



**The Effect of Knowledge Management on Organizational  
Performance Using the Balanced Scorecard Perspectives  
(Jordanian Private Hospitals in the City of Amman: A Case  
Study)**

أثر إدارة المعرفة في الأداء التنظيمي باستخدام معايير بطاقة الأداء المتوازن  
(المستشفيات الخاصة الأردنية في مدينة عمان: دراسة حالة)

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**Thesis is submitted in partial fulfillment of the requirements  
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**Department of Business Administration**

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## Authorization

I, Lubna Ibrahim Al-Ghazi, authorize the Middle East University for Graduate Studies to provide soft and hard copies of this study to libraries, organization, establishments and institutions concerned in academic research upon request.

Lubna Ibrahim Al-Ghazi




Signature 

Date 1/7/2014

## Examination Committee Decision

This thesis has been discussed under its title "The Effect of Knowledge Management on Organizational Performance Using the Balanced Scorecard Perspectives" (Jordanian Private Hospitals in the City of Amman: A Case Study)", and has been approved on 1 / 7 / 2014

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## *Dedication*

*To my great Father who has been a source of encouragement and inspiration to me...*

*To my beloved Mother for taking care of me...*

*To my dearest Brothers, Bilal and Suhaib for their continuous support and guidance...*

*To my lovely Sisters, Wasan, Balsam, Waad, Rufaida, Muna and Ethar for their practical and emotional support...*

*No words can express my gratitude and thankfulness.*

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Thanks to Allah, the Lord of all worlds and existence, the most Gracious and the most Merciful.

My gratitude goes to my Professor Kamel Mughrabi for his continuing guidance since this thesis would not have been completed without his advice and ideas.

Lots of love to my family. Thanks for your love, support and being there for me always.

A special thanks to my sister Wasan for helping and supporting me, words cannot express how grateful I am.

Sincerely Yours,

Lubna Ibrahim Al Ghazi

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**“The Effect of Knowledge Management on Organizational  
Performance Using the Balanced Scorecard Perspectives”  
(Jordanian Private Hospitals in the City of Amman: A Case Study)**

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**ABSTRACT**

This study aims to measure the effect of Knowledge Management on Organizational Performance through the use of Balanced Scorecard Perspectives. The study population consisted of (10) Jordanian Private Hospitals located in the city of Amman and whose capacity is 100 beds or more. The study used the questionnaire as a primary tool in order to collect the primary data from the study sample. Total number of respondents was 101 who work in three managerial levels. The statistical analysis used SPSS Ver. 21 for testing the hypotheses through the multiple regression analysis.

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. The researcher recommended private hospitals to pay more attention to knowledge management practices by holding training courses in how to exploit the knowledge available within the hospital.

## أثر إدارة المعرفة في الأداء التنظيمي باستخدام معايير بطاقة الأداء المتوازن (المستشفيات الخاصة الأردنية في مدينة عمان: دراسة حالة)

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أ.د. كامل المغربي

### الملخص

تهدف هذه الدراسة إلى قياس أثر إدارة المعرفة على الأداء التنظيمي باستخدام معايير بطاقة الأداء المتوازن. ويتكون مجتمع الدراسة من ( 10 ) المستشفيات الخاصة الأردنية في مدينة عمان والتي تمتلك 100 سرير أو أكثر. وقد استخدمت هذه الدراسة الاستبيان كطريقة لجمع البيانات الأولية من عينة الدراسة ، حيث أن عدد المستجيبين كان 101 من الذين يعملون في ثلاث مستويات إدارية. كما استخدمت الدراسة برنامج التحليل الإحصائي (SPSS Ver. 21) لاختبار الفرضيات من خلال تحليل الانحدار المتعدد.

وقد أظهرت النتائج أن هناك أثر ذو دلالة إحصائية لتطوير وتخزين وتطبيق المعرفة على الأداء التنظيمي باستخدام معايير بطاقة الأداء المتوازن، فقد كان هناك أثر ذو دلالة إحصائية لتطوير المعرفة على الأداء التنظيمي باستخدام المؤشرات المالية كبعد من أبعاد بطاقة الأداء المتوازن وأن هناك تأثير ذو دلالة إحصائية لتخزين وتطبيق المعرفة على الأداء التنظيمي باستخدام المؤشرات المتعلقة بالعملاء كبعد من أبعاد بطاقة الأداء المتوازن، وبالإضافة إلى ذلك، فقد

كان هناك تأثير ذو دلالة إحصائية لتطبيق المعرفة على الأداء التنظيمي باستخدام المؤشرات بالعمليات الداخلية كبعد من أبعاد بطاقة الأداء المتوازن. أخيرا ، فإن هناك تأثير ذو دلالة إحصائية لتطوير وتطبيق المعرفة على الأداء التنظيمي باستخدام المؤشرات المتعلقة بالتعلم كبعد من أبعاد بطاقة الأداء المتوازن. يوصي الباحث المستشفيات الخاصة بأن يجب أن تعير إهتمام أكبر لممارسات إدارة المعرفة من خلال عقد دورات تدريبية في كيفية استغلال المعارف المتاحة داخل المستشفى.

# **CHAPTER ONE**

## **Study General Framework**

(1-1): Introduction

(1-2): Study Problem and Questions

(1-3): Study Objectives

(1-4): Study Significance

(1-5): Study Hypotheses

(1-6): Study Model

(1-7): Research Terms and Operational Definitions

(1-8): Study Limitations

# Chapter One

## Study General Framework

### (1-1) Introduction:

Knowledge is becoming increasingly more useful and important for organizations, it is recognized as a source for the organization to innovate and compete. The importance of knowledge lies in the value that it adds to the organization's assets, and in its ability to improve effectiveness and efficiency of the organization. Development in Knowledge Management can help managers to improve their day-to-day work, decision-making processes, create new responses, and enable a set of competitive reactions to be augmented (Monavvarian et al., 2013).

We can define Knowledge in the workplace by the ability of people and organizations to understand and act effectively. It is managed by managers, coworkers, and proactive individuals (Wiig 1999).

The main purpose of Knowledge Management practices in organizations is to ensure performance; by protecting critical knowledge at all levels, applying existing knowledge in all related circumstances, combining knowledge in a synergistic way, acquiring relevant knowledge continuously, and finally developing new knowledge that comes from internal experiences and external

environment (Monavvarian et al., 2013). Knowledge Management can be divided to knowledge generation, knowledge sharing, knowledge storage and knowledge reuse (Li et al., 2012). It can also be divided to Knowledge creation and acquisition, Knowledge storage and retrieved, Knowledge sharing and knowledge application (Mhameed et al., 2013).

Most of the organizations measure their Performance using financial reporting; which does not reflect the need for customer-focused, process-oriented and learning organizations (Kuwaiti 2004). Organization Performance has to emphasize on what the organization does to improve efficiencies, how the organization plans to excel against the competition and how the organization plans for the future; to find out the gaps of performance occurrence (McGuire 2006). In order to help companies looking forward instead of backward we need a measurement tool which helps organizations to translate their vision and strategy into action and provides a comprehensible overview of organizational performance; this tool is Balanced Scorecard.

The Balanced Scorecard is a framework that provides senior executives with powerful analytical tool for putting their organizational strategy into action. By using the Balanced Scorecard, a manager can typically gain access to detailed information about the goal, driver and indicator elements for each four perspectives (financial, customer, Internal Business and Learning) (Abran et al.,



2003). Consequently, the Balanced Scorecard is a set of performance that measures the achievement and performance of the organization toward its goals and it provides a holistic view of what is happening in the organization (Jen et al., 2002).

Kaplan and Norton initially identified four perspectives for Balanced Scorecard (financial, customer, internal process and learning). However the number of perspectives used differs from one company to another because it depends on the strategy and the competitive market for each company (Al Sawalqa et al., 2011).

As Norton said that Balanced Scorecard companies need to be proactive by looking at how they are maintaining their customers, employees and internal processes in addition to its financial metrics (Robin 2000).

## **(1-2) Study Problem and Questions:**

Organizations are viewing knowledge as the most valuable and strategic resource; they are realizing that to remain competitive they must explicitly manage this resource (Zack 1999). According to that, organization has to enhance its Knowledge Management practices (Knowledge Creation, Knowledge Storage, Knowledge Sharing and Knowledge Application) and any gap in these practices will affect the Organization Performance and will have an impact on its

productivity, profitability and improvements. Therefore, knowledge Management can be considered as the most important function on Organization Performance.

Kaplan and Norton (1992) have designed logical tool for describing, implementing and managing strategy at all level. This tool is the Balanced Scorecard which measures Organizational Performance according to financial, customer, internal business process as well as organization learning. And by using Balanced Scorecard; organization can encourage and reward employees in achieving the organization's long-term goals. Rod Mack (general manager in US west Inc. in Denver) said that the Balanced Scorecard model can clarify roles and expectations at all corporate levels (Robin 2000).

Research questions which will be addressed in this study are as follows:

1. What is the effect of Knowledge Management (Creation, Storage, Sharing and Application) on Organizational Performance using the Balanced Scorecard Perspectives in Jordanian Private Hospitals?
2. What is the effect of Knowledge Management (Creation, Storage, Sharing and Application) on Organizational Performance using Financial Perspective of the Balanced Scorecard in Jordanian Private Hospitals?

3. What is the effect of Knowledge Management (Creation, Storage, Sharing and Application) on Organizational Performance using Customer Perspective of the Balanced Scorecard in Jordanian Private Hospitals?

4. What is the effect of Knowledge Management (Creation, Storage, Sharing and Application) on Organizational Performance using Internal Process Perspective of the Balanced Scorecard in Jordanian Private Hospitals?

5. What is the effect of Knowledge Management (Creation, Storage, Sharing and Application) on Organizational Performance using Learning Perspective of the Balanced Scorecard in Jordanian Private Hospitals?

### **(1-3) Study Objectives:**

This study aims to emphasize on Knowledge Management (Creation, Storage, Sharing and Application) and the Balanced Scorecard Perspectives (Financial, Customer, Internal Process and Learning) that will help Hospitals in Jordan to improve their Performance. It aims to achieve the following objectives:

1. Measuring the effect of Knowledge Management (Creation, Storage, Sharing and Application) on Organizational Performance using the Balanced Scorecard Perspectives in Jordanian Private Hospitals.

2. Measuring the effect of Knowledge Management (Creation, Storage, Sharing and Application) on Organizational Performance using Financial Perspective of the Balanced Scorecard in Jordanian Private Hospitals.
3. Determining the effect of Knowledge Management (Creation, Storage, Sharing and Application) on Organizational Performance using Customer Perspective of the Balanced Scorecard in Jordanian Private Hospitals.
4. Determining the effect of Knowledge Management (Creation, Storage, Sharing and Application) on Organizational Performance using Internal Process Perspective of the Balanced Scorecard in Jordanian Private Hospitals.
5. Determining the effect of Knowledge Management (Creation, Storage, Sharing and Application) on Organizational Performance using Learning Perspective of the Balanced Scorecard in Jordanian Private Hospitals.
6. Providing important insight and useful guidance for organizations to streamline their Knowledge Management practices internally with employees.
7. Making recommendations to use the Balanced Scorecard to improve Organizational Performance.

#### **(1-4) Study Significance:**

Organizations are facing different environmental challenges and they attempt to achieve their goals through improving their Knowledge Management which has a definite impact on the organization's success, profitability and market share. Therefore, it is important to encourage organizations to develop and establish a self-evaluation system that may be used in monitoring and measuring their performance. This technique is called Balanced Scorecard which will be measured from its four perspectives (Financial, Customer, Internal Process and Learning).

On the other hand, the Balanced Scorecard did not find its way to most of Jordanian business sector in general and to Hospital sector in specific. The researcher did not find any work mainstreamed to the relationship between Knowledge Management and the Balanced Scorecard in Hospital sector. In addition to that Performance Measurement used in all hospitals is still based on financial measures including monthly and annual reports that focus only on what happened in the past and it does not provide a holistic view on customer, internal process and learning. Thus, this study aims to find out the effect of Knowledge Management (Creation, Storage, Sharing and Application) on Organizational Performance using the Balance Scorecard Perspectives.

## (1-5) Study Hypotheses:

The current study is trying to test the validity of the following Hypotheses:

**H01:** There is no statistically significant effect of Knowledge Management (Creation, Storage, Sharing and Application) on Organizational Performance using the Balanced Scorecard Perspectives in Jordanian Private Hospitals at level ( $\alpha \leq 0.05$ ).

**H02:** There is no statistically significant effect of Knowledge Management (Creation, Storage, Sharing and Application) on Organizational Performance using Financial Perspective of the Balanced Scorecard in Jordanian Private Hospitals at level ( $\alpha \leq 0.05$ ).

**H03:** There is no statistically significant effect of Knowledge Management (Creation, Storage, Sharing and Application) on Organizational Performance using Customer Perspective of the Balanced Scorecard in Jordanian Private Hospitals at level ( $\alpha \leq 0.05$ ).

**H04:** There is no statistically significant effect of Knowledge Management (Creation, Storage, Sharing and Application) on Organizational Performance using Internal Process Perspective of the Balanced Scorecard in Jordanian Private Hospitals at level ( $\alpha \leq 0.05$ ).

**H05:** There is no statistically significant effect of Knowledge Management (Creation, Storage, Sharing and Application) on Organizational Performance

using Learning Perspective of the Balanced Scorecard in Jordanian Private Hospitals at level ( $\alpha \leq 0.05$ ).

### **(1-6) Study Model:**

Figure 1 shows the study model which reflects the Knowledge Management (Creation, Storage, Sharing and Application) as an independent variable and Organizational Performance using the balanced Scorecard Perspectives as the dependent variables.

