

THE ROLE OF KNOWLEDGE MANAGEMENT PROCESS IN CRISIS MANAGEMENT IN HIGHER EDUCATION

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Abstract :

Knowledge management is considered one of the most important assets of the current information age, as it is closely related to crisis management, as organizations seek continuity and survival. The knowledge supports the process of research and development, learning and creativity, as it enhances the role of efficient, creative human resources.

The importance of this study lies in recognizing the extent to which universities are aware of knowledge management and their attempt to overcome crises when they occur, and it aims to know the role that knowledge management processes play in crisis management, especially after the spread of the corona virus.

The study is quantitative, a questionnaire was designed to collect data from a sample was randomly choosing (150 questionnaires were distributed and 68 were collected) in 11 universities of Lebanon. The results showed the academic leadership holds periodic meetings at the university with all faculty members of the college to evaluate potential crises; there are administrative instructions that determine how procedures for dealing with possible crises; knowledge is used to solve problems and improve work methods and procedures within the university. This clarifies the relationship between knowledge management and crisis management

Key words: knowledge management, crisis management.

دور عملية إدارة المعرفة في إدارة الأزمات في التعليم العالي

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الملخص :

تعد إدارة المعرفة من أهم أصول عصر المعلومات الحالي ، حيث ترتبط ارتباطاً وثيقاً بإدارة الأزمات، وتسعى المؤسسات إلى الاستمرارية والبقاء. تدعم المعرفة عملية البحث والتطوير والتعلم والإبداع ، لأنها تعزز دور الموارد البشرية الفعالة والمبدعة.

تكمن أهمية هذه الدراسة في التعرف على مدى وعي الجامعات بإدارة المعرفة ومحاولتها التغلب على الأزمات عند حدوثها ، وتهدف إلى معرفة الدور الذي تؤديه عمليات إدارة المعرفة في إدارة الأزمات ، خاصة بعد انتشارها. فيروس كورونا.

الدراسة الكمية ، تم تصميم استبانة لجمع البيانات من عينة تم اختيارها عشوائياً (تم توزيع 150 استبانة وجمع 68) في 11 جامعة لبنانية. وأظهرت النتائج أن القيادة الأكاديمية تعقد اجتماعات دورية في الجامعة مع جميع أعضاء هيئة التدريس بالكلية لتقييم الأزمات المحتملة. هناك تعليمات إدارية تحدد كيفية إجراءات التعامل مع الأزمات المحتملة. تستخدم المعرفة لحل المشكلات وتحسين أساليب العمل وإجراءاته داخل الجامعة. وهذا يوضح العلاقة بين إدارة المعرفة وإدارة الأزمات.
الكلمات المفتاحية: إدارة المعرفة ، إدارة الأزمات.

1. Introduction:

The current era in which we live in is called the "age of knowledge and information" also the "age of technology", as it is based on knowledge, which has become the cornerstone on which the economy stands. The knowledge supports the process of research and development, learning and creativity, as it enhances the role of efficient, creative human resources. Such resources have mental and intellectual capabilities by urging humans to create and generate new knowledge that can be adopted to help solve problems and crisis facing organizations with the aim of keeping pace and catching up with the rapid development that dominates the entire world. Every organization seeks its strategy to achieve the goal of continuity and survival.

During the past, humanity faced multiple crisis in many forms, for example: natural disasters, virus outbreaks, and widespread school shootings. The common denominator between these types of events is that they are stressful and unpleasant for the audience. The moment when a complex system (a society, an economy, a family, or an international organization) encounters an event that puts them in a slippery and dangerous position is when one can speak of a crisis (Bundy, Praffer, Short, & Coombs, 2017). To protect the well-being of society, it is important that it is managed in the best possible way.

A crisis is an emergency that disrupts a complex system while completely affecting an individual, group, organization or society. It appears without any notice and creates a feeling of uncertainty and fear among people. It is imperative for officials to recognize early signs of a crisis and inform concerned populations and stakeholders about it. When a crisis is discovered, actors must act quickly and make difficult and fast decisions or decisions (Dragan, 2019)

The crisis is considered a period of instability in the life cycle of the organization, and in order for the threats to be transformed into new opportunities that are used to increase production value, it is necessary to manage these crises by relying on scientific and administrative means and tools based on structured knowledge foundations in a way that serves and facilitates the process of problem solving.

