

# The mediating role of knowledge management capacity

## On the relationship between E-Business adoption intensity

## and strategic planning effectiveness: An Empirical Study in

Jordanian banking sector.

الدور الوسيط لقدرة إدارة المعرفة على شدة اعتماد الأعمال الإلكترونية وفعالية التخطيط الاستراتيجي: دراسة

ميدانية في القطاع المصرفي الأردني.

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## Thesis submitted in partial fulfillment of the requirements of

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#### **DISCUSSION COMMITTEE DECISION**

This dissertation was discussed under title:

The mediating role of knowledge management capacity on the relationship between E-Business adoption intensity and strategic planning effectiveness: An Empirical study on Banking Sector in Jordan

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## Dedication

بدأنا مشورنا يدا بيد و ربيع عمرنا حب يز هر نوار و ورودنا من حولنا تضفي السعادة و البهجة لحياتنا ... زوجتي الغالية و ابنائي الاحباء

أقف عند كل فرحة تشق طريقها الى قلبي لأتمنى وجودك الى جانبي فإلى روحك الطاهر هيا أبي

نبع حب نرتوي منه و أمل و قوة إيمان تزر عينها لتحصدي جهد سنين ... أمي الحبيبة قلوب صادقة نحبها نتشارك البسمة و الفرح نساند بعضنا لنبقى عماد قوة و فخر ... أخي و أختي

إهداء خاص:

أنظر اليك في كل خطوة لتكون مثلا يقتدى به لأصل الى ما أصبو اليه و احقق النجاح كما حققته أنت... السيد هاني القاضي/مدير عام بنك الاستثمار العربي الأردني

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# The mediating role of knowledge management capacity On the relationship between E-Business adoption intensity and strategic planning effectiveness: An Empirical Study in Jordanian banking sector.

#### **Abstract:**

This study aims to examine the impact of E-Business adoption on strategic planning effectiveness by clarifying the mediating role of knowledge management capacity in Jordanian banking sector. The study was conducted on Jordanian banks that adopted e-business applications to implement their daily activities. The population of this study consists of all managers and head of departments working at Jordanian banks in Jordan.

The sample of this research is purposive one because the researcher cannot get a list contain names of managers and head departments for privacy reason. Various statistical tests were employed to test the research hypotheses. The study utilized two Statistical Packages (SPSS) and (SEM) Smart PLS 2.0 M3 for analyzing the data. The research results revealed the following:

- Banks in Jordan still relatively lack the functionality of managing and processing financial transactions between them and other parties such as customer and other business organizations electronically.
- The adoption of e-business at banks in Jordan is still modest. This is maybe affected by the culture in Jordan and other factors related to the acceptance of

electronic services by many consumers especially when it comes to financial services.

- The knowledge management capabilities at banks in Jordan are still modest. Knowledge is mainly shared internally within the bank with little effort dedicated to solicit knowledge from the external environment including customers.
- For strategic planning effectiveness, banks in Jordan need not only to improve their adoption and deployment levels of e-business, but they also and essentially need to enhance their knowledge management practices.

The researcher presents recommendations of this study that Banks in Jordan needs to utilize the advancements in information and communication technologies more effectively and start delivering financial and other services electronically in a more advanced and secured manner, to so educate consumers about the benefits and concerns of electronic (e.g. Internet) services, also to motivate employees to share and acquire knowledge within and outside their units and banks (i.e. Internally and Externally), and to utilize information and communication technologies more successfully by aligning them with their strategies and using them to support business process so as to enhance banks' strategic planning effectiveness.

#### الملخص:

هدفت هذه الدراسة إلى توضيح أثرتبني الأعمال الالكترونية وفعالية التخطيط الاستراتجي: الدورالوسيط لقدرة إدارة المعرفة: واجريت هذه الدراسة في القطاع المصرفي الأردني. وقد أجريت الدراسة على البنوك التي تستخدم التجارة الإلكترونية في القطاع الأردني، استخدم الباحث الأساليب الإحصائية المناسبة التي تتكون من: تم توزيع ( 140) استبيان على المديرين وروساء الاقسام في القطاع المصرفي الأردني. لدراسة وتحليل الفرضيات تم استخدام برنامج (SPSS Amos) وتم استخدام عدة طرق مثل تحليل المسار والانحدار المتعدد و نمذجة المعادلة الهيكلية وبعد الانتهاء من عملية التحليل توصلت الدراسة للنتائج التالية:

لا تزال البنوك في الأردن تفتقر نسبيا الى وظائف إدارة ومعالجة المعاملات المالية إلكترونيا بينها
 وبين الأطراف الأخرى مثل العملاء ومنظمات الأعمال الأخرى .

•اعتماد التجارة الإلكترونية في البنوك في الاردن لا تزال متواضعة. هذا يتأثر ربما من قبل الثقافة في الأردن وغيرها من العوامل المتعلقة بقبول بالخدمات الإلكترونية من قبل العديد من المستهلكين خصوصا عندما يتعلق الأمر بالخدمات المالية.

•قدرات إدارة المعرفة في البنوك في الاردن لا تزال متواضعة. يتم تقاسم المعرفة داخليا مع القليل من الجهد المكرس لالتماس المعرفة من البيئة الخارجية بما في ذلك العملاء.

 للحصول على فعالية التخطيط الاستراتيجي، والمصارف في الأردن لا تحتاج فقط إلى تحسين مستوياتا عتمادها ونشر الأعمال الإلكترونية، ولكنها أيضا تحتاج أساسا إلى تعزيز ممارسات إدارة المعرفة. وتوصل الباحث في هذه الدراسة الى التوصيات التالية: أن البنوك في الأردن تحتاج إلى الاستفادة من التقدم في تكنولوجيا المعلومات والاتصالات على نحو أكثر فعالية و البدء في تقديم الخدمات المالية وغيرها الكترونيا بطريقة أكثر تقدما، لذلك يجب تثقيف المستهلكين حول الفوائد والاهتمام بالخدمات المقدمة الكترونيا (مثلا الإنترنت)، وأيضا لتحفيز الموظفين للمشاركة في اكتساب المعرفة ضمن وحداتهم داخل البنوك و خارجها، والاستفادة من تكنولوجيا المعلومات والاتصالات أكثر بنجاح خلال مواءمتها مع استراتيجياتها واستخدامه الدعم الأعمال العملية من أجل تعزيز فعالية التخطيط الاستراتيجي للبنوك الاردنية.

# **Chapter One**

# **General Framework**

- 1-1 Introduction.
- 1-2 Study Problem and Questions.
- 1-3 Study Significance.
- 1-4 Study Objectives.
- 1-5 Study Model and Hypothesis.
- 1-6 Study Limitations.
- 1-7 Study delimitations (Difficulties).
- 1-8 Terminologies.

#### (1-1): Introduction

Electronic business adoption is utilization of information and communication technologies so as to support the business activities. Companies aim at exploiting the availability, convenience and worldwide reach of Internet. With their help, it is possible to work more closely with suppliers and partners, better understand the needs of customers and satisfy them, as well as link external and internal data processing systems much more effectively.

Recent years all the companies try to make use of the advantages e-business offers. Moreover, without this component of business, it is often impossible to stand the competition and be successful in the majority of fields. E-business is the digital enablement of transactions and processes within a firm, e-business intersect at the business firm boundary at the point where internal business systems link up with suppliers. For instance, e-business turns into e-commerce when an exchange of value occurs (Bonnett and Kendra, 2000).

Facilitating business processes through e-business technologies has been highlighted as a critical challenge for all industries and all firms. In fact, the critical question is not whether firms should adopt e-business but how they should deploy e-business to obtain competitive advantage. Furthermore, due to the high failure rates in the adoption and implementation of high technological innovations, understanding the adoption of technological innovations, such as e-business, is arguably one of the key concerns and challenges in marketing practice. The literature indicates a positive relationship between firm capabilities and the adoption of innovation, including the adoption of ebusiness technologies. Furthermore, the mediating effects of adopting innovations on the relationship between firm-specific capabilities and firm performance have been examined. (Hauser et al., 2006; McCole and Ramsey, 2005; Hernandez et al., 2009; Trainor et al., 2011).

The success of strategic planning in some private sector firms as well as interests of governments looking to tie their budgets to performance measures have spurred its use in public sector organizations as a tool of strategic management, which mandates strategic planning for federal agencies. However, mixed evidence about the relationship between strategic planning and organizational performance makes the debate about its effectiveness as a tool of strategic management an ongoing one. for example, argued that in a turbulent environment strategic planning is a constraint on the flexibility of an organization to adapt to its rapidly changing and uncertain environment. Environmental uncertainty that makes strategic planning an imperative for organizations that operate in turbulent and uncertain environments. Agreeing with the latter argument, argue that local government agencies are prime candidates for strategic planning because they, too, face turbulent, ever changing and politically charged environments, and highly publicized resource allocation problems. Additionally, transportation departments (including transit agencies) have experiences with planning, data gathering and analysis, and "using this information to allocate resources and manage programs", thus making them good candidates for strategic planning (Akhter, 2003).

Many firms embark on e-business because their competitors are practicing it or their customers want it. Often very little strategic planning is done before beginning this venture. As with any project or strategic initiative, firms need to ensure their e-business initiative is aligned with their corporate strategy and that it does not conflict with the current goals, objectives, and values of the firm. Many existing models do not work

well for businesses that have a mix of traditional and e-business components. These types of hybrid businesses are often referred to as bricks-and-clicks, or mouse-and-mortar companies. The Internet and the growth of e-business are changing the rules of distribution, sales, industry boundaries, relationships, and competencies, providing small and medium-sized businesses the same opportunities previously available only to large corporations (Hitt and Ireland, 2000).

In addition to the new opportunities, e-business also poses new challenges. Channel competition, brand erosion, and life cycle compression require strategies that have yet to be developed. The knowledge management influence at the strategic plan by the fulfillment of the organization's mission and the issues are sufficiently significant to involve the organization's leadership team as well as key stakeholders as the consequence of decisions and the priorities will extend across all activities of the organization. This study will focus at the impact of e-business and knowledge management on the strategic planning on an online banking Services.

#### (1-2): Study Problem

Nowadays, banks desire to assess and evaluate their assets into e-business systems, which involve an accurate evaluation to the business value and distinguish it from other organizations. Using comparable systems Banks today are aware of both the threat and the opportunity that the web represents. No traditional bank would dare face investment analyses without an Internet strategy. But even a detailed and thoughtful approach to the web does not guarantee business success. The main purpose behind the launching of online banking services is to provide the customers with an alternative, more responsive and with less expensive options. With options just a click away, customers

have more control than ever. They expect real-time answers and superior usability. They also want personal attention and highly customized products and services. However, Banks adopt several e-business applications but still do not know how they affect the effectiveness of their strategic planning process. For these applications to create significant impact on effectiveness of strategic planning have first to impact positively and leverage knowledge capacity. Thus, the following research questions can be formulated.

#### (1-3): Study Questions

Based on the above arguments, the study's problem can be represented by the following questions:

1- Is there a positive impact of e-business adoption on strategic planning effectiveness in Banking Sector in Jordan?

2- Is there a positive impact of e-business adoption on knowledge capacity in Banking Sector in Jordan?

3- Is there a positive impact of knowledge acquisition on strategic planning effectiveness in banking sector in Jordan?

4- Is there a positive impact of knowledge sharing on strategic planning effectiveness in banking sector in Jordan?

5- Is there a positive impact of knowledge application on strategic planning effectiveness in banking sector in Jordan?

6- Does knowledge capacity mediates the impact of e-Business adoption on strategic planning effectiveness in banking sector in Jordan?

#### (1-4): Study objectives

This study will achieve the following objectives:

1. Understanding the impact of e-business adoption on strategic planning effectiveness in banking Sector in Jordan.

2. Determines the impact of e-business adoption on knowledge management capacity.

3. Identifies the impact of knowledge acquisition on strategic planning effectiveness in an online banking service in Jordan.

4. Determines the impact of knowledge sharing on strategic planning effectiveness in banking sector in Jordan.

5. Identifies the impact of knowledge application on strategic planning effectiveness in banking sector in Jordan.

6. Understanding the mediating role of knowledge capacity in the impact of e-business adoption on strategic planning effectiveness in banking sector in Jordan.

#### (1-5): Study Hypotheses

Based on previous research questions related to the research problem and research questions, based on the descriptive analysis the following hypotheses will be tested:

H01: There is no significant positive impact of e-business adoption on strategic planning effectiveness in banking sector in Jordan at level ( $\alpha \le 0.05$ ).

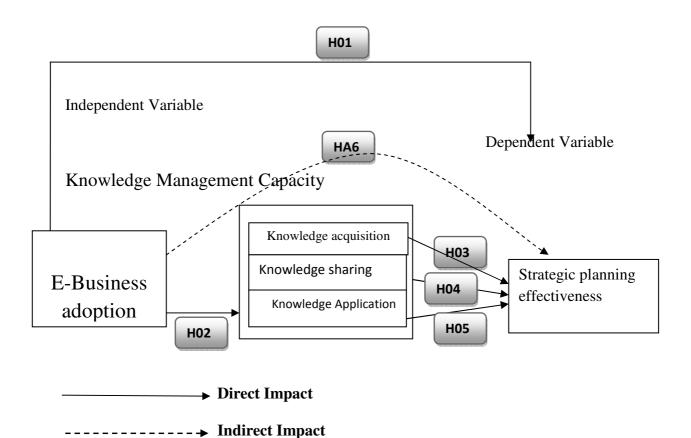
H02: There is no significant positive impact of e-business adoption on knowledge management capacity in banking Sector in Jordan at level ( $\alpha \le 0.05$ ).

H03: There is no significant positive impact of knowledge acquisition on strategic planning effectiveness in banking sector in Jordan at level ( $\alpha \le 0.05$ ).

H04: There is no significant positive impact of knowledge sharing on strategic planning effectiveness in banking sector in Jordan at level ( $\alpha \le 0.05$ ).H05: There is no significant positive impact of knowledge application on strategic planning effectiveness in banking sector in Jordan at level ( $\alpha \le 0.05$ ).

H06: Knowledge capacity does not mediate the impact of e-business adoption on strategic planning effectiveness in banking sector in Jordan at level ( $\alpha \le 0.05$ ).

