
Knowledge Management Roles in Improving Functionality

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Applied Study on Technical College for Girls in Riyadh

Abstract:

The purpose of this study is to identify the extent to which knowledge management is applied at the Technical College for Girls in Riyadh from the point of view of the members of the administrative body and to find the relationship between knowledge management in its four operations and performance. To address the problem of the study, the descriptive approach was used and a questionnaire was distributed to a sample of the members of the administrative staff at the Technical College for Girls in Riyadh. The questionnaire included two sections: the first is knowledge management in its four processes (knowledge generation, knowledge storage, knowledge distribution, knowledge application) Functionality. The following statistical methods were used: percentages, arithmetic averages, standard deviation, and judging the veracity of the questionnaire presented to a group of arbitrators from faculty members of Saudi universities. The results showed that the extent of the application of knowledge management is very high at the Technical College for Girls in Riyadh. There is also a statistically significant positive relation between knowledge management in its four operations and improvement of job performance. The study concluded with a number of recommendations, the most important were to keep abreast of the successive developments in " Knowledge management and its' techniques", and to link the members of the technical college for girls in Riyadh and its employees with the new ones, and enable them to harness them in enhancing the "functional performance".

Keywords: Knowledge, Role, Management, Improving, and Functionality.

1. INTRODUCTION

Contemporary organizations of all kinds are facing a wave of rapid changes and changes sweeping the world today, foremost of which is the information and technology revolution, which adopts the advanced scientific knowledge and the optimal use of information flowing from the great advances in computer technology and the Internet. Knowledge has become the most important strategic source and has become the most powerful and influential factor in the organization's success or failure (Schwandt & Marquardt, 2018).

Knowledge is the true nerve of today's organizations and a means of management that is objective and contemporary to adapt to the requirements of the age. Knowledge is the most important resource in creating wealth and achieving excellence and creativity in the light of the intellectual data that has raised many intellectual concepts such as globalization, privatization, information revolution and the spread of different human societies (Hammoud, 2010).

Knowledge management has become one of the most important inputs of development and change in our time. It has succeeded in making a quantum leap in the performance of different institutions, especially educational institutions. There is a kind of coherence between knowledge management and the activities and activities of educational

institutions. In addition, the activities and activities of the educational institution as knowledge organizations (Mahjoub, 2014).

Kidwell & Johnson (2017) study notes that adoption of knowledge management strategies and techniques in higher education institutions is as important and essential as in the business sector and, if applied effectively, will inevitably lead educational institutions to differentiate their decision making and work development capabilities; Hence, this study is to identify the importance of knowledge management in improving the performance of the faculties of Technical girls.

1.1 Statement of the Problem

The success of business organizations, including Colleges and technical and vocational institutes, requires keeping pace with everything new in management and in the ability to employ their resources in activities that generate outputs that contribute to their survival and growth and ensure access to advanced positions in competition, entrepreneurship and creativity. When organizations can crystallize their knowledge management ideas, they can take the initiative and actually embody that result (Faris, 2010).

Moreover, the problem facing organizations is no longer the problem of lack of information, and it is no longer limited to dealing smartly with the vast amount of information available, but surpassing it and how to take advantage of means and methods of transportation, storage and exchange of information to employ them to raise the levels of performance and offers Institutions and organizations in the competitive ladder (Abu-Nasr, 2012).

There is no doubt that the colleges and technical and vocational institute's environment are the best and most suitable place to apply the principles and methods of knowledge management, due to several reasons, including: Technical colleges and institutions must be pioneers in the transition from closed knowledge systems to open systems. Quality systems, academic accreditation and the tremendous progress in information and communications systems and computerization are imperative for Colleges and technical and vocational institutes. Towards knowledge management (Bellawi and Hussein, 2017).

Educational organization in general and the Technical College for Girls in Riyadh, in particular, seek academic leadership and attain a distinguished level of Arab and international science. They must follow any method or method to increase knowledge, disseminate it and raise the capabilities and competencies of its employees. Knowledge management is one of the most modern methods of reaching the desired. Here the problem of the study crystallized in answering the following main study question:

1.2 Research Question and Hypotheses

- What is the extent of the application of knowledge management at the Technical College for Girls in Riyadh?