2. The literature review:

2-1 Knowledge management:

Knowledge management represents a set of processes within the organization to improve its performance. Knowledge must be wisely managed and used to make the organization innovative. Also, different organizations can use organizational knowledge and learning to solve problems in any place and time. (Gupta, Lyer, & Aronson, 2000 February)

Academic institutions contribute to the production of knowledge and this knowledge is collected and disseminated centrally to increase growth, but this information and knowledge produced by the academy suffers from a deficiency in a good storage process. Also, this knowledge remains unknown to some individuals, and although higher education is considered a knowledge fund, it suffers from not organizing it properly (Dhamdhere, 2015 January)

Universities have great opportunities to apply knowledge management processes and the use of knowledge management techniques is considered vital in higher education institutions that have entered the world of rapid development, while those who do not realize the process of learning and change will simply not survive. (Laal, 2011)

Higher education institutions play a prominent role in providing knowledge and challenging them, and higher education in developing countries makes an effort to manage strategic assets that are based on knowledge, and the study showed that competencies, administrative personnel, and information professionals in higher education greatly affect the main agents of knowledge management (Nunes, Kanwal, & Arif, August 2017)

In order to improve the quality of university education, knowledge management must be applied in its basic processes (generation and acquisition, storage, and dissemination of knowledge) in an excellent manner in educational activities, and the results showed that supporting and strengthening the information structure, infrastructure, knowledge culture and knowledge management processes all contribute to building knowledge management initiatives. To achieve the largest return of benefits and work to solve cultural issues. (Mohayidin, Azirawani, & Kamaruddin, 2007)

The Knowledge management plays a prominent role in crisis management, as organizations have diverse knowledge needs, and in turn, require the practice of various knowledge management strategies within multiple stages of the work-related crisis, which aim to achieve the best results. The reality of crises urges organizations to think about learning to facilitate the process of acquiring and sharing knowledge within the institution. (Wang, April 2009).

2-1 Crisis management:

University leadership faces unique challenges when planning and harmonizing communications during and after crises. The study revealed the complexity and frequency of events that emphasize the need for attention, diligent work, and recommends the preparation of a comprehensive system for managing crises for university leadership; its implementation that requires planning and rapid response, to envisage disrupting operations for long periods and damaging the reputation (Moerschell & Novak, May2019).

The communication theory of situational crisis analyzes any test hypothesis about how to deal with various crisis, and it examines the effects on the reputation and intention of purchasing the organization. This theory begins once of crisis situation is examined to find out the level of any reputation threat. The threat is known to the extent of the damage to the organization that comes as a result of the crisis. (Coombs, 2007).

Types of Crises: This section brings up studies related to how can the types of crises be described?

Crises successful removes much of the uncertainty and threat in potential future crises, and allows formore control should a crisis appear (Paraskevas, 2006)

According to Fink states that a crisis consists four different steps, (1) prodromal crisis step; (2) acute crisis step; (3) chronic crisis step; and (4) crisis resolution step.

It is important to identify early warning signals for the crisis, even though it might be difficult to recognize them, especially crises in a prodromal state. A crisis may even be apparent to an organization, yet no action is taken to prevent it. Once the organization has passed the initial step, the crisis will start causing ham depending on how well prepared and effective the organization is. The third step is

referred to as the 'clean-up'. The organization tries to retrieve from the crisis, and learn from the errors it made and the success of its crisis response. In the final step the organization goes back to be normal, and resumes with its business as usual (Paraskevas, 2006)

It is a comprehensive coordination of the organization's response to the crisis in an effective and timely manner to limit the damage to the organization, whether it is profit or moral damages such as a threat to the reputation and ability of the organization to work, and to reduce the damage and risks of crisis occurrence, the organization must develop a plan in advance according to an integrated approach with internal and external organizations (Grimmelt, 2017)

3- Study methodology and data:

The importance of this study is highlighted by the fact that the current Arab reality is overwhelmed by the economic crises and the Corona pandemic that prevented rapid growth, and led to a change in the general educational system in the country, which in turn reflected negatively on the reality of students and urged the educational staff to make additional efforts in order to better communicate ideas and information. And extracting the maximum of their abilities and creative talents, this crisis also had a positive impact on the future, which most countries strive to develop the technological environment, including the Arab countries, where the educational system was found remotely, which relies heavily on knowledge and technology, and since knowledge management processes (Knowledge production; storage; dissemination and application) clearly depend on information technology to facilitate the transfer and sharing process. We had to search for the role of knowledge management processes in managing crises within higher education institutions.