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



Mediator variable

#### Figure (1-1): The research Model

- The dimensions of E-Business adoption were adopted in (Wu, et, al., 2003; Jutla and Bodorik, 2001)
- **The dimensions** of Strategic planning effectiveness were adopted from (Wang and Sun,2007; Jing and Zhen, 2008; Alexandra, 2009; Šuklev and Debarliev, 2012).
- The dimensions of E-Business adoption were adopted from (Ranzhe,2010; Chen and Huang, 2009).

• The dimensions of Knowledge management capacity in(Gold et al., 2001; Ruggles, 1998; Scarbrough, 2003).

#### (1-7): Significance of the Study

The significance of the current study arises from the important role of e-business applications in banking sector in Jordan. It also stem from the following three dimensions: Firstly, Theoretical Knowledge through lies in the possibility that the reviewed literature will based a line between e-business adoption, knowledge capacity, and strategic planning effectiveness. Second, the research results expected to open new venues for Arab and international researchers. Third, it will provide a working map for banks managers how to achieve effective strategic planning by focusing on the role of e-business applications in triggering knowledge capacity.

#### (1-8): Distinctive features of the study

1- To the best knowledge of the researcher, this research has not been done before and represents the first attempt to explore the impact of e-business adoption on strategic planning effectiveness by using knowledge management capacity as mediating variable in banking sector in Jordan.

2- While previous studies focus on e-business adoption and its impact on banks performance or employee performance, the current research believe that e-business adoption play a critical role in activating and leveraging knowledge capacity which will improve strategic planning effectiveness.

3- The current study also represents the first footstep that will open eyes of researchers and practitioners toward the importance of knowledge capacity for achieving effective strategic planning. Both practitioners and researchers have not yet aware of the importance of knowledge capacity in increasing strategic planning effectiveness in ebusiness context.

#### (1-9): Study Limitations

- 1- Location limitations: The current study in a banks sector in Jordan.
- 2- Human resource limitations: The current study includes culture of participant.
- 3- Timeline limitations: This study expected to be accomplished through the year (2012-2013).

#### (1-10): Terminologies of the Study

**E-business adoption**-Business adoption has dramatically changed how companies' business processes are implemented and has also enhanced industry structure and shifted the balance of power between corporations and their suppliers and customers (Basu and Muylle ,2007).

**Knowledge management capacity:** Refers to the bank capacity indeploying and facilitating knowledge management tools and activities. Overall, it is related to employees' willingness to acquire, share, and apply knowledge within organization.

**Knowledge acquisition:** refers to Knowledge acquisition by employees of bank from outside such business partners, customers, competitors, and market place or/and from inside such as other employees within bank which provides opportunities for banks to recombine current knowledge and create new knowledge.

**Knowledge Sharing:** It refers to the willingness of employees to share their knowledge with other employees within and outside the bank. It also refers to collective beliefs or

behavioral routines related to the spread of learning among different individuals or units within the bank.

**Knowledge Application:** It refers to willingness of employees' bank to apply available knowledge in executing their job daily tasks. Deep application of knowledge will enable a bank to translate the knowledge into services which led to improve performance.

**Strategic planning effectiveness:**Refers towhether the strategic planning in increased effectiveness inachieving the banks objectives; leads to developing a sustainable competitiveposition; leads to building commitment to action among line managers; leads to developing a shared vision for the bank; leads to a good fit between the externalenvironment and the internal capabilities, and assists banks managers in considering thefuture implications of their current decisions(Šuklev and Debarliev, 2012).

# **CHAPTER TWO**

- 2-1 Introduction.
- 2-2 What is E-business adoption
- 2-3 Strategic planning
- 2-4 knowledge management capacity
- 2-5 Previous studies

#### (2-1): Introduction

The main reason of this chapter is to explain and clarify every variable of the study in detail and also scope on the previous studies and what makes this study different from them. This chapter is divided into the following five sections: e-business; knowledge management system; effectiveness of strategic planning; previous studies and study contribution to knowledge.

#### (2-2)What is E-business adoption?

#### **1- E-business:**

There are many definitions of e-business adoption. E-business adoption as the range of online business activities for products and services, both business-to-business (B2B) and business to- consumer (B2C), through the Internet. E-business adoption is, first of all, an important form of technology innovation which is both process-oriented, and a new way for SMEs to do business. According to the literature on technological innovation, several variables have been identified as possible determinants of the adoption of an innovation. Kimberly and Evanisko (1981) identified three predictors Based on the technology innovation literature and inter organizational system innovation literature,

Organization characteristics consist of two sub-factors: the organization's knowledge of IT and e-business and the CEO's attitudes toward innovation (Harrison et al., 1997). E-business characteristics reflect three aspects for implementing e-business operations: the compatibility issue, the relative advantages and benefits issue, and the adoption costs issue (Thong, 1999).

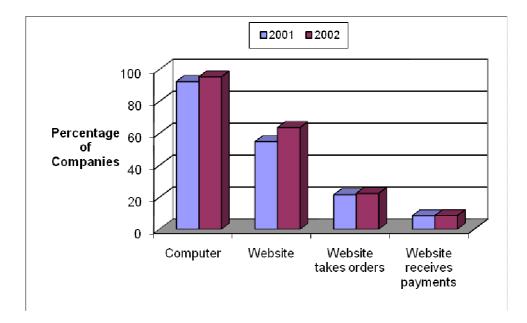
The impact of e-business adoption on strategic planning can be viewed as a succession of stages over the history of e-business. In the initial stages, the technological environment could be described in terms of product technology, the set of ideas embodied in a good or a service and process technology the steps involved in producing that good or service. Decisions about the adoption of e-business were, therefore, able to be made in the framework of production theory, in which adoption creates benefits in the form of lower production costs for a given level of output.. This focuses on the company's growing its business, its operational and financial performance, and the use of e-business in achieving national domination, global expansion and to be able to complete in business world. The advantages of e-business adoption to the achievement of strategic objective in banking sectors by using an online services, and sustainability and to the continuous existence of Next generation as a going concern business, and maintaining its position as a leader in banking world. The impact of the e-business on the smooth running of the banks operations.

The internet provided with a variety of information on the subject matter and the industry. As the world becomes a global business place and information technology plays a major part in this, banks place a considerable amount of information on the Internet to be explored by investors as well as other interested parties.

The adoption of E-Business in many countries was considered in this survey by examining the use of computers for business activities, the types of business activities performed electronically, the existence of websites and the functionality of websites. Motives for involvement with E-Business initiatives and the most important impacts of E-Business on firm performance were also investigated.

Computer use for business activities was found to be almost universal. Over 92% of the respondents in 2001 indicated involvement with computers in their organisations, and by 2002, this proportion had increased to 95%. The proportion of New Zealand organisations with a website was much lower, as illustrated in Figure (2-1). The introduction of a website provides a simple measure of E-Business adoption and the functionality of the website indicates E-Business capabilities (NOIE, 2000).

Figure (2-1) E-Business Adoption in 2001 and 2002



Source: NOIE 2000

To gauge the level of E-Business capabilities, the number and types of website functions were evaluated (Berryman, 2000; PriceWaterhouseCoopers, 1999).

#### **2-** E-business adoption

Effects of e-business adoption in communications on specific aspects of performance. Online communication can enhance efficiency in many ways. During the field interviews, managers frequently claimed that electronic communications reduced the time to reach customers and speeded up responses to customer inquiries. The managers also indicated that e-business processes helped reduce the cost of material and personnel involved in paper-based communications both within and outside the business unit.

The chief information officer of a Fortune 100 company has noted that paper is much like inventory: "There are costs in printing paper, in managing it, in shipping it" (Vogelstein and Hjelt 2001:142).

In the context of sales performance and customer satisfaction, information flows facilitated by e-business can help increase the sales volume by reaching customers directly and promptly whenever a new product is introduced and by tapping into markets that were hitherto inaccessible on account of distribution or other infrastructural constraints. The business can also enhance customer satisfaction by providing information about products, troubleshooting, and service online. Furthermore, interested consumers who were not a part of the business unit's active customer set can invoke a relationship with the unit on their own accord. Both sales performance and customer satisfaction can benefit on these accounts.

In the context of relationship development, online communications can help a business increase the intensity of, and enrich the quality of, its interactions with partners and suppliers. In addition, important product planning and inventory information can be shared on a regular, or even real-time, basis, leading to more productive relationships. Also, when the business unit's systems and online information repositories are integrated with those of its partners and suppliers, these parties are likely to exhibit a greater commitment to their mutual relationships .

Effects of e-business adoption in internal administration on specific aspects of performance. Internal administration covers processes related to financial and managerial accounting, travel reimbursement, payroll, and employee benefits processing. For many such processes, e-business initiatives can reduce the incidence of errors and the expenditure of employee time and other resources, and can greatly simplify associated procedures.

These outcomes can enhance the efficiency of internal operations. The application of ebusiness initiatives to internal administration tasks can affect customer satisfaction in multiple ways. First, such application has the potential to indirectly influence customer satisfaction by providing employees with a comfortable, supportive, and efficient working environment to better deal with customer needs.

In addition, a major task for any business in information intensive environments is the collection and coordination of various pieces of information related to each customer. For example, in a leading hotel chain, information on the "value" of each customer to the chain is available to the check-in staff, so that appropriate levels of compensation can be extended on the spot if the customer is not entirely satisfied with the arrangements or if the hotel has been overbooked. Such initiatives related to the customer interface can provide customers with there assuring signal that the business is indeed at the cutting edge of technology and will likely lead to more satisfied customers.

Finally, in the context of relationship development, e-business initiatives in internal administration can help a business build stronger relationships with its partners and

suppliers by sharing information on a continuous basis and by implementing accounting/financial management practices that enable quicker, more transparent transactions.

For example, General Electric (GE) implemented an Internet-based system to handle supplier payments. GE traditionally took 60 days or more after delivery to pay suppliers—meanwhile, the suppliers would sell the corresponding IOU to a factoring company for a stiff commission. GE's payment system cut the payment period to 15 days. This enabled the supplier to cut out the factoring middleman and split the savings with GE, resulting in a 12 percent reduction in annual accounts payable from GE's perspective (Murray and Sapsford 2001).

Effects of e-business adoption in order taking on specific aspects of performance. Order taking refers to processes associated with order placement, order monitoring,

and payment submission by customers. E-business adoption in order taking can influence multiple performance outcomes. First, it can enhance efficiency by reducing transaction costs and other intermediary-related costs. Second, it can improve sales performance by allowing customers to easily access offered products and services in an intermediary-free environment. Moreover, customers can track and inquire about their orders electronically and can shop without the conventional restraints of time or place associated with non virtual market settings. It also allows customers to monitor their orders closely to avoid mistakes and delays, leading to greater customer satisfaction Effects of overall e-business adoption on specific aspects of performance. We have argued in the previous hypotheses that e-business adoption in various business processes will positively affect specific aspects of performance. Note that adoption on account of external pressures, such as customer power and normative pressures, may adversely affect performance in the short run. However, such pressures may nevertheless cause the business unit to take actions that are fruitful in the long run. Furthermore, the adoption of e-business in any process may be simultaneously driven by proactive influences (customer orientation) and reactive influences (e.g., customer power and normative pressure). Only when the drivers of e-business adoption in any process are primarily of a reactive nature would we expect to find that the (short-run) performance outcomes due to e-business adoption are unfavourable.

Knowledge and capital are particularly important resources for new companies that use or produce e-business application. They can promote innovation and diffusion of ebusiness adoption technologies through establishing and supporting related stakeholders networks.

From a theoretical perspective, Porter's (1985) value chain framework suggests that value creation within a business unit can be traced through stages – beginning with the inbound interface where supplier – related are concentrated, through the business itself, and finishing at the outbound interface where customer – related processes are concentrated (Porter, 1985)

Businesses frequently adopt innovations to gain competitive advantages or capabilities (R, Dewar and J. Dutoon, 1986). The literature on the organizational adoption of innovations has delineated specific business characteristics and conditions that facilitate such adoption. The adoption of innovations includes top management support, the catalyzing role of operational crises, and information and organizational

architectures.

Companies are using e-business approaches to compete electronically, sell service and products - including energy efficiency - to new and existing customers, strengthen relationships with suppliers, contractors, and customers, and provide better customer service. Competitor orientation refers to the ability and the will to identify, analyze, and respond to competitors' actions. Business engaged in continuous environmental scanning and adaptation are therefore more likely to lead the industry in terms of adopting and implementing e-business initiatives and will exhibit a higher overall intensity of e-business adoption. The powerful customers and suppliers may demand the adoption of innovative processes that they perceive will either reduce their costs of, or increase their benefits from, dealing with the local organization. We think that very important for our study are the antecedents and implications of technological opportunism, defined as an organization's ability to sense and respond to new technologies, in the context of e-business adoption. From theoretical and practical perspectives, it is interesting to study whether aspects of e-business adoption that were driven more by normative pressures had weaker implications for business performance (Gheorghe and Romanoschi, 2008).

#### **3-** Implication of Adopting e-business technology

Suan Koon (2011) stated Electronic business (e-business) is an importantstrategic tool that attracts many companies in turning their traditional business strategy to e-business. Nowadays, adoptionof e-business is rapidly growing among business organizationthroughout the world. Organizations involved in e-business notonly limited to large companies but also includes small andmedium enterprises (SMEs). It is mainly due to the availability of the internet technology and the benefit of information and communication technology (ICT) to enhance their business .

Furthermore, e-business systems are cost effective that makes theadoption of this technology much easier. However, some SMEsare still underexploited on the potential of e-business technology:

Better management of information, can be expanded on geographical coverage improve customer relationship and customer service, effective order handling and sales, lower transaction costs and increase profits and the business . Whereas, cultural changes, costly e-business solution for optimization, and issues related to security and confidentiality are the threats that companies would face when implementing e-business strategy to their business strategies. Decision-making is a process of first diverging to explore the possibilities and then converging on a solution(s). With the aid of e-business systems such as decision support system, it can support the managerial decision making A. Better decision-making process one of the implications of adopting e-business technology enables the enterprise to promote a better decision-making process. According to Turban usually by modelling problems and employing quantitative models for solution analysis (Turban et.al., 2010).

The managerial decision making includes SME financing decision, investment decision, procurement decision, and forecast, and so on. A better and faster decision can be made as the SMEs are able to gathers data, lists and enumerates the alternative using e-business technology.