The study also seeks to test the following main hypothesis:

- There is no statistically significant relationship between the dimensions of knowledge management and the improvement of the functional performance of the members of the administrative body at Technical College for Girls in Riyadh.
- The main hypothesis is divided into the following four sub-hypotheses:
- There is no statistically significant relationship between the generation of knowledge and the improvement of the functional performance of the members of the administrative body at Technical College for Girls in Riyadh.
- There is no statistically significant relationship between the storage of knowledge and the improvement of the functional performance of the members of the administrative body at Technical College for Girls in Riyadh.

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- There is no statistically significant relationship between the distribution of knowledge and the improvement of the functional performance of the members of the administrative body at Technical College for Girls in Riyadh.
- There is no statistically significant relationship between the application of knowledge and the improvement of the functional performance of the members of the administrative body at Technical College for Girls in Riyadh.

1.3 Purpose of the Study

The study aims to:

1. Understand the key concepts of knowledge management from operations, technology and team; their impact on key performance components from operational processes, customer satisfaction, and improved learning and growth.
2. Knowledge of the impact of knowledge management in raising the efficiency of the performance of employees.
3. Achieving results that reflect the relationship between knowledge management and the improvement of staff performance in the college in question.
4. Make appropriate recommendations in this area to improve work and productivity.

1.4 Significance of the Study

1. Addressed the theme of "Knowledge Management" as a new administrative approach and its impact on the level of efficiency of the management of educational organizations.
2. The vital impact of knowledge management in achieving, developing and developing institutions and raising their performance.
3. The increasing importance of knowledge management in achieving the success of educational organizations.
4. Provide a realistic picture of the nature of the relationship between knowledge management and improving the performance of employees in educational institutions.

2. REVIEW OF THE LITERATURE

2.1 First: Knowledge Management

2.1.1 Definition of Knowledge Management

Kurdi (2017) defines knowledge management as the embodiment of an organizational process that examines the process of blending IT scalability with data processing, delivery and innovation for people.

While Al-Otaibi (2009) defined it as the use of knowledge, experiences and collective capacities available internally and externally to the institution whenever and whenever required.

2.1.2 The Importance of Knowledge Management

Many studies, such as Muhairat (2017) study, and Kutaisi (2015), study confirms that the adoption of KM in organizations achieves many benefits, for example increasing efficiency and effectiveness, improving decision-making, improving performance, achieve competitive advantage and rapid response to changes in the surrounding environment.

Knowledge management is of great importance and can be summed up as Tamimi (2011) points out in the following points:

- Link all knowledge, information and experience to the development of the institution;
- The volume of information in each area has doubled;
- Restructure vital competencies;

- Create dynamic rules for the real benefit of knowledge in the enterprise;
- Use a focus to create and maintain knowledge management.

Awad (2012) argues that knowledge management is gaining importance at three levels:

1. At the individual level: Respondents help to do business by saving time by improving decision making, problem solving, enhancing the concept of cohesive relationships within the organization, and increasing opportunities for individual participation in achieving goals.
2. At the level of practice groups: the development of functional skills, enhancing the effectiveness of networks, collaborative work and sharing knowledge in the development of the language of participation within the institution.
3. Organizational level: Knowledge management contributes to leading the strategy, achieving its objectives, disseminating best practices within the organization and thus improving the integration of knowledge, as well as increasing opportunities for innovation and building organizational memory (Awad, 2017).

2.1.3 Knowledge Management Processes and Strategies

The knowledge cycle and the processes involved provide the key to understanding knowledge management, how it is best implemented within an organization, and thinkers and leaders in this field agree that these processes, although different in importance depending on the organization, are critical to the success of any system knowledge management (Yasiri and Husse, 2018): . Most researchers in the field of knowledge management point out that knowledge derived from information and from its internal and external sources means nothing without those processes that feed, access, participate in, store, distribute, maintain and retrieve them for application or reuse (Zarqun and Arraba, 2014).

2.2 Second: Functionality

2.2.1 Functional Concept

Mahameed (2017) explained that the concept of performance refers to the outputs and objectives that the organization seeks to achieve through its employees. Therefore, it is a concept that reflects both the objectives and the means to achieve them, that is, a concept that links the aspects of activity with the goals pursued by organizations through tasks and duties by staff within those organizations.

