

## Organizational Memory and Organizational Performance from the Employee Perspective: A Study in the Egyptian Context

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### Abstract

*The overall objective of the research is to analyze the impact of Organizational Memory (OM) on Organizational Performance (OP). The research community consists of all employees at the industrial companies in Sadat City. Due to time and cost constraints, the researcher relied on the sampling method to collect data for the study. The appropriate statistical methods were used to analyze the data and test the hypotheses. The research has reached a number of results; the most important of which are: (1) the general average of the OM is fairly high. Management as a dimension of OM ranked first, followed by technological OM, while marketing OM ranked third, (2) the overall average of the OP is high. The administrative as one of the dimensions of OP ranked first. This is followed by a marketing OM, (3) there is a significant relationship between OM and OP at the industrial companies in Sadat City.*

*The study referred to a number of recommendations; the most important of which are: (1) attention of officials at the industrial companies towards OM. This can be achieved through the formation of information bases that can be in their data bases and that there is an easy access to, (2) attention of officials towards maintaining OM. This can be done through knowledge management, since properly managing knowledge contributes to improved OP, and OM is the basis of organizational structure, (3) the need to direct the attention of officials towards the use of knowledge in improving OP through the OM of technological, administrative, and marketing, (4) The necessity of conducting many researches and studies on the economic, technical and administrative feasibility of OM systems and their application in addition to the need to conduct research and studies on the OM, in order to make comparisons between them so that the distinguished ones can be identified and set as role models applied to these companies, (5) the need to provide advanced technological infrastructure as one of the necessary requirements in the knowledge age, (6) the need to design effective systems of OM, and must identify and overcome the problems, and the transformation of the challenges facing the opportunities to be exploited in the future from the broad understanding of the advantages and the effective and vital role in these companies, (7) providing the requirements of the process of knowledge sharing, especially with regard to the process of training workers and teams, as this has positive effects on the efficiency of performance in these companies, (8) the need for different departments and decision makers to identify the obstacles to the application of the effective participation of knowledge and working to reduce them, achieve their objectives and strengthen their competitive position in these companies; (9) the need to activate the process of knowledge sharing among employees, (10) the need to understand the various interpretations based on knowledge, as this reflects the impact on the adoption of concepts and methods of sharing knowledge to achieve high performance levels.*

### 1. Introduction

Organizational Memory (OM) plays an important role in influencing the activities of the organization in general. There is also a relationship between OM and OP. The design of an effective OM system contributes significantly to improved OP (Stein & Zwass, 1995; Moorman & Miner, 1997; and Allen et al., 2001; Allenfi & Leidner, 1999; Sherifk, 2000; Cross & Baird, 2000; Yezhuang et al., 2001).

OM plays an important role in the application of knowledge, which in turn has a direct impact on the performance of the organization's team, which has an impact on OP (Choi et al., 2010).

It is worth noting that individual and OM play a central role in the relationship between personal relationships and OP. Personal relationships contribute to knowledge storage, which in turn affects OP (Lee, et al., 2011).

It can be said that there is a fundamental relationship between OM and OP. Therefore, organizational managers must invest in organizational knowledge in order to achieve better performance for the organization, whatever the nature of its activity (Aminu & Mahmoud, 2016).

OM plays an important role in achieving the effectiveness of the organization by improving the way in which knowledge is managed in different organizations which affect in one way or another the level of performance of the organization in all its aspects, whether financial or non-financial. Therefore, this research is concerned with studying the role of OM in improving OP. In light of the above, the present study seeks to investigate the dimensions of OM and its impact on OP.

### 2. Organizational Memory

#### 2.1. Organizational Memory Concept

OM means mental configurations (data, information, knowledge) and basic structure configurations within the organization (Sense, 2011).

OM includes information stored in the organization, knowledge in stored records, all patents, copyright, trademarks, name and reputation, registered design patterns, trade secrets and processes. It also includes the knowledge and experience of existing individuals in the organization, their working environments, and the tools required to locate or interpret available information. OM can be used to obtain, retain, and retrieve information in the organization (Sharma, 2010).

OM is the potential of the organization, which enables it to recall past events that rely on current management decisions (Garvin, & Gingo, 2008).

OM is the organization's ability to retain organization knowledge and expertise even after leaving their organizations (Barbara, 2004).

OM represents organizational learning that can be used for multiple purposes in the organization. In other words, OM is the storage of information about the history of the organization so that it can be used to make various decisions in the organization (Laudon & Laudon, 2004).

OM is the focus of organizational information input, and it is a repository that internally contains policies, procedures, instructions, and rules that can be retrieved when needed. It is also a way of thinking and behaving in matters related to the organization (Park & Bunny, 2003).

OM is a collection of stores that retain information and knowledge obtained by the organization (Chakradeo & Makdum, 2003).

Knowledge is the core of OM itself (Li, et al., 2004). Knowledge is a subset of OM (Jennex & Olfman, 2002).

OM is the repository in which knowledge of the organization is stored for future use. OM is divided into internal memory and external memory. Internal memory is in turn divided into: (1) target or intended memory that includes databases, records, reports, learned lessons as well as policies, products, processes, (2) Intended internal memory is the culture of the organization, stories, language, symbols in addition to the tasks and control. External memory is the knowledge in an external archive and although it is not part of OM per se, it retains information about the organization's past that can be retrieved and used. These include financial reports of the organization, former members of the organization, competitors and government records (Sverlinger, 2000).

OM is the acquisition, retention, maintenance, search, and retrieval of knowledge from within the organization (Corbeet, 2000).

OM is an information system that is based on the recording of knowledge so that all employees in the organization benefit from it (Fisher & Palen, 1999).

OM is a collection of historical information repositories that can be invoked in present-day decision-making, where these stores are provided by the personal rules and relationships that bind these rules together (Hackbarth & Grover, 1999).

OM is the collective beliefs and patterns of behavior that vary in content, level, spread, and accessibility, or a repository of insight and collective wisdom in the organization, which is included in policies, procedures, routines and rules that can be retrieved as needed (Mooreman & Miner, 1997).

OM is more than simple information, but it is a set of experiences and skills about projects, production, decisions that are often immersed in the minds of employees, or embedded in the culture of the organization as implicit knowledge, not just a set of official documents, knowledge of phenomenon (Schein, 1996).

OM is the means by which knowledge about the past is obtained, to influence existing activities or to lead to higher or lower levels of effectiveness (Stein & Zwass, 1995). OM is a repository of information about the organization's history that can be used to make various decisions in the organization (Walsh & Ungson, 1991).

OM is events and behaviors related to the history of the organization in the past, which can be guided in the future (March & Olsen, 1976).

The importance of OM is attributed to three main reasons. These reasons are as follows (Stein, 1995):

1. OM is a rich metaphorical concept that gives an insight into understanding the life of an organization. The concept of OM is used to explain the basic characteristics of social systems and that the community concerned with progress has to maintain the continuity of three dimensions of information: (1) those relating to the outside world, (2) information about the past with the ability to call it, and (3) information that explains itself, its parts and components, and attention to storage facilities in memory, memory, desire and will of individuals and groups without memory. This desire and will are paralyzed if the movement of information destroyed past, or prevent the flow of current regimes.
2. OM is an integral part of management theory. OM as an administrative concept is related to the concepts of learning vs. non-learning, human resources versus information technology, as well as its importance in planning, communication, management decision-making and handling of a large amount of information in the organization.
3. OM is linked to management practice, as memory management is the daily activity of most organizations in different dimensions, and it provides the information that enables the organization to function effectively.

After a thorough review of the different concepts of OM, the researcher sees that the emergence of an integrated concept of OM is difficult at present and is still a new subject and accepts a lot of criticism and analysis, because it relates to other subjects such as OP, organizational knowledge, organizational culture and others. In this light, OM is an integrated information system based on the registration of knowledge in all its forms (technological, administrative, and marketing) with a view to benefiting from it in the future in order to improve OP.

## **2.2. Organizational Memory Dimensions**

There are three dimensions of OM. They are technological OM, (2) marketing OM, (3) management OM (Li, et al., 2004; Yezhuang et al., 2001).

### **2.2.1. Technology Organizational Memory**

Technology OM is that knowledge based on technology, and technological OM includes various variables such as production development systems, control method of production, information network, technological method used, TQM and others. These factors play an important role in influencing the efficiency and quality of the organization's products. Technological OM plays an important role in improving the productivity of the organization and achieving its competitive advantage.

