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MIDDLE EAST UNIVERSITY

The Impact of key Organizational Factors on Microsoft Dynamics Great Planes (ERP) Perceived Benefits

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II

AUTHORIZATION

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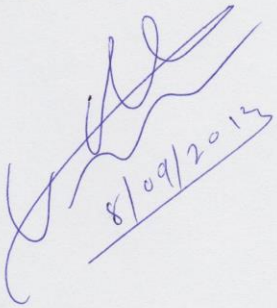

DISCUSSION COMMITTEE DECISION

This dissertation was discussed under title:

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DISCUSSION COMMITTEE	SIGNATURE
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DEDICATION

To my father and mother.

To my beloved Wife.

No words can make me express my grateful and love.

To my brothers and sisters.

To my entire family.

To my Friend: Amr.

To the souls of the martyrs of freedomin Syria and Everywhere.

ACKNOWLEDGEMENT

All praises and thanks be to Allah, the Lord of all worlds and existence, the most Gracious and the most Merciful.

This thesis could not be done without the great efforts of my supervisor Dr. Soud Almahamid, who gave me support, knowledge, and time to finish this work.

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The Impact of key Organizational Factors on Microsoft Dynamics Great Planes (ERP) Perceived Benefits

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ABSTRACT

Certainly, in this new digital world of business, the Enterprise Resource Planning (ERP) system seems to be the right solution. This is because in the current business environment ERP can benefit organizations with optimizing and integrating business processes, maximizing operational and managerial profits, and improving strategic and organizational benefits.

With the rapid increase of ERP projects in Jordan, this study aims to study the effect of key organizational factors on Microsoft Dynamics Great Planes (ERP) Perceived Benefits. It tries to determine the key organizational factors that lead to ERP perceived benefits in Jordanian organizations. In addition, it seeks to determine and evaluate the main perceived benefits of Microsoft great planes ERP in Jordanian organizations. Finally, this study hopes to understand the impact of key organizational factors on perceived benefits and has classified key organizational factor into; Internal Organizational and External Organizational Factors.

The results from the technical analysis determined the key factors that affecting a successful ERP implementation and showed which factors are leading to ERP perceived benefits in Jordanian organizations. Finally, the researcher could evaluate and determine the main perceived benefits of using the ERP system in Jordanian organizations.

أثر عوامل النجاح الحرجة على الفوائد المدركة لنظام إدارة موارد المنظمة

إعداد الطالب

عمر رفعت أوسي

إشراف

الدكتور سعود المحاميد

الملخص باللغة العربية

لا شك أن في هذا العالم التجاري الجديد فإن أنظمة إدارة موارد المؤسسات تبدو خياراً مفضلاً لمعظم الشركات ولم يكن ذلك بمحض الصدفة، فأنظمة إدارة موارد المؤسسة لديها المقدرة والإمكانية على إيجاد ترابط وتواصل بين مختلف أقسام تلك المؤسسات وما يضمن ذلك من تحقيق فوائد مختلفة مثل تحسين ودمج العمليات التجارية، وتعظيم الأرباح التشغيلية والإدارية، وتحسين المزايا الاستراتيجية والتنظيمية.

مع الزيادة السريعة في تطبيق نظم إدارة موارد المؤسسات في الأردن، هدفت هذه الدراسة إلى معرفة تأثير عوامل النجاح الحرجة على الفوائد المدركة لنظام إدارة موارد المنظمة. لذا فإن الباحث حاول في البدء تحديد ماهية تلك العوامل الحرجة الرئيسية إضافة إلى دراسة أي من تلك العوامل قد تحدد من الفوائد المدركة لنظام إدارة موارد المنظمة وأخيراً قام الباحث بدراسة تلك الفوائد المدركة ومعرفة أي منها يعد الفائدة المدركة الأهم بالنسبة للمؤسسات في الأردن.