Functionality is defined as the process by which one recognizes an individual's performance, performance, and characteristics necessary to perform the task successfully (Hayani, 2013).

2.2.2 Importance of Functionality

The importance of job performance is as follows:

- A. Job performance is a measure of the ability of the individual to perform his work now and other work in the future and thus helps in making decisions of transfer and promotion.
- B. The incentive system is linked to the performance of the individual, which increases the individual's interest in performance.
- C. Performance correlates with employee stability, as low-performing workers are always at risk of being redundant.

2.2.3 Measuring and Evaluating Staff Performance

The performance appraisal process is one of the key functions of human resources management and is called by many names such as efficiency assessment, efficiency measurement, and performance evaluation. Among the definitions of performance evaluation are:

The process of passing judgment on the performance and behavior of workers at work (Ben Zuwairq, 2015).

A system in which the efficiency of employees' performance is determined (Maher, 2014).

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Is a measure aimed at assessing the achievements of individuals by means of an objective means of judging the contribution of each individual to the work entrusted to him (Zoelph, 2013).

3. METHODS AND PROCEDURES

3.1 Research Design

In the light of the nature of the study and the data to be obtained, use the descriptive approach, which describes the educational phenomenon as it is in reality, and expresses it quantitatively and qualitatively. This leads to understanding the relations of this phenomenon in addition to reaching conclusions and generalizations that help to reach results on the role of knowledge management improving the performance of the Technical College for Girls in Riyadh (Badr, 2012).

3.2 Population and Sample Size

The study community includes members of the administrative staff at the Technical College for Girls in Riyadh. A sample of the members of the administrative staff working in this college for the academic year 2018-2019 was 150 when the research was applied, 135 of which were returned.

3.3 Survey Questions Development

Survey questions were developed based on the research question and hypotheses that were addressed in the study. The survey questions were developed for knowledge management elements. The survey questions for employees are divided into two distinct sections.

The first distinct section relates to knowledge management processes and is defined in four dimensions: (knowledge generation, knowledge storage, knowledge distribution, application of knowledge).

While the second distinct section included: functional expressions and assigned to 16 sentences.

For each paragraph of the questionnaire, weight was given to estimate the extent of application as follows: (very high = 5, high = 4, medium = 3, weak = 2, very weak = 1). The results were calculated by the value of the arithmetic average on the maximum score. The points of the gradient were determined by (top-bottom divided by three levels) (3 1-5 1-5) to compare the averages, the extent of application. The level of expressions of requirements as follows: from (1 - 2.33) weak, from (2.34 - 3.67) medium, from (3.68 - 5) high. The results of the tool were analyzed using the SPSS statistical package program to arrive at the results of the study.

3.4 Issues of Validity and Reliability

In order to reach the credibility of the tool, it was presented in its preliminary form to a number of arbitrators from the faculty members of the Saudi universities specialized in this field. They numbered (6) arbitrators, and were asked to read the paragraphs of the questionnaire and to express opinion in their clarity, To add or delete paragraphs, propose or add axes, and finally to provide a general view of the degree of relevance of the questionnaire to determine the extent to which knowledge management processes are applied and their relation to improving the job performance until the finalization of the questionnaire has reached 40 sentences.

The internal consistency coefficient as shown in Table (1) was as follows:

Table (1)
Stability Coefficient of Study Instrument Fields

Filed	Stability coefficient for the importance of the requirement	Stability coefficient for the availability of requirement
First distinct section; Knowledge Management Processes:		
The first area: knowledge generation	*0.85	*0.95
The second area: knowledge distribution	*0.93	*0.96
The third area: knowledge storage	*0.79	*0.8

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The fourth area: the application of knowledge	*0.86	*0.96
Second distinct section: Functionality	*0.94	*0.95

* at the level of significance 0.05.

This indicates that the search tool is characterized by a high degree of internal consistency and reliability so that it can be relied upon to measure what is designed for it.

3.5 Data Analysis

An analysis of the respondent's data was conducted in accordance with the quantitative method. The analysis was conducted with software using the Statistical Package for Social Sciences (SPSS).

First: To answer the main question of the study, which states:

- What is the extent of the application of knowledge management at the Technical College for Girls in Riyadh?