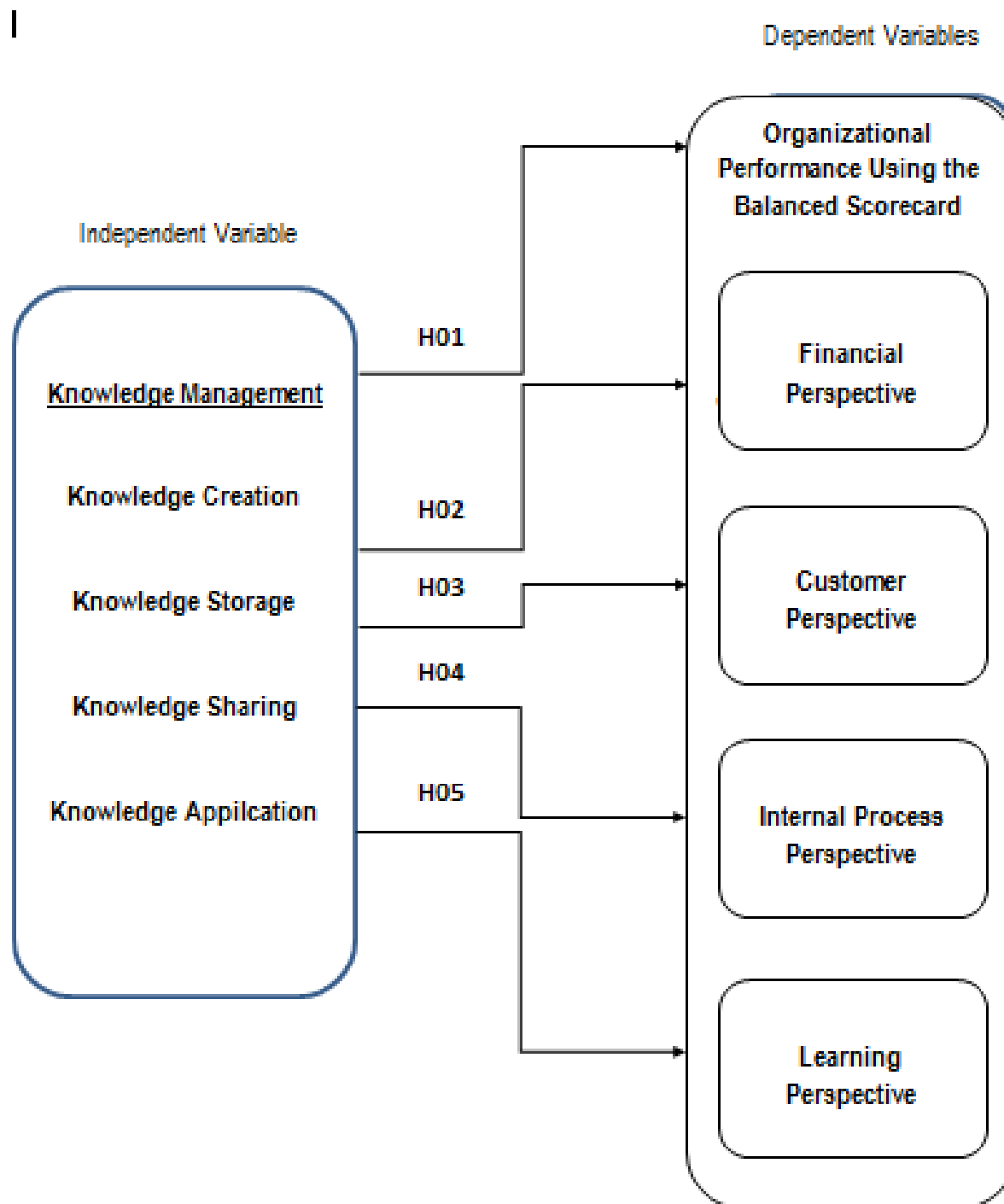


Figure (1-1): Study Model



## (1-7) Research Terms and Operational Definitions:

This section includes definitions for concepts that will be utilized in this study:

**Knowledge:** Is a collective of insights, understandings, beliefs, behavioral routines, procedures and policies which are concerned about markets, products, technologies and processes (Li et al., 2012).

**Knowledge Management:** Is the entire set of practices and activities which are involved in manipulating the stocks and flows of knowledge in the firm, starting from how knowledge is created and continuing to how it is harvested, stored, shared and reused in new and related situations (Li et al., 2012).

**Knowledge Creation:** It is the generation of new knowledge either from external acquisition from outside knowledge network or internal creation through accumulating and recombining existing knowledge from different sources inside the firm (Li et al., 2012).

**Knowledge Storage:** It is the process of identifying, evaluating and capturing relevant and valuable knowledge from inter-firm interactions and preserving it in the depository of the knowledge network (Li et al., 2012).

**Knowledge Sharing:** "It is the process by which individuals collectively and iteratively refine a thought, an idea or a suggestion in the light of experience" (Azudin, 2009, p142).

**Knowledge Application:** It is an action, by which knowledge assets can be transferred into values and reflected in technical and management processes in the form of products and services (Wu et al., 2011).

**Organizational Performance:** Refers to what the organization does to improve efficiencies, how the organization plans to excel against the competition and how the organization plans for the future; to find out the gaps of performance occurrence (McGuire 2006).

**Balanced Scorecard:** Is a logical framework for describing, implementing and managing strategy at all levels of the organization by linking through logical structure, objectives, initiative and measurement of an organization strategy. The Balanced Scorecard measures financial, customer, internal business process as well as organization learning (Abran et al., 2003).

**Financial perspective:** This perspective relates to profit and measured by return on investment, return on capital employed and Economic Value added (Abran et al., 2003).

**Customer perspective:** This perspective includes customer satisfaction, customer retention and market share in targeted segments (Abran et al., 2003).

**Internal business processes:** This perspective includes the internal processes that have the greatest impact on customer satisfaction and on achieving organizational financial objectives (Abran et al., 2003).

**Learning:** This perspective shows the method organization build and manages to create long term growth and improvement through people, systems and organizational procedures (Abran et al., 2003).

## **(1-8) Study Limitations:**

The limitations for the current study are summarized as follows:

**(1-8-1) Place Limitation:** Jordanian Private Hospitals located in the city of Amman.

**(1-8-2) Human Limitation:** The study applied to employees who work in Jordanian Private Hospitals in three managerial levels (Top management, middle management and lowest management).

**(1-8-3) Time limits:** This study completed in two academic semesters for the year 2013-2014.

**(1-8-4) Scientific limitation:** This study is based on previous studies and theoretical literatures on Knowledge Management Practices (Creation, Storage, Sharing and Application) and Organizational Performance using the Balanced Scorecard Perspectives (Financial, Customer, Internal Process and Learning) (Deem et al., 2010; Jr 2012; Li et al., 2012; McGuire 2006; Padron et al., 2010; Wu et al., 2011; Chen et al., 2008; Gold et al., 2001)

## **CHAPTER TWO**

### **Theoretical Framework and Previous Studies**

(2-1): Theoretical Framework

(2-2): Previous Studies

## Chapter Two

### Theoretical Framework and Previous Studies

#### (2-1) Theoretical Framework

##### Knowledge

knowledge is a mix of experience, values, contextual information, and expert insight that forms the framework for new experience and information. It originates and applies in the minds of knowers. It is represented in the organization as documents, processes, practices and norms (Monavvarian et al., 2007). It can be generated and organized in an efficient way and it comes in two different forms that have an impact on the quality of decisions: tacit knowledge and explicit knowledge. Tacit knowledge is information that is gained through experience that is difficult to express, formalize and share, it can't be described in words (Kreitner et al., 2010). It resides in the human mind, behavior and perception (Monavvarian et al., 2007). Tacit knowledge can be categorized into two types: first is the technical which is related to the depth of expert knowledge, and second is the cognitive dimension which consists of schemata, mental models, beliefs, and perceptions (Bourdreau et al., 1999). In contrast, explicit knowledge is the information that can be easily put into words and explained to

others, it can be shared verbally or in documents or in numerical reports (Kreitner et al., 2010).

## **Knowledge Management**

Knowledge management can be used to enable firms to have more effective decision-making processes and to enable firms to create new knowledge and to apply this knowledge to generate more innovations in products, strategy, and processes. It can be also used to enable firm to have greater and long term returns (Harlow 2008).

Knowledge management can be classified into individual knowledge and organizational knowledge. Individual knowledge is the knowledge that resides in an individual's mind, while organizational knowledge is the knowledge that is formed through interactions between technologies, techniques and people (Monavvarian et al., 2007).

In reality, many knowledge management projects are information projects that yield to little innovation in products and services; which make management to develop structures that allow firm to recognize, create, transform and distribute knowledge (Gold et al., 2001). In order to use knowledge management, firms develop a specific knowledge system; which includes eight major processes: starting with generation of new knowledge; then accessing valuable knowledge

from outside sources; using accessible knowledge in decision making; then embedding knowledge in processes, products and/or services; followed by representing knowledge in documents, databases, and software; facilitating knowledge growth through culture and incentives; transferring existing knowledge to other departments of the organization; and finally measuring the value of knowledge assets and/or impact of knowledge management (Harlow 2008).

On the other hand, knowledge management process starts with capturing knowledge, followed by examining the tools for acquiring the knowledge (using techniques and technologies), then capturing knowledge, which is subsequently filtered, refined, analyzed, stored and shared; as knowledge is disseminated, new knowledge is created through knowledge utilization in the new production process and a new cycle of knowledge management process begins (Chen et al., 2008).

Some researchers presented a model for knowledge management containing four competencies; absorption, diffusion, generation and exploitation: Absorption is the process of obtaining new knowledge from outside the organization; diffusion is the process of distributing knowledge among the members of the organization; generation is the production of new knowledge; and exploitation is the use of knowledge in products and services. Other researchers divided knowledge management to undertake knowledge audit, create



Knowledge, capture knowledge, store knowledge, use knowledge and review Knowledge (Al-Aama 2014).

## **Knowledge Management Practices**

Lee and Yang (2000) have divided Knowledge Management to: knowledge acquisition, knowledge innovation, knowledge protection, knowledge integration and knowledge dissemination. While Alavi and Leidner (2001) combined knowledge acquisition, knowledge innovation and knowledge integration into knowledge "creation" process, and added knowledge "application". Another definition for Knowledge Management which is by Cormican and O'Sullivan (2003); they recognized five generic knowledge management activities: knowledge generation, knowledge representation, knowledge storage, knowledge access and knowledge distribution (Li et al., 2012). It can be also divided to Responsiveness to knowledge, Knowledge acquisition, Knowledge dissemination and Knowledge utilization (Chen et al., 2008). "Whatever the names of the processes are, they all include processes to identify, create, define, capture, store, organize, transfer, disseminate, use, review, share and apply knowledge in an organization" (Al-Aama 2014).

Knowledge creation is generating new knowledge; it consists of internal creation through accumulating and recombining existing knowledge from scatters sources and external acquisition from outside of the knowledge network. Where these two ways supplement each other; knowledge acquired from external sources creates an opportunity for knowledge integration, at the same time; with more knowledge accumulated internally, firms increase their absorptive capability (Li et al., 2012). It is generating new knowledge through experimentation, lessons learned, creative thinking and innovation (Ranjbarfard et al., 2014). In addition to that, Knowledge acquisition is an ongoing and dynamic process that involves the capability to innovate novel ideas, insights and solutions and incorporate it within the organization (Jayasingam et al., 2012). knowledge can be gained through individual learning, scanning of the external and internal environment and hiring new employee (Lim et al., 2000).

Some researchers identify knowledge creation as the interaction between tacit and explicit knowledge which is presented by four modes of knowledge conversion: socialization, externalization, combination and internalization. Socialization is the process through which people transfer tacit knowledge to tacit knowledge, the externalization process converts tacit to explicit knowledge, combination is the process of merging different forms and sources of explicit

knowledge like documents and computerized data, and Internalization is the process that converts explicit to tacit Knowledge (Sousa et al., 2010).

Knowledge creation requires sharing and dissemination of personal experience; it takes place at two levels within the organization: between individuals and between the organizations. Sharing between individuals brings individual differences together and can be used to create new knowledge, while sharing between the organizations is the potential source of knowledge and it is important in knowledge acquisition (Gold et al., 2001).

Knowledge storage is the process of identify, evaluating and capturing relevant and valuable knowledge and preserving it in the depository of the knowledge network, It involves three tasks: First harvesting knowledge from disparate locations, then presenting knowledge so that it will be available to all participants in knowledge network and finally coordinating data, storage location and storage mechanism. Certainly, stored knowledge becomes a valuable asset only when it is accessible and easily retrieves (Li et al., 2012).

Knowledge sharing is the distribution of knowledge that already exists within the organization (Ranjbarfard et al., 2014). Knowledge sharing consists of collection and combination of ordinary expectation, share experience, tacit roles and social standard and norms that create attitude and behaviors (Gold et al., 2001).

Sharing knowledge allows both parties to expand information through the exchange process. However it provides an opportunity to discuss know-what and know-how practices, to direct the organization towards future development and growth (Azudin et al., 2009). Knowledge can be shared through personal communication and training (Lim et al., 2000). It can be shared through broadcasting, searching, teaching and other social activities (Ranjbarfard et al., 2014).

Knowledge Application process is a process oriented towards the use of knowledge to adjust strategic direction, solve new problems and improve efficiency (Gold et al., 2001). It is the process of retrieving and using knowledge in decisions, actions, problem solving and routine work (Ranjbarfard et al., 2014).

### **Benefits of Knowledge Management**

Knowledge management has a lot of benefits; it provides employees in an organization with the knowledge they need to do their work effectively, it can empower innovation and drive competitive advantage, if implemented effectively, it can also reduce information bottlenecks, enhance governments' competence and raise governments' service quality (Al-Aama 2014).

## **Barriers of Knowledge Management**

Knowledge management faces several barriers that impede Knowledge creation, storage, sharing, and application and these barriers are related to people, technology, organization, environment and knowledge characteristic. Certainly, lack of reward, shortage of technical support, lack of formal authority on the part of the innovator, and lack of fitness between knowledge and important organizational goals are the most important barriers (Ranjbarfard et al., 2014).

## **Organizational Performance and the use of Balanced Scorecard**

Organizational performance includes three main aspects: financial performance (profits, return on assets, return on investment, etc.); product market performance (sales, market share, etc.) and shareholder return (total shareholder return, economic value added, etc.) (Richard et al., 2009).