ولتحقيق أهدف الدراسة قام الباحث بتصميم استبانة وزعت على بعض الشركات الأردنية التي تطبق نظام مايكروسوفت لإدارة موارد المنظمة من اجل الإجابة عن اسئلة الدراسة وعددهم 101

وبناء عليه جرى جمع وتحليل البيانات وإختبار الفرضيات وتم تحليل النتائج التي أظهرت ما هي العوامل الرئيسية التي تؤثر على الفوائد المدركة لتطبيق نظام إدارة موارد المنظمة في المؤسسات الأردنية وما درجة ذلك التأثير وأخيراً، فإن الباحث تمكن من تقييم وتحديد تلك الفوائد التي تجنيها المؤسسات عند استخدام نظام إدارة موارد المنظمة.

Chapter One

Introduction of Study

1.1 INTRODUCTION

1.2 STUDY PROBLEM

1.3 STUDY QUESTIONS AND HYPOTHESES

1.4 SIGNIFICANCE OF THE STUDY

1.5 OBJECTIVES OF THE STUDY

1.6 STUDY LIMITATIONS

1.7 STUDY DELIMITATIONS

1.8 STUDY MODEL

1.9 OPERATIONAL DEFINITIONS OF THE STUDY

1.1 INTRODUCTION

Today, the integration of companies' business processes is, if not a necessity, a requirement linked to the reactivity necessary. Small and medium sized enterprises (SMEs) are a major part of Jordan industrial economies. Their survival and growth has therefore been an important issue. Organizations kept on facing challenges that force them to rethink and adapt their structures, goals, processes and technologies. They must act promptly and make those changes to maintain their competitive advantage. To meet these variations it's clear each organization needs to adopt a solution to face the challenges and Enterprise Resource Planning (ERP) presents a golden opportunity to each organization to link all work process in one single frame.

Since the last part of 1990s firms have rushed to implement enterprise resource planning systems (ERP). One study found more than 60 percent of Fortune 500 companies had adopted ERP systems (G. Stewart et al 2000). The expansion in information technology and the increase in global business competition also forced organizations to find new ways of doing business. Moreover, organizations now are trying to find ways to improve their performance and operational effectiveness. Developing new technologies and advanced software applications such as enterprise resource planning (ERP) systems are playing the key role in successfully enhancing the performance of organizations. ERP systems are cross-functional enterprise systems driven by an integrated suite of software modules that maintain the central internal business processes of a company. The core function of ERP is to give decision makers an integrated real-time view of core business processes. These modules operate interactively utilizing one database, which shares all information

necessary for each module's purpose, as well as user requirements. ERP packages give a workflow engine to create automated work according to business rules and approval conditions so that information and documents can be moved to operational users for transactional conducts, and to managers for review and approval.

ERPs link all the separate Information Systems (ISs) used in the departments of the companies in one integrated system causing a better understanding of the whole job of the organizations through sharing information and communications among users. Separate systems did the job properly in a good way but there was no cooperation to know about the transaction and it's process like the amount, date to be achieved, updates of the process, financial matter, time to market; with the ERPs everyone in any department can know all of the processors of the transaction on time and keep the process in better way. (Christopher and Koh, 2003) mentioned that an organization doesn't have to buy the whole ERP package as a condition to achieve its mission, but these companies may buy a separate package of ERPs like two or more, not all which provides flexibility for these organization to choose the better ERPs resulting in saving more money and no more costs.

One of the most familiar ERP systems for small and midsize businesses is Microsoft dynamics Great Plains introduced by American multinational software corporation (Microsoft). Microsoft Dynamics is a line of familiar, adaptable enterprise resource planning (ERP) and customer relationship management (CRM) solutions designed to meet almost any business need and help organizations make important business decisions confidently. Microsoft Dynamics works like and with familiar Microsoft software—easing

adoption and reducing the risks in implementing a new solution (Microsoft Dynamics ERP brochure).