### **2.2.2. Marketing Organizational Memory**

Marketing OM is all information related to the market and the forecasting of the demand for its products and service, namely the relationship with the product, wholesalers and retailers, customers, sales volume and purchases, marketing strategies, distribution

channels, marketing mix and others. Market knowledge must be protected so that competitors do not know, and the organization must take care of organizational marketing memory, which in turn will guide the development of technology OM.

### 2.2.3. Management Organizational Memory

Management OM is the knowledge that controls the administrative processes within the organization. This knowledge is in the management of human resources, short- and long-term strategies, training of human resources, crisis management within the organization, and others. Management OM is based on the history of the organization, which must be known to the staff so that they are able to achieve the objectives of the organization within the framework of strategies, policies, programs and rules of the organization.

## 3. Organizational Performance

### 3.1. Organizational Performance Concept

Performance can be managed more effectively. There are a number of aspects that need to be taken into consideration: formulating an effective performance management framework and policy, understanding and understanding the functional activities of all employees, understanding the relationship between employee functions and organizational objectives, daily monitoring of employees' performance, disposal of things that hinder good performance, and reliance on teams of staff (Mishra & Sahoo, 2015). After extensive review of the different concepts of OP, it is clear that there is a large number of researches and studies on the subject of performance, although there was no agreement on a specific concept. In spite of the multiplicity and dimensions of the research hypotheses that dealt with it and the persistence of the institutions' managers with attention and emphasis on its various aspects, the performance remains a fertile field for research and study due to its close association with various variables and environmental factors, whether internal or external (Shahzad et al., 2012).

OP is the outcome of the performance of all individuals and task forces for the various functions of the organization, so the success of the organization in general is greatly affected by the effort of these individuals (Carg & Rastogi, 2005).

OP is the ability of the organization to use its resources efficiently and produce outputs consistent with its objectives and relevance to its users (Peterson, et al., 2003).

OP is an appropriate allocation of material, human and information resources to achieve the organization's objectives. This can be achieved through effective management Strategies that contribute to the achievement of the Organization's goals (Koher, 2003).

OP is a multidimensional perspective, which includes multiple performance indicators such as customer service and loyalty, and performance indicators related to goals such as return on investment and others (Agarwal et al., 2003).

OP is the sum of the outcomes of the activities and practices of the organization that are expected to correspond to planned and established objectives. OP is the achievement by the organization goals. It has identified in its mission by spending an acceptable level of organizational resources in order to achieve the goal of continuity and long-term survival of the Organization (Lusthaus, et al., 2002).

OP is the achievement, implementation, work, or performance of the individual, and performance is a behavioral indicator of the way individuals conduct their assigned duties within the organization (Armstrong, 2001).

OP is the ability of the Organization to achieve its objectives through the efficient and effective use of its resources. In other words, OP is the outcome of all operations undertaken by the organization to achieve its objectives. Any imbalance in these processes will be reflected in the performance of the organization. Performance is the mirror of the organization (Daft, 2000).

OP is the extent to which the organization achieves its objectives, and the extent to which the economy uses its scarce resources. Performance reflects the broader concept of the effectiveness of the organization. Performance often takes two forms: (1) financial performance, which focuses on the use of simple outputs based on financial indicators of profit, return on investment and cash flow, (2) operational performance measured through sales indicators, market share and trends Customers and loyalty as well as other indicators (Hooley et al., 1998). OP can be expressed in its simplest form as the desired outcomes of the organization (Wright et al., 1998).

OP expresses the extent to which the interaction between inputs and outputs is measured (Stannack, 1996). OP is a reflection of how the organization uses its resources and invests them so that they can achieve their goals (Wright, et al., 1996). OP is the organization's ability to achieve its long-term goals efficiently and effectively (Robins & Wiersema, 1995).

In light of the above, it can be said that OP is an integrated system based on the ability of the organization to use all its technological, administrative, cultural and marketing resources to achieve its objectives efficiently and effectively. Research will depend on the use of this concept as it covers the four dimensions of OP.

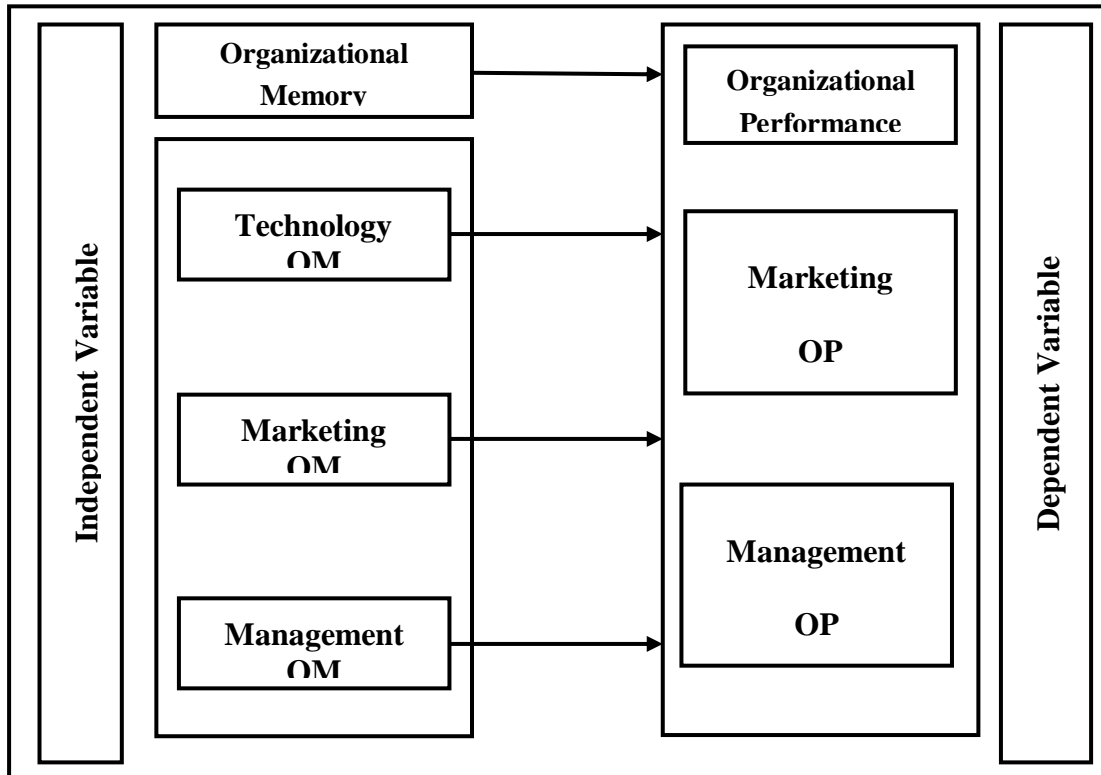
### 3.2. Organizational Performance Dimensions

OP has been classified into four dimensions: (1) marketing OP, which relates to the nature of the relationship with the market, wholesalers and retailers, customers, volume of sales and purchases, marketing strategies, distribution channels, and marketing mix, (2) management OP, a series of processes related to management in the organization (Li, et al., 2004).

## 4. Research Model

The proposed comprehensive conceptual model is presented in Figure (1). The diagram below shows that there is one independent variable of OM. There is one dependent variable of OP. It shows the rational link among the two types of observed variables. The research model is as shown in the following figure:

Figure (1)  
Proposed Comprehensive Conceptual Model



The research framework suggests that OM have an impact on OP. OM as measured consisted of technological OM, (2) management OM, (3) and marketing OM (Li, et al., 2004; Yezhuang et al., 2001). OP is measured in terms of marketing OP and management OP (Li, et al., 2004).

## 5. Research Questions

The researcher found the research problem through two sources. The first source is to be found in previous studies. There is a lack in the number of literature review that dealt with the analysis of the relationship between OM and OP. This called for the researcher to test this relationship in the Egyptian environment.

In light of the review of previous studies towards OM, literature has shown that there is a significant effect on the use of OM in marketing knowledge management (Hashem, 2015). OM has a significant impact on the absorptive capacity of knowledge, and human capital plays an important role in influencing the organization's ability to evaluate and use knowledge (Mansouri et al., 2014). Organizations pay great attention to OM without much attention to memory-supporting devices, and that organizations spend a long time implementing and maintaining procedures (Cegarra-Navarro & Sa'nchez-Polo, 2011). Knowledge storage plays an intermediate role in the relationship between personal relationships and service performance. The findings also indicate that personal relationships play an important role in facilitating knowledge storage (Lee et al., 2011). Attention should be paid to OM, since it contributes to the provision of knowledge, and that the combination of OM forms plays an important role in the reconstruction of organizational identity (Schultz & Heraes, 2010).