Balanced Scorecard is a performance measurement system that is based on four linked perspectives (financial, customer, internal process, and learning and growth) which are derived from the organization's vision, strategy, and objectives (Alzwyalif 2012).

Balanced scorecard is a management strategy that enables organizations to translate the vision and strategy into action; it focuses on internal business processes and external outcomes to continually improve organizational

performance and results. In 1990s Robert Kaplan and David Norton created the balanced scorecard approach when most of traditional management systems were focusing on the financial performance of an organization as an indicator of performance (Akbarzadeh 2012). Simply, Balanced Scorecard is a tool that can employ to measure an organization's operational success through direct cause-and-effect linkages back into daily operations (Ronchetti 2006).

However, Kaplan and Norton noted that a Balanced Scorecard is not only a conventional measure of financial measures but also is a comprehensive measurement system including both financial and non-financial measures as well as leading and lagging indicators. In 1993 and 1996 Balanced Scorecard has been refined by four managing perspectives (financial perspective, customer perspective, business process perspective, and the innovation and learning perspective) and it has been adopted by many businesses (Chang 2012).

There are two basic concepts of foundation of balanced scorecard. First, what you measure is what you get. Second, the Balanced Scorecard complements single financial measures of past performance, such as, return on investment or earning per share with measures of the drivers of future performance (Huang 2007).

In 2002, Niven mentioned that the Balanced Scorecard is a performance measurement system, a strategic management system, and a communication

tool, which is derived from vision and strategy, and reflecting the most important aspects of the organization, it reflects short- and long-term objectives, financial and non-financial measures, objective and subjective measures, lagging and leading indicators and external and internal performance perspectives (Huang 2007).

Financial measurement is the oldest measurement tool which is the most commonly used in management accounting. It focuses on what has happened in the past and it includes mainly the measures that show organization profitability like Return on Investment (ROI), Economic Value Added (EVA), return on equity (ROE) and Earnings per share (EPS). These measures are set according to the company itself and there is no standard set of financial measures (Al Sawalqa et al., 2011).

However financial perspective is not applicable to non-profit-organizations. Certainly these organizations don't really measure their performance using financial measures. In addition to that, traditional financial measures (like ROI and payback period) in profit-organizations offer a narrow and incomplete picture of business (Cheng 2003).

Customer Perspective represents the relationship between organization and its customers; Customers' concerns according to Kaplan and Norton are divided to four categories: time, quality, performance and cost. Lead time measures the

time required for the company to achieve its customers' needs. Quality measures the defect number of products as measured by customer. Performance indicates to how the organization is creating values in its products and services (Al Sawalqa et al., 2011). Customer perspective aims to identify customer and market segments in which the organization competes by determining best measures of the business unit's performance for targeted segments and core measures that will describe the successful outcomes of implemented strategy. "According to Kaplan and Norton (1992), core measures include customer satisfaction, retention, new customer acquisition, customer profitability, and market and account share, and building a sustainable customer relationship" (Bose et al., 2007).

The internal process perspective is based on the notion on achieving customer satisfaction and earning a good return (Al-Mawali et al., 2010). "In other words, the critical business processes enable an organization to deliver on the value propositions of customers in targeted market segments and satisfy shareholders expectations of high financial results" (Al Sawalqa et al., 2011, p. 199). Michalska identified three groups of processes. Firstly, innovative processes in which the company focuses mainly on meeting the hidden needs of its customers. Then, operational processes in which the company creates the



product and delivers it to its customers. Finally, processes of after-sale service (Al Sawalqa et al., 2011).

The learning perspective includes three dimensions: people, systems and organizational perspectives. By applying the learning perspective; organization can identify the infrastructure that would best fit its strategic goals (Bose et al., 2007). Learning perspective emphasizes on improving an organization's ability and capacity to both satisfy customer demands and improve process efficiency and effectiveness (Huang 2007).

### **Benefits of the Balanced Scorecard**

The Balanced Scorecard provides several benefits to organizations. It provide a holistic view of what is happening inside and outside of organizations by allowing each participant to see how individuals could contribute to the overall mission, it helps align key performance measures with strategy, facilitates communication and understanding overall goal for organization, and it helps everyone in the organization to understand the cause-and-effect relationships of the things they do, the mission, vision, and strategy of the organization, the long-term effects of actions and everyone's contributions. It offers strategic feedback and information needed to make adjustments to strategies and activities as necessary (Huang 2007).

## The effect of Knowledge Management on Balanced Scorecard

Knowledge Management reflect overall improvement in outcomes of functional strategies of an organization such as the improvement in customer response time, improvement in human capital contributions, increase in ratio of new products, and increase in return on net assets. Therefore it was considered appropriate to label this factor as “strategic improvement” (Jayasingam et al., 2012).

By measuring the impact of the knowledge management practice on performance using a balanced scorecard in small and medium sized industrial companies in the garment industry, knowledge management practices were divided into: Knowledge creation and acquisition, Knowledge Storage, documentation and retrieval, Knowledge Sharing and Knowledge application. The result showed that there is a significant impact of knowledge management practices on all Balanced Scorecard perspectives (financial, customer, internal process, learning, employees and environment) (Mhameed et al., 2013).

Knowledge Management activities has indirect impact on the lagging performance indicators of the Balanced Scorecard, such as “financial performance”, while it has direct impact on the leading indicators such as performance from “internal process” as well as “learning and growth” perspectives (Chen et al., 2008).

On the other hand, knowledge management action process enables the application of Sustainability Balanced Scorecard; where Knowledge management actions process includes knowledge capture, Knowledge creation which is considered as the driving process of learning, Knowledge application which enhances operational process and Knowledge communication with stakeholders through adjusting products and services to customer needs. On the other hand, if an effective knowledge management program is developed and implemented, it can reduce the lost time in searching for the expertise; increase responsiveness to various changes; enrich the knowledge retention for purposeful utilization and develop a better understanding of stakeholders. Consequently the four perspectives of sustainable Balanced Scorecard work effectively (Wu et al., 2011).

Knowledge management clearly fits the framework of balanced scorecard; where the outputs of knowledge management affect the customer and the finance, while learning and growth is fostered by knowledge management activities and by applying learning and growth perspective, company has to identify the organizational internal process as shown in figure (2-1) (Cabrita et al., 2010).

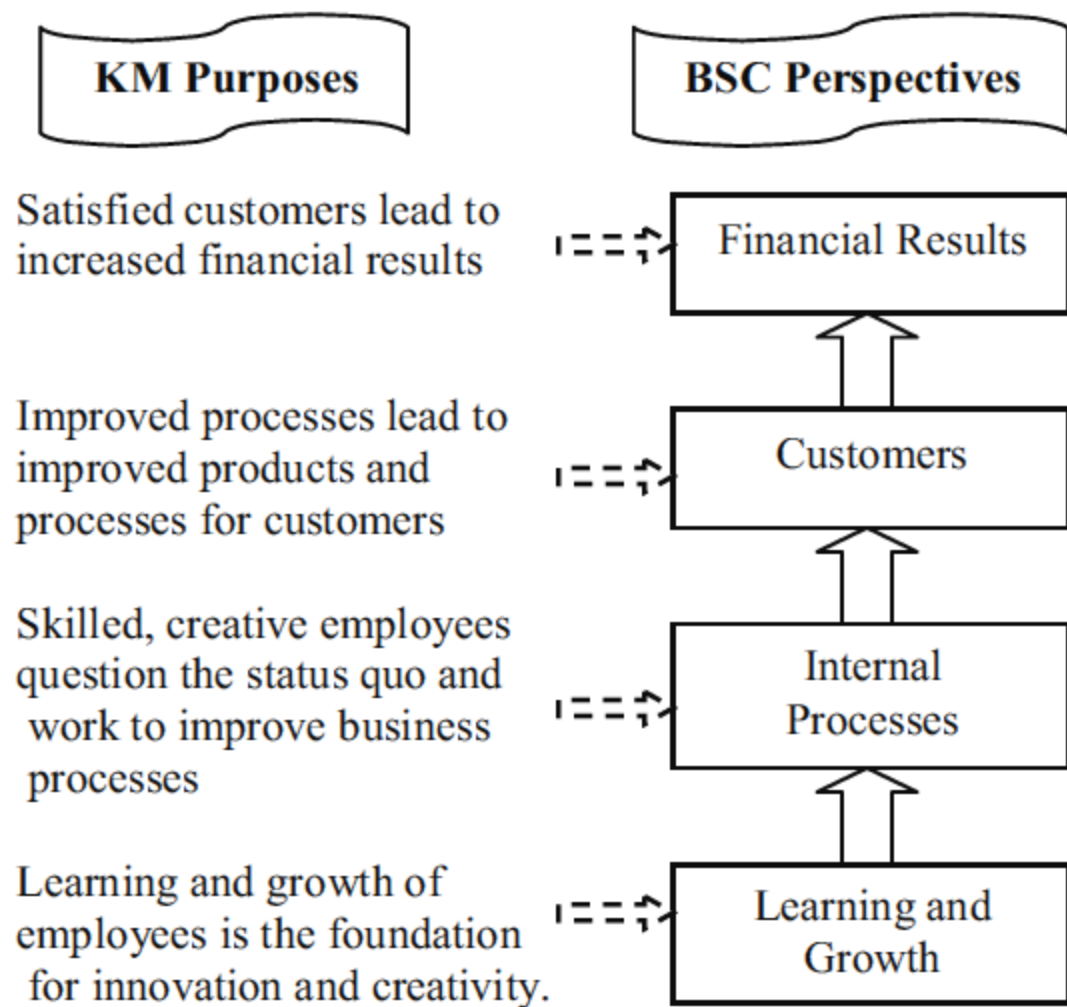


Figure (2-1): Linking KM processes to the BSC (Cabrita et al., 2010)

## (2-2) Previous Studies:

### International Previous Studies:

A study by (Ranjbarfard et al., 2014) entitled “The barriers of knowledge generation, storage, distribution and application that impede learning in gas and petroleum companies”

This study identifies the most important Knowledge Management barriers in gas and petroleum companies in Iran and tries to categorize the barriers according to the Knowledge Management processes. Also the researcher ranks the “critical barriers” according to their contribution to the four Knowledge Management processes (generation, storage, distribution and Application). It has been found that there are many factors that impede Knowledge Management Processes, these factors are related to people, technology, organization, environment and knowledge characteristic. Furthermore, it has been found that the importance of knowledge generation and knowledge application barriers were significantly different among gas and petroleum companies. Also Knowledge Management barriers were ranked according to the number of their contribution to knowledge Management processes and the average mean of their importance in KM processes. Finally it has been found that the most important Knowledge Management barriers are lack of reward, lack of technical support, lack of formal

authority on the part of the innovator, lack of fitness between knowledge and important organizational goals.

**A study by (Chang et al., 2013) entitled “Using the balanced scorecard on supply chain integration performance—a case study of service businesses”**

This study aims to investigate supply chain integration and performance by three case studies (Mechanical Corporation, Technological corporation and Steel Corporation) from the upper level of the supply chain; adopting the concept of Balanced Scorecard that was defined by Kaplan and Norton (1993 and 1996), and Brewer and Speh (2000) to evaluate supply chain performance. First it described the barriers that were encountered by the three case firms when implementing a supply chain to serve the chain members and how they overcame it. Second, integration issues were studied after implementing the supply chain to understand the firm performance after the supply chain integration. Third, supply chain performance was explored from the four perspectives of a Balanced Scorecard (business processes, customer, financial, and innovation and learning perspectives). And lastly it investigated the different levels or positions in the supply chain in order to understand the potential influence of firm position when integrating the supply chain. The study found that

the four dimensions of Balanced Scorecard reinforced each other and were reinforced by the company strategies. On the other hand, the researcher found that companies at different levels in the supply chain will assign different levels of importance to different types of supply chain integration.

A study by (Jayasingam et al., 2012) entitled **“Knowledge management practices and performance: Are they truly linked?”**

This study aims to provide empirical verification to support the link between Knowledge Management practices and performance outcomes for organizations. Where Knowledge Management consists of three main dimensions: knowledge Acquisition, Knowledge Dissemination and Knowledge Utilization. It has been founded that Knowledge acquisition (existing employee) had a positive influence upon strategic and operational improvement measures. On the contrary, knowledge acquisition (hiring) had no significant impact upon these performance measures, Knowledge dissemination only influenced strategic improvement and not operational improvement in organizations. Finally, knowledge utilization had a positive influence on strategic and operational improvement measures.

A study by (Oluikpe 2012) entitled **“Developing a corporate knowledge management strategy”**

This study explores the development and adoption of a knowledge management strategy at the Central Bank of Nigeria (CBN) using the payments system function of the Bank. The Bank is charged with the responsibility of administering the Deposit Money Banks and Other Financial Institutions. In order to ensure high standards of banking practice and financial stability through its regulatory activities as well as the promotion of an efficient payments system, the CBN has been performing major developmental functions focused on key sectors of the Nigerian economy (financial, agricultural and industrial sectors) and by understanding and applying Knowledge Management to business strategy it will increase knowledge flows that would leverage firm's core capabilities. It found that it is important to have a logical and comprehensive coordination for specifying the various components of an organization's knowledge. Delivering strategic knowledge will imply providing knowledge that is explorative in nature as opposed to exploitative. At support level, knowledge has to be exploitative, meaning that the performance of business processes can be enhanced by providing operational staff with knowledge relevant to their tasks. This does not preclude innovativeness and risk taking at the core and support levels, however, the idea is that since most business processes are already clearly defined, it is



more beneficial focusing structured knowledge on these processes to drive the bottom-line.

A study by (Muhammad 2012) entitled **“Knowledge management processes and their impact on the achievement of competitive advantage”**

This study aims to determine the effect of knowledge management on achieving competitive Advantage, and it aims to find if that affect changes according to employee experience and function. The sample size was limited on the management board at Jordan Telecom Group. The results assured that there's an effect of the knowledge management on achieving competitive advantage at Jordan Telecom Group and it differs according to the experience, but there are no differences on functions.