Microsoft great planes has many useful characteristics for SME's in Jordan, such as a richly featured financial accounting and business management solution, also the lower cost in comparison with SAP or Oracle ERPs gives the GP (Great Planes) a competitive advantage in Jordanian ERP market. Therefore this research is targeting the Jordanian organizations that adopted Microsoft dynamics great planes.The researcher will present certain factors such as Internal Organizational Environment factors and External Organizational Environment factors and study its impact on Microsoft great planes ERP's perceived benefits in Jordanian organization.

Also this research will present a framework for assessing the business perceived benefits of Enterprise Resource Planning (ERP) systems. Shang and Seddon (2000) have proposed a framework of ERP benefits, and they note that this framework could be used as a good communication tool and checklist for consensus-building within firm discussions on benefits realization and development and then will present certain factors in/out side organization environments that effect on ERP perceived benefits.

1.2 Study Problem

In the light of the previous discussion, and the increased adoption of ERP systems in Jordanian organizations especially Microsoft great planes (GP), the need to explain the key factors effecting enterprise resource planning implementation in Jordanian organizations is a must. Thus, this thesis seeks to address thekey benefits of enterprise resource planning

and its relation with key organizational factors of ERP implantation in Jordanian organization.

1.3 Study Questions and Hypotheses

This study seeks to answer three main questions:

> ***Q1*:** What are the key organizational factors that determine ERP's perceived benefits?
>
> ***Q2:*** What are the main perceived benefits of ERP systems in Jordanian organizations?
>
> ***Q3:*** What is the impact of key organizational factors on the perceived benefits of ERP systems?

From the last question (***Q3***) the main hypothesis can be summarized as following:

Ho1: Internal Organizational Environment has no impact on Microsoft great planes ERP perceived benefits($\alpha \leq 0.05$).

And the Internal Organizational Environment can be summarized as below:

> ***Ho1a:***Top management support has no impact on Microsoft great planes ERP perceived benefits($\alpha \leq 0.05$).
>
> ***Ho1b:***Company-wide support has no impact on Microsoft great planes ERP perceived benefits($\alpha \leq 0.05$).

Ho1c:Business process reengineering has no impact on Microsoft great planes ERP perceived benefits($\alpha \leq 0.05$).

Ho1d:Effective project management has no impact on Microsoft great planes ERP perceived benefits($\alpha \leq 0.05$).

Ho1e:Organizational culture has no impact on Microsoft great planes ERP perceived benefits($\alpha \leq 0.05$).

Ho2: External Organizational Environment has no impact on Microsoft great planes ERP perceived benefits($\alpha \leq 0.05$).

The External Organizational Environment can be present as:

Ho2a:ERP Vendor Support has no impact on Microsoft great planes ERP perceived benefits.

1.4 Significance of the Study

The importance of this study lies under the following reasons:

1. To know what is the progressive scope of ERP implementation.
2. Results from this research may reveal useful information and provide a good knowledge base for the Jordanian organizations interested in implementing ERP systems.
3. Scarcity of similar studies of this kind.

1.5 Objectives of the Study

There are three main objectives for this study, which are:

1. Determining the key organizational factors that lead to ERP's perceived benefits in Jordanian organizations.
2. Determining and Evaluating the main perceived benefits of Microsoft great planes ERP's in Jordanian organizations.
3. Studying the impact of key organizational factors on perceived benefits; this study classified key organizational factors into two categories: Internal Organizational Factors and External Organizational Factors.

1.6 Study Limitations

- Location limitation: all Jordanian organizations which implemented the Microsoft Great Planes (GP) ERP system.
- Timeline limitation: The academic year 2012-2013
- Human resource limitation: ERP system mangers in targeted Organizations.

1.7 Study Delimitations

- This research was limited to Jordanian Organizations that only adopted GP.
- Just ERP system users from the selected organization taken in this research.