The descriptive analytical approach was adopted as it serves the current study because of its importance in highlighting the theoretical framework for knowledge management and crisis management processes drawn from previous studies, and the analytical method in which the statistical program (SPSS) was adopted to study this case and give clear and understandable results. As for the study sample, it consists of some Lebanese universities. In order to meet the purposes of the study, (100) questionnaires were distributed to university workers from faculty and administrators. After the affiliate process, (68) questionnaires were retrieved while (32) of them weren't, so the size of this sample Underpinning the study was (68).

4- Results and discussion:

Research Hypothesis:

There is an impact of knowledge management processes (knowledge acquisition, knowledge storage, knowledge dissemination, application of knowledge) on crisis management

H0: There is an impact of knowledge management processes (knowledge acquisition, knowledge storage, knowledge dissemination, knowledge application) on crisis management. Zero hypothesis: There is no impact of knowledge management processes (knowledge acquisition, knowledge storage, knowledge dissemination, application of knowledge to crisis management.

H1: There is an impact of knowledge management processes (knowledge acquisition, knowledge storage, knowledge dissemination, application of knowledge) on crisis management

Knowledge

Table 1: The surveyed sample is distributed according to the gender variable

Gender	Numbers	%
Male	48	70.6
Female	20	29.4
Total	68	100.0

Table 2: The surveyed sample is distributed according to the job title variable

Job title variable	Numbers	%
Head of department	7	10.3
Administrative	27	39.7
University professor	18	26.5
Assistant professor	16	23.5
Total	68	100

To find out the existence of a statistically significant relationship between the two axes of crisis management and knowledge management, we conducted a (Pearson correlation), and thus the result was as following:

Table 3: Pearson correlation

		Knowledge management	Knowledge generation	Store knowledge	Sharing and distributing knowledge	Knowledge application
Crisis management	Pearson value	.858**	.802**	.727**	.707**	.848**
	Statistical sig.	0.000	0.000	0.000	0.000	0.000
	Numbers	68	68	68	68	68

Table number (3) shows the Pearson correlation coefficient between the two axes of crisis management and knowledge management, where the value of the statistical significance is equal to (0.000) that is smaller than the level of significance alpha which records (0.05). This means that the relationship between both is statistically significant. Therefore we reject the null hypothesis and accept the alternative hypothesis, indicating that there is a statistically significant correlation relationship between crisis management and knowledge management among the respondents. The value of Pearson, which designates the strength of the relationship between both is (0.858), indicates a strong direct relationship between both. So, the closer the value is to 1, the stronger the relationship becomes. The same applies to the relationship between crisis management and the four dimensions of knowledge management (knowledge acquisition, knowledge storage, knowledge dissemination, knowledge application), where we found a strong direct relationship with these dimensions.

Therefore, knowledge management strongly affects crisis management. So, the higher the acquisition; storage; dissemination and application of knowledge is, the higher the quality of crisis management becomes.

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Variables Entered/Removed ^a			
Method	Variables Removed	Variables Entered	Model
Stepwise (Criteria: Probability-of-F-to-enter <=.050, Probability-of-F-to-remove >=.100).		Knowledge management	1
Stepwise (Criteria: Probability-of-F-to-enter <=.050, Probability-of-F-to-remove >=.100).		Sharing and distributing knowledge	2
Stepwise (Criteria: Probability-of-F-to-enter <=.050, Probability-of-F-to-remove >=.100).		knowledge storage	3
a. Dependent Variable: crisis management			

This table shows the variables and models that were entered. The regression was studied according to the stepwise method.

Model Summary ^d				
Std. Error of the Estimate	Adjusted R Square	R Square	R	Model
0.37977	0.733	0.737	.858 ^a	1
0.36156	0.758	0.765	.875 ^b	2
0.35333	0.769	0.779	.883 ^c	3
a. Predictors: (Constant), knowledge management				
b. Predictors: (Constant), knowledge management, Sharing and distributing knowledge.				
c. Predictors: (Constant), knowledge management knowledge management, Sharing and distributing knowledge, knowledge storage.				
d. Dependent Variable: crisis management				

According to the models above, we have the first model with a value of R or a correlation of 0.858, which indicates that there is a good correlation between the variables with the value of the coefficient of determination $R^2 = 0.737$, which is close to the value of 1, directly confirms that the model is good. Incoming, incoming, and replying, and replying. As for the second model, the value of R or a correlation is equal to 0.875, indicates a good correlation between the variables with the value of the coefficient of determination $R^2 = 0.765$, which is close to the value of 1 directly confirms that the

model is good. For the third model, the value of R or the correlation is 0.883, which indicates that there is a good correlation between the variables with the value of the coefficient of determination Rsquare = 0.779, which is close to the value of 1, that also confirms that the model is good. Therefore, it is the most valuable model.