A study by (Al-Zwyalif 2012) entitled **“The Possibility of Implementing Balanced Scorecard in Jordanian Private Universities”**

The study aims to identify the awareness of the Jordanian Private Universities for the importance of the implementation of the Balanced Scorecard in performance evaluation, and it attempt to determine the ability of those universities to implement the Balanced Scorecard by finding out the availability of the essential elements for this implementation. To achieve the goals of the study,

data were collected from the Jordanian Private Universities through a questionnaire which was designed to a sample of faculty deans, deputy deans, heads of scientific departments, financial managers and administrative managers. The result showed that the Jordanian Private Universities are aware of the importance of implementing the Balanced Scorecard in performance evaluation. In addition to that, it has been found that Jordanian Private Universities have the availability of financial resources and essential staff to implement the Balanced Scorecard.

A study by (Wu et al., 2011) entitled **"Knowledge Management -enabled Application of the Sustainability Balanced Scorecard"**

This paper proposes knowledge management solution to enable the application of Sustainability Balanced Scorecard. It tries to find out what knowledge assets are embodied in Sustainability Balanced Scorecard and how does the knowledge management action process enables the application of Sustainability Balanced Scorecard. The results indicate that knowledge integrates sustainability; it focuses on a cascade of values from top management to lower levels; where Knowledge management actions process includes knowledge capture, Knowledge creation which is considered as the driving process of learning, Knowledge application which enhances operational process and

Knowledge communication with stakeholder by adjusted products and services to customer needs. On the other hand, the results showed that if an effective knowledge management program is developed and implemented, it can reduce the lost time in searching for the expertise; increase responsiveness to various changes; enrich the knowledge retention for purposeful utilization and develop a better understanding of stakeholders. Consequently the four perspectives of sustainable Balanced Scorecard work effectively.

**A study by (Padron et al., 2010) entitled “Knowledge Management and Balanced Scorecard Outcomes: Exploring the Importance of Interpretation, Learning and Internationality”**

This study aims to find out the relationship between knowledge management and balanced scorecard outcomes in the global marketing. The model of this study was content of Knowledge Management which include organization memory, information acquisition and information distribution. Where organization memory refers to the value that a firm learned from experience, sharing these learning and developing processes to access the lessons learned. Balance Scorecard used in this study assessing how organizational learning influences actions relating to a global marketing strategy (variance in customer, innovation and learning and internal process) and subsequent financial

performance. It has been found that information gathering, distribution and synthesis can aid in facilitating performance as measured by the balanced scorecard, and as a result; firms can improve their competitive position in global market.

**A study (Chen et al., 2008) entitled “Contribution of knowledge management activities to organizational business performance”**

This study aims to provide empirical evidence about the relationship between Knowledge Management activities and organizational business performance using Balanced Scorecard. The questionnaire was designed for construction contractors in Hong Kong to investigate the opinions of construction professionals regarding the intensity of Knowledge Management activities and business performance within their organizations. At the same time, semi-structured interviews were undertaken to provide qualitative insights that helped to clarify and understand the Knowledge Management process within the context of the research target. It showed that knowledge utilization is the strongest contributor to general business performance. In addition, the impact of knowledge Management activities on the lagging performance indicators of the Balanced Scorecard, such as “financial performance”, is in an indirect manner, and through

the leading indicators such as performance from “internal process” as well as “learning and growth” perspectives.

**A study by (Cheng et al., 2008) entitled “Evaluating the Effectiveness of a Balanced Scorecard System Implemented in a Functional Organization”**

This study proposes a diagnostic process for calibrating both the firm level and the departmental level performance measures where Balanced Scorecard is implemented within a functional company that has 2000 employees and has subsidiaries and manufacturing sites in Taiwan, China, America, Europe and Japan. A questionnaire is designed to investigate employees’ opinions regarding the strength of the causal relationship between the departmental performance measures and the firm level measures, data was analyzed using causal strength matrixes, it has been found that the firm level performance measures were directly assigned to a single department or to a small number of departments without considering the requirement for cross-departmental support and this resulted in some members of the firm questioning the value of the entire Balanced Scorecard system and resisting its operation.

A study by (Boumarafi et al., 2008) entitled **“Knowledge management and performance in UAE business organizations”**

This study investigates the relationship between knowledge management and organizational performance in the UAE. The researcher considered the dimensions for knowledge management as organizational culture, organizational infrastructure, technical infrastructure, management support, reward and vision clarity. Where organizational performance is measured in terms of efficiency, customer satisfaction, decision-making, quality of work and financial benefits. A questionnaire distributed to a variety of business sectors. It has been found that there is significant relationship between the knowledge management dimensions of organizational culture, organizational infrastructure, technical infrastructure and management support with performance improvement measures. Further to that; reward and vision clarity should be implemented significantly in order to better assess their relationships to performance.

A study by (Bose and Thomas 2007) entitled **“Applying the balanced scorecard for better performance of intellectual capital”**

This study aims to examine the issue of measuring performance in relation to a major Australian company, The Fosters Brewing Group, where a newly appointed CEO reversed a decline in performance by adopting the balanced

scorecard approach to management. They noticed that modified balance scorecard that Fosters Group considered is for motivating employees to achieve goals, rather than using it just as a measuring tool for employee performance. Because Fosters group is a large organization, so major changes such as departure of key people often take a long time to effect. At the same time the business environment is dynamic and constantly evolving, so an organization's scorecard needs to be constantly re-conceptualized to reflect developments outside the framework. These can include volatile forces such as new competitors and changing customer demands that can affect a firm's strategy. Similarly, the measure in the scorecard will need to be reviewed to ensure that it continues to reflect strong relationships with performance. Most importantly for the Balance Scorecard team at Fosters that Balance Scorecard needs to be understood according to careful monitoring of changes and needs, measuring and maintaining on a continuous basis taking into consideration the changing environment. For Fosters to continue its success, the balance scorecard provides a valuable methodology to measure the intangible nature of knowledge. But there is a main condition that Balance scorecard needs to be regularly amended and nurtured to take account of the changing environment.

A study by (Huang 2007) entitled “Private Kindergarten Scorecard”

This study aims to develop an effective self-evaluation system to use in Taiwan's Private kindergartens that will enable administrators and teachers to enhance school performance and ensure continuous improvement. It is shown that early childhood education is the foundation of lifelong learning; it's a key role in helping children develop physical, cognitive, and social skills. Thus, developing an effective performance measurement system for use by kindergartens, as a self-evaluation tool shaped by parents' input, was the main purpose of this study. This study determines the relative weights of four dimensions of Balance Scorecard (financial, customer, internal process and innovation) from the view of kindergarten insiders (Administrators, staff and teachers) and outsiders (Parents); the result indicates that kindergarten insiders believe that the four dimensions are vital for managing a kindergarten. Otherwise, kindergarten outsiders emphasize on the stakeholder and innovation perspectives. This means that most of the parents focus on the development of their children, the relationship and communication with the kindergarten, and the continuous improvement of the early childhood program. It has been found that all participants are disappointed and not satisfied with kindergarten performance. This suggests that a greater effort is required in various aspects to improve the performance and quality of early childhood settings and in order to improve the performance and quality, the



kindergartens has to adopt strategies like extending the electronic technology knowledge and skill levels of kindergarten professionals, ensuring that all staffs have the same professional development opportunities. Taking into consideration that Taiwan government should encourage kindergartens by providing free consultation and diagnostic conclusions from experts, helping poor performing kindergartens to implement architecture in the organization without other costs and offering intensive reward to kindergartens who have good self-evaluation results.

### Arabic Previous Studies:

A study by (Mhameed et al., 2013) entitled **“The impact of knowledge management practice in the use of the Balanced Scorecard: An Empirical Study in small and medium sized industrial companies”**

This study aims to measure the impact of the knowledge management practice on performance using a balanced scorecard in small and medium sized industrial companies in garment sector. In this study, knowledge management practices were divided to: Knowledge creation and acquisition, Knowledge Storage, documentation and retrieval, Knowledge Sharing and Knowledge application. The result showed that there is a significant impact of knowledge management practices on all Balanced Scorecard perspectives (financial, customer, internal process, learning, employees and environment). The researcher recommended that small and medium sized industrial companies have to provide financial and moral support which is necessary for knowledge management practices by using the Balanced Scorecard and make training sessions on how to exploit the knowledge and develop it within the organization.

A study by (Al Fayez 2011) entitled **"Using the Strategic Assessment Approach to measure Performance: Using Balanced Scorecard"**

This study aims to use the Strategic Assessment Approach to measure performance using Balanced Scorecard at Jordanian Ministry of Interior. It has been found that there are a lot of factors that participate in improving Jordanian Ministry of Interior Performance, first factor is organizational reality (organizational structure, institutional culture, Executive Team and organizational climate), second factor is the available resources (Human Resource, communication and technological), third factor is cognitive resources (customers knowledge, business knowledge and financial knowledge), final factor is Planning knowledge (Corporate Planning, Current Strategy, Planning System and Current Plan).

A study by (Dudein 2009) entitled **"The Obstacles of Using the Balanced Scorecard by Jordanian Commercial Banks"**

This study aims to find out the obstacles that prevent the use of the Balanced Scorecard in Jordanian banks from the viewpoint of its employees. Sample study included (11116) employee from different administration departments and levels. The researcher developed questionnaire to find out the obstacles that impede the use of the Balanced Scorecard. The result showed that

there is an impact of planning, information, financial factors, administration factors, education and technical factors on the Balanced Scorecard in Jordanian Commercial Banks, and it found that demographic characteristics (gender, age, academic degree, job experience and job title) has no impact on Balance Scorecard.

**A study by (Judeh 2008) entitled "The Implementation of the Balanced Scorecard and its effect on the Organizational Commitment of the employees of Jordanian Aluminum Companies"**

This study aims to identifying the effects of the implementation of the Balanced Scorecard on the organizational commitment by recognizing the effects of some demographic factors on the organizational commitment. The results showed that there was a statistical significant effect of the organizational performance evaluation on organizational commitment and it was a big one in the Aluminum Company that adopted the Balanced Scorecard. On the other hand, the researcher found that there were significant differences in the respondents' commitments with regard to age and income. At the same time no significant differences were shown in the respondents' commitments with regard to gender and education.

## **CHAPTER THREE**

### **Method and Procedures**

(3-1): Introduction

(3-2): Study Methodology

(3-3): Study Population and Sample

(3-4): Characteristics of Study Sample

(3-5): Study Methods and Data Collection

(3-6): Statistical Tests

(3-7): Validity and Reliability

### (3-1): Introduction

In this chapter, the researcher will first describe in detail the methodology used in this study, the study population and its sample. Next, the researcher will explain the study tools and the way of data collections. After that, the researcher will discuss the statistical treatment that is used in the analysis of the collected data. And finally, the validation and the reliability of the questionnaire are clearly presented.

### (3-2): Study Methodology

Empirical data were collected and analyzed through a descriptive quantitative approach. This approach was chosen because the current study was concerned with testing the validity and discerning the suitability of the constructed evaluatory model.

Investigative research was deemed as the most suitable technique for measuring the quantitative data (Neuman, 2003). Its include gathering of information about the subject of the object to be measured from the members of the study sample and analyzing their responses to a set of predetermined questions.

The research design chosen for the study is the survey approach. The survey is an attempt to collect data from members of a population in order to determine the current status of that population with respect to one or more variables .

The researcher designed a survey instrument that could be administrated to selected subjects. The purpose of the survey instrument was to collect data about the respondents on study variables.

### (3-3): Study Population and Sample

The population of the study consist of (10) Jordanian Private Hospitals located in the city Amman with the capacity of 100 beds or more. The researcher chooses a sample consisting of (150) employees who work in three managerial levels (top management, middle management and lowest management).

After distributing (150) questionnaires of the study sample, a total of (123) answered questionnaires were retrieved, of which (22) were invalid, Therefore, (101) answered questionnaires were valid for the study (response rate was 67%).

### (3-4): Characteristics of Study Sample

Tables (3-1); (3-2); (3-3); (3-4) and (3-5) show the demographic variables of the study sample (Age; Gender; Qualification; Professional experience and Job Position).

Table (3-1)

Descriptive of the Age of the sample study

<i>Variables</i>	<i>Categorization</i>	<i>Frequency</i>	<i>Percent</i>
<i>Age</i>	Less than 30 Years	20	19.8
	From 30 – Less than 35 Years	35	34.7
	From 35 – Less than 40 Years	8	7.9
	From 40 – Less than 45 Years	25	24.8
	From 45 – Less than 50 Years	7	6.9
	50 Years or greater	6	5.9
<i>Total</i>		101	100%

Table (3-1) shows that the (19.8%) of the sample range aged less than 30 Years, (34.7%) of the sample range aged between 30 – Less than 35 Years, (7.9%) of the sample range aged between 35 – Less than 40 Years. (24.8%) of the sample range aged between 40 – Less than 45 Years. (6.9%) of the sample range aged between 45 – Less than 50 Years. Finally, (5.9%) of the sample range aged 50 Years or greater.

On the other hand, table (3-2) clarifies the gender of the study sample, (64.4%) of the study sample were male and (35.6%) of the study sample were female.

Table (3-2)

Descriptive of the Gender of the sample

<i>Variables</i>	<i>Categorization</i>	<i>Frequency</i>	<i>Percent</i>
<i>Gender</i>	Male	65	64.4
	Female	36	35.6
<i>Total</i>		101	100%



Descriptive analysis for the qualification in the table (3-3) shows that (1%) from the study sample were high school graduate or below, (19.8%) have Diploma degree, (66.3%) from the study sample have BSc degree, (11.9%) from the study sample have master degree, finally, (1%) from the study sample have PhD degree.

Table (3-3)

Descriptive of the qualification of the sample study

<i>Variables</i>	<i>Categorization</i>	<i>Frequency</i>	<i>Percent</i>
<i>Educational Level</i>	High School or below	1	1
	Diploma	20	19.8
	BSc	67	66.3
	Master	12	11.9
	PhD	1	1
<i>Total</i>		101	100%

From the professional experience variable in the table (3-4), the results show that (22.8%) of the sample range have experience less than 5 Years, (43.6%) of the sample range have experience between 5 – Less than 10 Years, (10.9%) of the sample range have experience between 10 – Less than 15 Years. Finally, (22.8%) of the sample range have experience 15 Years or more.