1.8 Study Model

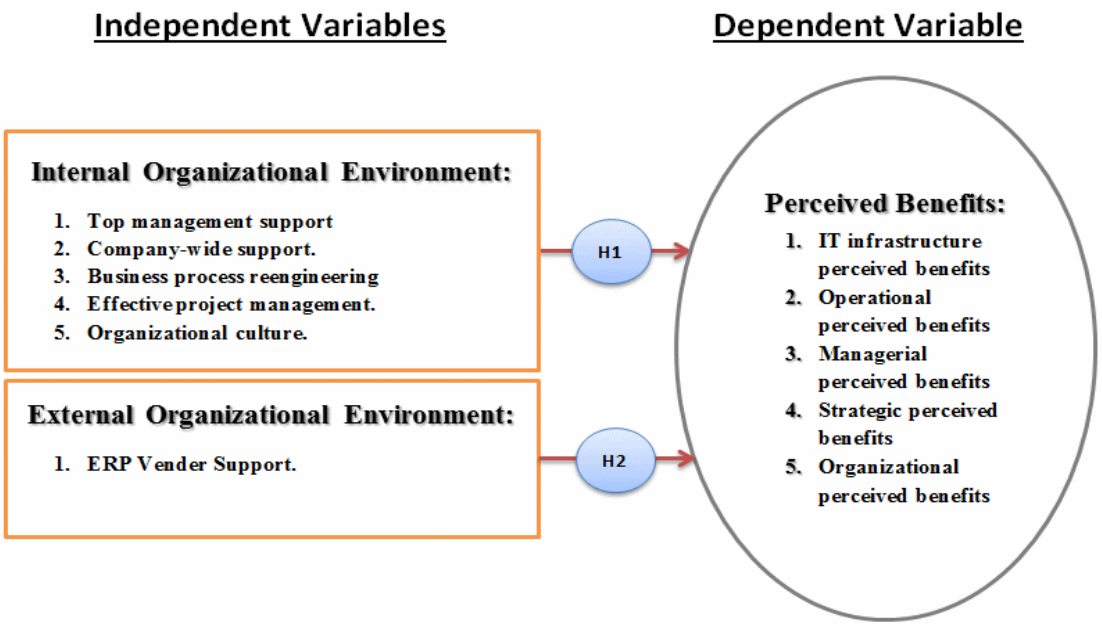

Figure (1-1) Study model (prepared by the author)

Research model developed by the researcher based on the following two studies:

1. (Zhang et al, 2002) under the title "Critical Success Factors of Enterprise Resource Planning Systems Implementation Success in China".
2. (Shang and Seddon, 2000) under the title "A Comprehensive Framework for Classifying the Benefits of ERP Systems".

1.9 Operational definitions of the Study

1. Microsoft dynamics Great Planes (GP) is a financial accounting system for small to mid-sized businesses that has expanded to encompass a range of functionality increasingly consistent with a complete enterprise resource planning (ERP) suite.

2. Enterprise Resource Planning (ERP): system or solution, integrated computer-based application used to manage internal and external resources.
3. Internal organizational environment: The situations, entities, events, and factors within an organization that influence its activities and choices, particularly the behavior of the employees.
4. External organizational environment: This is composed of institutions or forces outside the organization that possibly affect the organization's performance.
5. Top Management: The highest level of managers responsible for the entire enterprise.
6. Company wide support: relating to or affecting the whole of a company.
7. Business process re-engineering: known as business process redesign, business transformation, or business process change management.
8. Project management: is the discipline of planning, coordinating and controlling the complex and diverse activities and resources to achieve specific goals.
9. Organizational culture: The set of values and behaviors that make up the unique social and psychological environment of an organization that affects on ERP implementation.
10. ERP vender support: refers to consultant commitment throughout all the process of implementing ERP system.
11. Perceived benefits of information technology infrastructure: several attributes affect the organizational strategic planning, which include sbuilding business flexibility for current and future changes, IT costs reduction and increased IT infrastructure capability.

12. Perceived managerial benefits: several attributes affect the organizational strategic planning such as better resource management, improved decision-making and planning and performance improvement.
13. Perceived operational benefits: several attributes affect the organizational strategic planning such as cost reduction, cycle time reduction, productivity improvement, quality improvement and customer services improvement.
14. Perceived organizational benefits: several attributes affect the organizational strategic planning such as supporting organizational change, facilitating business learning, empowerment and building common visions.
15. Perceived strategic benefits: several attributes effect the organizational strategic planning such as supporting business growth, supporting business alliance, building business innovations, building cost leadership, generating product differentiation and building external linkages.