As for OP, literature suggests that there is a positive impact of strategic intelligence on institutional performance (Agha et al., 2015). Strategic agility positively affects OP (Shin et al., 2015). There is a direct correlation between human resources management practices and OP (Rhee, et al., 2014). Employee participation positively affects OP (Mahmoud, et al., 2014). Management in the organization should make the work environment more appropriate by paying more attention to providing information, motivating staff, participating in decision-making and developing staff to facilitate OP (Ajayi, et al., 2011). The organizational climate plays an important role in influencing OP (Olorunsola & Arogundade, 2012). Open communication and information sharing, the development of new ideas, availability of resources are among the most prominent characteristics of learning organizations in enabling the organization to improve OP (Kontoghiorghes et al., 2005).

Finally, the literature review for OM and OP indicates that OM plays an important role in influencing OP and that there is a significant relationship between OM and OP. Improved OP can be achieved by designing a good memory system (Cross & Baird, 2000; Yezhuang et al., 2001; Jennex & Olfam, 2002; Li et al., 2004). There is a significant relationship between implicit and explicit memory, in addition to the need to invest organizational knowledge to improve performance (Aminu & Mahmoud, 2016). IT support positively affects the development of OM, which in turn directly affects employee performance (Choi et al., 2010).

The second source is the pilot study, which was conducted an interview with (30) employees at the industrial companies in Egypt to identify the dimensions of OM and OP. The researcher found through the pilot study several indicators notably the



blurred important and vital role that could be played by OM in reducing OP at the industrial companies in Egypt. The research questions of this study are as follows:

Q1: What is the relationship between OM (technology) and OP at the industrial companies at Sadat city in Egypt?

Q2: What are the nature as well as the extent of the relationship between OM (marketing) and OP at the industrial companies at Sadat city in Egypt?

Q3: What is the nature of the relationship between OM (management) and OP at the industrial companies at Sadat city in Egypt?

## 6. Research Hypotheses

In light of the review of previous studies towards OM, literature suggests that a measure of OM can be developed through five dimensions: political and social knowledge, functional knowledge, external network, history or past, and industry knowledge (Burt, 2014). Another study indicated that the labor force has a significant impact on explicit memory (Al-Faouri et al., 2014). A study has concluded the importance of the dynamic nature of OM and organizational forgetfulness, and the importance of the role of time in research on OM and organizational forgetfulness (Casey & Olivera, 2011). Another study indicates that the inability to use knowledge and experience gained is due to the inability to have a good OM (Ozdemir, 2010). The study also pointed to the need to pay attention to the culture of learning as a step to take advantage of OM, and that technology plays an important role in influencing conditions that encourage organizational innovation (Cegarra-Navarro et al., 2010). Another study also pointed out that human capital is a key factor in knowledge management (Niknam et al., 2013).

As for OP, literature suggests that OP has an impact on the individual and group level, and therefore on the performance of the Organization as a whole (Mohan et al., 2015). It also found that staff efficiency contributes to improving the overall performance of the organization (Osei & Ackah, 2015). One study also found a model that links organizational learning with OP (Luciana, 2013). Another study indicated that OM affects OP (Ahmadi et al., 2014). A study found a positive relationship between organizational commitment and performance. The study also indicated that male workers are better at performance than their female counterparts (Memari, et al., 2013). The results of another study indicate that there is a relationship between employee performance and total quality management (Peleyeju & Ojebivi, 201). A study showed that the difference in individual culture leads to uneven performance (Awadh & Saad, 2013). Another study also indicated that TQM is linked to OP (Nguyen, 2006). It also found that a range of dimensions such as expertise, work ethics, and clarity of role can be used to measure employee performance (Craig, et al., 2009). A study found that the most positive factors in the organization's performance are technological capabilities (Hung & Yi, 2005). It also found that there were no differences between the application of TQM and OP (Rahman, 2001).

Finally, the literature review for OM and OP indicates that OP can be improved through OM and that knowledge management contributes to improving OP. These studies also indicate that OM is the basis of organizational knowledge management and also that knowledge is the essence of OM. The design of an effective OM system contributes to improving OP (Stein & Zwass, 1995; Mooreman & Miner, 1997; Alovi & Leidner, 1999; Sherifk, 2000).

The results of another study indicate that knowledge storage plays an intermediate role in the relationship between personal relationships and service performance. The study also indicated that personal relationships contribute to the storage of knowledge, which in turn affects service performance (Lee et al., 2100).

The following hypotheses were developed to decide if there is a significant correlation between OM and OP.

H1: There is no relationship between OM (technology) and OP at the industrial companies in Sadat city in Egypt.

H2: OM (marketing) has no significant effect on OP at the industrial companies in Sadat city in Egypt.

H3: There is no relationship between OM (management) and OP at the industrial companies in Sadat city in Egypt.

## 7. Research Strategy

### 7.1. Population and Sample

The population of the study included all employees at the industrial companies in Sadat city in Egypt. The total population is 11550 employees. Determination of respondent sample size was calculated using the formula (Daniel, 1999) as follows:

$$n = \frac{N \times (Z)^2 \times P(1-P)}{d^2 (N-1) + (Z)^2 \times P(1-P)}$$

The number of samples obtained by 377 employees at the industrial companies in Sadat city in Egypt is presented in Table (1).

Table (1) Distribution of the Sample Size

Industrial Companies	Employees	Percentage	Sample Size
1. Iron and Steel Sector	8100	40%	377X 40% = 150
2. Construction Sector	5926	29%	377X 29% = 110
3. Food Industries Sector	2087	10%	377X 10% = 38
4. Textile Sector	2520	13%	377X 13% = 49
5. Chemical Industries Sector	1567	8%	377X 8% = 30
<b>Total</b>	<b>20200</b>	<b>100%</b>	<b>377X 100% = 377</b>

Source: Personnel Department at Industrial Companies, Sadat City, Egypt, 2017

Table (2) Characteristics of the Sample

Demographic Variables		Frequency	Percentage
1- Sex	Male	225	75%
	Female	75	25%
	<b>Total</b>	<b>300</b>	<b>100%</b>
2- Marital Status	Single	125	42%
	Married	175	58%
	<b>Total</b>	<b>300</b>	<b>100%</b>
3- Age	Under 30	100	33%
	From 30 to 45	150	50%
	Above 45	50	17%
	<b>Total</b>	<b>300</b>	<b>100%</b>
4- Educational Level	Secondary school	100	33%
	University	150	50%
	Post Graduate	50	17%
	<b>Total</b>	<b>300</b>	<b>100%</b>
5- Period of Experience	Less than 5 years	60	20%
	From 5 to 10	200	67%
	More than 10	40	13%
	<b>Total</b>	<b>300</b>	<b>100%</b>

Source: The researcher based on the outputs of SPSS, V.23, 2015

### 7.2. Procedure

The goal of this study was to identify the significant role of OM in improving OP. A survey research method was used to collect data. The questionnaire included three questions, relating to OM, OP, and biographical information of employees at industrial companies at Sadat city in Egypt. About 377 survey questionnaires were distributed. Multiple follow-ups yielded 300 statistically usable questionnaires. Survey responses were 79%.

### 7.3. Research Variables and Methods of Measuring

The 22-item scale OM section is based on Li, et al., 2004; Yezhuang et al., 2001. There were seven items measuring technological OM, six items measuring marketing OM, and nine items measuring management OM.

The 16-item scale OP section is based on Li et al., 2004. There were ten items measuring management OP and six items measuring marketing OP.

Responses to all items scales were anchored on a five (5) point Likert scale for each statement which ranges from (5) “full agreement,” (4) for “agree,” (3) for “neutral,” (2) for “disagree,” and (1) for “full disagreement.”