E-business has mainly resulted in better management of information. A better management of information is usually needed to promote information sharing, effective planning, and coordination of business activities (Chen, 2009). Information of supplier, vendor, and customer can be managed well in databases to have a better integration of suppliers and vendors as well as it can keep track of the customers' record and shopping behaviour for future reference. Traditional way of managing information is unsystematic causing a lack of proper management. Hence, e-business technology can help to provide a better management of information using e-business application, such as Supply Chain Management (SCM) System, or Customer Relationship Management

(CRM) System. Enterprise Resources Planning (ERP) System, All of these e-business applications can aid SMEs to manage their information well by improving the data accuracy and easier means for searching information. Indirectly, it would enhance in better decision making.

#### 4- Improve customer relationship:

Adoption of e-business technology shall result in better improved customer relationship or customer services. Relationship of trust with customer enables the SMEs to expect long-term success in the market (Chen, and Lewis, 2009). In general, the customer likes internet-ordering of groceries and as such companies improve their e-business, product, and service quality. Customers are substantially more likely to stay on with both that company and internet ordering as a primary method of shopping.

#### **5-Lower transaction**:

Costs and increase profits Lower transaction costs and increase profits are the most desired outcome among SMEs to conducting business online. The main reason is that the SMEs have limited capital to operate their business and their main purpose is to increase profits, sales and decrease costs. In addition, online advertisement is much cheaper and more effective if compared to traditional way of advertising. Companies can promote their products and services through the powerful and cost-effective internet. E-business technology not only helps in lower transaction costs but at the same time also can increase the profits of the companies by using the web to market their products, it can lower the costs to gather the information and negotiate a purchase-and-sale transaction (Vlachos et al., 2010).

#### **6-Expanded geographical coverage**

E-business adoption can have a nationwide or a worldwide presence. This is due to the internet technology enable them to conduct their business regardless of location and create a virtual business. E-business break down the barriers of distance, allows SMEs to move into more distant markets without having to be physically there and, simultaneously, reduce the costs of buying and selling. In short, SMEs can expand their business worldwide through e-business technology (Aparna,2011).

#### 7- Cultural change:

Implication of adopting e-business technology by SMEs is cultural change of SMEs. The adoption of e-business technology is much more complex than conventional information system and can be classified as a technology-driven organizational change. Culture of e-business versus traditional business models is totally different. The cultural change that happen when adopting of e-business technology includes business processes, organization structures and working practices, employee empowerment, new business models, the management of change, and the need to evolve new ways of thinking, behaving and organizing. Although unintentional consequences or intentional actions may still arise but the culture of the business and its effect on achievement of business goals can be monitored and processes for dealing with culture change are managed in accordance with the e-business strategy.

## (2-3) strategic planning

Strategic planning refer to <u>systematic process</u> of envisioning a desired <u>future</u>, and translating this vision into broadly defined <u>goals</u> or <u>objectives</u> and a sequence of <u>steps</u> to <u>achieve</u> them. In contrast to <u>long-term planning</u> (which begins with

the current status and lays down a path to meet estimated future needs), strategic planning begins with the desired-end and works backward to the current status. At every stage of long-range planning the planner asks, "What must be done here to reach the next (higher) stage?" At every stage of strategic-planning the planner asks, "What must be done at the previous (lower) stage to reach here?" Also, in contrast to tactical planning (which focuses at achieving narrowly defined interim objectives with predetermined means), strategic planning looks at the wider picture and is flexible in choice of its means. http://www.businessdictionary.com/definition/strategi c planning.html#ixzz2VSwIrAg1). In order to determine the direction of the organization, it is necessary to understand its current position and the possible avenues through which it can pursue a particular course of action. An NGO that has been operating for a number of years and can determine its own priorities from a relatively secure income base is best placed to develop a full three-year strategic plan to guide its work. Smaller, newer, less financially secure organisations may find that a more detailed annual team work plan is more realistic generally, strategic planning deals with at least one of three key questions.(Boshameh, 2001).

Strategic planning is a disciplined process for making key decisions and agreeing on actions that will shape and guide what an organisation is, what it does, and why it does it. Planning is an important aspect of strategic thinking and management.

By working on a strategic plan together a team can(www.progressio.org.uk/sites/progressio.org.uk/files/3\_Strategicplanning.pdf):

• Think creatively about the focus and direction of the organisation's work.

• Strengthen team approaches by defining together a clear focus and direction.

• Develop plans collaboratively with partner organisations, beneficiaries and other organisations.

• Provide a framework against which to monitor progress, learn from experience and make the changes necessary to improve effectiveness and impact.

• Enable decisions to be made about the best use of the human and financial resources available.

Strategic planning can be done in different ways, and many books and manuals have been written describing various approaches.

#### 1- The concept of planning

The question for the purpose of planning and its meaning was, and still somewhat and find answers to multiple different time periods and different people, and mentions that Einstein once said the same thing about science. This means there is no agreement among researchers on the precise definition of the concept of planning, although there was almost unanimous indirectly on the content of this concept in different levels and stages despite the different angles that this concept was addressed them (ghneem, 2001).

Planning a necessity of life for man, where man is afraid and warns that holds his future, this became the planning in the modern sense is to try to anticipate the danger or the unknown and avoided, or at least reduce the severity and consequences, so it is no longer the word planning strange word or unfamiliar to us often found free in the framework of the discussions or dialogues, which may be raised by some individuals or groups among themselves or within the means of various media devices.

#### 2- Types of Strategic Plans

Planning is divided according to the period of time it takes to plan three types are:

#### **1 - Short-term planning:**

He is trying to plan for a period not exceeding two years in the longest cases are often prescribed period of one year or less, and this type of planning the immediate future and aims planning to address the crisis emergency that may continue for a short time and overcome them, and often uses this Type in the administration of the project in order to solve the problem list

Alone, and the shorter the duration of the plan whenever possible for management control and strictly implemented so as to ease the development of perception and the overall shape of the near future and prediction.

#### 2 - medium-term planning:

He covers a period ranging mostly between three and five years, while the term uncommon for such plans usually is planning for a period of five years, and is intended planning - medium term - that which covers more than a year and up to five years .

#### **3 - Long-term planning:**

The aim of this type of planning to develop plans for a period of time long-term and usually take more than five years to twenty years to come or more, and the longer the duration of the plan more difficult to predict the problems of the future and taken into account, but the administrative and effective leader is up to predict reasonable and near precision that makes the required plan is flexible to cope with the changes of time during implementation.

And long-term planning has many benefits, including:

A - The future outlook ambitious and far-goal reducing the severity of the difficulties that arise during the implementation period in the short term.

B - Make evolution follow in the footsteps of well thought out, and applied and implemented gradually.

C - Make it easier for people affected by developmental planning process of coexistence and adaptation. Planning is divided according to the period of time it takes to There are several criteria chart types can be classified on the light, as follows:

#### **3-** Impact of strategic planning

We find in accordance with this standard two types of planning:

#### **1 - Strategic Planning:**

He includes goals, policies and master plans, in other words, the strategy of the Organization in the field of activity to achieve the goals desired, and the advantage of this planning stability and lack of change, as its long-lasting example reputation of the organization, size and type of activity represents a particular strategy of the organization does not change during the period simple.

#### **2 - Operational Planning:**

And some call the planning or technical specialist, is placed to help traffic management in strategic planning and the achievement of its objectives, so it covers all areas of the organization such as marketing, production and management of funds and manpower needs and development, scientific research, etc.

#### 4- Stages of the strategic planning system:

A cording to the Mursi (2006) that we will look here to process this order beginning identify the institution to its objectives in accordance with the future vision and the message that work on delivery, until the budget process Marin five stages may be summed up as follows:

1) Determine the stage or show general objectives: And the endings are shown and targets sees as an area of our work, the elements of which are identified in a number of ways, and the intervention of several parties have a role and presence in the organization.

2) The stage of analysis and diagnosis of the strategic position of the institution in its surroundings: These include stage study of the ocean by limiting the opportunities

offered by the restrictions imposed by the institution, where the diagnosis of the institution to its surroundings, whether direct or extender allows it to identify and repositioning towards competitors . The aim of this is to see the strengths and weaknesses of the various aspects of the activity of the enterprise (marketing, production, logistics, finance,). So that they can then make adjustments or repairs to return to balance in the reported vulnerabilities, and build a strategy based on the actual capacity and excellence.

3) The stage of development of the strategic plan: At this stage select one of the possible strategies of the institution, which can achieve the largest percentage of the success of the various possibilities or alternatives. This work relates to the results of external and internal administrative one hand, and the policy of the institution and its objectives on the other.

4) Plan stage process: Stage where the pop-up translation processes necessary for the selected strategic programs relatively more accurate, and at the same time to ensure cost-effectiveness and financial compatibility. So that the plan aims mainly to the process: - Improving the work activities in the planning of the development: Any more direction to the analysis procedure of the institution complement the strategic analysis, and to propose the development of actions aimed to raise the efficiency of the existing methods of conducting activities.

- Programming decisions to be taken for the implementation of the strategic choices selected by setting the maximum dates for these decisions, taking into account the specific objectives and results.

- Evaluation of the total income and expenses resulting from retained strategies, in order to monitor or test plans harmony between the different sections.

5) The stage of the budget: At this stage is translated first year of the plan to the discretionary budget, numbered and resident financially, where resources are distributed and define responsibilities. Since the preparation of budgets are in fact within system determined by the general policy of the institution and its culture, and its strategy and management method applied, the democratic dictatorship, ... etc

This system is usually characterized by the presence of a number of major budgets at the top of the pyramid, such as structural balance sales, production, etc.. Followed by the least significant budgets and most partial such budget burdens workshops. The stops include budgets and multiplicity with the levels on which division take as a measure of the administration, it may be as budgets jobs, production lines, or by geographic regions.

The budget reflected the objectives of the system are as follows (Jutla and Craig,2001):

1 - Identification of potential and the necessary resources and distributed by calendar time to implement the objectives set out in the plan process and before that in the Strategic Plan, and this budget considered an implementation of the plans and the coordination among them.

2 - Distribution of responsibilities to various sections of responsibility, interests, determined by the institution according to its organizational structure and management method. At the same time, a different mode of financial and human resources at the disposal of these officials and directing them within the overall strategy and subpolicies.

3 - To carry out studies on the market and the potential of the internal organization when preparing the budget, the latter become a way to follow the movement of internal

and external environment of the institution constantly, a process that begins the general strategy and analysis that proceeded.

4 - Allow the budget to reconsider if necessary in the goals of time, and in the distribution of resources for the year concerned, and as a result for their analyzes of the ocean interior and exterior of the institution of the new results were not unexpected in the overall strategy. This falls within the follow-up to the ocean and remedy the effects of time and space appropriate.

5 - As in forecasting and strategic analysis, the numbers of the budget is an opportunity in hand to involve mainly internal dealers, especially at the lower levels where traders with operational programs and the various resources in the enterprise. Which is considered as a political system - economic at the same time, which requires taking into account the social aspect, conflicts and stimulation, and other elements that make budgets as either a way to raise the degree of integration and collect more of the energies of human and directed towards achieving its goals, or a reason for the emergence of conflicts or disturbances may lead to exploding.

#### (2-4) knowledge management capacity

**1- Knowledge management:** is an approach of more actively leveraging the knowledge and expertise to create value and enhance organizational effectiveness (Gold et al., 2001; Ruggles, 1998; Scarbrough, 2003).

2- Knowledge Management Capacity: experience a learning effect that can improve their capabilities in reducing redundancy, knowledge management capacity plays important role in supporting e-business responding quickly to change, the organization uses to acquire, share, and apply new or improved knowledge. Knowledge acquisition from the outside marketplace and the inside employees provides opportunities for firms to recombine current knowledge interacting with the existing knowledge can modify organizational knowledge and create new knowledge.

3-**The knowledge-based view** suggests that to acquire external and internal knowledge would reduce uncertainty and achieve a greater number of administrative that will influence knowledge acquisition activities will enhance a firm's ability to efficiently perform its role.

4-Knowledge sharing refers to collective beliefs or behavioral routines related to the spread of learning among different individuals or units within an organization (Moorman and Miner, 1998). Knowledge sharing implies the new combination of knowledge that has previously existed separately, that would result in process improvements within different individuals and different levels of the organization, and individuals able to share and exchange knowledge, they can generate benefits from sharing knowledge and resource (Nonaka and Takeuchi, 1995; Nonaka and Konno, 1998). By effectively applying knowledge, individuals improve their efficiency in e-business field.

**5-Knowledge application** is a focal element in knowledge management process (Grant, 1996). From the knowledge-based view, the value of individual and organizational knowledge resides primarily on its application because of stickiness and tacitness of knowledge (Grant, 1996; Spender, 1996). A deeper application of knowledge enables firms continuously to translate their organizational skills into embodied products (Weisberg, 2006; Sarin and McDermott, 2003).

#### (2-5) **Previous Studies**:

1. Jutla and Craig(2001) entitled " A Methodology for Creating e-**Business Strategy''.** This study investigates in how to move a company, industry, country, or continent to e-Business? Creating a future oriented culture presents one of the biggest hurdles to moving a bricks and mortar business into the e-space. If there is a resistance in upper management to change, then resources for e-Business will not be available and any e-initiative will fail. Traditionally enforcement of standards is not a widespread activity in and among companies. The mindset will need to change to facilitate e-Business interconnectivity. Internet and personal computer use is another issue that e- Businesses must overcome when dealing with smaller concerns such as contractors and professional service providers. The success of a business model for bringing home builders and building contractors together, for instance, could hinge on contractors personal computer or mobile device (e.g. cell phone) usage. Knowledge management in all its forms is done poorly across organizations today. For knowledge management to be successful across stakeholders, there must be a willingness to share information and transfer knowledge or information or data among the parties. For suppliers and retailers, there already exist numerous case studies that show supply chain visibility leads to more effective marketing promotions and more accurate forecasting and promised delivery dates. Businesses are often reluctant to share customer information with partners.

Andrew et al.,(2006) entitled "Strategies for effective Web services adoption for dynamic e-businesses Web services hold the promise for the so-called dynamic e-business movement".

Currently, many organizations are either in the process of adopting Web services technology or seriously evaluating this option. One of the major concerns of senior management in this endeavour is the cost of adopting Web services. In this paper, a model is proposed to evaluate an organization's position in a technology adoption space by evaluating its current level of information technology (IT) sophistication. The model identifies critical factors necessary for the successful adoption of Web services technology along three dimensions—intranet, extranet, and Internet. A simulation experiment is conducted to find the most cost-effective strategy for allocating resources to pursue Web services adoption. Alternative strategies are evaluated under three scenarios with different combinations of significance levels (weights) and diffusion levels of the critical factors. Our results suggest that different strategies should be employed, while organizations consider their existing organizational IT status and focus area. This study provides useful guidelines for management to utilize available resources effectively in the process of adopting Web

services technology.

