



## The Impact of Knowledge Management on Organizational Performance

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### Abstract

This study examined the impact of knowledge management on organizational performance through the use of Balanced Scorecard Perspectives. Data collected from 218 manager working in 12 commercial banks operating in Egypt (3 national governmental banks and 9 private banks), showed that there is significant positive relationship between Knowledge Management Process and organizational performance.

**Keywords:** Knowledge Management Process, Organizational Performance and balanced scorecard

### 1. Introduction:

Today it is a business requirement to efficiently exploit what the business actually knows – not only what it owns. So interest in knowledge management (KM) has grown among administrators because they address issues of change, innovation, and environmental adaptation, all of which have been major concerns in any organization's theory and practice for decades and are now clearly important as many organizations are searching for approaches to cope with the external and the internal changes of environment (Wiig, 2003) and (Moballegghi & Moghaddam, 2011).

Knowledge management is an organization strategic effort that is used to capture the information and experiences of employees and customers which is stored in database, paper or in peoples' intellect then distributes this knowledge to gain more benefit. Knowledge management consists of several steps that allow the flow of

knowledge among all interest users in the organization (Mohsen, et al., 2011). Knowledge management is a value-added technique that aims to maximize profits, innovation, and decision making by sharing better information and knowledge between every member working within the organization (Mohsen, et al., 2011) which will help them in doing their work effectively, empowering innovation and driving competitive advantage, if implemented effectively, it can also help in reducing information bottlenecks, enhancing competence and raising service quality (Al-Ghazi, 2014).

Defining knowledge management is not an easy issue because it is a multi-faced and controversial concept that involves a mix of strategies, tools, and techniques. Different authors and researchers have presented different definitions of knowledge management which either describes the purpose of KM or the processes involved in KM. Knowledge Management (KM) is the collection of



processes that governs the creation, dissemination, and utilization of knowledge. Knowledge Management is concerned with the entire process of discovery and creation of knowledge, dissemination of knowledge, and the utilization of knowledge. Knowledge Management principles recognize that it is important for organizations to "know what they know". All institutions inherently store, access, and deliver knowledge in some specific manners. Awan et al (2015) argue that proper knowledge management improves the performance of the organization whether it is public or private (Awan & Khalid, 2015).

Knowledge management can also be defined a set of processes for transferring intellectual capital to value – processes such as innovation and knowledge creation and knowledge acquisition, organization, application, sharing, and replenishment (Fairchild, 2002).

The objective of KM is to identify and harness the collective knowledge of the organization gained from experience and competencies, through the creation, collection, storage, distribution and application of that knowledge (Downes, 2014). So the goal of KM is to implement a holistic approach towards the management of organizational knowledge while considering the specific boundary conditions of the organization (Cabrita, et al., 2010).

The objectives of this paper are firstly; to investigate which knowledge management step is significant to organizational performance. Secondly, this paper proposes appropriate model that assist the managers well understand the role that knowledge management plays in supporting the management and enhancing organizational performance.

## 2. Similar Studies:

A number of previous studies have investigated the relationship among knowledge management process and their relation to organizational performance.

Pension, et al. (2013), sought to find the impact of knowledge management on organizational performance. Results revealed that knowledge management had a positive impact on organizational performance in terms of improvements in design time, costs reduction, employee flexibility and reduced employee frustration and confusion. However, the research also found that knowledge management can be negatively affected once a culture that embraces learning and sharing knowledge is at minimum.

Tubigi (2013), evaluated KM processes and investigated its impact on organizational performance (OP). This study has identified eight KM processes namely knowledge creation and acquisition, knowledge modification, knowledge usage, knowledge archiving, knowledge transfer, knowledge translation/repurposing, user access knowledge, and knowledge disposal. Every process of which is seen as a comprehensive process representing the valuable aspects of organizational knowledge. The study showed that knowledge usage is the most influential aspect of KM that impacts OP. Moreover, the study revealed that knowledge transfer is a common KM process employed by organizations. Accordingly, it was ranked as the second most influential factor of KM with respect to OP.

Nnabuiife, et al. (2015), examined the extent to which knowledge management improves the performance of selected commercial banks in Awka. The findings reveal that there is a positive



relationship between knowledge identification and organizational performance. It also revealed that knowledge acquisition has a positive effect on organizational performance. In conclusion, knowledge is the key resource needed if an organization intends to operate at a level that is equal to no other.

Al-Ghazi (2014), measured the effect of knowledge management on organizational performance through the use of balanced scorecard perspectives. The results showed that there was a significant statistical effect of knowledge management (creation, storage and application) on organizational performance using the balanced scorecard perspectives. Also there was a significant statistical effect of knowledge management creation on organizational performance using the financial perspective of the balanced scorecard, and there was a significant statistical effect of knowledge management storage and application on organizational performance using customer perspective of the balanced scorecard. In addition to that there was a significant statistical effect of knowledge management application on organizational performance using internal process perspective of the balanced scorecard. Finally, there was a significant statistical effect of knowledge management creation and application on organizational performance using the learning perspective of the balanced scorecard.