## 8. Data Analysis and Hypotheses Testing

### 8.1. Coding of variables

The research consists of two main variables. The first is OM (independent variable). The second is OP (dependent variable). Each variable consists of sub-variables. The main variables, sub-variables, number of statement, and methods of measuring variables can be explained in the following table:

Table (3)  
Description and Measuring of the Research Variables

Main Variables	Sub-Variables	Number of Statement	Methods of Measuring Variables
Organizational Memory	Technology Organizational Memory	7	Li, et al., 2004; Yezhuang et al., 2001
	Marketing Organizational Memory	6	
	Management Organizational Memory	9	
Organizational Performance	Management Organizational Performance	10	Li et al., 2004
	Marketing Organizational Performance	6	

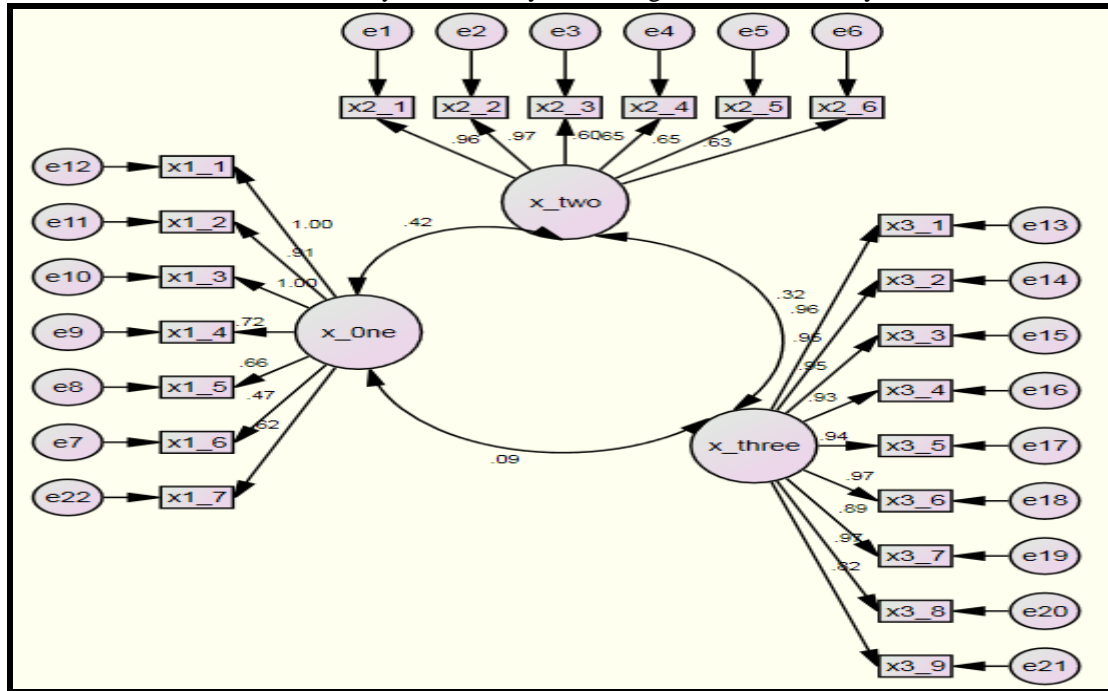
### 8.2. Construct Validity

The researcher depend on the method of Confirmatory Factor Analysis (CFA) in order to verify the quality of the various research measures. The researcher adopted the statistical program AMOS, V.23, 2015. CFA was applied on the research variables as follows:

#### 1. Organizational Memory

The researcher used CFA for OM which consists of three dimensions. They are technological OM, management OM, and marketing OM. The total number of OM is 22 statement. This can be illustrated by the following figure:

Figure (2)  
Confirmatory Factor Analysis For Organizational Memory



Source: The researcher based on the outputs of AMOS, V.23, 2015

From the previous figure, it is clear that all the statement of OM are greater than 0.50, which corresponds to the Goodness of Fit Index. This is a good indicator of all other statistical analysis. In addition to that, the researcher depend on the Structural Equation Model (SEM) because it is one of the best ways to use the multivariable test. SEM has been used to test the compatibility model using AMOS analysis. In order to ascertain whether the model is compatible with the sample data used. Also, it is already measuring the variable that should be measured. The quality indicators for OM variable using AMOS analysis can be illustrated by SEM in the following table:

Table (4)  
Quality Indicators for the Organizational Memory Using AMOS Analysis

Test the Quality of the Model	Test Value	Acceptance Condition <sup>(*)</sup>
$X^2$ / Degree of freedom	2450.309	$(X^2/df) < 5$
P. value	0.000	$P > 0.5$
Goodness of fit Index (GFI)	0.539	$GFI > 0.90$
Tuker-Lewis Index (TLI)	0.764	$TLI > 0.95$
Comparative Fit Index (CFI)	0.789	$CFI > 0.95$
Normed Fit Index (NFI)	0.775	$NFI > 0.90$
Incremental Fit Index (IFI)	0.790	$IFI > 0.95$

(\*) Daire et al., 2008

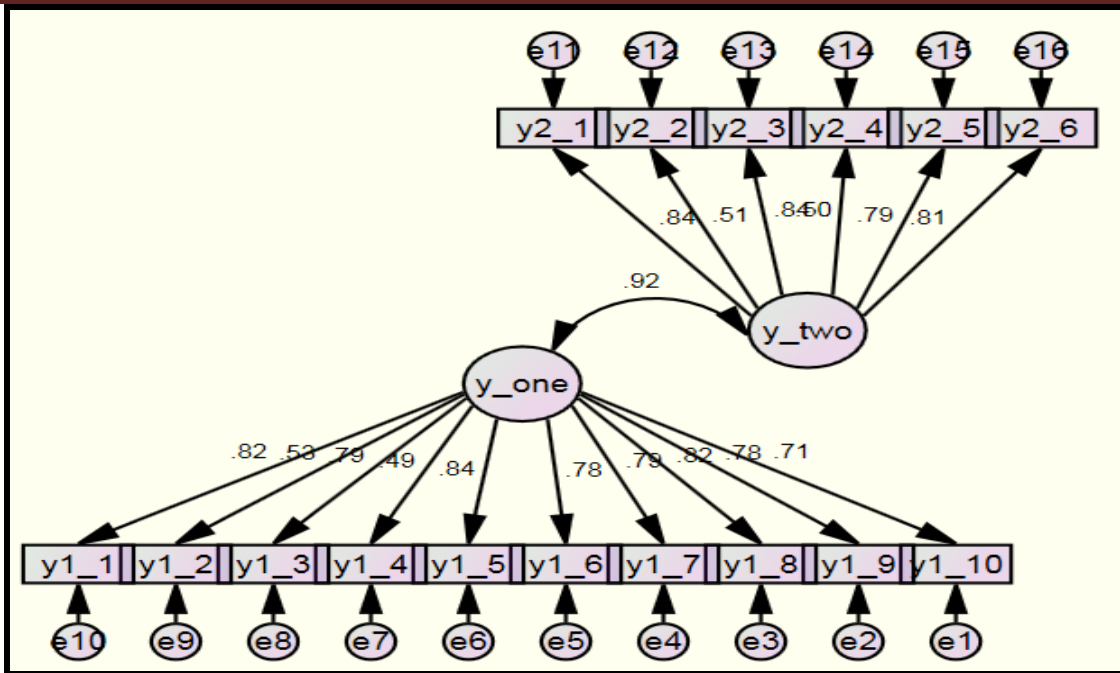
Source: The researcher based on the outputs of AMOS, V.23, 2015

In light of the above-mentioned indicators, it is clear that the model achieved good indicators according to the results of the analysis, where the value of  $(X^2/\text{degrees of freedom})$  2450.309 which is greater than (5), and that the value of P is significant. The index of the Goodness of fit Index ( $GFI = 0.539$ ) is less than (0.9), in addition to the Tuker-Lewis Index ( $TLI = 0.764$ ), which is less than (0.95), as well as the Comparative Fit Index ( $CFI = 0.789$ ), less than (0.95), the Normed Fit Index ( $NFI = 0.775$ ), less than 0.9, and the Incremental Fit Index ( $IFI = 0.790$ ), which is less than 0.9. In general, it is clear that the previous indicators are good for making all other statistical analysis.

## 2. Organizational Performance

The researcher used CFA for KC which consists of two dimensions. They are marketing OP and management OP. The total number of OP is 16 statement. This can be illustrated by the following figure:

Figure (3)  
Confirmatory Factor Analysis For Organizational Performance



Source: The researcher based on the outputs of AMOS, V.23, 2015

From the previous figure, it is clear that all the statement of OP are greater than 0.50, which corresponds to the Goodness of Fit Index. This is a good indicator of all other statistical analysis.