CHAPTER 2

Theoretical Framework and Previous Studies

2.1 INTRODUCTION

2.2 BACKGROUND

2.2.1 ERP HISTORY

2.2.2ERP SYSTEMS

2.2.3 ERP IN JORDANIAN ORGANIZATION

2.2.4MICROSOFT DYNAMICS GREAT PLANES

2.3 THEORETICAL FRAMEWORK COMPONENT

2.4 PREVIOUS STUDIES

2.5 WHAT DISTINGUISH THE CURRENT STUDY FROM PREVIOUS STUDIES?

2.1 INTRODUCTION

This chapter discusses the literature review and current previous relevant research. This includes topics on ERP history and development and briefly discusses the ERP market in Jordan.

Later in this chapter, the theoretical framework, the variables and dimensions of this study, will be discussed. Finally, this chapter will present the most relevant previous studies that were useful for this study.

2.2 BACKGROUND

2.2.1 ERP HISTORY

Wallace and Kremzar (2001) defined ERP as an enterprise wide set of management tools that stabilizes demand and supply, contains the ability to link customers and suppliers into a complete one frame, employs sure business processes for decision making, and provides high degrees of cross functional integration among other organization operations, logistics, purchasing, finance, new product development and human resources, thereby enabling people to run their business with high levels of customer service and efficiency.

ERP evolution started with MRP (Material Requirements Planning) as a universal manufacturing equation (Wallace and Kremzar, 2001). Its logic applies wherever things are being manufactured, whether they are airplanes, tools, cosmetics or dinner and so on. MRP linked to closed loop MRP. Furthermore, tools were

developed such as Sales and Operations Planning, Master Scheduling, Demand Management and Rough cut Capacity Planning (Wallace and Kremzar, 2001).

The acceptance of ERP systems by organizations has been nothing short of incredible. Researchers estimate that the worldwide market for ERP systems was $16.67 billion in 2005 and is forecast to exceed $21 billion in 2012 (Hawking 2007). Many believe that this rapid adoption of ERP is due to the 'integrative' nature of the system (Raman and Diwan 2000; Koch 2001). Coupled with rapid advances in computing technology, ERP systems provide organizations with the ability to capture information from various locations and sources, and streamline business process to increase efficiency and reduce costs.

ERP goals include high levels of customer service, productivity, cost reduction and inventory turnover. It provides the foundation for effective supply chain management. It does this by developing plans and schedules so that the right resources – manpower, materials, machinery and money – are available in the right amount when needed (Wallace and Kremzar, 2001). It is a direct outgrowth and extension of Manufacturing Resource Planning and, as such, includes all of MRP II's capabilities.

2.2.2 ERP SYSTEMS

There are many ERP systems today; each one has its own features but in general all of them have the same functions. Choosing a ERP system can be difficult and organizations should answer some questions before starting this kind of project such as: Does the ERP accommodate the organization's needs, does the ERP match with the organization's

culture, can ERP be modified and will it scale to adapt evolving needs? The three most familiar ERP systems are: Microsoft dynamics Great Planes, Oracle ERP and SAP ERP. Each one of these ERP systems has its own characteristics and advantages and the study presents the most prominent features of each one (ERP software 360, see table 2-1).