Ahmed, et al. (2015), identified the impact of knowledge management practices (knowledge acquisition, knowledge conversion, knowledge application and knowledge protection) on organizational performance in the banking sector. Results showed that knowledge management activities

(knowledge acquisition, knowledge conversion, knowledge application and knowledge protection) results in provision of quality services to customers, high customer satisfaction, efficiency in resource utilization, more profits and overall improved organizational performance as there is a positive impact of knowledge acquisition, knowledge conversion, knowledge application, knowledge protection on organizational performance.

### **3. Hypotheses Development:**

For this study, one hypothesis was developed for further testing as well as to support the research objectives. According to literature, it believed that strong relation between knowledge management and organization performance can be established. Therefore, this study aims to test the following hypothesis:

H<sub>1</sub>: There is a positive significant relationship between knowledge management process and organizational performance.

### **3.1. Research Design:**

This study examined 12 commercial banks operating in Egypt (3 national governmental banks and 9 private banks). This study utilizes the primary data obtained from questionnaire, which was distributed to 218 manager of these banks as the main source of information.

### **3.2. Independent Variables and Dependent Variables:**

#### **3.2.1. Independent Variables:**

For the purpose of this study, five steps of knowledge management process were identified. These variables are knowledge creation, knowledge acquisition, knowledge sharing, and knowledge application.



**3.2.2. Dependent Variables:**

The dependent variable is organizational performance and this variable is measured through balanced scorecard by determining the extent to which the bank carries out detailed activities related to each of its four perspectives (financial, customer, internal process and learning and growth perspective).

**3.2.3. Data Analysis Techniques**

In order to test and analyze the data collected, first of all, the data collected were revised, coded and SPSS was used for analysis.

Then, a descriptive analysis for the variables of the proposed model was performed for the 218 respondents using frequency tables, mean, standard

deviation, and coefficient of variation. The analysis also used graphical presentation for the qualitative variables of the study as well as Pearson Correlation coefficient between the impact of knowledge management on organizational performance, and the set of independent variables, simple regression to measure the impact of knowledge management on organizational performance, and linear regression analysis to study the impact of knowledge management on organizational performance.

**4. Research Findings and Data Analysis:**

**4.1. Descriptive Analysis**

Table (1) shows provides a descriptive analysis for the variables examined in this study, it shows the mean, standard deviation and the rank.

**Table (1)**

**Descriptive Statistics (Mean, standard deviation, and Coefficient of Variation) for “The Impact of Knowledge Management on Organizational Performance”**

Items	Mean	Std.	C.V.
Knowledge Creation	3.79	0.74	19.42
Knowledge Acquisition	3.91	0.69	17.76
Knowledge Sharing	3.58	0.77	21.57
Knowledge Application	3.84	0.80	20.86
<b>Knowledge Management Process</b>	<b>3.76</b>	<b>0.70</b>	<b>18.57</b>
Financial Perspective	3.54	0.76	21.59
Customer Perspective	3.87	0.72	18.73
Internal Process Perspective	3.98	0.89	22.46
Learning and Growth Perspective	3.90	0.80	20.45
<b>Organizational Performance</b>	<b>3.82</b>	<b>0.70</b>	<b>18.31</b>



As shown in Table (1), it is apparent that the trend of the sample for knowledge management process, indicates that it is towards the (Agreement), with mean of (3.76) and coefficient of variation (18.57%).

The most agreeable dimension is knowledge acquisition, with coefficient of variation (17.76%) and the least agreeable dimension is knowledge sharing, with coefficient of variation (21.57%).

The trend of the sample for organizational performance, indicates that it is towards the (Agreement), with mean of (3.82) and coefficient of variation (18.31%).

The most agreeable dimension is customer perspective, with coefficient of variation (18.73%) and the least agreeable dimension is internal process perspective, with coefficient of variation (22.46%).

**4.2. Regression Analysis:**

The coefficient table demonstrates the interrelationships between knowledge management as the dependent variable and organization performance as independent variable.

**Table (2)**

**Correlation matrix between knowledge management process and organizational performance using Pearson correlation**

Dimension	knowledge management process	Organizational Performance	Financial Perspective	Customer Perspective	Internal Process Perspective	Learning and Growth Perspective
Organizational Performance	0.817**	-	-	-	-	-
Financial Perspective	0.694**	0.866**	-	-	-	-
Customer Perspective	0.743**	0.830**	0.657**	-	-	-
Internal Process Perspective	0.741**	0.958**	0.809**	0.716**	-	-
Learning and Growth Perspective	0.698**	0.851**	0.576**	0.573**	0.816**	-

\*\* Significant level 0.01

**From the table (2), it is apparent that:**

- There is a significant positive relationship between knowledge management process and organizational performance, with a correlation

coefficient (0.817) at a level of significant less than (0.01).

- There is a significant positive relationship between financial perspective and knowledge management process, where it reached the correlation



coefficient (0.694) at a level of significant less than (0.01).

- There is a significant positive relationship between customer perspective and knowledge management process, where it reached the correlation coefficient (0.743) at a level significant less than (0.01).

- There is a significant positive relationship between internal process

perspective and knowledge management process, where it reached the correlation coefficient (0.741) at a level of significant less than (0.01).