In addition to that, the researcher depend on the Structural Equation Model (SEM) because it is one of the best ways to use the multivariable test. SEM has been used to test the compatibility model using AMOS analysis. In order to ascertain whether the model is compatible with the sample data used. Also, it is already measuring the variable that should be measured. The quality indicators for KC variable using AMOS analysis can be illustrated by SEM in the following table:

Table (5)  
Quality Indicators for the Organizational Performance Using AMOS Analysis

Test the Quality of the Model	Test Value	Acceptance Condition <sup>(*)</sup>
X <sup>2</sup> / Degree of freedom	1135.073	(X <sup>2</sup> /df) < 5
P. value	0.000	P > 0.5
Goodness of fit Index (GFI)	0.635	GFI > 0.95
Tuker-Lewis Index (TLI)	0.697	TLI > 0.95
Comparative Fit Index (CFI)	0.740	CFI > 0.95
Normed Fit Index (NFI)	0.722	NFI > 0.95
Incremental Fit Index (IFI)	0.741	IFI > 0.95

<sup>(\*)</sup> Daire et al., 2008

Source: The researcher based on the outputs of AMOS, V.23, 2015

In light of the above-mentioned indicators, it is clear that the model achieved good indicators according to the results of the analysis, where the value of (X<sup>2</sup>/degrees of freedom) 90.220 which is greater than (5), and that the value of P is significant. The index of the Goodness of fit Index (GFI = 0.635) is less than (0.9), in addition to the Tuker-Lewis Index (TLI = 0.697), which is less than (0.9), as well as the Comparative Fit Index (CFI = 0.740), less than (0.9), the Normed Fit Index (NFI = 0.722), less than 0.9, and the Incremental Fit Index (IFI = 0.741), which is less than 0.95. In general, it is clear that the previous indicators are good for making all other statistical analysis.

### 8.3. Descriptive Analysis

Before testing the hypotheses and research questions, descriptive statistics were performed to find out means and standard deviations of OM and OP.



Table (6) shows the mean and standard deviations of OM and OP

Variables	The Dimension	Mean	Standard Deviation
OM	Technology Organizational Memory	3.64	1.04
	Marketing Organizational Memory	4.06	0.954
	Management Organizational Memory	4.20	0.899
	Total Measurement	3.98	0.719
OP	Management Organizational Performance	2.74	0.953
	Marketing Organizational Performance	2.74	0.958
	Total Measurement	2.74	0.916

Source: The researcher based on the outputs of SPSS, V.23, 2015

According to Table (6), among the various facets of OM, most of the respondents identified the presence of technology OM ( $M=3.64$ ,  $SD=1.04$ ), marketing OM ( $M=4.06$ ,  $SD=0.954$ ), and management OM ( $M=4.20$ ,  $SD=0.899$ ), total OM ( $M=3.98$ ,  $SD=0.719$ ).

The second issue examined was the different facets of OP (management OP and marketing OP). Most of the respondents identified the presence of management OP ( $M=2.74$ ,  $SD=0.953$ ), and marketing OP ( $M=2.74$ ,  $SD=0.958$ ), total OP ( $M=2.74$ ,  $SD=0.916$ ).

#### 8.4. Evaluating Reliability

Data analysis was conducted. All scales were first subjected to reliability analysis. Cronbach’s Alpha was used to assess the reliability of the scales. Item analysis indicated that dropping any item from the scales would not significantly raise the alphas.

Table (7) Reliability of OM and OP

Variables	Dimension	Number of Statement	ACC
OM	Technology Organizational Memory	7	0.939
	Marketing Organizational Memory	6	0.909
	Management Organizational Memory	9	0.983
	Total Measurement	22	0.936
OP	Management Organizational Performance	10	0.922
	Marketing Organizational Performance	6	0.871
	Total Measurement	16	0.945

Source: The researcher based on the outputs of SPSS, V.23, 2015

To assess the reliability of the data, Cronbach’s Alpha test was conducted. Table (7) shows the reliability results for OM and OP. All items had alphas above 0.70 and were therefore excellent, according to Langdrige’s (2004) criteria.

Table (7) presents the reliability of OM. The reliabilities of technology OM, marketing OM and Management OM are generally higher. The 22 items of OM are reliable because the Cronbach’s Alpha is 0.936. The technology, which consists of 7 items, is reliable because the Cronbach’s Alpha is 0.939. The 6 items related to marketing OM, are reliable because the Cronbach’s Alpha is 0.909 while the 9 items of management OM are reliable because the Cronbach’s Alpha is 0.983. Thus, the internal consistency of OM can be acceptable.

The 16 items of OP are reliable because the Cronbach’s Alpha is 0.945. The management OP, which consists of 10 items, is reliable because the Cronbach’s Alpha is 0.922. The 6 items related to marketing OP are reliable because the Cronbach’s Alpha is 0.871. Thus, the internal consistency of OP can be acceptable.

Accordingly, three scales were defined, OM (22 variables), where Cronbach’s Alpha represented about 0.936, and OP (16 variables), where Cronbach’s Alpha represented 0.945.

#### 8.5. The Means, St. Deviations and Correlation among Variables

Table (8) Means, Standard Deviations and Intercorrelations among Variables

Variables	Mean	Std. Deviation	OM	OP
Organizational Memory	3.98	0.719	1	
Organizational Performance	2.74	0.916	0.182**	1

Source: The researcher based on the outputs of SPSS, V.23, 2015

Table (8) shows correlation coefficients between the research variables, and results indicate the presence of significant correlation between variables (OM, and OP). The level of OM of employees is high (Mean=3.98;  $SD=0.719$ ), while OP is (Mean=2.74;  $SD=0.916$ ). Also, Table (5) reveals the correlation between OM and OP ( $R=0.182$ ;  $P < 0.01$ ), which means that the high level of OM leads to higher OP.

**8.6. The Correlation between OM and OP**

The relationship between OM and OP at the industrial companies in Sadat city in Egypt is presented in the following table:  
Table (9) Correlation Matrix between OM and OP

Research Variables	1	2	3	4
Technology Organizational Memory	1			
Marketing Organizational Memory	0.495**	1		
Management Organizational Memory	0.207**	0.354**	1	
Organizational Performance	0.158**	0.166	0.166**	1

Note: \*\* Correlation is significant at 0.01 level.

Source: The researcher based on the outputs of SPSS, V.23, 2015

Based on the Table (6), correlation between OM (Technology) and OP is 0.158. For OM (Marketing) and OP, the value is 0.166 whereas OM (Management) and OP shows correlation value of 0.166. The overall correlation between OM and OP is 0.182.

**8.7. Organizational Memory (Technology) and OP**

The relationship between OM (Technology) and OP is determined. The first hypothesis to be tested is:

*H1: There is no relationship between OM (Technology) and OP at the industrial companies in Sadat city in Egypt*

Table (10) MRA Results for OM (Technology) and OP

The Variables of OM (Technology)	Beta	R	R <sup>2</sup>
1. The Internet is used to obtain standard materials for manufacturing operations.	0.116	0.147	0.021
2. The Internet is used to obtain strategic materials that are involved in manufacturing processes.	0.087	0.158	0.024
3. The Internet is used to integrate with in-store storage management.	0.132	0.142	0.020
4. The Internet is used to integrate with planning and scheduling production in the factory.	0.162	0.132	0.017
5. The Internet is used to integrate with the transportation planning inside and outside the factory.	0.072	0.156	0.024
6. The Internet is used to integrate with processing orders within the factory.	0.309**	0.004	0.001
7. The Internet is used to integrate with different services for customers.	0.431**	0.232	0.053
<ul style="list-style-type: none"> <li>▪ MCC</li> <li>▪ DC</li> <li>▪ Calculated F</li> <li>▪ Degree of Freedom</li> <li>▪ Indexed F</li> <li>▪ Level of Significance</li> </ul>		0.327 0.107 4.979 7, 292 2.63 0.000	

\*\* P < .01

Source: The researcher based on the outputs of SPSS, V.23, 2015

As Table (10) proves, the MRA resulted in the R of 0.327 demonstrating that the 7 independent variables of OM (Technology) construe OP significantly. Furthermore, the value of R square, 7 independent variables of OM (Technology) can explain 0.11% of the total factors in OP level. Hence, 89% are explained by the other factors. Therefore, there is enough empirical evidence to reject the null hypothesis.