## Wang and Sun(2007) entitled "A Framework for Information System Strategic Planning Based on Agility process in E-Business"

This study investigates in e-Business strategy, in particular Information System Strategy, because Information System Strategy plays an important role in gaining opportunities and competitive advantages. How to formulate Information System Strategy has become one of the critical factors to the success of many companies. During the last decade, a number of leading companies have implemented solutions such as ERP, SCM, CRM, and PLM, all of which inevitably require a large capital investment. To make investment more effective, Information Strategic Planning has been widely adopted prior to the implementation of IS. The aim of Information System Strategic Planning is to align information system planning with business strategy. It identifies prioritized information systems that are efficient, effective and fit the strategy of the company. Managers still remember the problems in implementing the detailed plans that resulted from the information system strategic studies. They are also painfully aware that the real challenge is not to achieve strategic alignment when planning is carried out, but the ability to continuously refresh and adapt the strategic vision that aligns information system with business.

# Jing, Zhen and Wenhui (2008) entitled " An Empirical Evaluation of the

#### Effectiveness of E-Business Strategic Planning"

At strategic planning stage, strategic goals and motivation of e-business adoption are used to assess e-readiness. The evaluation indicators refer to strategic orientation and planning for utilization and integration of organizational resources. At resource analysis stage, through assessing and analyzing three types of IT relative resources, the development profiles of e-business will be displayed. Successful strategic initiative leads to utilization of IT related resources. The main evaluation indicators refer to three types of IT relative resources (information systems, IT human resources and partner ereadiness) and status of information sharing and collaborative.

process. At implementation stage, the status of e-business operation in the three traditional applications: e-purchasing, reordering and CRM are assessed to identify how strategy planning is implemented in organizations. In the e-business. The evaluation of effectiveness of e-business/IS strategic planning is moving away from the technological

and accounting/financial approach towards a more integrated approach among theoreticians and exploring more concerns about human and organizational issues. In addition, some researches highlight the importance of the implementation process to controlling some of the antecedents and thus improve their strategic implementation outcomes in uncertain environment. In the next section, we propose a new framework for assessing the effectiveness of implementation process perspective.

# Alexandra(2009) entitled'' Computational Modeling Methods in e-Business and Strategic Banking Management: The case of e-Banking Sector''

The aim of this study is proposed dynamic algorithmic approach has been applied to a class of case studies of characteristic e-business and strategic management problems and their corresponding adaptive algorithmic schemes have been presented. The proposed algorithms with the main advantages of their compactness, adaptiveness and by incorporating the proper singular perturbation parameters that allow the efficient computation of (near) optimum solutions can be extended for solving efficiently a wide spectrum of e-business and strategy management problems and related applications in digital information management. Future research work is focused on the dynamical choice of the singular perturbation parameter values of adaptive algorithmic schemes representing a wide area of e-business problems in Digital Information Management applications. This choice that is closely related to both quantitative and qualitative nature of the input parameters (data) and computable variables/ procedures/ modules, can lead to (near) optimum solutions of e-business problems and strategic management methodologies.

Chen and Huang (2009) entitled "conducted a research titled Strategic human resource practices and innovation performance: the mediating role of knowledge management capacity". They examined the role of knowledge management capacity in the relationship between strategic human resource practices and innovation performance from the knowledge-based view. The results indicate that strategic human resource practices are positively related to knowledge management capacity which, in turn, has a positive effect on innovation performance. This finding provides evidence that knowledge management capacity plays a mediating role not only between strategic human resource practices and innovation performance but also other organisational issues.

# Luisa et al., (2010) entitled" An analysis of e-business adoption and its impact on relational quality in travel agency–supplier relationships"

This study analyzes how managers of retail travel agencies perceive the antecedents and consequences of adopting e-business in their supplier relationships. A comprehensive model integrating its antecedents and relational effects is developed and empirically tested using SEM. The study surveyed 101 travel agents in Spain. Research findings indicate that customer pressure has a strong influence on e-communication practices. E-communication with the travel agency's supplier and the pressure exerted by the sector are the main antecedents for e-procurement. Effects of e-business on relational quality are contradictory. E-procurement influences negatively on trust. Conversely, e-communication has a positive impact on trust, thus having a favorable impact on perceived reciprocity and travel agent's commitment to its supplier. Main findings indicate that the use of the Internet is largely driven by normative pressures, and this coercive power has a detrimental impact on trust. To avoid such negative consequences, perceived reciprocity is a prerequisite for committed supplier relationships.

## Ranzhe Jing (2010)" Constructing Knowledge Management System in E-business Enterprises"

The core content of knowledge management is knowledge acquisition, knowledge sharing, knowledge application and innovation. The ways of carrying out of this part are the top priorities of implementing of knowledge management. Knowledge has become enterprise's strategic property, and one of enterprise competitive advantage fountain heads. Knowledge management is a newly developed management strategy that has been worked out by western management science world, through both intensive and extensive research and study on thousands of successful cases of firstclass businesses. This strategy can, to a great extent, push the modernization of business management and promote the core competitive capacity of the enterprises. The new 21st century witnesses the unprecedented rapid growth of information technology and knowledge update, as well as increasingly changing market demands and far too severe business competition. Practices of international first-class businesses show that only by means of continual learning can a learning organization be established in enterprises, which will help to adjust themselves to external changes and keep a sustainable development in competition. Knowledge management is a strategic alliance comprising many member businesses. The era of knowledge economy causes the traditional industry reforming to the massive knowledge enterprise, Hence a learning knowledge management system should be built on the basis of the learning organization theory, and keep its advantage in competition and enhance its comprehensive competitive capacity through continual learning and disciplines.

# RanjitVoola ,et al.,. (2012). "The effects of market orientation, technological opportunism, and e-business adoption on performance: A moderated mediation analysis"

Understanding the effective adoption of technological innovations, such as e-business, is arguably one of the key challenges facing organizations. The literature indicates that the relationship between firm capabilities and firm performance is mediated by the effects of the adopted innovation (e.g., e-business). However, the complementarity effects of capabilities on the adoption of innovation have received little attention. Drawing on the Resource Based View, this paper examines the complementarity between two firm-specific capabilities (i.e., Market Orientation (MO) and Technological Opportunism (TO)) with regard to e-business adoption (EBA) as well as the mediating effect of EBA on the capability-performance relationship. A moderated mediation analysis revealed that the relationship between MO and EBA is moderated by TO and that EBA partially mediates the effects of MO and TO on firm performance. Implications for theory and practice are discussed regarding bundling capabilities and subsequent complementarity to increase causal ambiguity in order to increase both EBA and firm performance.

# Stefan Steiniger, and Andrew J.S. Hunter (2013) "free and open source GIS software mapA guide to facilitate research, development, and adoption"

Over the last decade an increasing number of free and open source software projects have been founded that concentrate on developing several types of software for geographic data collection, storage, analysis and visualization. We first identify the drivers of such software projects and identify different types of geographic information software, e.g. desktop GIS, remote sensing software, server GIS etc. We then list the major projects for each software category. Afterwards we discuss the points that should be considered if free and open source software is to be selected for use in business and research, such as software functionality, license types and their restrictions, developer and user community characteristics, etc. Finally possible future developments are addressed.

VesnaBosiljVuk<sup>\*</sup>si ,et al.,. (2013) Supporting performance management with business process management and business intelligence: A case analysis of integration and orchestration''

The case(s) demonstrates the importance of business process management (BPM) and business intelligence systems (BIS) in achieving better firm performance. It has been well documented in the literature that research on the effectively usage and combination of knowledge from BPM and BIS in turbulent service environments is limited. In response, we conduct an exploratory comparative case study of four firms in banking and telecommunication industries that have implemented BPM initiative and BIS solution. Our results firstly highlight that actual results of applying BPM and BIS differ greatly from the results that were originally planned. Secondly, we find that BIS initiatives are usually driven by improving marketing and sales, while BPM initiatives are driven by improving business processes. Thirdly, we identify that there is a lack of strong commitment to using both systems for supporting performance management.

## O<sup>"</sup>yku" Is et al.,.(2013). "Business intelligence success: The roles of BI capabilities and decision environments"

This study examines the role of the decision environment in how well business intelligence (BI) capabilities are leveraged to achieve BI success. We examine the

decision environment in terms of the types of decisions made and the information processing needs of the organization. Our findings suggest that technological capabilities such as data quality, user access and the integration of BI with other systems are necessary for BI success, regardless of the decision environment. However, the decision environment does influence the relationship between BI success and capabilities, such as the extent to which BI supports flexibility and risk in decision making.

# Sang-Gun Lee, et al.,.(2013) "The impact of cultural differences on technology adoption"

This study examines the impact of Type I and Type II cultural differences on mobile phone adoption patterns. We use Hofstede's cultural dimensions to examine cultural differences of two countries (Type I: the U.S.; Type II: S. Korea) and employ the Bass diffusion model to delineate innovation and imitation effects on mobile phone adoption. The results show that in Type I culture innovation factor has a significantly higher level of effect on adoption than it does in Type II culture; and in Type II culture imitation factor has a higher degree of effect on adoption than it does in Type I culture. These findings imply that in individualistic cultures, people tend to seek information on their own from direct and formal sources, whereas in collectivistic cultures, people rely more on subjective evaluation of an innovation, conveyed from other-like-minded individuals who already have adopted the innovation.

# Study Contribution to knowledge

After reading and through examining previous studies related to the subject of this study, the researcher found that the most important characteristics that distinguish this study from the other previous studies and can be stated as follows:

The other previous studies were e-business, strategic management and organization changes. However, this study is to measure the impact of e-business and knowledge management on the effectiveness of strategic management process in the banks sector in Jordan. This study consists of three variables:

1. Independent variable: E-business adoption.

2. Mediator variable: knowledge management capacity (Acquisition, sharing, and Application).

3. Dependent variable: Strategic planning Effectiveness.

# **Chapter Three**

- (3-1) Introduction
- (3-2) Study Methodology
- (3-3) Study Population
- (3-4) Study Tools and Data Collection
- (3-5) Statistics treatment

#### **Chapter Three**

#### **Method and Procedures**

#### **3-1: Introduction**

In this chapter the researcher will describe in detail the methodology used in this study, and the study population and its sample. Next, the researcher explains the study tools and the way of data collections. After that, he discusses the statistical treatment that is used in analysis of the collected data. In the final section the validation of the questionnaire and the reliability analysis that is applied will be clearly stated.

#### **3-2: Study Methodology.**

**Descriptive research** involves collecting data in order to test hypotheses or to answer questions concerned with the current status of the subject of the study. Typical descriptive studies are concerned with the assessment of attitudes, opinions, demographic information, conditions, and procedures. The research design chosen for the study is the survey research. **A 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 Survey research of knowledge at its best can provide very valuable data. It involves a careful design and execution of each of the components of the research process.

The researcher designed a survey instrument that could be administered to selected subjects. The purpose of the survey instrument was to collect data concerning respondent's attitudes towards firms with e-Business adoption intensity, knowledge management capacity, and strategic planning effectiveness.

#### 3-3: Study Population.

To increase credibility, it is important to choose the sample that will represent the population under investigation. The population of the study is all of the managers and head of department working in Jordanian banking sector. On the other hand, the researcher chooses a purposive sample.

After distributing (160) questionnaires of the study sample, a total of (140) answered questionnaires were retrieved, of which (20) were invalid, Therefore, (140) answered questionnaires were valid for study.

#### 3-4: Study Tools and Data Collection.

The current study is of two folds, 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 analysis and programs used in the current study are based on two sources:

- 1. Secondary sources: books, journals, these are used to write the theoretical framework of the study.
- 2. Primary source: a questionnaire that was designed to reflect the study objectives and questions.

In this study, both primary and secondary data were used. The data collected for the model were through questionnaire. After conducting a thorough review of the literature pertaining to with e-business adoption intensity, knowledge management capacity, and strategic planning effectiveness, 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 (4) factors (Age; Gender; Education level; Experience).

Section Two: E-Business Adoption Intensity. This section measured the Internal Communication, Outbound Communication, Inbound Communication, Internal Administration, and Order Taking each dimension measure through (5) on a Likerttype scale as follows in table (3-1):

Strongly Agree	Agree	Neutral	Disagree	Strongly disagree
5	4	3	2	1

Section Three: **Knowledge Management Capacity**. This section measured through (3) dimensions (Knowledge Acquisition, Knowledge Sharing, Knowledge *Application*) each dimension measure through (5) on a Likert-type scale as follows:

Strongly Agree	Agree	Neutral	Disagree	Strongly disagree
5	4	3	2	1

Section Four: Strategic Planning Effectiveness. Each dimension measure through (5)

on a Likert-type scale as follows:

Strongly Agree	Agree	Neutral	Disagree	Strongly disagree
5	4	3	2	1

#### **3-5: Statistics treatment.**

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

that is a Statistical Package for Social Sciences (SPSS) in addition to a second generation statistical package which is Partial Least Squares (PLS); more specifically SmartPLS 2.0 M3. SmartPLS package adopts Structural Equation Modeling (SEM) for data analysis. To answer research questions, the researcher utilized

- means, frequencies, and standard deviations.
- The Cronbach's Alpha test was also utilized to test the reliability and consistency of the data collection tool (i.e. questionnaire). To test the research hypotheses,
- the researcher utilized simple regression analysis,
- multiple regression analysis,
- stepwise multiple regression analysis,
- and path analysis

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

*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.

#### **3-6:** Validity and Reliability.

#### **3-6-1: Validation**

To test the questionnaire for clarity and to provide a coherent research questionnaire, a macro review that covers all the research constructs was accurately performed by academic reviewers from Middle East University specialized in Business Administration, Marketing, e-business. Some items were added, based on their valuable recommendations.

Some others were reformulated to become more accurate and that is expected therefore to enhance the research instrument.

The academic reviewers are (4) and the overall percentage of respond is (100%), (see appendix "2").

#### **3-6-2: Study Tool Reliability**

The reliability analysis applied to the level of Cronbach Alpha ( $\propto$ ) is the criteria of internal consistency which was at a minimum acceptable level (Alpha  $\geq 0.60$ ) suggested by (Sekaran, 2003). The overall Cronbach Alpha ( $\propto$ ) = (**0.93**). Whereas the High level of variables Cronbach alpha ( $\propto$ ) is to Knowledge Acquisition within **Knowledge Management Capacity** = (0.87). The lowest level of Cronbach alpha ( $\propto$ ) is Knowledge Application within **Knowledge Management Capacity** = (0.75). These results are the acceptable levels as suggested by (Sekaran, 2003). The results were shown in Table (3-5).