The frequencies, percentages, averages and standard deviations were used for each of the knowledge management processes within each field, for the fields as a whole and for each paragraph with their field. The following is a presentation of the results of the research according to their sample estimates of the reality of the application of knowledge management at Technical College for Girls in Riyadh:

Table (2)

The statistical averages and standard deviations of the extent of application of knowledge management at Technical College for Girls in Riyadh from the point of view of the sample members of the study.

Sequence	Field	Statistical averages	ST	Relative importance
First area: the process of knowledge generation				
1	The College encourages administrators to continue learning and develop their skills and abilities.	3.68	0.91	High
2	The College encourages scientific dialogue between administrators to exchange ideas	3.7	0.98	High
3	Qualified human resources are recruited to obtain their knowledge	3.29	1.12	Medium
4	Supporting good and creative ideas for developing the competitive advantage of the college.	3.52	1.18	Medium
5	The college benefits from successful experiences.	3.8	0.89	High
6	The Department holds a number of informal meetings from time to time.	3.72	1.09	High
Second area: the process of knowledge storage				
Knowledge is stored through:				

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7	Use of stimulation and encouragement methods to maintain the experience.	3.97	1.01	High
8	Databases providing information on various educational knowledge topics.	3.7	1.04	Medium
9	Archive and paper documents.	4	0.97	High
10	Evaluate and define knowledge continuously.	3.39	1.04	High
11	Retain high-profile staff.	3.89	1.04	High
12	The college has systems through which to retrieve knowledge.	3.87	1	High
Third area: the process of knowledge distribution Knowledge is distributed through:				
13	A network that helps access a database.	3.52	1.1	Medium
14	Issuing bulletins, periodicals and types of various publications.	3.78	1.04	High
15	Holding internal meetings, seminars and workshops.	3.77	1.01	High
16	Conducting internal training courses conducted by experienced and competent individuals.	4.02	0.8	High
17	Mobility and staff turnover.	4.09	0.91	High
18	Email and various social communication methods.	3.83	1.09	High
Fourth area: Application of Knowledge:				
19	The College provides the requirements for the application of physical and human knowledge.	4.08	0.95	High
20	The faculty is interested in applying and using knowledge.	4.08	0.95	High
21	Supports the culture of the institution from the process of effective application of knowledge.	3.79	1.15	High
23	The college uses standards and standards that control the applied knowledge.	3.92	1.06	High
24	The college depends on the various internal expertise	3.58	1.15	Medium

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	teams in knowledge application.			
Knowledge management in general		4.03	.98	High

The results listed in Table (2) related to the extent of application of knowledge management at the technical college for girls in Riyadh from the point of view of the members of the research sample indicated that the degree of application of the paragraphs of this axis was very high. The third field (knowledge distribution process) has the highest degree of application in this axis with an average of (4.15), followed by the fourth field (application of knowledge) with an average of (3.92) and then the first field (knowledge generation process) (3.81), and finally the second field (knowledge storage process) with an arithmetic mean (3.68).

Second: To answer the hypothesis of the study, the correlation coefficient was used as in the following table:

Table (3)
Correlation Coefficient
Between knowledge management processes and functional performance.

Knowledge management processes		Functional Performance
Generating knowledge	Pearson Correlation	0.517**
	Sig. (2-tailed)	0.000
	N	135
Knowledge storage	Pearson Correlation	0.609**
	Sig. (2-tailed)	0.000
	N	135
Knowledge distribution	Pearson Correlation	0,696**
	Sig. (2-tailed)	0.000
	N	135
Application of knowledge	Pearson Correlation	0,807**
	Sig. (2-tailed)	0.000

	N	135
	Pearson Correlation	0,735**
knowledge management	Sig. (2-tailed)	0.000
	N	135
	Pearson Correlation	0.517**
** Correlation is significant at the 0.01 level		

Table (3) shows that there is a statistically significant positive role (0.000) between knowledge management in its various operations (generation, storage, distribution, application) and job performance. The correlation value (0.735) was significant (0.01). This indicates that the more knowledge management with one value, the greater the functional value of 0.753.

After analyzing the relationship between both knowledge management and functional performance in its various dimensions, the relationship was positive when the significance of the test (0.01) was the entrance to the discussion of the hypotheses and their testing. The correlation analysis was used to test the main hypothesis and its hypotheses to validate the model and adopted the following decision base:

- Acceptance H0: If the significance of the test is less than (0.01).
- Rejection H0: if the test significance is greater than (0.01).