**8.8. Organizational Memory (Marketing) and OP**

The relationship between OM (Marketing) and OP is determined. The second hypothesis to be tested is:

*H2: OM (Marketing) has no significant effect on OP at industrial companies at Sadat city in Egypt.*

Table (11) MRA Results for OM (Marketing) and OP

The Variables of OM (Marketing)	Beta	R	R <sup>2</sup>
1. The quality of products shall be used as a criterion in the choice of producers of materials.	0.170	0.087	0.007
2. The desire to detect cost is used as a criterion in the choice of producers of materials.	0.084	0.073	0.005
3. Formal work teams are used as a criterion for selecting the producers of the materials.	0.080	0.010	0.001
4. The product energy calendar is used as a standard for selecting materials.	0.010	0.035	0.001
5. Decisions and flow of goods are coordinated by sharing information about storage levels.	0.102	0.072	0.005
6. Decisions are planned through sharing information toward demand forecasting.	0.025	0.048	0.002
<ul style="list-style-type: none"> <li>▪ MCC</li> <li>▪ DC</li> <li>▪ Calculated F</li> <li>▪ Degree of Freedom</li> <li>▪ Indexed F</li> <li>▪ Level of Significance</li> </ul>		0.117 0.104 0.673 6, 293 2.80 0.000	

Source: The researcher based on the outputs of SPSS, V.23, 2015

As Table (11) proves, the MRA resulted in the R of 0.117. This means that OP has been significantly explained by the 6 independent variables of OM (Marketing). As a result of the value of R<sup>2</sup>, the six independent variables of OM (Marketing) justified only 10% of the total factors in OP level. Hence, 90% are explained by the other factors. Therefore, there is enough empirical evidence to reject the null hypothesis.

### 8.9. Organizational Memory (Management) and OP

The relationship between OM (Management) and OP is determined. The third hypothesis to be tested is:

**H3: There is no relationship between OM (Management) and OP at the industrial companies in Sadat city in Egypt.**

As Table (12) proves, the MRA resulted in the R of 0.239 demonstrating that the 9 independent variables of OM (Management) construe OP significantly. The value of R square, 9 independent variables of OM (Management) can explain only 15% of the total factors in OP level. Hence, 85% are explained by the other factors. Therefore, there is enough empirical evidence to reject the null hypothesis.

Table (12) MRA Results for OM (Management) and OP

The Variables of OM (Management)	Beta	R	R <sup>2</sup>
1. The factory strategy has been rethinking and structuring in recent years.	0.062	0.173	0.029
2. The manufacturing processes and the internal arrangement are restructured in recent years.	0.091	0.167	0.027
3. The actions and actions to implement the strategy are confirmed in the last three years.	0.087	0.175	0.030
4. Programs are confirmed to improve quality and control in the last three years.	0.149	0.148	0.021
5. Process fittings have been updated in the standard industry in the last three years.	0.048	0.163	0.026
6. Operations completion programs have been engaged in the last three years.	0.076	0.170	0.028
7. Information and communication technology has been implemented in recent years.	0.317*	0.096	0.009
8. The productivity of equipment and equipment has been improved in the last three years.	0.377	0.183	0.033
9. The level of delegation has been increased in the last three years.	0.001	0.132	0.017
<ul style="list-style-type: none"> <li>▪ MCC</li> <li>▪ DC</li> <li>▪ Calculated F</li> <li>▪ Degree of Freedom</li> <li>▪ Indexed F</li> <li>▪ Level of Significance</li> </ul>		0.239 0.157 1.947 9, 290 2.40 0.000	

\* P < .05

Source: The researcher based on the outputs of SPSS, V.23, 2015

### 9. Research Results

By reviewing the results of testing the research hypothesis, the study reached a set of results which will be reviewed and discussed as follows:

1. OM is an information system based on the registration of knowledge in order to make it useful for workers in industrial companies in Sadat City. It is also a broad knowledge process that seeks an interactive general framework between its parts and its components of tangible and intangible assets.
2. Building the OM at the industrial companies in Sadat City needs to provide the infrastructure of information technology necessary for the organization, which consists of hardware and human resources, networks, and communications.
3. Most of the studies on OM have focused on the nature and dimensions of OM, but a few have focused on the nature of the relationship between OM and organizational learning on the one hand, OM and organizational forgetfulness on the other. OM in improving the OP of industrial companies in Sadat City.
4. There are significant challenges facing the process of building OM systems at the industrial companies in Sadat City, the most important challenges are: (1) challenges to the management of knowledge itself, (2) challenges to the knowledge workers, (3) challenges to the development of the organization's own system, (4) the difficulty of acquiring and documenting the knowledge of specialists, (5) weakness of the system of incentives and participation in knowledge, (6) the weakness of mechanisms and methods that make the knowledge system a successful system; (7) the weakness of roles and responsibilities that support the process of creativity in the field of knowledge, which is the basis of OM.
5. OM at the industrial companies in Sadat City has been divided into three dimensions: technological OM, administrative OM, and marketing OM, since these dimensions play an important role in influencing OP. In other words, the three dimensions of OM components play an important role in enhancing and improving OP, as there is a correlation and impact of technological, marketing, and OM on OP.
6. The effectiveness of OM to overcome the problem of size, especially with the spread of the use of the Internet, as it faces an important issue, the OM. This poses a serious challenge to industrial companies in Sadat City must be faced.
7. One of the most important problems facing OM formation is organizational forgetfulness, given the nature of past work, and the weak capacity of the organization to learn in a way that enhances the use of OM transparently, which affects individuals in the process of problem solving, decision-making, making organizational work within the organization successful.
8. The existence of good OM has many advantages. The most important is storage of knowledge, which helps them in supporting the various decisions, and increases the ability to retrieve information, especially as it relates to solving the problems facing the staff of the organization.
9. The general average of the OM is fairly high. Management as a dimension of OM ranked first, followed by technological OM, while marketing OM ranked third at the industrial companies in Sadat City
10. The general average of the OP is high. The administrative as one of the dimensions of OP ranked first. This is followed by marketing as one of the dimensions of OP.
11. The researcher used Confirmatory Factor Analysis (CFA) in order to verify the quality of the various research measures. It is clear that all the statement of OM and OP are greater than 0.50, which corresponds to the Goodness of Fit Index. This is a good indicator of all other statistical analysis. In addition to that, the researcher depend on the Structural Equation Model (SEM) because it is one of the best ways to use the multivariable test. SEM has been used to test the compatibility model using AMOS analysis. In order to ascertain whether the model is compatible with the sample data used. Also, it is already measuring the variable that should be measured. In general, it is clear that the previous indicators are good for making all other statistical analysis.
12. There is a statistically significant relationship between the dimensions of OM (technological OM, marketing OM, management OM) and OP (administrative OP, and marketing OP) at the industrial companies in Sadat city.

## **10. Recommendations**

In the light of the previous results, the researcher concluded with a set of recommendations summarized as follows:

1. Improved OP has been, and continues to be, a complex problem in light of technological changes taking place in the surrounding environment. Therefore, the industrial companies in the city of Sadat should take care of their OM and analyze their knowledge component, since the current study showed that there is a fundamental relationship between OM and OP. This can be achieved through the creation of information bases that can be in their information stores, and there will be easy access to these stores from all employees and be updated continuously.
2. To direct the attention of officials in the industrial companies in Sadat City to maintain OM, and this can be done through knowledge management, as knowledge management correctly contributes to improving OP, and OM is the basis in organizational knowledge management.
3. The necessity of conducting many researches and studies on the extent of economic, technical and administrative feasibility of OM systems and their application. This is in addition to the need to conduct research and studies on OM at the industrial companies in Sadat City to make comparisons between them so that they can identify the distinguished ones and make them role models applied to these companies.
4. The need to direct the attention of officials at the industrial companies in Sadat City towards the use of knowledge in improving OP through the technological OM, marketing OM and management OM.
5. The need to provide infrastructure for advanced technology as one of the necessary requirements in the era of knowledge, in the case that the industrial companies in Sadat city seeks to achieve excellence and continuous success in its work under the conditions of the troubled environment.