Table (3-4)

Descriptive the professional experience of the sample study

<i>Variables</i>	<i>Categorization</i>	<i>Frequency</i>	<i>Percent</i>
<i>Experience</i>	Less than 5 Years	23	22.8
	From 5 - Less than 10 Years	44	43.5
	From 10 - Less than 15 Years	11	10.9
	15 Years or greater	23	22.8
<i>Total</i>		101	100%

Descriptive analysis for the job position in the table (3-5) shows that (5%) from the study sample were top-level career, (27.7%) from the study sample were middle-level career and (67.3%) from the study sample were at the lowest-level career.

Table (3-5)

Descriptive of the job position of the sample study

<i>Variables</i>	<i>Categorization</i>	<i>Frequency</i>	<i>Percent</i>
<i>Job position</i>	Top Level	5	5
	Middle Level	28	27.7
	Lowest level	68	67.3
<i>Total</i>		101	100%

### (3-5): Study Methods and Data Collection

The current study is of two parts, theoretical and practical. In the theoretical aspect, the researcher relied on the scientific studies that are related to the current study. Whereas in the practical aspect, the researcher relied on descriptive and analytical methods using the practical manner to collect, analyze data and test hypotheses.

The data collection, manners of analysis and programs used in the current study were based on two sources:

1. Secondary sources: The researcher referred primarily to secondary sources such as books, articles, university theses and dissertations and other documentary material for formulating the theoretical framework of the study and to construct its model.
2. Primary source: To collect the primary data, the researcher has designed a special questionnaire consists of (2) paragraphs that covered objective and then distributed to targeted sample.

In this study, both primary and secondary data were used. The data collected for the model were through a questionnaire. After conducting a thorough review of the literature pertaining to study variables, the researcher formulated the questionnaire instrument for this study.

The questionnaire instrumental sections are as follows:

Section One: **Demographic Variables**. The demographic information was collected with closed-ended questions, through (5) factors (Age; Gender; Qualification; Professional experience and Job Position).

Section Two: **Knowledge Management**. This section measured the **Knowledge Management** through (4) dimensions (Knowledge Creation; Knowledge Storage; Knowledge Sharing and Knowledge Application); there are (24) items as follows:

<b>Knowledge Management</b>	Knowledge Creation	Knowledge Storage	Knowledge Sharing	Knowledge Application
<b>No. of items</b>	7	6	5	6
<b>Items Arrangement</b>	1 - 7	8 - 13	14 - 18	19 - 24

Section Three: **Organizational Performance**. This section measured the **Organizational Performance** using balanced scorecard perspectives through (4) perspectives (Financial; Customers; Internal Process and Learning); there are (23) items as follows:

<b>Organizational Performance</b>	Financial	Customer	Internal Process	Learning
<b>No. of items</b>	4	8	4	7
<b>Items Arrangement</b>	25 - 28	29 - 36	37 - 40	41 - 47

11 items were measured on a Likert-type scale as follows:

Always	Most of the time	Sometimes	Rarely	Never
5	4	3	2	1

### (3-6): Statistical Tests

The data collected from the responses of the study questionnaire were used through *Statistical Package for Social Sciences (SPSS Ver.21)* for analysis and conclusions. Finally, the researcher used the suitable statistical methods that consist of:

- Percentage and Frequency of distribution.
- Arithmetic mean to identify the level of response of study sample individuals to the study variables.
- Standard Deviation to Measure the responses spacing degree about Arithmetic Mean.
- Relative importance, assigning due to:

$$\text{Class Interval} = \frac{\text{Maximum Class} - \text{Minimum Class}}{\text{Number of Level}}$$

$$\text{Class Interval} = \frac{5 - 1}{3} = \frac{4}{3} = 1.33$$

The Low degree from 1- less than 2.33

The Medium degree from 2.33 – 3.66

The High degree from 3.67 and above.

- Cronbach Alpha reliability ( $\alpha$ ) to measure strength of the correlation and coherence between questionnaire items.
- Variance Inflation Factor and Tolerance to make sure that there are no Multicollinearity between independent variables.
- Multiple Regression analysis to Measure the impact of study variables on testing the direct effects.

### (3-7): Validity and Reliability

#### *(3-7-1): Validity*

To test the questionnaire for clarity and to provide a coherent research questionnaire, a review that covers all the research constructs was thoroughly performed by academic reviewers from Middle East University, University of Jordan, Petra University and Al Zaytoonah University specialized in Business Administration and Marketing. Some items were added, while others were dropped based on their valuable recommendations. Some others were reformulated to become more accurate to enhance the research instrument. The academic

reviewers were (9) and the overall percentage of respond was (100%), (see appendix "B").

### *(3-7-2): Reliability*

Cronbach's alpha was used to determine the internal consistency reliability of the elements comprising the four constructs as suggested by Gregory (2004). Reliability should be at a minimum acceptable level of ( $\alpha \geq 0.60$ ) to indicate adequate convergence or internal consistency (Sekaran et al 2010).

Pointed out that the overall Cronbach Alpha ( $\alpha$ ) = (0.938). Whereas the High level of Cronbach Alpha ( $\alpha$ ) related to Knowledge Management equaled (0.911). The lowest level of Cronbach Alpha ( $\alpha$ ) related to Organizational Performance equaled (0.863).

These results are within the acceptable levels as suggested by (Sekaran et al 2010). The results are shown in Table (3-6).

Table (3-6)

## Reliability of Study Variables

No.	Variable	Dimensions	No of items	Cronbach's alpha Value
1	<b>Knowledge Management</b>		24	0.911
	(1-1)	<i>Creation</i>	7	0.785
	(1-2)	<i>Storage</i>	6	0.790
	(1-3)	<i>Sharing</i>	5	0.771
	(1-4)	<i>Application</i>	6	0.837
2	<b>Organizational Performance</b>		23	0.863
	(2-1)	<i>Financial</i>	4	0.622
	(2-2)	<i>Customer</i>	8	0.803
	(2-3)	<i>Internal Process</i>	4	0.632
	(2-4)	<i>Learning</i>	7	0.802
<b>Questionnaire Overall</b>			47	0.938



## **CHAPTER FOUR**

### **Analysis Results & Hypotheses Testing**

(4-1): Introduction

(4-2): Descriptive analysis of study variables

(4-3): Adequacy Analysis of the data to test the study hypotheses

(4-4): Study Hypotheses Testing

## (4-1): Introduction

According to the purpose of the research and the research framework presented in the previous chapter, this chapter describes the results of the statistical analysis for the data collected according to the research questions and research hypotheses. The data analysis includes a description of the Means and Standard Deviations for the questions of the study; Multiple Regression analysis used.

## (4-2): Descriptive analysis of study variables

### (4-2-1): *Knowledge Management*

The researcher used the arithmetic mean, standard deviation, one sample t-test, item importance and importance level as shown in Table (4-1). The table shows the importance level of Knowledge Management dimensions, where the arithmetic means for dimensions range between (4.023 - 4.206) compared with general arithmetic mean amount of (4.096). We observe that the highest mean was for the "***Knowledge Storage***" with arithmetic mean (4.206), standard deviation (0.512). The lowest arithmetic mean was for the "***Knowledge Application***" with a score of (4.023) and standard deviation (0.581). In general, it appears that the Importance level of Knowledge

Management in private hospitals from the study sample viewpoint was high. However, the application of knowledge did not receive enough emphasis.

Table (4-1)

Arithmetic mean, SD, one sample t-test, item importance and importance level of Knowledge Management dimensions

No.	Service Quality	Mean	St.D	t- value Calculate	Sig	Item importance	Importance level
1	Knowledge Creation	4.100	0.520	21.250	0.000	2	High
2	Knowledge Storage	4.206	0.512	23.645	0.000	1	High
3	Knowledge Sharing	4.049	0.592	17.790	0.000	3	High
4	Knowledge Application	4.023	0.581	17.677	0.000	4	High
General Arithmetic mean and standard deviation		4.096	0.447				

t- Value Tabulate at level ( $\alpha \leq 0.05$ ) (1.645)

t- Value Tabulate was calculated based on Assumption mean to item that (3)

#### (4-2-1-1): *Knowledge Creation*

The researcher used the arithmetic mean, standard deviation, one sample t-test, item importance and importance level as shown in Table (4-2).

The Table shows the importance level of Knowledge Creation, where the arithmetic means for Knowledge Creation range between (3.930 - 4.247) compared with general arithmetic mean amount of (4.100). We observed that the

statement "*Hospital management acquires information from patients and takes their opinions' about services provided to them*" has received the highest mean score of mean (4.247), Standard deviation (0.753). The statement "*Hospital management arranges for brainstorming meetings with its employees to generate new business idea*" has received the lowest mean score of (3.930) and Standard deviation (0.696). Although the Importance levels for all aspects of this dimension were high, employee were not energized to activate their brains and create new business ideas.

Table (4-2)

Arithmetic mean, SD, one sample t-test, item importance and importance level of  
Knowledge Creation

No.	Knowledge Creation	Mean	St.D	t- value Calculate	Sig	Item importance	Importance level
1	Hospital management seeks to collect information about its competitors systematically	4.227	0.858	14.366	0.000	2	High
2	Hospital management acquires information from patients and takes their opinions' about services provided to them	4.247	0.753	16.634	0.000	1	High
3	Hospital management acquires information from its employees	3.960	0.823	11.718	0.000	6	High
4	Hospital management arranges for brainstorming meetings with its employees to generate new business ideas	3.930	0.696	13.429	0.000	7	High
5	Hospital management explores and creates new knowledge from existing one	4.089	0.762	14.348	0.000	4	High
6	Hospital management is always trying to seek information about new services offered by other hospitals	4.168	0.825	14.224	0.000	3	High
7	Customers' opinions are considered as valuable source of knowledge creation	4.079	0.783	13.845	0.000	5	High
General Arithmetic mean and standard deviation		4.100	0.520				

t- Value Tabulate at level ( $\alpha \leq 0.05$ ) (1.645)

t- Value Tabulate was calculated based on Assumption mean to item that (3)

#### (4-2-1-2): *Knowledge Storage*

The researcher used the arithmetic mean, standard deviation, one sample t-test, item importance and importance level as shown in Table (4-3).

The Table shows the importance level of Knowledge Storage, where the arithmetic means for Knowledge Storage range between (4.118 - 4.277) compared with general arithmetic mean amount of (4.206). We observed that the

highest mean for the "*The hospital's storing system allow users to retrieve information easily*" with arithmetic mean (4.277), standard deviation (0.694). The lowest arithmetic mean was for the "*Our hospital management has ability to identify the necessary knowledge for its primary operations*" with Average (4.118) and Standard deviation (0.803). In general, it appears that the Importance level of Knowledge Storage in Jordanian Private Hospitals in Amman city was high.

Table (4-3)

Arithmetic mean, SD, one sample t-test, item importance and importance level of Knowledge Storage

No.	Knowledge Storage	Mean	St.D	t- value Calculate	Sig	Item importance	Importance level
8	Our hospital management stores knowledge in comprehensive database	4.158	0.703	16.553	0.000	5	High
9	Our hospital management organizes knowledge in its database that can be easily retrieved	4.237	0.709	17.538	0.000	3	High
10	Stored Knowledge is categorized according to administration operations and functional use	4.198	0.721	16.690	0.000	4	High
11	Our hospital management has ability to identify the necessary knowledge for its primary operations	4.118	0.803	13.992	0.000	6	High
12	Our hospital management has varied technological techniques for storing knowledge like computerized systems	4.247	0.766	16.348	0.000	2	High
13	The hospital's storing system allow users to retrieve information easily	4.277	0.694	18.481	0.000	1	High
General Arithmetic mean and standard deviation		4.206	0.512				

t- Value Tabulate at level ( $\alpha \leq 0.05$ ) (1.645)

t- Value Tabulate was calculated based on Assumption mean to item that (3)

#### (4-2-1-3): *Knowledge Sharing*

The researcher used the arithmetic mean, standard deviation, one sample t-test, item importance and importance level as shown in Table (4-4).

The Table shows the importance level of Knowledge Sharing, where the arithmetic means for Knowledge Sharing range between (3.910 - 4.108) compared with general arithmetic mean amount of (4.049). We observed that the highest mean for the "*Hospital management disseminates knowledge to all concerned employees*" with arithmetic mean (4.108), standard deviation (0.760). The lowest arithmetic mean was for the "*Hospital management sincerely encourages employees to share information among themselves*" with Average (3.910) and Standard deviation (0.872). In general, it appears that the Importance level of Knowledge Sharing in Jordanian Private Hospitals in Amman city was high.

Table (4-4)

Arithmetic mean, SD, one sample t-test, item importance and importance level of

### Knowledge Sharing

No.	Knowledge Sharing	Mean	St.D	t- value Calculate	Sig	Item importance	Importance level
14	Hospital management disseminates knowledge to all concerned employees	4.108	0.760	14.658	0.000	1	High
15	Hospital management encourages and facilitates transferring knowledge among its different departments	4.099	0.741	14.892	0.000	2	High
16	Hospital management sincerely encourages employees to share information among themselves	3.910	0.872	10.487	0.000	5	High
17	Hospital management spends most of its time in sharing and exchanging knowledge among its different departments	4.029	0.865	11.956	0.000	4	High
18	Hospital management has an efficient mechanism for distribution of reports and results	4.099	0.854	12.926	0.000	2	High
General Arithmetic mean and standard deviation		4.049	0.592				

t- Value Tabulate at level ( $\alpha \leq 0.05$ ) (1.645)

t- Value Tabulate was calculated based on Assumption mean to item that (3)

#### (4-2-1-4): *Knowledge Application*

The researcher used the arithmetic mean, standard deviation, one sample t-test, item importance and importance level as shown in Table (4-5).