- There is a significant positive relationship between learning and growth perspective and knowledge management process, where it reached the correlation coefficient (0.698) at a level of significant less than (0.01).

**Table (3)**

**The relation between knowledge management process and organizational performance using simple liner regression**

Independent variables	β	t. test		F. test		R <sup>2</sup>
		Value	Sig.	Value	Sig.	
Constant	0.742	4.94	0.001**	435.16	0.001**	66.8%
Knowledge management Process	0.819	20.67	0.001**			

\*\* Significant level 0.01

**From the table (3) it is clear that:**

R<sup>2</sup> show that the independent variable knowledge management process x1 explains (66.8%) of the total variation in the dependent variable organizational performance y and the rest of the ratio is due to random error in the equation, or perhaps the lack of inclusion of independent

variables, that was supposed to be included within the form.

The independent variable knowledge management process X1 has a significant effect on the dependent variable organizational performance Y as the value of "t" is (20.86), with significant level less than (0.01).

**Table (4)**

**The relation between knowledge management process and financial perspective using simple liner regression**

Independent variables	B	t. test		F. test		R <sup>2</sup>
		Value	Sig.	Value	Sig.	
Constant	0.682	3.33	0.001**	201.24	0.001**	48.2%
Knowledge management process	0.760	14.19	0.001**			

\*\* Significant level 0.01

**From the table (4) it is clear that:**

R<sup>2</sup> shows that the independent variable knowledge management process X1 explains (48.2%) of the total variation in the dependent

variable financial perspective y1 and the rest of the ratio is due to random error in the equation, or perhaps the lack of inclusion of independent variables, that was supposed to be included within the form.



The independent variable knowledge management process has a significant effect on the dependent variable financial perspective as the value of "T" is (14.19), with significant level less than (0.01).

**Table (5)**

**The relation between knowledge management process and customer perspective using simple liner regression**

Independent variables	B	t. test		F. test		R <sup>2</sup>
		Value	Sig.	Value	Sig.	
Constant	0.969	5.36	0.001**	266.02	0.001**	55.2%
Knowledge management process	0.770	16.31	0.001**			

\*\* Significant level 0.01

**From the table (5) it is clear that:**

R<sup>2</sup> shows that the independent variable knowledge management process X1 explains (55.2%) of the total variation in the dependent variable customer perspective y2 and the rest of the ratio is due to random error in the equation, or perhaps the lack of inclusion of independent

variables, that was supposed to be included within the form.

The independent variable knowledge management process has a significant effect on the dependent variable customer perspective as the value of "T" is (16.31), with significant level less than (0.01).

**Table (6)**

**The relation between knowledge management process and internal process perspective using simple liner regression**

Independent variables	B	t. test		F. test		R <sup>2</sup>
		Value	Sig.	Value	Sig.	
Constant	0.412	1.84	0.067	263.02	0.001**	54.9%
Knowledge management process X1	0.948	16.22	0.001**			

\*\* Significant level 0.01

**From the table (6), it is apparent that:**

R<sup>2</sup> shows that the independent variable knowledge management process X1 explains (54.9%) of the total variation in the dependent variable internal process perspective y3 and the rest of the ratio is due to random error in the equation, or perhaps the lack of inclusion of

independent variables, that was supposed to be included within the form.

The independent variable knowledge management process has a significant effect on the dependent variable internal process perspective as the value of "T" is (16.22), with significant level less than (0.01).



**Table (7)**

**The relation between knowledge management process and learning and growth perspective using simple liner regression**

Independent variables	B	t. test		F. test		R <sup>2</sup>
		Value	Sig.	Value	Sig.	
Constant	0.903	4.24	0.001**	204.86	0.001**	48.7%
Knowledge management process X1	0.796	14.31	0.001**			

\*\* Significant level 0.01

**From the table (7) it is clear that:**

R<sup>2</sup> shows that the independent variable Knowledge management process X1 explains (48.7%) of the total variation in the dependent variable learning and growth perspective y4 and the rest of the ratio is due to random error in the equation, or perhaps the lack of inclusion of independent

variables, that was supposed to be included within the form.

The independent variable knowledge management process has a significant effect on the dependent variable learning and growth perspective y4 as the value of "T" is (14.31), with significant level less than (0.01).

Therefore, H<sub>1</sub>: "There is a positive significant relationship between knowledge management process and organizational performance" is accepted, which means the successful implementation of knowledge

management process, leads to better organizational performance which confirms what Pension, et al. (2013), Nemwel (2013), Karani (2015), ALRubaiee, et al. (2015) and Nawaz, et al. (2014) proved in their studies.

**5. Conclusion:**

The objective of this study was to examine the impact of knowledge management on organizational performance through the use of Balanced Scorecard Perspectives. In order to achieve this goal, a sample of 218 manager working in 12 commercial banks operating in Egypt (3 national governmental banks and 9 private banks) has been used).

The result of this study showed that there is a significant positive relationship between Knowledge Management Process and organizational performance. These findings can be used to improve the knowledge management practices of each organization and each knowledge entity.

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