6. The need to design effective systems of OM at the industrial companies in Sadat city, and must identify the problems and overcome them, and transform the challenges facing them to opportunities to be exploited in the future from the broad understanding of its advantages and the effective and vital role in these companies.
7. The need for industrial companies in Sadat City to provide the requirements of the process of knowledge sharing, especially with regard to the process of training employees and teams, as this has positive effects on the efficiency of performance in these companies.
8. The need for different departments and decision makers in the industrial companies at Sadat City to identify the obstacles that impede the process of applying the effective participation of knowledge in order to achieve their objectives and enhance their competitive position in these companies.
9. The necessity of activating the process of knowledge sharing among the different categories of employees at the industrial companies in Sadat City, as this participation plays an important role in achieving the competitive advantage of these companies.
10. The need to understand the different interpretations based on knowledge, as this is reflected in the impact on the adoption of concepts and methods of sharing knowledge, so as to achieve the potential of workers in industrial companies in Sadat and thus achieve high levels of performance.
11. The necessity of providing the means and tools that support the cooperative environment in the industrial companies in Sadat City, which contributes greatly to support the participation of individuals with their ideas and observations.
12. The need to provide tools and methods that work to secure the knowledge stores at the industrial companies in Sadat City, which strengthens and unifies the knowledge in these companies and increases the ability and effectiveness of the process of sharing knowledge.
13. Attention to the activation of cognitive processes resulting from OM within the framework of an interactive interaction between individuals working in industrial companies in Sadat City, which enhances the capabilities of these companies.
14. Conducting a study and research on how to activate the process of knowledge sharing between employees at the industrial companies in Sadat City, as this has a positive impact on OP.
15. The need for attention of industrial companies at Sadat City with OM and analysis of the knowledge component. The results showed there is an impact of OM on OP. This can be achieved through the embodiment of OM either through the formation of knowledge bases or through the formation of databases, being in its knowledge stores or information stores, making access to these stores accessible to employees and updating them continuously, and making knowledge and information sharing within their organizational culture.
16. The need to provide advanced infrastructure of information technology and knowledge management as a necessity to activate the role of OM at the industrial companies in Sadat City, by identifying the obstacles to overcome them and make the challenges faced by opportunities to deepen the broad understanding of its advantages.

### **11. Future Research Proposals**

Although the present study attempts to reveal the dimensions of OM and its impact on the dimensions of the OP of the industrial companies in Sadat City, the scope of this study and the methods used in it and its findings indicate that there are areas for other future studies. Among these research areas are (1) the role of knowledge management in building OM, (2) OP as a mediating variable between knowledge management and OM, (3) the impact of OM on KM, (4) OM impact on organizational climate (5) analysis of the relationship between OM and organizational cultural OM, (6) OM and its impact on some variables such as functional empowerment, organizational justice, organizational citizenship behavior, etc. These studies can be applied to other communities, such as private universities, public hospitals, and private ones.

### **References**

- Agarwal, S., Erramilli, M. and Chekitan, S. D., (2003), *Market Orientation and Performance in Service Firms: Role of Innovation*, *Journal of Services Marketing*, 17 (1).
- Agha, S., Eyad A., and Kiwan, S., (2015). *The Impact of Strategic Intelligence on Firm Performance and the Mediator Role of Strategic Flexibility: An Empirical Research in Biotechnology Industry*. *International Journal of Management*, 1 (5).
- Ahmadi, A., Shahbazi, M. Jalili, A., (2014). *Investigating the Impact of Organizational Forgetting on Improvement of Organizational Performance*, 3 (2), February.
- Ajayi. A., Awosusi, O., Arogundade, B., and Ekundayo, H., (2011). *Work Environment as Correlate of Academic Staff Job Performance in South West Nigerian Universities*. *European Journal of Education Studies (EJES)*, 3(1), PP.1-9.
- Al-Faouri, A., Al-Nsour, M., and Al-Kasasbeh, M., (2014). *The Impact of Workforce Agility on Organizational Memory*, *Knowledge Management Research and Practice*, 12 (4).
- Alovi, M. and Leidner, D.(1999). *Knowledge Management System: Issues, Challenges and Benefits*, *Communication of AIS*, 1 (7), PP.33-51.
- Aminu, I., Mahmood, R., (2016). *On the Relationship between Procedural and Declarative Organizational Memory and their Effects on SME Performance*, *International Business Management*, 10 (3).
- Armstrong, M. (2001). *A Handbook of Human Resource Management Practice*, Kogan Page, London.



- Awadh, A., and Saad, A (2013). *Impact of Organizational Culture on Employee Performance*, *International Review of Management and Business Research*, 2 (1), PP. 168-175.
- Barbara, H. (2004 ), *Organizational Memory: An Important Concept within the Praxis of Organizational and Adult Learning*, *The Midwest Academy of Management*, Available online at: <http://www.midwestacademy.org>.
- Barton, D. (1995). *Well- Springs of Knowledge: Building and Sustaining the Sources of Innovation*, HBR., Sept- Oct., PP.420-442.
- Burt, A. (2014), *Understanding Employee Knowledge: The Development of an Organizational Memory Scale*, *The Learning Organization*, 21 (2).
- Casey, A., and Olivera, F. (2011), *Reflections on Organizational Memory and Forgetting*, *Journal of Management Inquir*, 20 (3), PP. 305-310.
- Cegarra-Navarro, J-G., Cepeda-Carrion, G. and Jimenez-Jimenez, D., (2010). *Linking Unlearning with Innovation through Organizational Memory and Technology*. *Electronic Journal of Knowledge Management*, 8, PP.1-10.
- Cegarra-Navarro, J-G. and Sa´nchez-Polo, M.T., (2011). *Influence of the Open-Mindedness Culture on Organizational Memory: An Empirical Investigation of Spanish SMEs*. *The International Journal of Human Resource Management*, 22, PP.1-18.
- Chakradeo, M., Makdum, W. (2003). *A Meta-Analysis of Methodologies for Research in Knowledge Management, Organizational Learning and Organizational Memory: Five Years at HICSS*, *Proceedings of the 36<sup>th</sup> Annual Hawaii International Conference on System Sciences*.
- Choi, Y., Lee, H., and Yoo, Y., (2010). *The Impact of Information Technology and Transactive Memory Systems on Knowledge Sharing, Application, and Team Performance: A Field Study*, *Management Information Systems Research Center, University of Minnesota, MIS Quarterly*, 34 (4).
- Corbeet, M., (2000). *On Being an Elephant in the Age of Oblivion: Computer - Based Information Systems and Organizational Memory*, *Information Technology and People*, 13(4).
- Crag, P. and Rastogi, R. (2005). *New Model of Job Design Motivating Employees Performance*, *Journal of Management Development*, 25(6), PP. 572-558.
- Craig, W., Kagan, L. and Helly, S., (2009). *Is God necessary for morality ?*, *Video of a debate at Columbia University*, (<http://www.veritas.org/Campus/Recordings.aspx?cid=10#e103>).
- Craig, W., Kagan, L. Helly, S. (2009). *The Debate: Is Goodness Without God good enough ?*, and *'The Most Gruesome of Guests'*, in Robert K. Garcia and Nathan L. King (eds) *Is Goodness Without God Enough : A Debate on Faith, Secularism, and Ethics* (Plymouth UK : Rowman and Littlefield), 25–48 and 167–188.
- Cross, R. and Baird, L.(2000). *Technology is Not Enough: Improving Performance by Building Organizational Memory*, *Sloan. Management Review*, Spring, PP.69-87.
- Daft, R. L., (2000). *Organization Theory and Design*, (7<sup>th</sup> Ed.), South-Western College Publishing, Thomson Learning, U.S.A .
- Davig, W., Elbert, N., and Brown S., (2004), *Implementing a Strategic Planning Model for Small Manufacturing Firms: An Adaptation of the Balanced Scorecard*, *Sam Advanced Management Journal*.
- Fisher, G. and Palen, L, (1999). *Organizational Learning* , *Center For Life Long Learning and Design*, *University of Colorado*, Spring Semester.
- Garvin, D., Edmondson, A., Gino, F., (2008). *Is You're a learning Organization?*, *Harvard Business Review*, Vol. 86, N.3.
- Hackbarth, G., Grover, V. (1999) *The Knowledge Repository: Organization Memory Information Systems*, *Information Systems Management*, 16 (3), PP. 21–30.
- Hashem, N., (2015). *The Impact of Organizational Memory Use in Marketing Knowledge Management on Marketing Audits in Jordanian Industrial Corporations*, *Proceedings of the International Conference on Global Business, Economics, Finance and Social Sciences (GB15-Thai Conference)*, Bangkok, Thailand, 20- 22 February.
- Hooley, J., Saunders, A., and Piercy, F, (1998). *Marketing Strategy and Competitive Positioning*, *Prentice Hall Europe*.
- Hung, R.Y and Yi, C (2005). *The Implementation of Total Quality Management Strategy in Australia: Some Empirical observations*. *The Journal of American Academy of Business* .
- Jennex, M. and Olfam, L.(2002). *Knowledge Management; Organizational Memory, and Organizational Learning*, *Proceeding of the 35<sup>th</sup> Hawaii International Conference on System Sciences*.
- Köhler M. (2003). *Plant Survival Research and Biodiversity: Lessons from Europe*. Paper presented at the *First Annual Greening Rooftops for Sustainable Communities Conference, Awards and Trade Show*; 20–30 May, Chicago.