The table shows the importance level of Knowledge Application, where the arithmetic means for Knowledge Application range between (3.861 - 4.188) compared with general arithmetic mean amount of (4.023). We observed that the highest mean for the "*Hospital management applies knowledge to create and innovate new services*" with arithmetic mean (4.188), standard deviation



(0.730). The lowest arithmetic mean was for the "*Hospital management is effectively able to apply available knowledge in problem solving*" with Average (3.861) and Standard deviation (0.812). In general, it appears that the Importance level of Knowledge Application in Jordanian Private Hospitals in Amman city was high.

Table (4-5)

Arithmetic mean, SD, one sample t-test, item importance and importance level of Knowledge Application

No.	Knowledge Application	Mean	St.D	t- value Calculate	Sig	Item importance	Importance level
19	Hospital management efficiently uses knowledge in its researches	3.950	0.841	11.356	0.000	5	High
20	Hospital management is effectively able to apply available knowledge in problem solving	3.861	0.812	10.651	0.000	6	High
21	Hospital management is capable to apply available knowledge to improve the efficiency of its services and operations	4.029	0.727	14.227	0.000	3	High
22	Hospital management attempts to apply knowledge gained from its previous experiences	4.108	0.786	14.176	0.000	2	High
23	Hospital management applies knowledge to create and innovate new services	4.188	0.730	16.336	0.000	1	High
24	Hospital management applies knowledge to create and innovate new administration operations	4.000	0.800	12.562	0.000	4	High
General Arithmetic mean and standard deviation		4.023	0.581				

t- Value Tabulate at level ( $\alpha \leq 0.05$ ) (1.645)

t- Value Tabulate was calculated based on Assumption mean to item that (3)

(4-2-2): *Organizational Performance (Balanced Scorecard)*

The researcher used the arithmetic mean, standard deviation, one sample t-test, item importance and importance level as shown in Table (4-6).

The table presents the importance level of Organizational Performance dimensions, where the arithmetic means for dimensions range between (3.878 - 4.247) compared with general arithmetic mean amount of (4.096). We observed that the highest mean for the "*Financial Perspective*" with arithmetic mean (4.247), Standard deviation (0.514). The lowest arithmetic mean was for the "*Learning Perspective*" With Average (3.878) and Standard deviation (0.583). This indicates that hospitals are not emphasizing on the Learning Perspective in enhancing the Organizational Performance.

Table (4-6)

Arithmetic mean, SD, one sample t-test, item importance and importance level of  
Organizational Performance dimensions

No.	Organizational Performance	Mean	St.D	t- value Calculate	Sig	Item importance	Importance level
1	Financial Perspective	4.247	0.514	24.384	0.000	1	High
2	Customer Perspective	4.110	0.511	21.811	0.000	2	High
3	Internal Process Perspective	4.076	0.461	23.423	0.000	3	High
4	Learning Perspective	3.878	0.583	15.117	0.000	4	High
General Arithmetic mean and standard deviation		4.057	0.393				

t- Value Tabulate at level ( $\alpha \leq 0.05$ ) (1.645)

t- Value Tabulate was calculated based on Assumption mean to item that (3)

#### (4-2-2-1): *Financial Perspective*

The researcher used the arithmetic mean, standard deviation, one sample t-test, item importance and importance level as shown in Table (4-7).

The table shows the importance level of Financial Perspective, where the arithmetic means for Financial Perspective range between (4.178 - 4.346) compared with general arithmetic mean amount of (4.247). We observed that the highest mean for the "*Occupancy rate of beds in the hospital is high*" with arithmetic mean (4.346), Standard deviation (0.639). The lowest arithmetic mean

was for the "*Profitability for our hospital is better than the profitability of other hospitals*" with Average (4.178) and Standard deviation (0.766). In general, it appears that the Importance level of Financial Perspective in Jordanian Private Hospitals in Amman city was high.

Table (4-7)

Arithmetic mean, SD, one sample t-test, item importance and importance level of  
Financial Perspective

No.	Financial Perspective	Mean	St.D	t- value Calculate	Sig	Item importance	Importance level
25	Occupancy rate of beds in the hospital is high	4.346	0.639	21.167	0.000	1	High
26	Profitability for our hospital is better than the profitability of other hospitals	4.178	0.766	15.443	0.000	4	High
27	Return on investment for our hospital is better than return on investment of other hospitals	4.227	0.760	16.234	0.000	3	High
28	The financial department is always concerned for optimizing the financial wealth of the organization and shareholders	4.237	0.826	15.050	0.000	2	High
General Arithmetic mean and standard deviation		4.247	0.514				

t- Value Tabulate at level ( $\alpha \leq 0.05$ ) (1.645)

t- Value Tabulate was calculated based on Assumption mean to item that (3)

(4-2-2-2): *Customer Perspective*

The researcher used the arithmetic mean, standard deviation, one sample t-test, item importance and importance level as shown in Table (4-8).

The table shows the importance level of Customer Perspective, where the arithmetic means for Customer Perspective range between (3.980 - 4.316) compared with general arithmetic mean amount of (4.110). We observed that the highest mean for the "*The hospital has a comprehensive database about its patients*" with arithmetic mean (4.316), Standard deviation (0.760). The lowest arithmetic mean was for the "*Hospital management provides patients with needed services in the shortest possible time*" with Average (3.980) and Standard deviation (0.774). In general, it appears that the Importance level of Customer Perspective in Jordanian Private Hospitals in Amman city was high.

Table (4-8)

Arithmetic mean, SD, one sample t-test, item importance and importance level of  
Customer Perspective

No.	Customer Perspective	Mean	St.D	t- value Calculate	Sig	Item importance	Importance level
29	The hospital has a comprehensive database about its patients	4.316	0.760	17.398	0.000	1	High
30	The hospital updates its patients database regularly	4.118	0.791	14.214	0.000	3	High
31	Hospital management collects information about patients satisfaction	4.168	0.813	14.438	0.000	2	High
32	Hospital collects information from patients to know their needs	4.108	0.691	16.119	0.000	4	High
33	Management of hospital responds quickly to any complaint filed by its patients	4.089	0.849	12.882	0.000	5	High
34	Hospital management attracts new customers through its competitive pricing	4.019	0.871	11.759	0.000	7	High
35	Hospital management tries to provide good services to avoid dissatisfaction of customers	4.079	0.744	14.576	0.000	6	High
36	Hospital management provides patients with needed services in the shortest possible time	3.980	0.774	12.722	0.000	8	High
General Arithmetic mean and standard deviation		4.110	0.511				

t- Value Tabulate at level ( $\alpha \leq 0.05$ ) (1.645)

t- Value Tabulate was calculated based on Assumption mean to item that (3)

#### (4-2-2-3): *Internal Process Perspective*

The researcher used the arithmetic mean, standard deviation, one sample t-test, item importance and importance level as shown in Table (4-9).

The table shows the importance level of Internal Process Perspective, where the arithmetic means for Internal Process Perspective range between (3.831 - 4.227) compared with general arithmetic mean amount of (4.076). We observed that the highest mean for the "*Hospital management continuously*

*attempts to develop new services*" with arithmetic mean (4.227), Standard deviation (0.563). The lowest arithmetic mean was for the "*Hospital management encourages employees to innovate new services*" With Average (3.831) and Standard deviation (0.800). In general, it appears that the Importance level of Internal Process Perspective in Jordanian Private Hospitals in Amman city was high.

Table (4-9)

Arithmetic mean, SD, one sample t-test, item importance and importance level of Internal Process Perspective

No.	Internal Process Perspective	Mean	St.D	t- value Calculate	Sig	Item importance	Importance level
37	Hospital management continuously attempts to develop new services	4.227	0.563	21.893	0.000	1	High
38	Hospital management continuously attempts to develop new administration processes	4.148	0.622	18.537	0.000	2	High
39	Employees at all levels are committed to improving the standard operating procedures	4.099	0.670	16.463	0.000	3	High
40	Hospital management encourages employees to innovate new services	3.831	0.800	10.437	0.000	4	High
General Arithmetic mean and standard deviation		4.076	0.461				

t- Value Tabulate at level ( $\alpha \leq 0.05$ ) (1.645)

t- Value Tabulate was calculated based on Assumption mean to item that (3)

#### (4-2-2-4): *Learning Perspective*

The researcher used the arithmetic mean, standard deviation, one sample t-test, item importance and importance level as shown in Table (4-10).

The table shows the importance level of Learning Perspective, where the arithmetic means for Learning Perspective range between (3.455 - 4.049) compared with general arithmetic mean amount of (3.878). We observed that the highest mean for the "*Hospital management is keen on education and training programs*" with arithmetic mean (4.049), standard deviation (0.698). The lowest arithmetic mean was for the "*Hospital management applies rotation among managers so they can increase their scope of knowledge and learn*" with score (3.455) and standard deviation (1.136). In general, it appears that the Importance level of Learning Perspective in Jordanian Private Hospitals in Amman city was high.



Table (4-10)

Arithmetic mean, SD, one sample t-test, item importance and importance level of

### Learning Perspective

No.	Learning Perspective	Mean	St.D	t- value Calculate	Sig	Item importance	Importance level
41	Managers train employees in order to achieve better results	4.039	0.773	13.506	0.000	2	High
42	Hospital management empowers and supports its employees to experiment and learn	3.910	0.825	11.085	0.000	5	High
43	Hospital management encourages employees to ask and inquire freely	3.782	0.965	8.142	0.000	6	High
44	The existing of training programs covers all employees' needs	3.940	0.822	11.493	0.000	4	High
45	Hospital management encourages employees to attend training programs, seminars and conferences	3.970	0.741	13.159	0.000	3	High
46	Hospital management is keen on education and training programs	4.049	0.698	15.106	0.000	1	High
47	Hospital management applies rotation among managers so they can increase their scope of knowledge and learn	3.455	1.136	4.029	0.000	7	median
General Arithmetic mean and standard deviation		3.878	0.583				

t- Value Tabulate at level ( $\alpha \leq 0.05$ ) (1.645)

t- Value Tabulate was calculated based on Assumption mean to item that (3)

### (4-3): Adequacy Analysis of the data to test the study hypotheses

Before testing the hypotheses of the study, the researcher conducted some tests in order to ensure the adequacy of the data for regression analysis, it was confirmed that there was no high correlation between the independent variables Multicollinearity using the Variance Inflation Factor (VIF) and test Tolerance for each variable of the study variables taking into account the

Variance Inflation Factor not to exceed the allowable value of (10). And that the Tolerance value greater than (0.05).

Were also ensure that the data follow the normal distribution calculates the skewness coefficient, as the data follow a normal distribution if the value of skewness coefficient is less than ( $\pm 1$ ). Table (4-11) shows the results of these tests.

Table (4-11)

Results of Variance Inflation Factor, Tolerance and skewness coefficient

No.	Independent Variables	VIF	Tolerance	Skewness
1	Knowledge Creation	1.961	0.510	- 0.791
2	Knowledge Storage	1.501	0.666	- 0.273
3	Knowledge Sharing	1.678	0.596	- 0.672
	Knowledge Application	2.229	0.449	- 0.614

It is evident from the results listed in Table (4-11) that there is no Multicollinearity between the independent variables and the values of Variance Inflation Factor of the dimensions are (1.961 ; 1.501 ; 1.678 ; 2.229) , respectively, are less than (10) . We can also see that the values of Tolerance ranged between (0.449 - 0.666) which is greater than (0.05). This is an indication that there is no Multicollinearity between the independent variables

To make sure that the data follow a normal distribution the researcher calculated the Skewness coefficient where the values were less than (1).

#### (4-4): Study Hypotheses Testing

**H01:** There is no statistically significant effect of Knowledge Management (*Creation, Storage, Sharing and Application*) on Organizational Performance using the Balanced Scorecard Perspectives in Jordanian Private Hospitals at level ( $\alpha \leq 0.05$ ).

To test this hypothesis, the researcher uses the multiple regression analysis to test the effect of the Knowledge Management on Organizational Performance in Jordanian Private Hospitals. As shown in Table (4-12).

Table (4-12)

Multiple regression analysis to test the effect of the Knowledge Management on Organizational Performance in Jordanian Private Hospitals

	(R)	(R <sup>2</sup> )	F Calculated	DF	Sig*	$\beta$	T Calculated	Sig*	
Organizational Performance	0.813	0.660	46.641	4	0.000	Creation	0.292	3.500	0.001
				96		Storage	0.197	2.700	0.008
				100		Sharing	0.081	1.045	0.299
						Application	0.398	4.484	0.000

\* the impact is significant at level ( $\alpha \leq 0.05$ )

Table (4-12) shows that Knowledge Management (*Creation, Storage and Application*) has a significant effect on Organizational Performance using the Balanced Scorecard Perspectives in Jordanian Private Hospitals. The regression model showed a high degree of fit, as reflected by "R" and "R<sup>2</sup>" value (0.813) , (0.660), which asserted that (0.660) of the explained variation in organizational performance in Jordanian Private Hospitals can be accounted by Knowledge Management (Creation, Storage and Application). On the other hand, Table (4-12) for the data set indicated the slope value of (0.292), (0.197) and (0.398) for the regression line. This suggested that for a one unit increase in Knowledge Management (Creation, Storage and Application) the respective Jordanian Private Hospitals can significantly predict a (0.292), (0.197) and (0.398) increase in organizational performance. Also table (4-12) shows that the analysis of variance of the fitted regression equation is significant with F value of (46.641). This is an indication that the model is a good one. Since the p-value is less than (0.05), it shows a statistically significant relationship exist between the variables at (0.95) confidence level. The results also indicate that Knowledge Management (Creation, Storage and Application) actually affect on Organizational Performance using the Balanced Scorecard Perspectives in Jordanian Private Hospitals with a coefficient of (0.292) for Knowledge Creation, (0.197) for knowledge storage and (0.398) for knowledge application. Thus, Knowledge

Management (Creation, Storage and Application) actually effect on Organizational Performance using the Balanced Scorecard Perspectives in Jordanian Private Hospitals. In fact, this supports the main hypothesis of the study.