Table (2-1) most prominent features ERP systems (compiled byauthor)

Microsoft dynamics	Oracle ERP	SAP ERP
Over 83,000 ERP customers	Over 37,000 application customers	More than 35,000 customers, 120 countries
Strong SMB/mid-market solution	Claim #1 CRM market share leader	Claim #1 CRM market share leader
Very strong partner channel	#2 ERP market share leader	Built the client/server ERP market
Only sold through VAR channel	30 year proven credibility	Definite #1 ERP market share leader
Multiple ERP products	New SOA architecture	Very impressive distribution/SCM
ERP road map questionable	Deep software functionality	Several industry solutions
Solutions often vary by global region	Outrageous flexibility	Netweaver, SQL and a chasm of technologies
MS/.Net/SQL technology	Technology is the Oracle stack	Priced at the high end
Low to moderately priced	Priced at the high end	

2.2.3ERP In Jordanian Organizations

Jordan is emerging as a regional powerhouse in IT services, and is starting to be recognized for its growing global outsourcing services. A skilled workforce, solid capabilities in IT, a supportive business climate, low costs, and the ability of IT companies to compete successfully internationally were stated as factors in earning Jordan 9th place in A.T. Kearney's 2009 Global Services Location Index. Another 2009 report by Global Services and Tholons on the top "Emerging Global Outsourcing Cities" placed Amman, the Jordanian capital, in the "Top 10 Aspirants" category.

The information technology and communications sector contributes about 12 percent to Jordanian national GDP. After nearly tripling in size from 2003 to 2007, the sector continues to grow at a 50 percent annual rate. All of that helped ERP systems to be introduced to Jordan at the beginning of the 2000s when several companies adopted foreign ERP packages .Jordanian companies and organizations are adopting Enterprise Resource Planning (ERP) systems in both its public and private sectors and present an interesting case for examining the acceptance of ERPs (Rabaai AIS eL 2009).

2.2.4 Microsoft dynamics Great Planes

Microsoft Dynamics is a line of business management solutions that provides financial management, business intelligence, human resource management, project management, customer relationship management (CRM), manufacturing, supply chain management solutions, collaborative workspace, and configuration and development (Microsoft Dynamics Overview Brochure 2013).

Microsoft great planes consist of couple of modules, which are:

- **Financial Management:** Accounting and finance solutions give the organization a better manage cash flow with improving collections and control fixed assets.
- **Business Intelligence and Reporting:** Allows organization to manage budgets, create and consolidate reports.
- **Human Resource Management:** Allows the management of applicant and employee information.

- **Service and Project Management:** Allows project managers, accountants and executives to improve their project profitability and adapt to changing conditions.
- **Manufacturing:** It provides an integrated suite of manufacturing applications that give organization the tools to plan, manage, and execute a top of the line manufacturing operation.
- **Supply Chain Management:** Improves inventory management, management of single or multi-site warehouses, demand planning, order processing, and online collaboration with suppliers.
- **Microsoft Dynamics CRM Integration:** Transformsan organization's customer service into a strategic asset with Microsoft Dynamics CRM customer service solutions. Organization agents can resolve issues quickly and reduce handling times with advanced customer service software.
- **Risk management:** Set and manage security restrictions on any data fields, windows, and forms.

2.3 THEORETICAL FRAMEWORK COMPONENT

2.3.1 INDEPENDENT VARIABLES

Key organizational factors are something that the organization must go through to succeed. In terms of information system projects, key organizational factors are what a system must do to complete what it was designed to do. The researcher classified the independent factors into two main categories: (1) Internal Organizational Environment: including top management support, business process re-engineering, company-wide support, effective project management, organizational cultural, and (2) External Organizational Environment, including ERP vendor Support.

According to the previous studies (Appendix 6), there are many factors that can affect ERP's implementation success. As mentioned before, this study has defined two main dimensions: Internal and External organizational environments.

1. **Internal Organizational Environment (Zhang et al, 2002):** There is no particular definition for internal environment but simply it can be defined as a set of circumstances and factors within an organization that influence its activities and choices. This dimension is very important; on the other hand it is very wide. These are some variables the researcher used to locate the internal organization environment:

   a. **Top management support:**

      Top management support has been identified as the most important success factor in ERP system implementation projects. According to Zhang et al. (2002) top management support in ERP implementation has two main aspects:

providing leadership and providing the necessary resources. Additionally, the roles of top management in ERP implementation comprise developing an understanding of the capabilities and limitations, establishing reasonable objectives for ERP system, exhibiting commitment, and communicating the corporate strategy to all employees (Umble et al., 2003).