Reliabi	lity of Questionnaire Dimensions					
No.	Dimensions	Alpha Value (∝)				
1	E-Business Adoption Intensity	0.84				
1-1	Internal Communication	0.82				
1-2	Outbound Communication	0.84				
1-3	Inbound Communication	0.85				
1-4	Internal Administration	0.85				
1-5	Order Taking	0.80				
2	Knowledge Management Capacity	0.88				
2-1	Knowledge Acquisition	0.87				
2-2	Knowledge Sharing	0.86				
2-3	Knowledge Application	0.75				
3	Strategic Planning Effectiveness	0.84				
The W	The Whole Questionnaire   0.93					

Table 3-2, Reliability of Questionnaire Dimensions

Regarding variables with lower than acceptable levels as suggested by (Sekaran, 2003); they were more sentimental than quantitative when compare with other variables. The variable "Order Taking" has an Alpha value (0.80). It reflects the way of important of in business in order taking. The variable "Knowledge Application." Within "Knowledge Management Capacity" has an Alpha value (0.75). It points out the important of Knowledge Application in Knowledge Management Capacity .The variable "Strategic Planning Effectiveness." Has an Alpha value (0.84). It points out the important of E-Business adoption and strategic planning effectiveness.

**Chapter Four** 

**Results and Discussion** 

#### **Chapter Four: Results and Discussion**

#### **Statistical Analysis**

In order to answer the research questions and test the hypotheses, the researcher utilized a first generation statistical package; that is a Statistical Package for Social Sciences (SPSS) in addition to a second generation statistical package which is Partial Least Squares (PLS); more specifically SmartPLS 2.0 M3. SmartPLS package adopts Structural Equation Modeling (SEM) for data analysis. To answer research questions, the researcher utilized means, frequencies, and standard deviations. The Cronbach's Alpha test was also utilized to test the reliability and consistency of the data collection tool (i.e. questionnaire). To test the research hypotheses, the researcher utilized simple regression analysis, multiple regression analysis, stepwise multiple regression analysis, and path analysis.

#### **Descriptive Statistics**

The population of this study includes all business managers and head of departments in banking sector in Jordan. The sample of this research consists of a random sample represents 30% of research population. A questionnaire that reflects the study objectives and questions was developed. The questionnaire was distributed to (160) business managers and head of departments in banking sector in Jordan. Only (150) responded to this questionnaire. out of the returned questionnaires, (10) responses were excluded due to missing values and multiple answers to questions. Accordingly, only (140) responses were valid for data analysis. The following is the descriptive analysis for the sample based on their demographics.

Table 1 shows the descriptive analysis in terms of frequencies and percentages for the study sample on the basis of their age.

#### Table 1

Age	Frequency	Percentage
30 Years or less	88	62.9%
31 – 40 Years	36	25.7%
41 – 50 Years	13	9.3%
51 – 60 Years	3	2.1%
Total	140	100%

#### Descriptive Statistics of the Study Sample according to Age

Table 1 shows that the age of most of the study sample (i.e. 88) is 30 years or less and this age range represents (62.9%) of the sample size. This is followed by the age range (31-40) with 36 subjects who represent (25.7%) of the sample size. Next comes the age range (41-50) with (13) subjects who represent (9.3%) of the sample size. Finally comes the age range (51-60) with only (3) subjects who represent (2.1%) of the sample size.

Table 2 shows the descriptive analysis in terms of frequencies and percentages for the study sample on the basis of their gender.

#### Table 2

Gender	Frequency	Percentage
Male	88	62.9%
Female	52	37.1%
Total	140	100%

#### Descriptive Statistics of the Study Sample according to Gender

Table 2 shows that (88) subjects are male and represent (62.9%) of the sample size, whilst only (52) subjects out of the sample are female who represent (37.1%) of the sample size.

Table 3 shows the descriptive analysis in terms of frequencies and percentages for the study sample on the basis of their qualifications.

#### Table 3

#### Descriptive Statistics of the Study Sample according to Qualifications

Qualification	Frequency	Percentage
High School	7	5.0%
Diploma	9	6.4%
Bachelor	116	82.9%
Master	7	5.0%
PhD	1	0.7%
Total	140	100%

Table 3 shows that only (7) subjects who represent (5.0%) of the study sample hold High School degree, whilst (9) subjects who represent (6.4%) of the study sample hold Diploma degree. The number of subjects who hold bachelor degree is the largest (i.e. 116) and represent (82.9%) of the study sample. Whilst the number of subjects with a Master degree is (7) and represent (5.0%) of the study sample, there is only subject with a PhD degree and that represent (0.7%) of the study sample.

Table 4 shows the descriptive analysis in terms of frequencies and percentages for the study sample on the basis of their experience.

#### Table 4

Qualification	Frequency	Percentage
5 Years or Less	47	34%
6 – 10 Years	38	27%
11 – 15 Years	25	18%
16 – 20 Years	20	14%
More Than 20 Years	10	7%
Total	140	100%

Descriptive Statistics of the Study Sample according to Experience

Table 4 shows that the number of years of experience for (47) subjects of the sample is 5 Years or Less and this represent about (34%) of the sample size. This is followed by the count of subjects with 6 to 10 Years of experience which is (38) subjects and represent (27%) of the sample size. Next is the countof subjects with years of experience ranging between 11 and 15 which is (25) subjects that represent about (18%) of the study sample. Then is the count of subjects with years of experience

ranging between 16 and 20. The count of those subjects is (20) which represent about (14%) of the sample size. Finally, the count of the subjects with years of experience above or equal 20 years is 10 and this represent (7%) of the sample size.

#### **Data Collection Instrument: Validity and Reliability**

#### Validity of the Questionnaire

To validate the data collection instrument used in this study in terms of its readability, format, and ability to measure the study's constructs; the researcher distributed the questionnaire instrument to a number of professor in public and private universities in Jordan those who have specializations and expertise in the field of this study. The questionnaire instrument was then updated and refined to reflect the comments and suggestions received by the domain experts. Moreover, the experts showed interest and interact with the researcher concerning the questionnaire instrument which proves its validity.

#### Reliability

In order to measure the internal consistency and reliability of the study's constructs. Cronbach's alpha ( $\alpha$ ) measure was used. The scales' reliabilities were measured and the Cronbach's alphas of all scales as in Table 5 were ranged between 0.75 and 0.88; indicating good reliabilities of the scales (Hair et al., 2006).

Construct	Items	<b>Conbach's alpha</b> (α)
Internal Communication	1-5	درجة %60كلما كانت اكثر 0.82
		الارتباط عالي
Outbound Communication	6-11	0.84
Inbound Communication	12-15	0.85
Internal Administration	16-18	0.85
Order Taking	19-21	0.80
E-Business Adoption	1-21	0.84
Intensity		
Knowledge Acquisition	22-24	0.87
Knowledge Sharing	25-27	0.86
Knowledge Application	28-29	0.75
Knowledge Management	22-29	0.88
Capacity		
Strategic Planning	30-35	0.84
Effectiveness		
The Whole Questionnaire	1-35	0.93

Table 5Reliability Analysis for the Constructs

#### **Descriptive Statistics: Constructs**

In this section, we rely mainly on the descriptive analysis to get the means and the standard deviations for the study constructs along with their items. The items were measured using a likert-type scale as follows.

Strongly	Agree	Neutral	Disagree	Strongly
Agree				Disagree
5	4	3	2	1

Based on the aforementioned details, the means of the study's constructs will be dealt with according to the following formula.

Interval Length = (Highest Value – Lowest Value) / Number of Levels

Interval Length = (5-1) / 3 = 4/3 = 1.33 and thus;

- Low Level = 1+1.33 = 2.33 and Less
- Medium Level = 2.34+1.33 = 3.67 so this level range is from 2.34 to 3.67
- **High Level =** 3.68 and above

We have calculated the means and the standard deviations for the study constructs along with the items based on the responses the researcher has collected from the study's sample who actually are business managers and head of departments in banking sector in Jordan. Next, we present the means and the standard deviation for each of the study's constructs along with its items.

#### 1. E-Business Adoption Intensity

This construct can be decomposed into five sub-constructs as follows: Internal Communication, Outbound Communication, Inbound Communication, Internal Administration, and Order Taking. The means and standard deviation of each sub-construct along with its items are shown below.

#### **1.1 Internal Communication**

#### Table 6

#	Items	Mean	STD	Rank	Level
5	E-Business facilitates Coordination	3.66	0.706	1	Medium
	among new product development teams.				
4	E-Business helps manage projects within	3.64	0.732	2	Medium
	the bank units.				
3	Facilitate discussions and feedback on	3.56	0.659	3	Medium
	various issues of importance to our bank.				
1	E-business facilitates internal	3.56	0.681	4	Medium
	communication between employees in				
	different departments and different				
	branches.				
2	E-Business regularly updates employees	3.49	0.662	5	Medium
	about developments within the bank				
	units.				
	Overall Mean	3.58	0.688		Medium

#### Descriptive Analysis for the Construct: Internal Communication

Table 6 shows that means of (Internal Communication) items range between (3.49) to (3.66) with an overall mean of (3.58). The level of such an overall mean is medium. Item number (5) got the highest mean which is (3.66) with a standard deviation of (0.706). The statement concerning item number (5) is as follows: (E-Business facilitates Coordination among new product development teams).

On the other hand, item number (2) came last on the basis of mean values. The mean of this item is (3.49) and its standard deviation is (0.662) and thus considered medium in terms of level. The statement of this item is as follows: (**E-Business regularly updates employees about developments within the bank units**).

Accordingly, the descriptive statistics concerning the construct (Internal Communication) indicate that Internal Communications within Jordanian Banks are considered medium in terms of level from the perspective of the study's sample.

#### **1.2 Outbound Communication**

#### Table 7

### Descriptive Analysis for the Construct: Outbound Communication

#	Items	Mean	STD	Rank	Level
11	E-business provides information in response to	3.76	0.792	1	High
	consumer questions or requests (e.g., via				
	searchable online databases).				
10	E-Business provides after-sales service to our	3.74	0.726	2	High
	customers (e.g., via online information about				
	installation and troubleshooting).				
8	E-Business sends customers regular updates	3.72	0.814	3	High
	about new services and other developments				
	within our bank (e.g., via e-mail).				
6	E-business provides customers with general	3.66	0.828	4	Medium
	information about our bank (e.g., via Web sites				
	and information boards).				
9	E-Business provides solutions to customer	3.59	0.830	5	Medium
	problems (e.g., via Web-based service solutions).				
7	E-business allow customers to locate and send	3.53	0.753	6	Medium
	information to appropriate contacts within the				
	bank (e.g., via accessible online				
	directories/databases).				
	Overall Mean	3.67	0.791		High

Table 7 shows that means of (Outbound Communication) items range between (3.53) to (3.76) with an overall mean of (3.67). The level of such an overall mean is high. Item number (11) got the highest mean which is (3.76) with a standard deviation of (0.792). The statement concerning item number (11) is as follows: (**E-business provides information in response to consumer questions or requests (e.g., via searchable online databases**)).

On the other hand, item number (7) came last on the basis of mean values. The mean of this item is (3.53) and its standard deviation is (0.753) and thus considered medium in terms of level. The statement of this item is as follows: (**E-business allow customers to locate and send information to appropriate contacts within the bank (e.g., via accessible online directories/databases**)).

Accordingly, the descriptive statistics concerning the construct (Outbound Communication) indicate that Outbound Communications within Jordanian Banks are considered high in terms of level from the perspective of the study's sample.

#### **1.3 Inbound Communication**

#### Table 8

#### **Descriptive Analysis for the Construct: Inbound Communication**

#	Items	Mean	STD	Rank	Level
15	E-business permit suppliers to	3.73	0.728	1	High
	directly link up to our databases				
	(e.g., via Enterprise Resource				
	Planning/ERP systems).				
12	E-business sends suppliers regular	3.68	0.850	2	High
	updates about new services plans				
	and other new developments				
	within our bank (e.g., via e-mail).				
13	E-Business provides specific	3.59	0.839	3	Medium
	online information about services				
	specifications that our business				
	partners must meet.				
14	E-Business allows sharing product	3.54	0.868	4	Medium
	and inventory planning information				
	with our partners.				
	Overall Mean	3.63	0.821		Medium

Table 8 shows that means of (Inbound Communication) items range between (3.54) to (3.73) with an overall mean of (3.63). The level of such

an overall mean is medium. Item number (15) got the highest mean which is (3.73) with a standard deviation of (0.728). The statement concerning item number (15) is as follows: (E-business permit suppliers to directly link up to our databases (e.g., via Enterprise Resource Planning/ERP systems)).

On the other hand, item number (14) came last on the basis of mean values. The mean of this item is (3.54) and its standard deviation is (0.868) and thus considered medium in terms of level. The statement of this item is as follows: (**E-Business allows sharing product and inventory planning information with our partners**).

Accordingly, the descriptive statistics concerning the construct (Inbound Communication) indicate that Inbound Communications within Jordanian Banks are considered medium in terms of level from the perspective of the study's sample.

#### **1.4 Internal Administration**

#### Table 9

#### Descriptive Analysis for the Construct: Internal Administration

#	Items	Mean	STD	Rank	Level
17	E-Business Provides	3.15	0.777	1	Medium
	reimbursements and manage				
	payrolls.				
18	E-Business manages employee	3.14	0.751	2	Medium
	benefits (e.g., life and medical				
	insurance).				
16	E-Business allowing performs	3.06	0.732	3	Medium
	financial and managerial				
	accounting.				
	Overall Mean	3.12	0.753		Medium

Table 9 shows that means of (Internal Administration) items range between (3.06) to (3.15) with an overall mean of (3.12). The level of such an overall mean is medium. Item number (17) got the highest mean which is (3.15) with a standard deviation of (0.777). The statement concerning item number (17) is as follows: (**E-Business Provides reimbursements and manage payrolls**).

On the other hand, item number (16) came last on the basis of mean values. The mean of this item is (3.06) and its standard deviation is (0.732) and thus considered medium in terms of level. The statement of this item is as follows: (**E-Business allowing performs financial and managerial accounting**).

Accordingly, the descriptive statistics concerning the construct (Internal Administration) indicate that Internal Administration within Jordanian Banks is considered medium in terms of level from the perspective of the study's sample.

