the challenges facing the university.

References

- [1] S. Sugiyanto, B. Surarso, and A. Sugiharto, "Analisa Performa Metode Cosine Dan Jacard Pada Pengujian Kesamaan Dokumen," *J. Masy. Inform.*, vol. 5, no. 10, pp. 1-8, 2014, doi: 10.14710/jmasif.5.10.1-8.

- [2] A. A. P. Ratna, B. Budiardjo, and D. Hartanto, "Simple: Sistem Penilai Esei Otomatis Untuk Menilai Ujian Dalam Bahasa Indonesia," *MAKARA Technol. Ser.*, vol. 11, no. 1, pp. 5–11, 2010, doi: 10.7454/mst.v11i1.435.
- [3] A. Macfarlane, "Introduction to Modern Information Retrieval (2nd edition) 20045G.G. Chowdhury. Introduction to Modern Information Retrieval (2nd edition) . Facet Publishing, 2004. 474 pp., ISBN: 1 85604 480 7 London £39.95," *Program*, vol. 38, no. 12, pp. 216–217, Sep. 2004, doi: 10.1108/00330330410547304.
- [4] B. Patel and D. Shah, "Significance of stop word elimination in meta search engine," in *2013 International Conference on Intelligent Systems and Signal Processing (ISSP)*, 2013, pp. 52–55, doi: 10.1109/ISSP.2013.6526873.
- [5] F. Rahutomo and A. Hafidh Ayatullah, "Indonesian Dataset Expansion of Microsoft Research Video Description Corpus and Its Similarity Analysis," *Kinet. Game Technol. Inf. Syst. Comput. Network, Comput. Electron. Control*, vol. 3, no. 4 SE-, pp. 319–326, Oct. 2018, doi: 10.22219/kinetik.v3i4.680.
- [6] D. P. Andita Dwiyoga Tahitoe, "Implementasi Modifikasi Enhanced Confix Stripping Stemmer Untuk Bahasa Indonesia Dengan Metode Corpus Based Stemming," *J. Ilm.*, vol. 12, no. 15, pp. 1–15, 2010.
- [7] F. Z. Tala, "A Study of Stemming Effects on Information Retrieval in Bahasa Indonesia," *M.Sc. Thesis, Append. D*, vol. 5, no. 12, pp. 39–46, 2003.
- [8] S. Valenti, F. Neri, and A. Cucchiarelli, "An Overview of Current Research on Automated Essay Grading," *J. Inf. Technol. Educ. Res.*, vol. 2, no. 8, pp. 319–330, 2003, doi: 10.28945/331.
- [9] M. de M. Cordeiro, M. Oliveira, and M.-I. Sanchez-Segura, "The influence of the knowledge management processes on results in basic education schools," *J. Knowl. Manag.*, vol. 12, no. 10, pp. 12–24, Jan. 2022, doi: 10.1108/JKM-07-2021-0579.
- [10] A. Permatasari, W. Dhewanto, and D. Dellyana, "The role of traditional knowledge-based dynamic capabilities to improve the sustainable performance of weaving craft in Indonesia," *J. Enterprising Communities People Places Glob. Econ.*, vol. 12, no. 4, pp. 31–44, Jan. 2022, doi: 10.1108/JEC-11-2021-0156.
- [11] R. G. Rocha, F. Kragulj, and P. Pinheiro, "Practical wisdom, the secret ingredient for responsible knowledge management," *VINE J. Inf. Knowl. Manag. Syst.*, vol. 5, no. 12, pp. 11–32, Jan. 2022, doi: 10.1108/VJIKMS-09-2021-0211.
- [12] H. F. G. G. Manik, R. Christanti, and W. Setiawan, "Knowledge management and community-based enterprise: an initiative to preserve the shadow puppet traditional knowledge in Yogyakarta, Indonesia," *VINE J. Inf. Knowl. Manag. Syst.*, vol. 12, no. 25, Jan. 2022, doi: 10.1108/VJIKMS-11-2021-0265.
- [13] A. Irum and A. Pandey, "Social media – Changing the face of knowledge management," *Dev. Learn. Organ. An Int. J.*, vol. 34, no. 1, pp. 5–7, Jan. 2020, doi: 10.1108/DLO-02-2019-0051.
- [14] Y. M. Yee, C. L. Tan, and R. Thurasamy, "Back to basics: building a knowledge management system," *Strateg. Dir.*, vol. 35, no. 2, pp. 1–3, Jan. 2019, doi: 10.1108/SD-07-2018-0163.
- [15] T. Wahyuningsih, "Text Mining an Automatic Short Answer Grading (ASAG), Comparison of Three Methods of Cosine Similarity, Jaccard Similarity and Dice's Coefficient," *J. Appl. Data Sci.*, vol. 2, no. 2, pp. 45–54, 2021, doi: 10.47738/jads.v2i2.31.
- [16] U. Hasanah and D. A. Muatiara, "Perbandingan metode cosine similarity dan jaccard similarity untuk penilaian otomatis jawaban pendek," *Semin. Nas. Sist. Inf. dan Tek. Inform.*, no. SENSITIF 2019, pp. 1255–1263, 2019, [Online]. Available: <https://ejurnal.diponegara.ac.id/index.php/sensitif/article/view/511>.
- [17] M. Fadelillah, I. Much, I. Subroto, and D. Kurniadi, "Sistem Rekomendasi Hasil Pencarian Artikel Menggunakan Metode Jaccard's Coefficient," *J. Elektro dan Inform. Unissula*, vol. 2, no. 1, pp. 1–14, 2017.
- [18] K. Rinarta, "Simple Query Suggestion Untuk Pencarian Artikel Menggunakan Jaccard Similarity," *J. Ilm. Rekayasa dan Manaj. Sist. Inf.*, vol. 3, no. 1, pp. 30–34, 2017.
- [19] H. Rusdiana, K. Sumardi, and E. S. Arifiyanto, "Evaluasi Hasil Belajar Menggunakan Penilaian Autentik Pada Mata Pelajaran Kelistrikan Sistem Refrigerasi," *J. Mech. Eng. Educ.*, vol. 1, no. 2, p. 274, 2016, doi: 10.17509/jmee.v1i2.3814.