b. Business process reengineering:

Hammer and Champy (2001) defined Business process re-engineering (BPR) as "the fundamental rethinking and radical redesign of business processes to achieve dramatic improvements in critical, contemporary measures of performance, such as cost, quality, service and speed". Somers and Nelson (2004) stated that BPR plays a significant role in the early stages of implementation. Furthermore, it is important in the acceptance stage and tends to be less important when the technology becomes routine.

c. Company-wide support:

Since ERP systems are enterprise-wide I.S. that integrate information and information based processes within and across all functional areas in an organization, it's imperative to get support from all functional segments of the organization (Sum, 1997).

d. Effective project management:

ERP system implementation is a set of complex activities; thus, organizations should have an effective project management strategy to control the implementation process (Zhang et al., 2002). Project management activities span from the first stage of the ERP life cycle to closing it. Project planning and

control is a function of the project's characteristics such as project size, experiences with the technology, and project structure (Somers and Nelson, 2004).

e. Organizational Cultural:

Schein (2004) defined organizational culture as ''the tacit, unwritten rules for getting along in the organization; the ropes that a newcomer must learn in order to become an accepted member; the way we do things around here''. Schein divided organizational culture into four typologies – development culture, group culture, hierarchical culture and rational culture.

I. **The development culture**: maintains a primary focus on the external environment. Core values in development culture include growth, stimulation, creativity and resource acquisition (Shao et al, 2012).

II. **The group culture:** maintains a primary focus on the internal organization. Core values in the group culture include belonging, attachment, cohesiveness, trust and participation (Shao et al, 2012).

III. **The hierarchical culture:** This focuses on the logic of the internal organization and emphasizes stability. Core values in hierarchical culture include uniformity, security, order, rules, control, coordination, regulations and efficiency (Shao et al, 2012).

IV. **The rational culture**: This focuses on internal stability and external environment. Core values in rational culture include planning,

productivity, efficiency and the successful achievement of predetermined goals (Shao et al, 2012).

2. **External Organizational Environment:** The EOE can be defined as all of the elements that exist outside the boundary of the organization and have the potential to affect all or part of the organization. In this research we took the most important element in ERP implementation, which is ERP Vendor Support.

ERP Vendor Support

In ERP projects, according to Wang (2008), vendor support covers technical assistance during and after ERP implementation, building relationships with other parties involved throughout the ERP project, and providing customer training. Vendor support also includes technical assistance, emergency maintenance, repair pack and technical upgrades (Law, Chen & Wu 2010; Somers & Nelson 2004)

2.3.1 Dependent Variables

Since ERP systems affect so many parts of the organization, ERP systems can give a huge range of benefits and problems often with different benefits in different organizations. The framework of Shang and Seddon (2000), consisting of 21 measuring items, is a comprehensive and useful framework, which logically classifies the ERP benefits. The researcher classified the dependent variables into five dimensions: information technology infrastructure benefits, operational benefits, managerial benefits, strategic benefits, and organizational benefits (Wu 2011). Throughout implementation the organization should

expect to face some factors that influence the ERP perceived benefits. Few studies attempt to deepen the analyses of the ERP users' perceive benefits in order to gain meaningful findings for promoting ERP implementations (Wu 2011).

Shang and Seddon (2002) cover the intermediate factors and extend the two dimensions(operation and strategy) to five dimensions, including the operational, managerial, strategic, IT infrastructure and organizational benefits. Operational efficiency relates to factors such as cost reduction, increased inventory turns; managerial benefits refers to factors such as improved decision making and planning and better resource management; Strategic effectiveness refers to factors such as improved managerial decision making; IT infra-structure benefits related to IT flexibility and capability; Organizational benefits refers to factors such as employee learning, and empowering workers. The dimensions and sub dimensions of ERP systems benefits are:

1- **Information technology infrastructure perceived benefits:**

ERP systems with their integrated and standard application architecture provide an infrastructure that could support business flexibility for future changes, reduced IT costs and marginal cost of business units and increase the capability for quick and economic implementation of new applications (Shang and Seddon, 2002).