#### 1.5 Order Taking

#### Table 10

#	Items	Mean	STD	Rank	Level
21	E-Business allows customers to track	2.56	0.998	1	Medium
	and inquire about their orders				
	electronically.				
19	E-Business accepts orders electronically	2.55	0.924	2	Medium
	from customers (e.g., online ordering).				
20	E-Business accepts payments	2.49	0.886	3	Medium
	electronically from customers (e.g.,				
	online payment).				
	Overall Mean	2.54	0.936		Medium

#### **Descriptive Analysis for the Construct: Order Taking**

Table 10 shows that means of (Order Taking) items range between (2.49) to (2.56) with an overall mean of (2.54). The level of such an overall mean is medium. Item number (21) got the highest mean which is (2.56) with a standard deviation of (0.998). The statement concerning item number (21) is as follows: (E-Business allows customers to track and inquire about their orders electronically).

On the other hand, item number (20) came last on the basis of mean values. The mean of this item is (2.49) and its standard deviation is (0.886) and thus considered medium in terms of level. The statement of this item is as follows: (**E-Business accepts payments electronically from customers** (e.g., online payment)).

Accordingly, the descriptive statistics concerning the construct (Order Taking) indicate that Order Taking within Jordanian Banks is considered medium in terms of level from the perspective of the study's sample.

Table 11 summarizes the means and standard deviations of the dimensions of the E-Business Adoption Intensity in a descending order on the basis of mean values.

#### Table 11

#### Descriptive Analysis for Dimensions of the E-Business Adoption

#	Dimensions	Mean	STD	Rank	Level
1.2	Outbound Communication	3.67	0.791	1	High
1.3	Inbound Communication	3.63	0.821	2	Medium
1.1	Internal Communication	3.58	0.688	3	Medium
1.4	Internal Administration	3.12	0.753	4	Medium
1.5	Order Taking	2.54	0.936	5	Medium
	Overall Mean	3.308	0.7978		Medium

#### Intensity

Table 11 indicates that the level of application and deployment of outbound communications is the highest in banks in Jordan; whilst the application of order taking processes and services is the lowest one in the context of E-Business Adoption Intensity.

#### 2. Knowledge Management Capacity

Three dimensions are encapsulated within this construct. These dimensions are as the following: Knowledge Acquisition, Knowledge Sharing, and Knowledge Applications. Descriptive statistics in terms of means and standard deviations for the above dimensions along with their items are provided next.

#### 2.1 Knowledge Acquisition

#### Table 12

#### Descriptive Analysis for the Construct: Knowledge Acquisition

#	Items	Mean	STD	Rank	Level
24	Knowledge was obtained from	3.66	0.819	1	Medium
	employees.				
23	Knowledge was obtained from partners.	3.61	0.801	2	Medium
22	Knowledge was obtained from	3.56	0.741	3	Medium
	customers.				
	Overall Mean	3.61	0.787		Medium

Table 12 shows that means of (Knowledge Acquisition) items range between (3.56) to (3.66) with an overall mean of (3.61). The level of such an overall mean is medium. Item number (24) got the highest mean which is (3.66) with a standard deviation of (0.819). The statement concerning item number (24) is as follows: (**Knowledge was obtained from employees**).

On the other hand, item number (22) came last on the basis of mean values. The mean of this item is (3.56) and its standard deviation is (0.741) and thus considered medium in terms of level. The statement of this item is as follows: (Knowledge was obtained from customers).

Accordingly, the descriptive statistics concerning the construct (Knowledge Acquisition) indicate that Knowledge Acquisition within Jordanian Banks is considered medium in terms of level from the perspective of the study's sample.

#### 2.2 Knowledge Sharing

#### Table 13

Descriptive	Analysis f	or the	<b>Construct:</b>	Knowledge	Sharing

#	Items	Mean	STD	Rank	Level
26	Knowledge was shared between	3.61	0.717	1	Medium
	colleagues.				
25	Knowledge was shared between	3.60	0.747	2	Medium
	supervisors and subordinates.				
27	Knowledge was shared between	3.54	0.808	3	Medium
	units.				
	Overall Mean	3.58	0.757		Medium

Table 13 shows that means of (Knowledge Sharing) items range between (3.54) to (3.61) with an overall mean of (3.58). The level of such an overall mean is medium. Item number (26) got the highest mean which is (3.61) with a standard deviation of (0.717). The statement concerning item number (26) is as follows: (Knowledge was shared between colleagues).

On the other hand, item number (27) came last on the basis of mean values. The mean of this item is (3.54) and its standard deviation is (0.808) and thus

considered medium in terms of level. The statement of this item is as follows: (Knowledge was shared between units).

Accordingly, the descriptive statistics concerning the construct (Knowledge Sharing) indicate that Knowledge Sharing within Jordanian Banks is considered medium in terms of level from the perspective of the study's sample and it is more vertical than being horizontal.

#### 2.3 Knowledge Application

#### Table 14

#	Items	Mean	STD	Rank	Level
28	Effectively managing knowledge	3.72	0.720	1	High
	into practical use.				
29	Effectively utilizing knowledge	3.60	0.728	2	Medium
	into practical use.				
	<b>Overall Mean</b>	3.66	0.724		Medium

**Descriptive Analysis for the Construct: Knowledge Application** 

Table 14 shows that means of (Knowledge Application) items range between (3.60) to (3.72) with an overall mean of (3.66). The level of such an overall mean is medium near to high. Item number (28) got the highest mean which is (3.72) with a standard deviation of (0.720). The statement concerning item number (28) is as follows: (Effectively managing knowledge into practical use).

On the other hand, item number (29) came last on the basis of mean values. The mean of this item is (3.60) and its standard deviation is (0.728) and thus considered medium in terms of level. The statement of this item is as follows: (Effectively utilizing knowledge into practical use).

Accordingly, the descriptive statistics concerning the construct (Knowledge Application) indicate that Knowledge Application within Jordanian Banks is considered medium close to high in terms of level from the perspective of the study's sample.

Table 15 summarizes the means and standard deviations for the dimensions of Knowledge Management Capacity.

#### Table 15

# Descriptive Analysis for the Dimensions of Knowledge Management

#### Capacity

#	Dimensions	Mean	STD	Rank	Level
2.3	Knowledge Application	3.66	0.724	1	Medium
2.1	Knowledge Acquisition	3.61	0.787	2	Medium
2.2	Knowledge Sharing	3.58	0.757	3	Medium
	Overall Mean	3.62	0.756		Medium

Table 15 indicates that overall application of knowledge management capacity in banks in Jordan is medium. Knowledge application is the highest in terms of deployment, whilst the application level of knowledge sharing is the lowest in banks in Jordan.

# 3. Strategic Planning Effectiveness

#### Table 16

### Descriptive Analysis for the Construct: Strategic Planning Effectiveness

#	Items	Mean	STD	Rank	Level
31	Strategic planning leads to developing	4.00	0.873	1	High
	a sustainable competitive position.				
30	Strategic planning increased	3.89	0.787	2	High
	effectiveness in achieving the				
	organization's objectives.				
34	Strategic planning leads to a good fit	3.85	0.864	3	High
	between the external environment and				
	the internal capabilities				
35	Strategic planning assisted managers	3.72	0.805	4	High
	to consider the future implications of				
	the current decisions				
32	Strategic planning leads to building	3.68	0.780	5	High
	commitment to action among line				
	managers.				
33	Strategic planning leads to developing	3.63	0.868	6	Medium
	a shared vision for the organization.				
	Overall Mean	3.79	0.830		High

Table 16 shows that means of (Strategic Planning Effectiveness) items range between (3.63) to (4.00) with an overall mean of (3.79). The level of such an overall mean is high. Item number (31) got the highest mean which is (4.00) with a standard deviation of (0.873). The statement concerning item number (31) is as follows: (Strategic planning leads to developing a sustainable competitive position).

On the other hand, item number (33) came last on the basis of mean values. The mean of this item is (3.63) and its standard deviation is (0.868) and thus considered medium in terms of level. The statement of this item is as follows: (Strategic planning leads to developing a shared vision for the organization).

Accordingly, the descriptive statistics concerning the construct (Strategic Planning Effectiveness) indicate that Strategic Planning Effectiveness within Jordanian Banks is considered high in terms of level from the perspective of the study's sample.

### The Readiness and Validity of Data for Regression Analyses

To answer research questions and test the study hypotheses, regression analyses need to be run. However, there are three main prerequisites that should be satisfactorily met so as to ensure that the use of regression analyses is valid. Otherwise, non-parametric tests should be employed.

- 1. The data should be normally distributed.
- 2. Multicollinearity amongst constructs should not be available so as to ensure independency of constructs.
- 3. The correlation of constructs with themselves should be higher than their correlations with any other construct to ensure that each construct is independent and not part of any other construct.

## **Test of Normality**

Both Skewness-Kurtosis and Kolmogorov-Smirnov tests were utilized to test normality of collected data. For data to be normally distributed, values of Skewness-Kurtosis should be between  $\pm 2.54$ . Using Kolmogorov-Smirnov tests, data need to be significant so as to ensure its validity (Hair et al., 2006).

#### Table 17

Construct	Skewness	Kurtosis
Internal Communication	-1.137	2.390
Outbound Communication	-1.257	2.132
Inbound Communication	-1.067	0.916
Internal Administration	-0.015	-0.206
Order Taking	0.122	-0.607
E-Business Adoption	-0.572	1.588
Intensity		
Knowledge Acquisition	-0.975	1.115
Knowledge Sharing	-0.911	0.652
Knowledge Application	-1.057	2.099
Knowledge Management	-1.257	2.527
Capacity		
Strategic Planning	-1.566	3.486
Effectiveness		

#### Test of Normality: Skewness-Kurtosis

Table 17 indicates that data is normally distributed as the skewness and kurtosis values are all within the range  $\pm 2.54$  with an exception of the kurtosis value for strategic planning effectiveness that was due to its high mean.

#### Table 18

Construct	Sig. (p value)
Internal Communication	0.000*
Outbound	0.000*
Communication	
Inbound Communication	0.000*
Internal Administration	0.000*
Order Taking	0.000*
Knowledge Acquisition	0.000*
Knowledge Sharing	0.000*
Knowledge Application	0.000*
Knowledge	0.000*
Management Capacity	
Strategic Planning	0.000*
Effectiveness	

Test of Normality: Kolmogorov-Smirnov

\*Significant at p≤0.05

Table 18 indicates and confirms that the data is normally distributed given that all constructs are significant at  $p \le 0.05$ . Therefore, normality of data as one of the prerequisites for regression analyses is assured in this study.

### **Test of Multicollinearity**

Both tolerance and Variance Inflation Rate (VIF) values are utilized to make sure that constructs are independent and multicollinearity is not a likely threat. The tolerance values should be more than 0.20 and VIF values should be less than 5 for constructs to be independent and for assuring that multicollinearity is not available amongst constructs. Table 19 confirms the independency of constructs given that the measured values meet the conditions of tolerance and VIF. Hence, the study constructs are independent and thus the second prerequisite for regression analyses is assured.

#### Table 19

Construct	Tolerance	VIF	
Internal Communication	0.528	1.894	
Outbound Communication	0.459	2.177	
Inbound Communication	0.636	1.573	
Internal Administration	0.970	1.031	
Order Taking	0.960	1.041	
E-Business Adoption Intensity	0.689	1.451	
Knowledge Acquisition	0.615	1.625	
Knowledge Sharing	0.710	1.409	
Knowledge Application	0.659	1.518	
Knowledge Management Capacity	0.321	3.111	
Strategic Planning Effectiveness	0.320	3.121	

#### **Multicollinearity Test**

#### **Bivariate Pearson Correlation**

Bivariate Pearson Correlation test was conducted to assure the independency of data. The rule is that each and every construct should correlate with itself in a way that is much greater to its correlations with other constructs. If this rule is true, then constructs are independent and that data is ready and valid to be used with regression analyses. Based on the values in Table 20, the constructs are independent as they correlate with themselves in a way that is stronger in comparison to their correlations with other constructs.

#### Table 20

	IC	OC	INC	IA	OT	KA	KS	KAP	SE
IC	1.00								
OC	.666***	1.00							
INC	.483**	.589**	1.00						
IA	095	019	054	1.00					
ОТ	112	005	.016	.140	1.00				
KA	.436**	.533**	.480**	.003	.055	1.00			
KS	.564**	.573**	.611**	.012	.015	.500**	1.00		
KAP	.423**	.530**	.501**	130	031	.551**	.444**	1.00	
SE	.590**	.568**	.581**	057	.012	.680**	.688**	.644**	1.00

#### **Bivariate Pearson Correlation**

IC: Internal Communication; OC: Outbound Communication; INC: Inbound Communication; IA: Internal Administration; OT: Order Taking; KA: Knowledge Acquisition; KS: Knowledge Sharing; KAP: Knowledge Application; SE: Strategic Planning Effectiveness.

Based on the results of the above three tests, the researcher can now utilized regression analyses to test the research hypotheses.

### **Hypotheses Testing**

# H01: There is no significant positive impact of e-business adoption on strategic planning effectiveness in banking sector in Jordan at level ( $\alpha \le 0.05$ )

For testing the first hypothesis, simple regression analysis was utilized in order to test the impact of e-business adoption on the strategic planning effectiveness of banks in Jordan as shown in Table 21.

#### Table 21

#### **Simple Regression Analysis for H01**

R	Beta	$\mathbf{R}^2$	Adjusted	F Value	P Value
			R <sup>2</sup>		
0.557	0.557	0.311	0.306	62.181	0.000*

\*Significant at p≤0.05

Table 21 shows that F Value is equal to (62.181) at significance level ( $p \le 0.05$ ). This indicates that there is a relationship between e-business adoption intensity and strategic planning effectiveness and thus null hypothesis is rejected. The Beta value indicates that the impact of e-business adoption intensity on strategic planning effectiveness is positive and equals to 55.7%. Based on the value of adjusted R<sup>2</sup>, e-business adoption intensity explains about 30.6% of the difference in the strategic planning effectiveness.

Further, the researcher here tests the impact of the dimensions of E-Business Adoption Intensity altogether on strategic planning effectiveness using multiple regression analysis. Table 22 shows the results.