*There is a significant statistical effect of Knowledge Management (Creation, Storage and Application) on Organizational Performance using the Balanced Scorecard Perspectives in Jordanian Private Hospitals at level ( $\alpha \leq 0.05$ ).*

*H02:* There is no statistically significant effect of Knowledge Management (*Creation, Storage, Sharing and Application*) on Organizational Performance using Financial Perspective of the Balanced Scorecard in Jordanian Private Hospitals at level ( $\alpha \leq 0.05$ ).

To test this hypothesis, the researcher used the multiple regression analysis to test the effect of the Knowledge Management on Organizational Performance using Financial Perspective of the Balanced Scorecard in Jordanian Private Hospitals. As shown in Table (4-13).

Table (4-13)

Multiple regression analysis to test the effect of the Knowledge Management on Organizational Performance using Financial Perspective of the Balanced Scorecard in Jordanian Private Hospitals

	(R)	(R <sup>2</sup> )	F Calculated	DF	Sig*	$\beta$	T Calculated	Sig*	
Organizational Performance (Financial Perspective)	0.351	0.123	3.364	4	0.013	Creation	0.393	2.937	0.004
				96		Storage	0.100	0.851	0.397
				100		Sharing	0.017	0.139	0.890
						Application	-0.191	-1.336	0.185

\* the impact is significant at level ( $\alpha \leq 0.05$ )

Table (4-13) shows that Knowledge Management Creation has a significant effect on Organizational Performance using Financial Perspective of the Balanced Scorecard in Jordanian Private Hospitals. The regression model showed a high degree of fit, as reflected by "R" and "R<sup>2</sup>" value (0.351) , (0.123) respectively, which asserted that (0.123) of the explained variation in organizational performance (financial Performance) in Jordanian Private Hospitals can be accounted for Knowledge Management Creation. On the other hand, Table (4-13) for the executive data set indicated the slope value of (0.393) for the regression line. This suggested that for a one unit increase in Knowledge Management Creation the respective Jordanian Private Hospitals can

significantly predict a (0.393) increase in organizational performance (Financial Performance). Also Table (4-13) shows that the analysis of variance of the fitted regression equation is significant with F value of (3.364). This is an indication that the model is a good one. Since the p-value is less than (0.05), it shows a statistically significant relationship between the variables at (0.95) confidence level. The results also indicate that Knowledge Management Creation actually effect on Organizational Performance using Financial Perspective of the Balanced Scorecard in Jordanian Private Hospitals with a coefficient of (0.393). Thus, Knowledge Management Creation actually effect on Organizational Performance using Financial Perspective of the Balanced Scorecard in Jordanian Private Hospitals. In fact, this supports the study hypothesis.

*There is a significant statistical effect of Knowledge Management Creation on Organizational Performance using Financial Perspective of the Balanced Scorecard in Jordanian Private Hospitals at level ( $\alpha \leq 0.05$ ).*

**H03:** There is no statistically significant effect of Knowledge Management (*Creation, Storage, Sharing and Application*) on Organizational Performance using Customer Perspective of the Balanced Scorecard in Jordanian Private Hospitals at level ( $\alpha \leq 0.05$ ).

To test this hypothesis, the researcher uses the multiple regression analysis to test the effect of the Knowledge Management on Organizational Performance using Customer Perspective of the Balanced Scorecard in Jordanian Private Hospitals. As shown in Table (4-14).

Table (4-14)

Multiple regression analysis to test the effect of the Knowledge Management on Organizational Performance using Customer Perspective of the Balanced Scorecard in Jordanian Private Hospitals

	(R)	(R <sup>2</sup> )	F Calculate	DF	Sig*	$\beta$	T Calculate	Sig*	
Organizational Performance (Customer Perspective)	0.804	0.646	43.775	4	0.000	Creation	0.123	1.443	0.152
				96		Storage	0.478	6.418	0.000
				100		Sharing	0.005	0.068	0.946
						Application	0.337	3.717	0.000

\* the impact is significant at level ( $\alpha \leq 0.05$ )

Table (4-14) shows that Knowledge Management (Storage and Application) has a significant effect on Organizational Performance using Customer Perspective of the Balanced Scorecard in Jordanian Private Hospitals. The



regression model showed a high degree of fit, as reflected by "R" and "R<sup>2</sup>" value (0.804) , (0.646) respectively, which asserted that (0.646) of the explained variation in organizational performance (Customer Performance) in Jordanian Private Hospitals can be accounted for Knowledge Management Storage and Application. On the other hand, Table (4-14) for the executive data set indicated the slope value of (0.478) and (0.337) for the regression line. This suggested that for a one unit increase in Knowledge Management Storage and Application the respective Jordanian Private Hospitals can significantly predict a (0.478) and (0.337) increase in organizational performance (Customer Performance). Also table (4-14) shows that the analysis of variance of the fitted regression equation is significant with F value of (43.775). This is an indication that the model is a good one. Since the p-value is less than (0.05), it shows a statistically significant relationship between the variables at (0.95) confidence level. The results also indicate that Knowledge Storage and Application actually effect on Organizational Performance using Customer Perspective of the Balanced Scorecard in Jordanian Private Hospitals with a coefficient of (0.478) for Knowledge Management Storage and (0.337) for Knowledge Management Application. Thus, Knowledge Management Storage and Application actually effect on Organizational Performance using Customer Perspective of the Balanced Scorecard in Jordanian Private Hospitals. This supports the study hypothesis.

*There is a significant statistical effect of Knowledge Management Storage and Application on Organizational Performance using Customer Perspective of the Balanced Scorecard in Jordanian Private Hospitals at level ( $\alpha \leq 0.05$ ).*

*H04:* There is no statistically significant effect of Knowledge Management (*Creation, Storage, Sharing and Application*) on Organizational Performance using Internal Process Perspective of the Balanced Scorecard in Jordanian Private Hospitals at level ( $\alpha \leq 0.05$ ).

To test this hypothesis, the researcher uses the multiple regression analysis to test the effect of the Knowledge Management on Organizational Performance using Internal Process Perspective of the Balanced Scorecard in Jordanian Private Hospitals. As shown in Table (4-15).

Table (4-15)

Multiple regression analysis to test the effect of the Knowledge Management on Organizational Performance using Internal Process Perspective of the Balanced Scorecard in Jordanian Private Hospitals

	(R)	(R <sup>2</sup> )	F Calculate	DF	Sig*	B	T Calculate	Sig*	
Organizational Performance (Internal Process Perspective)	0.514	0.265	8.634	4	0.000	Creation	0.212	1.733	0.086
				96		Storage	0.064	0.600	0.550
				100		Sharing	-0.002	-0.019	0.985
						Application	0.308	2.359	0.020

\* the impact is significant at level ( $\alpha \leq 0.05$ )

Table (4-15) shows that Knowledge Management Application has a significant effect on Organizational Performance using Internal Process Perspective of the Balanced Scorecard in Jordanian Private Hospitals. The regression model showed a high degree of fit, as reflected by "R" and "R<sup>2</sup>" value (0.514) , (0.265) respectively, which asserted that (0.265) of the explained variation in organizational performance (Internal Process Perspective) in Jordanian Private Hospitals can be accounted for Knowledge Management Application. On the other hand, Table (4-15) for the executive data set indicated the slope value of (0.308) for the regression line. This suggested that for a one

unit increase in Knowledge Management Application the respective Jordanian Private Hospitals can significantly predict a (0.308) increase in organizational performance (Internal Process Performance). Also table (4-15) shows that the analysis of variance of the fitted regression equation is significant with F value of (8.634). This is an indication that the model is a good one. Since the p-value is less than (0.05), it shows a statistically significant relationship between the variables at (0.95) confidence level. The results also indicate that Knowledge Management Application actually effect on Organizational Performance using Internal Process Perspective of the Balanced Scorecard in Jordanian Private Hospitals with a coefficient of (0.308). Thus, Knowledge Management Application actually effect on Organizational Performance using Internal Process Perspective of the Balanced Scorecard in Jordanian Private Hospitals. This further supports the study hypothesis.

*There is a significant statistical effect of Knowledge Management Application on Organizational Performance using Internal Process Perspective of the Balanced Scorecard in Jordanian Private Hospitals at level ( $\alpha \leq 0.05$ ).*

**HO<sub>4</sub>:** There is no statistically significant effect of Knowledge Management (*Creation, Storage, Sharing and Application*) on Organizational Performance using Learning Perspective of the Balanced Scorecard in Jordanian Private Hospitals at level ( $\alpha \leq 0.05$ ).

To test this hypothesis, the researcher uses the multiple regression analysis to test the effect of the Knowledge Management on Organizational Performance using Learning Perspective of the Balanced Scorecard in Jordanian Private Hospitals. As shown in Table (4-16).

Table (4-16)

Multiple regression analysis to test the effect of the Knowledge Management on Organizational Performance using Learning Perspective of the Balanced Scorecard in Jordanian Private Hospitals

	(R)	(R <sup>2</sup> )	F Calculate	DF	Sig*	$\beta$	T Calculate	Sig*	
Organizational Performance (Learning Perspective)	0.725	0.526	26.595	4	0.000	Creation	0.229	2.324	0.022
				96		Storage	-0.122	-1.414	0.161
				100		Sharing	0.165	1.814	0.073
						Application	0.501	4.772	0.000

\* the impact is significant at level ( $\alpha \leq 0.05$ )

Table (4-16) shows that Knowledge Management (Creation and Application) has a significant effect on Organizational Performance using Learning Perspective of the Balanced Scorecard in Jordanian Private Hospitals. The regression model showed a high degree of fit, as reflected by "R" and "R<sup>2</sup>" value (0.725) , (0.526) respectively, which asserted that (0.526) of the explained variation in organizational performance (Learning Performance) in Jordanian Private Hospitals can be accounted for Knowledge Creation and Application. On the other hand, Table (4-16) for the executive data set indicated the slope value of (0.229) and (0.501) for the regression line. This suggested that for a one unit increase in Knowledge Creation and Application the respective Jordanian Private Hospitals can significantly predict a (0.229) and (0.501) increase in organizational performance (Learning Performance). Also table (4-16) shows that the analysis of variance of the fitted regression equation is significant with F value of (26.595). This is an indication that the model is a good one. Since the p-value is less than (0.05), it shows a statistically significant relationship between the variables at (0.95) confidence level. The results also indicate that Knowledge Creation and Application actually effect on Organizational Performance using Learning Perspective of the Balanced Scorecard in Jordanian Private Hospitals with a coefficient of (0.229) for Knowledge Creation and (0.501) for Knowledge Application. Thus, Knowledge Creation and Application actually effect on

Organizational Performance using Learning Perspective of the Balanced Scorecard in Jordanian Private Hospitals. This supports the study hypothesis.

*There is a significant statistical effect of Knowledge Management Creation and Application on Organizational Performance using Learning Perspective of the Balanced Scorecard in Jordanian Private Hospitals at level ( $\alpha \leq 0.05$ ).*

# **CHAPTER FIVE**

## **Conclusions & Recommendations**

(5-1): Conclusions

(5-2): Recommendations



## (5-1): Conclusions

This study raised a number of questions, and developed hypotheses related to the study variables. The study results answered the study questions and came up with the following conclusions:

1. There is a significant statistical effect of Knowledge Management (Creation, Storage and Application) on Organizational Performance using the Balanced Scorecard Perspectives in Jordanian Private Hospitals at level ( $\alpha \leq 0.05$ ). This result was consistent with the findings of (Muhammad 2012 and Mhameed et al., 2013 ).

2. There is a significant statistical effect of Knowledge Management Creation on Organizational Performance using Financial Perspective of the Balanced Scorecard in Jordanian Private Hospitals at level ( $\alpha \leq 0.05$ ). This result was consistent with the findings of (Mhameed et al., 2013 ).

3. There is a significant statistical effect of Knowledge Management Storage and Application on Organizational Performance using Customer Perspective of the Balanced Scorecard in Jordanian Private Hospitals at level ( $\alpha \leq 0.05$ ). This significant statistical effect of Knowledge Management found in this study was supported by findings of (Al Fayed 2011 and Mhameed et al., 2013).

4. There is a significant statistical effect of Knowledge Management Application on Organizational Performance using Internal Process Perspective of

the Balanced Scorecard in Jordanian Private Hospitals at level ( $\alpha \leq 0.05$ ). This result was supported by the findings of (Al-Zwyalif 2012 and Mhameed et al., 2013).

5. There is a significant statistical effect of Knowledge Management Creation and Application on Organizational Performance using Learning Perspective of the Balanced Scorecard in Jordanian Private Hospitals at level ( $\alpha \leq 0.05$ ). This result came compatible to Chen's study (2008) with regard to the contributions of Knowledge Management activities to organizational business performance.

6. Knowledge Sharing has not direct effect on Organizational Performance and this is consistent with the findings of the (Jayasingam et al., 2012) that knowledge dissemination does not directly drive workers to consistently improve the system. It has effect only when the knowledge shared is relevant, it would encourage process improvement.

7. Study reported the presence of the impact of knowledge management practices on organizational Performance using financial perspective, and this result agreed with the findings of the (Jayasingam et al., 2012), (Boumarafi et al., 2008) and (Mhameed et al., 2013) that knowledge management practices affect the financial Perspective and it improves its performance.

8. The study reported the presence of the impact of knowledge management practices on organizational Performance using customer perspective, and this result agreed with the findings of the (Jayasingam et al., 2012, Boumarafi et al., 2008, Mhameed et al., 2013 and Kuwaiti 2004) that the practice of knowledge management affect the operational performance and strategic customers satisfaction. This indicates that traditional financial indicators is not enough to measure the performance and it does not give an adequate picture about the company's performance, because it depends on the performance measure in the past, it does not reflect the need for customer. While the non-financial indicators is used to measure future performance of the company. So it has to be the integration of traditional financial indicators and non-financial indicators to evaluate the performance of companies and to give a comprehensive picture of performance.

9. The study reported the presence of the impact of knowledge management practices on organizational Performance using internal process perspective, and this result agreed with the findings of the (Boumarafi et al., 2008) and (Mhameed et al., 2013) that the practice of knowledge management positively affect the efficiency and quality of decision-making and action. Therefore, we have to use models of financial and non-financial performance in evaluating performance.