- Kontoghiorghes, C., Awbrey, S. and Feurig, P. (2005) *Examining the Relationship Between Learning Organization Characteristics and Change Adaptation, Innovation, and Organizational Performance*, *Human Resource Development Quarterly*, 16 (2), PP.185-211.
- Laudon, K. and Laudon, J. (2004). *Management Information Systems: Managing the Digital Firm*, New Jersey.
- Lee, A., Lai, M. C., Lin, H., and Huang, C., (2011), *Value Creation Potential of Individual and Organizational Memory in Healthcare Services*, *Expert Systems with Applications*.
- Li, Z., YeZhuang, T., and ZhongYing, Q., (2004), *An Empirical Study on the Impact of Organizational Memory on Organizational Performance in Manufacturing Companies*. *Proceedings of the 37<sup>th</sup> Hawaii International Conference on System Sciences (HICSS)*.
- Luciana, A., (2013). *Organizational Learning and Performance. A Conceptual Model*, *Proceedings of the Seventh International Management Conference: New Management for the New Economy*, November 7- 8, Bucharest, Romania.
- Lusthaus, C. Carden, F. Adrien, M. Anderson, G. Montalván, G. (2002). *Organizational Assessment: A Framework for Improving performance*, Washington, D.C. Inter- American Development Bank and Ottawa, Canada. International Development Research center.
- Mansouria, Z., Razmavara, T., and Ali, N., (2014), *An Investigation on the Effects of Organizational Memory and Human Capital on Innovation and Absorptive Capacity*, *Management Science Letters*, Homepage: [www.Growing Science com/msl](http://www.Growing Science com/msl).
- March J. and Olsen J. (1976). *Ambiguity and Choice in Organizations*, Bergen: Universitetsforlaget.
- Mehmood, S., Qadeer, F., and Ahmad, A., (2014), *Relationship between TQM Dimensions and Organizational Performance*, *Pakistan Journal of Commerce and Social Sciences*, 8 (3).
- Memari, N.; O. Mahdieh and Marnani, A., (2013). *The Impact of Organizational Commitment on Employees Job Performance*, *Interdisciplinary Journal of Contemporary Research in Business*, 5 (5), PP. 164-171.
- Mishra, S., and Sahoo, K., (2015), *Organizational Effort towards Performance Management System: A Key to Success*, *Industrial Engineering Letters*, 5 (2).
- Mohan P., Pokharel and Sang O., (2015). *Exploring the Relationships between the Learning Organization and Organizational Performance*, *Management Research Review*, 38 (2), PP. 126 -148.
- Moorman, C. and Miner, A. (1997). *The Impact of Organizational Memory On New Product Performance and Creativity*, *Journal of Marketing Research*, 34 (1), PP. 91-106.
- Nguyen, T. (2006). *Improving Performance Through Linking it and TQM in Vietnamese Organizations*, Unpublished PhD., University of Fribourg. Switzerland.
- Niknam, M., Alborzi, M., and Gharakhani, D., (2013). *The Effect of Knowledge Management Infrastructure on Organizational Performance*, *Nature and Science*, 11 (7).
- Olorunsola. E. Arogundade, B. (2012). *Organizational Climate and Lecturers Job Performance in South West Nigeria Universities*. *Journal of Educational and Social Research*, 2(1), PP. 51-57.
- Osei, J., and Ackah, O., (2015). *Employee's Competency and Organizational Performance in the Pharmaceutical Industry: An Empirical Study of Pharmaceutical Firms in Ghana*, *International Journal of Economics, Commerce and Management United Kingdom*, 3 (3).
- Ozdemir, S. (2010), *To Err Is Human, but to Persist Is Diabolical: Loss of Organizational Memory and E-learning Projects*, *Computers and Education*, 55 (7), PP. 101-108.
- Park, E., and Bunn, D., (2003). *Organizational Memory: A New Perspective on the Organizational Buying Process*, *Journal of Business and Industrial Marketing*, 18 (3).
- Peleyeju, J. and Ojebiyi, O. (2013). *Lecturers Performance' Appraisal and Total Quality Management of Public University in South Western Nigeria*, *British Journal of Education*, 1 (2), PP.41-47.
- Peterson, R., Smith, D., Martorana, P., Owens, P. (2003). *The Impact of Chief Executive Officer Personality on Top Management Team Dynamics: One Mechanism by Which Leadership Affects Organizational Performance*, *Journal of Applied Psychology*, 88 (5), PP. 795– 808.
- Rahman, S. (2001). *A Comparative Study of TQM practice and Organizational performance of SMES with and without ISO 9000 Certification*, *International Journal of Quality and Reliability Management*, 18 (1), PP. 35-49.
- Rhee, R., Zhao, X., and Kim, Ch., (2014). *Effects of HRM Practices on Chinese Firms' Organizational Performance: The Moderating Effect of CEO Support*, *Asian Social Science*, 10 (13).
- Robins, A., and Wiersema, M., (1995). *A Resource-based Approach to the Multi business Firm: Empirical Analysis of Portfolio Interrelationships and Corporate Financial Performance*, *Strategic Management Journal*, 16, PP. 277-299.
- Schein, E. (1996). *Three Cultures of Management: The Key to Organizational Learning*, *Sloan Management Review*, 38, PP.9-20.

- Schultz, M. and Hernes, T., (2010). *Powers of the Past: Evoking Organizational Memory in Identity Reconstruction*, *Proceedings of the 2010 Academy of Management Meeting*.
- Sense, A. (2011). *The Project Workplace for Organizational Learning Development*, *International Journal of Project Management*, N.29.
- Shahzad, F., Luqman, A, and Khan, R., (2012), *Impact of Organizational Cultural on Organizational Performance: An Overview*, *Interdisciplinary Journal of Contemporary Research In Business*, 3 (4).
- Sharma, A., (2010). *Enabling Knowledge Management of Organizational Memory for Groups through Shared Topic Maps*, *Unpublished Master Dissertation, Iowa State University, Ames, Iowa*.
- Sherifk, K.(2000). *Barriers to Actualizing Organizational Memories: Lessons from Industry*, *Proceeding of the 33<sup>rd</sup>. Hawaii International Conference on System Sciences*.
- Shin, H., Lee, N., Kim, D., Rhim, H., (2015), *Strategic Agility of Korean Small and Medium Enterprises and its Influence on Operational and Firm Performance*, *International, J. Production Economics*, <http://dx.doi.org/10.1016/j.ijpe.2015.06.015>
- Stannack, P., (1996), *Perspective on Employees: Performance*. *Management Research News*, 119 (415).
- Stein, E. and Zwass, V. (1995). *Actualizing Organizational Memory with Information System*, *Information Systems Research*, 2, (2) PP.85-117.
- Stein, E. W. (1995). *Organizational Memory: Review of Concepts and Recommendations for Management*, *International Journal of Information Management*. 15, PP. 17-32.
- Sverlinger, P. (2000). *Managing Knowledge in Professional Service Organizations: Technical Consultants Serving the Construction Industry*, *Department of Service Management, Chalmers University of Technology Göteborg, Sweden*.
- Walsh, J. and Ungson, G., (1991), *Organizational Memory*, *Academy of Management Review*, 16(1), PP. 57-91.
- Walsh, J.(1995). *Managerial and Organizational Cognition: Notes from a trip down Memory lane*, *Organization Science*, (6), PP. 280- 321.
- Wheelen, T. and Hunger, D., (2008). *Strategic Management and Business Policy*, 11th Ed, Pearson: Prentice Hall, Upper Saddle River, U.S.A.
- Wright, M., Thompson, S., Robbie, K. and Wong, P. (1995). *Management buy-outs in the short and long term*. *Journal of Business Finance and Accounting*, 22(4), PP.461-482.
- Wright, P., Kroll, M., Parnel J., (1998), *Strategic management concepts*, Prentice Hall.
- Yezhuang, T., Li, Z. and Shufen, F.(2001). *The Radiant Effect of Organizational Memory from Cultural-Oriented to Technical-Operational-Oriented*, *Journal of Industrial Engineering and Engineering Management*, (4), PP.34- 45.