#### Table 22

#### Multiple Regression Analysis of E-Business Adoption Dimensions on

R <sup>2</sup>	$\mathbf{R}^2$		ljusted R <sup>2</sup>	F Valu	e		P Value	
0.476		0.456		24.346	5	0.000*		
Constructs	B Value		St. Error	Beta	TV	alue	P Value	
Internal	0.3	<b>893</b>	0.101	0.334	3.8	579	0.000*	
Communication								
Outbound	0.155		0.094	0.152	1.6	49	0.102	
Communication								
Inbound	0.2	298	0.071	0.329	4.2	00	0.000*	
Communication								
Internal	-0.0	010	0.059	-0.011	-0.1	167	0.868	
Administration								
Order Taking	0.0	)36	0.050	0.046	0.7	<b>'19</b>	0.473	

#### **Strategic Planning Effectiveness**

\*Significant at p≤0.05

#### Dependent Variable: Strategic Planning Effectiveness

Table 22 indicates that dimensions of E-Business Adoption (i.e. Internal Communication, Outbound Communication, Inbound Communication, Internal Administration, and Order Taking) altogether explain about 45.6% of the difference in Strategic Planning Effectiveness on the basis of the Adjusted  $R^2$  Value. The F Value

was equal to (24.346) which is significant at ( $p\leq0.05$ ) and this assures that there is a relationship between the dimensions of E-Business Adoption and Strategic Planning Effectiveness. Moreover and on the basis of t values, one can tell that only Internal Communication and Inbound Communication have a positive impact on Strategic Planning Effectiveness at ( $p\leq0.05$ ).

The researcher also utilized the stepwise multiple regression to determine the weight of importance of each dimension of E-Business Adoption in the regression model in explaining Strategic Planning Effectiveness. As shown in Table 23, Internal Communication came first and explains 34.8% of the difference in Strategic Planning Effectiveness. Inbound Communication was second in rank and together with Internal Communication they explain about 46.3% of the difference in Strategic Planning Effectiveness. Other dimensions of E-Business Adoption Intensity (i.e. Outbound Communication, Internal Administration, and Order Taking) were excluded from the regression analysis as they were not found to be significant in the former multiple regression analysis as shown in Table 22.

#### Table 23

Stepwise Multiple Regression Analysis of E-Business Adoption Dimensions on Strategic Planning Effectiveness

Order of Constructs in the	Adjusted	F Value	T Value	Beta	P Value
<b>Regression Model</b>	$\mathbf{R}^2$				
Internal Communication	0.348	73.646	5.640	0.403	0.000*
Inbound Communication	0.463	59.003	5.410	0.387	0.000*

<sup>\*</sup>Significant at p≤0.05

Dependent Variable: Strategic Planning Effectiveness

H02: There is no significant positive impact of e-business adoption on knowledge management capacity in banking Sector in Jordan at level ( $\alpha \le 0.05$ )

For testing the second hypothesis, simple regression analysis was utilized in order to test the impact of e-business adoption on the knowledge management capacity of banks in Jordan as shown in Table 24.

#### Table 24

#### **Simple Regression Analysis for H02**

R	Beta	$\mathbf{R}^2$	Adjusted	F Value	P Value
			$\mathbf{R}^2$		
0.627	0.627	0.393	0.389	89.373	0.000*

\*Significant at p≤0.05

Table 24 shows that F Value is equal to (89.373) at significance level ( $p \le 0.05$ ). This indicates that there is a relationship between e-business adoption intensity and knowledge management capacity and thus null hypothesis is rejected. The Beta value indicates that the impact of e-business adoption intensity on knowledge management capacity is positive and equals to 62.7%. Based on the value of adjusted R<sup>2</sup>, e-business adoption intensity explains about 38.9% of the difference in the knowledge management capacity.

Further, the researcher here tests the impact of the dimensions of E-Business Adoption Intensity altogether on Knowledge Management Capacity using multiple regression analysis. Table 25 shows the results.

#### Table 25

#### Multiple Regression Analysis of E-Business Adoption Dimensions on

$\mathbf{R}^2$	$\mathbb{R}^2$		ljusted R <sup>2</sup>	F Valu	e		P Value	
0.562		0.546		34.379	)		0.000*	
Constructs	B V	alue	St. Error	Beta	TV	alue	P Value	
Internal	0.2	209	0.084	0.197	2.4	98	0.014*	
Communication								
Outbound	0.2	287	0.078	0.310	3.6	76	0.000*	
Communication								
Inbound	0.3	806	0.059	0.373	5.2	07	0.000*	
Communication								
Internal	0.0	12	0.049	0.014	0.2	47	0.805	
Administration								
Order Taking	0.0	28	0.041	0.040	0.6	83	0.496	

#### **Knowledge Management Capacity**

\*Significant at p≤0.05

Dependent Variable: Knowledge Management Capacity

Table 25 indicates that dimensions of E-Business Adoption (i.e. Internal Communication, Outbound Communication, Inbound Communication, Internal Administration, and Order Taking) altogether explain about 54.6% of the difference in Knowledge Management Capacity on the basis of the Adjusted R<sup>2</sup> Value. The F Value was equal to (34.379) which is significant at ( $p \le 0.05$ ) and this assures that there is a relationship between the dimensions of E-Business Adoption and Knowledge Management Capacity.

Moreover and on the basis of t values, one can tell that only Internal Communication, Outbound Communication, and Inbound Communication have a positive impact on Knowledge Management Capacityat ( $p \le 0.05$ ).

The researcher also utilized the stepwise multiple regression to determine the weight of importance of each dimension of E-Business Adoption in the regression model in explaining Knowledge Management Capacity. As shown in Table 26, Outbound Communication came first and explains 43.2% of the difference in Knowledge Management Capacity. Inbound Communication was second in rank and together with Outbound Communication they explain about 53.4% of the difference in Knowledge Management Capacity. The last dimension in terms of order was Internal Communication and together with Outbound Communication and Inbound Communication they explain about 55.0% of the difference in Knowledge Management Capacity. Other dimensions of E-Business Adoption Intensity (i.e. Internal Administration, and Order Taking) were excluded from the regression analysis as they were not found to be significant in the former multiple regression analysis as shown in Table 25.

#### Table 26

#### **Stepwise Multiple Regression Analysis of E-Business Adoption Dimensions**

Order of Constructs in the	Adjusted	F Value	T Value	Beta	P Value
<b>Regression Model</b>	R <sup>2</sup>				
Outbound Communication	0.432	106.800	3.775	0.316	0.000*
Inbound Communication	0.534	80.782	5.267	0.375	0.000*
Internal Communication	0.550	57.706	2.417	0.186	0.017*

#### on Knowledge Management Capacity

\*Significant at p≤0.05

Dependent Variable: Knowledge Management Capacity

# H03: There is no significant positive impact of knowledge acquisition on strategic planning effectiveness in banking sector in Jordan at level ( $\alpha \le 0.05$ )

For testing the third hypothesis, simple regression analysis was utilized in order to test the impact of knowledge acquisition on strategic planning effectiveness of banks in Jordan as shown in Table 27.

#### Table 27

#### **Simple Regression Analysis for H03**

R	Beta	$\mathbf{R}^2$	Adjusted	F Value	P Value
			$\mathbf{R}^2$		
0.680	0.680	0.462	0.458	118.571	0.000*

\*Significant at p≤0.05

Table 27 shows that F Value is equal to (118.571) at significance level ( $p \le 0.05$ ). This indicates that there is a relationship between knowledge acquisition and strategic planning effectiveness and thus null hypothesis is rejected. The Beta value indicates that the impact of knowledge acquisition on strategic planning effectiveness is positive and equals to 68.0%. Based on the value of adjusted R<sup>2</sup>, knowledge acquisition explains about 45.8% of the difference in the strategic planning effectiveness.

# H04: There is no significant positive impact of knowledge sharing on strategic planning effectiveness in banking sector in Jordan at level ( $\alpha \le 0.05$ )

For testing the fourth hypothesis, simple regression analysis was utilized in order to test the impact of knowledge sharing on strategic planning effectiveness of banks in Jordan as shown in Table 28.

#### Table 28

#### **Simple Regression Analysis for H04**

R	Beta	$\mathbf{R}^2$	Adjusted	F Value	P Value
			$\mathbf{R}^2$		
0.688	0.688	0.474	0.470	124.373	0.000*

\*Significant at p≤0.05

Table 28 shows that F Value is equal to (124.373) at significance level ( $p \le 0.05$ ). This indicates that there is a relationship between knowledge sharing and strategic planning effectiveness and thus null hypothesis is rejected. The Beta value indicates that the impact of knowledge sharing on strategic planning effectiveness is positive and equals to 68.8%. Based on the value of adjusted R<sup>2</sup>, knowledge sharing explains about 47.0% of the difference in the strategic planning effectiveness.

H05: There is no significant positive impact of knowledge application on strategic planning effectiveness in banking sector in Jordan at level ( $\alpha \le 0.05$ )

For testing the fifth hypothesis, simple regression analysis was utilized in order to test the impact of knowledge application on strategic planning effectiveness of banks in Jordan as shown in Table 29.

#### Table 29

#### **Simple Regression Analysis for H05**

R	Beta	$\mathbf{R}^2$	Adjusted R <sup>2</sup>	F Value	P Value
0.644	0.644	0.414	0.410	97.543	0.000*

\*Significant at p≤0.05

Table 29 shows that F Value is equal to (97.543) at significance level ( $p \le 0.05$ ). This indicates that there is a relationship between knowledge application and strategic planning effectiveness and thus null hypothesis is rejected. The Beta value indicates that the impact of knowledge application on strategic planning effectiveness is positive and equals to 64.4%. Based on the value of adjusted R<sup>2</sup>, knowledge application explains about 41.0% of the difference in the strategic planning effectiveness.

Further, the researcher here tests the impact of knowledge management dimensions altogether on strategic planning effectiveness using multiple regression analysis. Table 30 shows the results.

#### Table 30

#### Multiple Regression Analysis of Knowledge Management Dimensions on

R <sup>2</sup> 0.680		Adjusted R <sup>2</sup> 0.672		F Valu	e	P Value	
				96.139		0.000*	
Constructs B V			St. Error	Beta	T Value 5.178		P Value 0.000*
Knowledge	0.281		31 0.054	0.320			
Acquisition							
Knowledge	0.3	68	0.053	0.400	6.9	39	0.000*
Sharing							
Knowledge	0.2	81	0.058	0.290	4.8	845	0.000*
Application							

Strategic Planning Effectiveness

Significant at p≤0.05

Dependent Variable: Strategic Planning Effectiveness

Table 30 indicates that dimensions of Knowledge Management Capacity (i.e. Knowledge Acquisition, Knowledge Sharing, and Knowledge Application) altogether explain about 67.2% of the difference in Strategic Planning Effectiveness on the basis of the Adjusted  $R^2$  Value. The F Value was equal to (96.139) which is significant at  $(p \le 0.05)$  and this assures that there is a relationship between the dimensions of Knowledge Management Capacity and Strategic Planning Effectiveness.

Moreover and on the basis of t values, one can tell that each of Knowledge Acquisition, Knowledge Sharing, and Knowledge Application has a positive impact on Strategic Planning Effectiveness at ( $p \le 0.05$ ).

The researcher also utilized the stepwise multiple regression to determine the weight of importance of each dimension of Knowledge Management Capacity in the regression model in explaining Strategic Planning Effectiveness. As shown in Table 31, knowledge sharing came first and explains 47% of the difference in Strategic Planning Effectiveness. Knowledge Acquisition was second in rank and together with Knowledge sharing they explain about 61.9% of the difference in Strategic Planning Effectiveness. The last dimension in terms of order was Knowledge Application which explains together with Knowledge Sharing and Knowledge Acquisition 67.2% of the difference in Strategic Planning Effectiveness.

#### Table 31

# Stepwise Multiple Regression Analysis of Knowledge Management

**Dimensions on Strategic Planning Effectiveness** 

Order of Constructs in	Adjusted	F Value	T Value	Beta	P Value
the Regression Model	$\mathbf{R}^2$				
Knowledge Sharing	0.470	142.373	6.939	0.400	0.000*
Knowledge Acquisition	0.619	113.802	5.178	0.320	0.000*
Knowledge Application	0.672	96.139	4.845	0.290	0.000*

\*Significant at p≤0.05

Dependent Variable: Strategic Planning Effectiveness

# H06: Knowledge capacity does not mediate the impact of e-business adoption on strategic planning effectiveness in banking sector in Jordan at level ( $\alpha \le 0.05$ )

For testing the sixth hypothesis so as to know whether knowledge management capacity mediates the relationship between e-business adoption intensity and strategic planning effectiveness or not, the approach of Baron and Kenny (1986) was followed. This approach is based on a series of regression analyses for testing the significance of path coefficients. The following four steps are included within this approach.

Step 1	Show that the causal variable is correlated with the outcome.				
Step 2	Show that the causal variable is correlated with the mediator.				
Step 3	Show that the mediator affects the outcome variable.				
Step 4	Full Mediation: Show that mediator affects outcome variable in the				
	existence of the casual variable in the regression model.				
	Partial Mediation: Show that both the mediator and the causal				
	variable affects the outcome variable when they are both included in				
	the regression model.				

The first two steps were conducted in the prior hypotheses and Table 32 shows the summary of their results along with the result of the third step.

#### Table 32

**Results of the First Three Steps in Mediation Test** 

Step	Regression Model	Beta	P Value
Step 1	EBA>SE	0.557	0.000*
Step 2	EBA>KMC	0.627	0.000*
Step 3	KMC>SE	0.824	0.000*

EBA: E-Business Adoption Intensity; SE: Strategic Planning Effectiveness; KMC: Knowledge Management Capacity.

Based on the results of the first three steps and given that all of the aforementioned steps were found to be significant at ( $p\leq0.05$ ), then mediating effect is possible and step four should be carried out.

The researcher now conducts a multiple regression analysis where both EBA and KMC are included within the regression model as independent variable and SE is included as a dependent variable. If the results show that KMC is the only significant variable at ( $p\leq0.05$ ), then a full mediation is there, but if the results shows that both variables (i.e. EAB and KMC) are significant at ( $p\leq0.05$ ), then a partial mediation is there. Table 33 shows the results of the fourth step.