First: Test Main Hypothesis:

- There is no statistically significant relationship between the dimensions of knowledge management and the improvement of the functional performance of the members of the administrative body at Technical College for Girls in Riyadh.

Table (3) shows that there is a correlation between knowledge management and job performance estimated at (0.753) at the level of significance (0.00). Since the significance of the test (0.01) is greater than the level of significance (0.00), this means rejecting the null hypothesis and accepting the alternative hypothesis. There is a positive relationship between knowledge management and job performance.

Second: Test the Four Sub-Hypotheses:

First Sub-hypothesis Test: There is no statistically significant relationship between knowledge generation and improvement of the functional performance of the members of the administrative body at Technical College for Girls in Riyadh.

The correlation between knowledge generation and job performance is estimated at (0.517) at the mean level (0.01). Since the significance of the test (0.01) is less than the significance level (0.000), this means rejecting the null hypothesis and accepting the alternative hypothesis. There is a role to generate knowledge about functionality.

Test Second Sub-Hypothesis:

- There is no statistically significant relationship between knowledge storage and improving the functional performance of the members of the administrative body at Technical College for Girls in Riyadh.

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Table (3) shows that there is a correlation between knowledge storage and functional performance estimated at (0.609) at the level of significance (0.00). Since the significance of the test (0.01) is less than the significance level (0.00), this means rejecting the null hypothesis and accepting the alternative hypothesis. There is a role to store knowledge on functionality.

Third Sub-Hypothesis Test:

- There is no statistically significant relationship between the distribution of knowledge and the improvement of the functional performance of the members of the administrative body at Technical College for Girls in Riyadh.

Table (3) shows that there is a correlation between the distribution of knowledge and job performance estimated at (0.696) at the level of significance (0.00). Since the significance of the test (0.01) is greater than the significance level (0.00), this means rejecting the null hypothesis and accepting the alternative hypothesis. There is a role to store knowledge on functionality.

Fourth Sub-Hypothesis Test:

- There is no statistically significant relationship between applying the knowledge and improving the functional performance of the members of the administrative body at the technical college for girls in Riyadh.

Table (3) shows that there is a correlation between the application of knowledge and performance estimated at (0.807) at the level of significance (0.00), and since the significance of the test (0.01) is greater than the level of significance (0.00), this means rejection of the null hypothesis and acceptance of the alternative hypothesis. There is a role to apply knowledge to functionality.

4. RESULTS

The results showed that the extent of applying knowledge management at the technical college for girls in Riyadh is very high.

The results also showed a statistically significant relationship between knowledge management and knowledge management processes (knowledge generation, knowledge storage, knowledge distribution, application of knowledge) and job performance. Any increase in knowledge management leads to improved employee performance.

5. RECOMMENDATIONS

Based on the results of the study and the theoretical side, it is recommended that:

1. The need for the senior management in the organizations to address the issue of knowledge management and the appropriate attention to its importance in providing an environment conducive to helping its institution to adapt to the state of environmental change regardless of the level of this change more effectively.
2. The need to coordinate with universities and other scientific institutions, in order to organize training programs for the employees of these organizations, especially those expected to be involved in future development programs of their organization, in knowledge management programs.
3. The need for the administrations of organizations to look at the experiences of the developed institutions in the areas of competence of their institutions, whether through bulletins, or statements, in particular, they are easily available these days, for transferring them to their institution and to consider this as a national duty to do.
4. Conduct further future studies to emphasize the importance of knowledge management and its role in improving overall corporate performance.

5. Encouraging administrators in various organizations in general and members of the administrative staff at Technical College for Girls in Riyadh, in particular, to conduct scientific and administrative experimentation and benefit from errors and provide the necessary inputs for screening ideas and reaching the applicable part.
6. Unleash creativity in the technical college for girls in Riyadh, encourage its members to develop thinking, give freedom of application, and hold conferences, seminars and workshops aimed at spreading the culture of creativity, creating training programs in support of it, and maintaining the creators therein through activating the material and moral motivation.
7. Keeping abreast of the successive developments in "Knowledge Management and Knowledge", and linking the members of the technical college for girls in Riyadh and its new employees, and enable them to harness them in improving the "functional performance" of college staff and development.

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