		.125	64	7.990	Residual	
			67	36.179	Total	
a. Dependent Variable: crisis management						
b. Predictors: (Constant), knowledge management						
c. Predictors: (Constant), knowledge management, Sharing and distributing knowledge.						
d. Predictors: (Constant), knowledge management knowledge management, Sharing anddistributing knowledge, knowledge storage.						
ANOVA						
a						
Sig.	F	Mean Square	df	Sum ofSquares	Model	
.000 ^b	184.853	26.660	1	26.660	Regression	1
		.144	66	9.519	Residual	
			67	36.179	Total	
.000 ^c	105.879	13.841	2	27.682	Regression	2
		.131	65	8.497	Residual	
			67	36.179	Total	
.000 ^d	75.265	9.396	3	28.189	Regression	3

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5. Coefficients ^a						
Sig.	T	Standardized Coefficients	Unstandardized Coefficients		Model	
		Beta	Std. Error	B		
.000	4.263		.210	.896	(Constant)	1
.000	13.596	.858	.056	.763	Knowledge management	
.000	4.629		.200	.927	(Constant)	2
.000	8.574	1.218	.126	1.083	Knowledge management	
.007	-2.796	-.397	.121	-.338	Sharing and distributing knowledge	
.000	4.616		.196	.905	(Constant)	3
.000	7.980	1.458	.162	1.296	Knowledge management	
.010	-2.658	-.371	.119	-.315	Sharing and distributing knowledge	
.048	-2.015	-.289	.114	-.230	Storage knowledge	

a. Dependent Variable: crisis management

After relying on the higher coefficient of determination, the following model was tested to write the regression equation: Crisis management = 0.905 + 1.458 knowledge management (-0.371) knowledge sharing and distribution (-0.289) knowledge storage. Crisis Management

As for the distance of the alarm signals in the axis of crisis management:

- The academic leadership holds periodic meetings at the university with all faculty members of the college to evaluate potential crises.
- In the presence of monitoring systems to evaluate the crises that occurred in other organizations and how they were dealt with.
- The university's academic leadership pays attention and support to monitor the indicators of crises.
- The internal and external environment is wiped to the university's work comprehensively to identify indicators of the possibility of the crisis.

- The academic leadership at the university is interested in continuous training for the collection and analysis of the indicators of crises.

As for the distance and preparation for the axis of crisis management:

-The existence of administrative instructions that determine how procedures for dealing with possible crises

-That the availability of training programs for subordinates at the university helps them implement the scenarios for facing crises

As for the dimension of the damage to the axis of crisis management

-The crisis is dealt with when it occurs to prevent its spread

-The university administration is responding immediately to contain the crisis by distributing tasks and determining the powers in a short period of time when the crisis occurs

-Effects and the use of emergency procedures that reduce and reduce the damage caused by the crisis efficiently

As for the axis of knowledge management operations:

The university encourages research continuously to help generate knowledge.

The university depends on various sources in order to acquire knowledge

The university has multiple storage means (electronic archiving, paper documents) and advanced to preserve knowledge.

-The university documents the lessons learned from previous experiences

-The university has different methods (notes, reports, email, meetings) to distribute and publish knowledge to workers.

-Electronic systems are available to accelerate and share knowledge exchanges between them.

-The university takes into account the extent to which workers apply the knowledge acquired in their field of work when assessing their performance.

Knowledge is employed in solving problems and improving work methods and procedures within the university.

6- Conclusion:

The current era in which we live in is called the "age of knowledge and information" also the "age of technology", as it is based on knowledge, which has become the cornerstone on which the economy stands. The knowledge supports the process of research and development, learning and creativity, as it enhances the role of efficient, creative human resources. Every organization seeks its strategy to achieve the goal of continuity and survival.

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Thus, knowledge management plays an important role in crisis management. That's why organisations have different knowledge needs that require different knowledge management dimensions to be applied to at different stages of the business crisis in order to achieve the best results.

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