## (5-2): Recommendations

Based on the results of the study, the researcher suggests the following recommendations:

1. Due to the important role of knowledge management practices in improving performance at all managerial levels as it is the most valuable and strategic resource to remain competitive; Hospital have to pay more attention to knowledge management practices by holding training courses in how to exploit the knowledge available within the hospital and how their development to improve their performance.
2. Hospitals must provide financial and moral support to knowledge management practices to improve performance through the use of the Balanced Scorecard.
3. Hospitals must assess the impact knowledge management practices on performance using traditional financial indicators to measure the performance of current and non-traditional indicators to measure the performance of future.
4. Hospitals must concentrate on Knowledge Creation because it has significant effect on Financial and Learning Perspective by collecting information from customers and taking their opinions' about services provided to them and by

arranging for more meetings and conferences for employees in order to generate more business ideas.

5. Hospitals must concentrate on Knowledge Application because it has significant effect on Customer, Internal Process and Learning Perspective by applying available knowledge in problem solving and in improving the efficiency of its services and operations.
6. Hospitals must pay more attention to Balanced Scorecard model that can clarify roles and expectations at all corporate levels.
7. To concentrate on Knowledge Application in order to enhance Organizational Performance.
8. Top management should pay more attention to use existing knowledge to create and innovate new administration operations.
9. Top Management should improve storing knowledge in comprehensive database.
10. Top management should apply rotation among managers to help them increase their scope of knowledge and learn.

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## Appendixes

### Appendixes A

#### استبانة لأغراض البحث العلمي

عزيزي المستجيب/ عزيزتي المستجيبة

تحية طيبة وبعد ،،،

تهدف هذه الدراسة إلى قياس أثر إدارة المعرفة في الأداء التنظيمي باستخدام معايير بطاقة الأداء المتوازن في المستشفيات الخاصة الأردنية في مدينة عمان وذلك من أجل استكمال متطلبات الحصول على درجة الماجستير في إدارة الأعمال من جامعة الشارقة الأوسط. لذا الرجاء التكرم بالإجابة على جميع الأسئلة الواردة في هذا الاستبيان بما ترونه مناسباً من خلال الخبرة التي تتمتعون بها.

هذا ونعدكم بالمحافظة على سرية المعلومات وأنها سوف تستخدم في أغراض البحث العلمي، آمليين أن تعود نتائج هذه الدراسة بالنتفع على كافة المستشفيات في المملكة الأردنية والباحثين معاً.

مع خالص الشكر والإمتنان لما بذلتموه من جهد في سبيل إنجاز هذا البحث.

الباحثة  
لبنى إبراهيم الغازي

المشرف  
أ.د. كامل المغربي

## القسم الأول: الخصائص الديمغرافية لعينة الدراسة

### العمر:

- أقل من 30 سنة       من 30- أقل من 35 سنة  
 من 35- أقل من 40 سنة       من 40- أقل من 45 سنة  
 من 45- أقل من 50 سنة       50 سنة فأكثر

### الجنس:

- ذكر       أنثى

### المؤهل العلمي:

- ثانوية عامة فما دون       دبلوم (كلية مجتمع)  
 بكالوريوس       ماجستير  
 دكتوراه

### عدد سنوات الخبرة:

- أقل من 5 سنوات       5 – أقل من 10 سنوات  
 10- أقل من 15 سنة       15 سنة فأكثر

### المركز الوظيفي:

- إدارة عليا (مدير عام، مساعد / نائب مدير عام)  
 إدارة وسطى (مدير وحدة / دائرة)  
 إدارة دنيا (رئيس قسم، مشرف)

القسم الثاني: الرجاء وضع إشارة (√) عند الخيار المناسب  
أولاً: إدارة المعرفة:

بدائل الإجابة					الفقرة	ت
Never أبداً (1)	Rarely نادراً (2)	Sometimes أحياناً (3)	Most of the time معظم الأوقات (4)	Always دائماً (5)		
<b>خلق المعرفة (Knowledge Creation)</b>						
					Hospital management seeks to collect information about its competitors systematically تسعى إدارة المستشفى لجمع معلومات حول منافسيها بشكل منتظم	1
					Hospital management acquires information from patients and takes their opinions' about services provided to them تقوم إدارة المستشفى بجمع المعلومات من المرضى وتستمع لأرائهم حول الخدمات المقدمة لهم	2
					Hospital management acquires information from its employees تسعى إدارة المستشفى لإكتساب المعرفة من موظفيها	3
					Hospital management arranges for brainstorming meetings with its employees to generate new business ideas تقوم الإدارة بعقد لقاءات مع العاملين لتطوير أفكار تتعلق بالعمل (العصف الذهني)	4
					Hospital management explores and creates new knowledge from existing one تقوم إدارة المستشفى باكتشاف وتطوير معرفة جديدة من المعارف الموجودة	5
					Hospital management is always trying to seek information about new services offered by other hospitals تحاول إدارة المستشفى دائماً الحصول على معلومات عن الخدمات الجديدة التي تقدمها المستشفيات الأخرى	6
					Customers' opinions are considered as valuable source of knowledge creation تعتبر آراء الزبائن مصدراً قيماً لتطوير المعرفة في المستشفى	7
<b>تخزين المعرفة (Knowledge Storage)</b>						
					Our hospital management stores knowledge in comprehensive database تعمل إدارة المستشفى على تخزين المعرفة في قاعدة بيانات شاملة	8
					Our hospital management organizes knowledge in its database that can be easily retrieved تقوم إدارة المستشفى على تنظيم المعلومات داخل قاعدة بياناتها لتسهيل استرجاعها	9



بدائل الإجابة					الفقرة	ت
Never أبداً (1)	Rarely نادراً (2)	Sometimes أحياناً (3)	Most of the time معظم الأوقات (4)	Always دائماً (5)		
					Stored Knowledge is categorized according to administration operations and functional use تصنف المعرفة المخزنة وفقاً للعمليات الإدارية وللإستخدامات	10
					Our hospital management has ability to identify the necessary knowledge for its primary operations إدارة المستشفى لديها القدرة على تحديد المعرفة اللازمة لعملياتها الأساسية	11
					Our hospital management has varied technological techniques for storing knowledge like computerized systems تمتلك إدارة المستشفى وسائل تكنولوجية متعددة لتخزين المعرفة مثل الأنظمة الحاسوبية	12
					The hospital's storing system allow users to retrieve information easily نظام تخزين المعلومات في المستشفى يسمح للمستخدمين باسترجاع المعلومات بسهولة	13
<b>مشاركة المعرفة (Knowledge Sharing)</b>						
					Hospital management disseminates knowledge to all concerned employees تعمل إدارة المستشفى على نشر المعرفة الى جميع الموظفين المعنيين	14
					Hospital management encourages and facilitates transferring knowledge among its different departments تقوم إدارة المستشفى على تشجيع وتسهيل عملية انتقال المعرفة بين دوائرها المختلفة	15
					Hospital management sincerely encourages employees to share information among themselves تشجع إدارة المستشفى العاملين على تبادل المعرفة فيما بينهم	16
					Hospital management spends most of its time in sharing and exchanging knowledge among its different departments تقضي إدارة المستشفى معظم وقتها في تشارك وتبادل المعرفة بين دوائرها وأقسامها المختلفة	17
					Hospital management has an efficient mechanism for distribution of reports and results تمتلك إدارة المستشفى آلية فعالة لتوزيع التقارير والنتائج	18
<b>تطبيق المعرفة (Knowledge Application)</b>						
					Hospital management efficiently uses knowledge in its researches تستخدم إدارة المستشفى المعرفة بكفاءة في مجال بحوثها	19

بدائل الإجابة					الفقرة	ت
Never أبداً (1)	Rarely نادراً (2)	Sometimes أحياناً (3)	Most of the time معظم الأوقات (4)	Always دائماً (5)		
					Hospital management is effectively able to apply available knowledge in problem solving تمتلك إدارة المستشفى القدرة على تطبيق المعرفة المتاحة في حل المشكلات	20
					Hospital management is capable to apply available knowledge to improve the efficiency of its services and operations تقوم إدارة المستشفى بتطبيق المعرفة المتاحة لتحسين كفاءة خدماتها وعملياتها	21
					Hospital management attempts to apply knowledge gained from its previous experiences تحاول إدارة المستشفى تطبيق المعرفة المكتسبة من خبراتها السابقة	22
					Hospital management applies knowledge to create and innovate new services تطبق إدارة المستشفى المعرفة في تطوير وابتكار خدمات جديدة	23
					Hospital management applies knowledge to create and innovate new administration operations تطبق إدارة المستشفى المعرفة في تطوير وابتكار عمليات إدارية جديدة	24

ثانياً: بطاقة الأداء المتوازن:

بدائل الإجابة					الفقرة	ت
Never أبداً (1)	Rarely نادراً (2)	Sometimes أحياناً (3)	Most of the time معظم الأوقات (4)	Always دائماً (5)		
<b>المعايير المالية (Financial Perspective)</b>						
					Occupancy rate of beds in the hospital is high تعتبر نسبة إشغال الأسرة في المستشفى نسبة عالية	25
					Profitability for our hospital is better than the profitability of other hospitals الربحية للمستشفى أحسن من الربحية للمستشفيات المنافسة	26
					Return on investment for our hospital is better than return on investment of other hospitals حجم العائد على الاستثمار للمستشفى أحسن من حجم العائد على الاستثمار للمستشفيات المنافسة	27
					The financial department is always concerned for optimizing the financial wealth of the organization and shareholders قسم المالية يعنى لتحسين الثروة المالية للمنظمة والمساهمين	28

بدائل الإجابة					الفقرة	ت
Never أبداً (1)	Rarely نادراً (2)	Sometimes أحياناً (3)	Most of the time معظم الأوقات (4)	Always دائماً (5)		
<b>الزبائن (Customer Perspective)</b>						
					The hospital has a comprehensive database about its patients المستشفى تمتلك قاعدة بيانات شاملة عن المرضى	29
					The hospital updates its patients database regularly تعمل المستشفى على تحديث قاعدة بيانات المرضى باستمرار	30
					Hospital management collects information about patients satisfaction تقوم إدارة المستشفى بجمع معلومات حول رضا المرضى	31
					Hospital collects information from patients to know their needs تجمع إدارة المستشفى معلومات من المرضى لمعرفة احتياجاتهم	32
					Management of hospital responds quickly to any complaint filed by its patients تستجيب إدارة المستشفى بسرعة إلى أي شكوى مرفوعة من قبل المرضى	33
					Hospital management attracts new customers through its competitive pricing تقوم إدارة المستشفى بجذب عملاء جدد من خلال أسعارها التنافسية	34
					Hospital management tries to provide good services to avoid dissatisfaction of customers تحاول إدارة المستشفى تقديم خدمات جيدة لتجنب عدم رضا العملاء	35
					Hospital management provides patients with needed services in the shortest possible time تقوم إدارة المستشفى بتقديم الخدمة المطلوبة للمرضى بأقصر وقت ممكن	36
<b>العمليات الداخلية (Internal Process Perspective)</b>						
					Hospital management continuously attempts to develop new services تحاول إدارة المستشفى باستمرار تطوير خدمات جديدة	37
					Hospital management continuously attempts to develop new administration processes تحاول إدارة المستشفى باستمرار تطوير عمليات إدارية جديدة	38
					Employees at all levels are committed to improving the standard operating procedures الموظفين على جميع المستويات ملتزمين بتحسين إجراءات العمل النمطية	39

بدائل الإجابة					الفقرة	ت
Never أبداً (1)	Rarely نادراً (2)	Sometimes أحياناً (3)	Most of the time معظم الأوقات (4)	Always دائماً (5)		
					Hospital management encourages employees to innovate new services تقوم إدارة المستشفى بتشجيع الموظفين لإبتكار خدمات جديدة	40
<b>(Learning Perspective) التعلم</b>						
					Managers train employees in order to achieve better results يقوم المدراء على تدريب الموظفين من أجل الوصول الى نتائج أفضل	41
					Hospital management empowers and supports its employees to experiment and learn تعمل إدارة المستشفى على تمكين ودعم موظفيها لتجربة أساليب عمل جديدة والتعلم منها	42
					Hospital management encourages employees to ask and inquire freely تشجع إدارة المستشفى الموظفين على طرح الأسئلة والاستفسار بحرية	43
					The existing of training programs covers all employees' needs وجود برامج تدريبية تغطي حاجات جميع الموظفين	44
					Hospital management encourages employees to attend training programs, seminars and conferences تقوم إدارة المستشفى بتشجيع الموظفين لحضور الدورات التدريبية والندوات والمؤتمرات	45
					Hospital management is keen on education and training programs إدارة المستشفى حريصة على برامج التعليم والتدريب	46
					Hospital management applies rotation among managers so they can increase their scope of knowledge and learn تطبق إدارة المستشفى نظام التدوير الوظيفي بين المديرين ليتمكنوا من زيادة نطاق معرفتهم والتعلم	47

شكراً لتعاونكم

## Appendix B

### Academic Referees

No.	Name	University
1.	Dr. Muhammad Al Nuammi	Middle East University
2.	Dr. Kamel Hawajrah	Middle East University
3.	Dr. Samer Dahiyat	Middle East University
4.	Dr. Anas Oddat	University of Jordan
5.	Dr. Mahmood Al Dalahma	University of Jordan
6.	Dr. Najem Azzawi	Petra University
7.	Dr. Sabah Hameed Agha	Petra University
8.	Dr. Abdel Aziz Al Naddawi	Al Zaytoonah University
9.	Dr. Najem Aboud	Al Zaytoonah University

## Appendix C

### Names of Hospitals Participated in the Study

No.	Hospital name
1	Al Hayat General Hospital
2	Al Khalidi Hospital
3	Arab Medical Center
4	Essra Hospital
5	Ibn Al Haitham Hospital
6	Islamic Hospital
7	Istiklal Hospital
8	Istishari Hospital
9	Jordan Hospital
10	The Specialty Hospital