#### Table 33

$\mathbf{R}^2$		Adjusted R <sup>2</sup>		F Value		P Value	
0.681		0.677 146.415		5	0.000*		
Constructs	B V	alue	St. Error	Beta	TV	alue	P Value
КМС	0.8	862	0.068	0.781	12.	622	0.000*
EAB	0.1	13	0.104	0.067	1.0	)89	0.278

#### **Results of the Fourth Step in Mediation Test**

\*Significant at p≤0.05

#### Dependent Variable: Strategic Planning Effectiveness

Table 33 indicates that Knowledge Management Capacity **fully mediates** the relationship between E-Business Adoption Intensity and Strategic Planning Effectiveness. This is because when both E-Business Adoption Intensity and Knowledge Management Capacity were both regressed on Strategic Planning Effectiveness in the fourth step, only Knowledge Management Capacity was found to be significant on Strategic Planning Effectiveness at ( $p \le 0.05$ ).

# **Chapter Five**

**Conclusions and Recommendations** 

## **Chapter Five: Conclusions and Recommendations**

This study aimed at studying the impact of E-Business Adoption Intensity on Strategic Planning Effectiveness through Knowledge Management Capacity as a mediating factor. Certainly, in this new world of digital business, the adoption of e-business has become mandatory for the success of companies. This is because in nowadays environment e-business systems can contribute to organizations by optimizing business processes, maximizing profits, and improving proactive strategic planning.

To achieve the objectives of this study, the researcher has developed a novel model to measure the impact of E-Business Adoption Intensity on Strategic Planning Effectiveness through Knowledge Management Capacity as a mediating factor. Extensive review of relevant literature was essential in developing this model. The model contains three main constructs: E-Business Adoption Intensity; Knowledge Management Capacity; and Strategic Planning Effectiveness. The construct of E-Business Adoption Intensity includes five main dimensions: Internal Communication; Outbound Communication; Inbound Communication; Internal Administration; and Order Taking; whilst the construct of Knowledge Management Capacity includes three main dimensions: Knowledge Acquisition; Knowledge Sharing; and Knowledge Application.

The developed model was applied and tested in the context of banks operating in Jordan and the sample was determined to include business managers and heads of departments. For hypotheses testing, a questionnaire instrument was designed on the basis of constructed model. Prior to data collection, the questionnaire instrument was validated by a number of professors and experts in the domain of this study and working at both public and private universities in Jordan. The questionnaire instrument was validated in terms of clearance, meaning, format, and its ability to measure the constructs included within the research model. The questionnaire instrument was then revised to reflect the comments and suggestions those received by the referees.

Thereafter, the questionnaire was distributed to the sample of this study and 140 responses those considered valid for data analysis were collected. The analysis was conducted using both; Statistical Package for Social Sciences (SPSS 17.0); and Partial Least Square (PLS-SEM) and more particular SmartPLS 2.0 M3 which follows the Structural Equation Modeling (SEM) Technique. Following data analysis, results were obtained and reported in chapter four.

#### The Main Results of the Study

The study explored a number of important and significant results that the researcher hopes that they would lead to novel contributions to theory and relevant literature. The researcher also hopes that such results would trigger a number of critical decisions by the public and private sector in Jordan and more specifically banks. It also hoped that such decisions would be reflected positively on their businesses. The researcher here summarizes the main results generated from this piece of research.

• Internal Communications at banks in Jordan are considered medium in terms of level from the perspective of the study's sample.

- Outbound Communications at banks in Jordan are considered high in terms of level from the perspective of the study's sample.
- Inbound Communications at banks in Jordan are considered medium in terms of level from the perspective of the study's sample.
- Internal Administration at banks in Jordan is considered medium in terms of level from the perspective of the study's sample.
- Order Takingat banks in Jordan is considered medium in terms of level from the perspective of the study's sample.
- The level of application and deployment of outbound communications is the highest at banks in Jordan; whilst the application of order taking processes and services is the lowest one within the context of E-Business Adoption Intensity.
- E-Business Adoption Intensity in generalat banks in Jordan is considered medium in terms of level from the perspective of the study's sample.
- Knowledge Acquisition at banks in Jordan is considered medium in terms of level from the perspective of the study's sample.
- Knowledge Sharingatbanks in Jordan is considered medium in terms of level from the perspective of the study's sample and it is more vertical than being horizontal.

- Knowledge Application at banks in Jordan is considered medium close to high in terms of level from the perspective of the study's sample.
- The overall application of knowledge management capacity at banks in Jordan is medium. Knowledge application is the highest in terms of deployment, whilst the application level of knowledge sharing is the lowest in banks in Jordan.
- Strategic Planning Effectiveness at banks in Jordan is considered high in terms of level from the perspective of the study's sample.
- E-Business Adoption Intensity explains about 30.6% of the difference in the Strategic Planning Effectiveness.
- Out of E-Business Adoption Intensity dimensions, only Internal Communication and Inbound Communication have a positive impact on Strategic Planning Effectiveness at (p≤0.05).
- E-Business Adoption Intensity explains about 38.9% of the difference in the Knowledge Management Capacity.
- Out of E-Business Adoption Intensity dimensions, only Internal Communication, Outbound Communication, and Inbound Communication have a positive impact on Knowledge Management Capacity at (p≤0.05).
- Knowledge Acquisition explains about 45.8% of the difference in the Strategic Planning Effectiveness.

- Knowledge Sharing explains about 47.0% of the difference in the Strategic Planning Effectiveness.
- Knowledge Application explains about 41.0% of the difference in the Strategic Planning Effectiveness.
- The dimensions of Knowledge Management Capacity (i.e. Knowledge Acquisition, Knowledge Sharing, and Knowledge Application) altogether explain about 67.2% of the difference in Strategic Planning Effectiveness.
- Knowledge Management Capacity fully mediates the relationship between E-Business Adoption Intensity and Strategic Planning Effectiveness.

#### **Study Conclusions**

On the basis of the results of this study, the researcher concludes the following points.

- Banks in Jordan still relatively lack the functionality of managing and processing financial transactions between them and other parties such as customer and other business organizations electronically.
- The adoption of e-business at banks in Jordan is still modest. This is maybe affected by the culture in Jordan and other factors related to the acceptance of electronic services by many consumers especially when it comes to financial services.
- The knowledge management capabilities at banks in Jordan are still modest. Knowledge is mainly shared internally within the bank with little effort dedicated to solicit knowledge from the external environment including customers.
- Knowledge is mainly shared at banks in Jordan vertically. This means that employees within the same units tend to share knowledge with each other more than sharing knowledge with individuals from other units or organizations.
- Banks in Jordan are more effective in applying knowledge than acquiring or sharing knowledge.

- For strategic planning effectiveness, banks in Jordan need not only to improve their adoption and deployment levels of e-business, but they also and essentially need to enhance their knowledge management practices.
- Aiming at strategic planning effectiveness, banks in Jordan needs to improve Internal and Inbound communications as essential dimensions of E-Business Adoption Intensity.
- The adoption of e-business is essential for leveraging the knowledge management capacity at banks in Jordan.
- For leveraging knowledge management capacity, there is an essential need to improve Internal Communication, Outbound Communication, and Inbound Communication dimensions of e-business.
- Amongst the dimensions of knowledge management, knowledge sharing is the most influential dimension in strategic planning effectiveness.

#### **Study Recommendations**

According to the results and the drawn conclusions of study, the researcher here offers some recommendations that would enhance the practices of banks in Jordan in regards to e-business adoption, knowledge management, and strategic planning. The researcher hopes that such recommendations would be taken seriously into consideration so as to enhance the business operations of banks in Jordan. Some of the recommendations are directed towards the scientific and research community aiming to enhance the existing body of knowledge in large and that specifically related to the domain of this study. The researcher presents through the following points the most important recommendations based on the results and conclusions of this study.

- Banks in Jordan needs to utilize the advancements in information and communication technologies more effectively and start delivering financial and other services electronically in a more advanced and secured manner.
- Awareness campaigns are needed to so educate consumers about the benefits and concerns of electronic (e.g. Internet) services.
- New approaches and mechanisms are needed to be adopted by banks in Jordan so as to motivate employees to share and acquire knowledge within and outside their units and banks (i.e. Internally and Externally).
- More emphasized should be allocated to create a culture that believes in knowledge sharing at banks in Jordan.

• There is a pertinent need at banks in Jordan to utilize information and communication technologies more successfully by aligning them with their strategies and using them to support business process so as to enhance banks' strategic planning effectiveness.

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E-Business adoption and strategic planning effectiveness- The mediating role of knowledge management capacity: An Empirical

Study in Jordanian banking sector

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تبني الأعمال الالكترونية وفعالية التخطيط الاستراتجي: الدورالوسيط لقدرة إدارة المعرفة: دراسة ميدانية في القطاع المصرفي الأردني

استبانة الدراسة

**Questionnaire** 

#### **Dear Participant:**

We are currently undertaking a research project aiming to explore the relationship between E-Business adoption and strategic planning effectiveness- The mediating role of knowledge management capacity:An Empirical Study in Jordanian banking sector.

Your response is extremely important to the success of this study. We would like to assure you that your response will be treated as "Strictly Confidential". Your response will be used for academic purposes only. Please answer the questionnaire from the

perspective of your job title that most clearly defines your job responsibilities. Please attempt to answer all questions. However, if you are unsure about response, or think it would be misleading, please leave the specific question unanswered.

## Thank you in advanced for your help and cooperation

## The researcher

## **PART 1: GENERAL Background**

Age:

 $\Box$  Less than 20 years

□ 21-25 years

□26-30years

□31-35years

□More than 35 years

**Gender:**  $\Box$  Male  $\Box$ Female

**Education:**  $\Box$  Collage  $\Box$  Bachelor  $\Box$  Master  $\Box$  PhD

#### Years in the Current position:

 $\Box$  Less than 5 years.

 $\Box$  6-10 years.

□11-15 years.

 $\square$  More than 15 years.

#### Years of experience with the current organisation:

 $\Box$  Less than 5 years.

 $\Box$  6-10 years.

□11-15 years.

 $\square$  More than 15 years.

## **PART 2: E-Business adoption intensity**

This section is concerned with investigating E-business adoption intensity (Outbound communication, Internal Communications, inbound communications, Order taking, Internal Administration, and Procurement) in your bank. Please insert an X in the appropriate column. The options range from 1 (strongly disagree), 2(disagree),

3(neither disagree nor agree), 4 (agree), and 5 (strongly agree).

Intern	al Communication	Str	ongl	у	Str	ongly
		Di	sagre	ee	Ag	ree
		1	2	3	4	5
Q1	E-business facilitates internal communication between					
	employees in different departments and different branches.					
Q2	E-Business regularly updates employees about					
	developments within the bank units.					
Q3	Facilitate discussions and feedback on various issues of					
	importance to our bank.					
Q4	E-Business helps manage projects within the bank units.					
Q5	E-Business facilitates Coordination among new product					
	development teams.					
Outbo	und communication					
Q6	E-business provides customers with general information					
	about our bank (e.g., via Web sites and information boards).					
Q7	E-business allow customers to locate and send information					
	to appropriate contacts within the bank (e.g., via accessible					
	online directories/databases).					
Q8	E-Business sends customers regular updates about new					
	services and other developments within our bank (e.g., via					

	e-mail).			
Q9	E-Business provides solutions to customer problems (e.g.,			
	via Web-based service solutions).			
	via web-based service solutions).			
Q10	E-Business provides after-sales service to our customers			
-	(e.g., via online information about installation and			
	(c.g., via online information about instantation and			
	troubleshooting).			
011	E husiness movides information in response to consumer			
Q11	E-business provides information in response to consumer			
	questions or requests (e.g., via searchable online databases).			
• 1	· · ·		 	
inboui	nd communications			
Q12	E-business sends suppliers regular updates about new			
Q12				
	services plans and other new developments within our			
	bank (e.g., via e-mail).			
Q13	E-Business provides specific online information about			
	services specifications that our business partners must			
	meet.			
Q14	E-Business allows sharing product and inventory planning			
	information with our partners.			
Q15	E-business permit suppliers to directly link up to our			
	databases (e.g., via Enterprise Resource Planning/ERP			
	systems).			

Internal	Administration						
Q16	E-Business allowing performs financial and managerial						
	accounting						
	accounting.						
Q17	E-Business Provides reimbursements and manage						
	payrolls.						
Q18	E-Business manages employee benefits (e.g., life and						
	medical insurance).						
Order ta	lking						
Q19	E-Business accepts orders electronically from customers	-					
QI9	E-Business accepts orders electronically from customers						
	(e.g., online ordering).						
Q20	E-Business accepts payments electronically from						
	customers (e.g., online payment).						
Q21	E-Business allows customers to track and inquire about						
	their orders electronically.						
DADT	DADT 2. Unaviladas Managament Canadita						
PARI	PART 3: Knowledge Management Capacity						
		_					

This section is concerned with investigating knowledge Management Capacity (Knowledge Acquisition, Knowledge Sharing, Knowledge Application) in your organization. Please insert an X in the appropriate column. The options range **from 1** (strongly disagree), 2(disagree), 3(neither disagree nor agree), 4 (agree), and 5 (strongly agree).

		Stro	ongly		Stro	ngly
Know	edge Acquisition	Disagree			Agree	
		1	2	3	4	5
Q22	Knowledge was obtained from customers.					
Q23	Knowledge was obtained from partners.					
Q24	Knowledge was obtained from employees.					
Know	edge Sharing					
Q25	Knowledge was shared between supervisors and Subordinates.					
Q26	Knowledge was shared between colleagues.					
Q27	Knowledge was shared between units.					

Know	ledge Application			
Q28	Effectively managing knowledge into practical use.			
Q29	Effectively utilizing knowledge into practical use.			

# **PART 4: Strategic Planning Effectiveness**

This section is concerned with investigating Strategic planning effectiveness in your bank. Please insert an  $\mathbf{X}$  in the appropriate column. The options range from 1 (strongly disagree), 2(disagree), 3(neither disagree nor agree), 4 (agree), and 5 (strongly agree).

		Stro	Strongly		Stro	
		Disagree			Agree	
		1	2	3	4	5
Q30	Strategic planning increased effectiveness in					
	achieving the organization's objectives.					
Q31	Strategic planning leads to developing a sustainable					
	competitive position.					
Q32	Strategic planning leads to building commitment to					
	action among line managers.					
Q33	Strategic planning leads to developing a shared					
	vision for the organization.					

Q34	Strategic planning leads to a good fit between the external environment and the internal capabilities			
Q35	Strategic planning assisted managers to consider the future implications of the current decisions			

# Appendix (2) List of the academic reviewer

1-	Prof Najemaboud	Al-Zaytouna
2-	Prof .mohammad al nuaimi	MEU
3-	Drkamelhawajrweh	MEU
4-	Drraedhanandeh	MEU