2- Operational perceived benefits:

Information technology has a long history of use in reducing costs and increasing outputs by automating basic. It's clear that investment in information technology is streamlining the processes and automate transactions provides business benefits by speeding up processes, substituting labor and increasing operation volumes. Since ERP systems are automated business processes we could expect ERP systems to

offer all the five benefits: improve costs, productivity, cycle time, quality, and customer service (Shang and Seddon, 2002).

3- **Managerial perceived benefits:**

ERP systems provide a source of informational to the management. Information might help an organization achieve better resource management, improved decision making and planning, and performance improvement in different operating divisions of the organization (Shang and Seddon, 2002).

4- Strategic perceived benefits:

ERP systems with their large scale of business involvement and internal/external integration capabilities could assist in achieving these strategic benefits: business growth, alliance, differentiation, innovation, cost, and external linkages (Shang and Seddon, 2002).

5- Organizational perceived benefits:

The united information processing capabilities in ERP systems affect the establishment of the organizational capabilities by supporting organization structure changes, facilitating employee learning, empowering workers and building common visions (Shang and Seddon, 2002).

2.4 PREVIOUS STUDIES

- Research (Chadhar & Rahmati, 2002) under the title “Impact of national culture on ERP systems success,” aims to evaluate the overall success of ERP in terms of user satisfaction with respect to national culture users systems are selected from top management to end users.

  The sample of the research consists of a survey, interview and post-implementation document. These were taken from two organizations across two countries. Australia has been selected as a representative of the Western world and Saudi Arabia as a representative of Arab world. Users from three different levels were interviewed from 45 to 60 minutes. A questionnaire containing both open and close ended questions were posted to users. Documentations regarding post-implementation procedures and policies were analyzed.

  This article showed that the national culture seems to be a very important factor in Information System development. It has been explored with Decision making. Computers mediated communication, Group support system and consume behavior. Like other technologies, ERP system implementation is also be affected by it.

- Researchers (Zhang et al, 2002) under the title "Critical Success Factors of Enterprise Resource Planning Systems Implementation Success in China," studied the critical success factors affecting enterprise resource planning (ERP) systems implementation success in China. They focused on both generic and unique factors and used a mail survey combining with Internet to examine the hypothesized factors and research framework and the questionnaire is adapted from prior literature. The result for the survey helped determine the scale developed to test the proposed model; two independent variables of business

process reengineering and organizational culture that are assumed to be extremely important factors in ERP implementation in China are examined and supported by empirical data.

- The (Umble et al, 2003) research titled "Critical factors for successful ERP implementation: Exploratory findings from four case studies" identifies success factors, software selection steps, and implementation procedures critical to a successful implementation.

  The result of the study shows that the frameworks presented in this study clearly indicates a clear vision and top management commitment are fundamental for successful ERP implementation. Also, the evaluation and proper monitoring of ERP system's implementation (post-ERP implementation stage) can make an organization more adaptable to the change programs and therefore help them derive maximum benefits from investing in ERP.

- Another (Thavaruban, 2003) research under the title "Cultural influences on ERP implementation Success"), studied how culture influences user satisfaction with ERP implementation. The data collection for the research was conducted via three mediums: interviews, observations and documentation analysis from a large Australian University. A result identifies the importance of cultural influences on user satisfaction with ERP implementation, and also when implementing technology, the management of human and organizational risk is not only more difficult that managing the technical risk, it is crucial to the success of enterprise system.

- In the (Bhatti, 2003) study titled "Critical success factors for the implementation of enterprise resource planning (ERP): empirical validation" developed and tested constructs that represent critical success factors of ERP implementation projects. Based on a survey of

53 organizations in Australia, the results suggest that a 65-item instrument that measures seven dimensions of ERP implementation is well validated. It is argued that the model proposed in the paper is valuable to researchers and practitioners interested in implementing Enterprise Resource Planning systems.

As a result the study tries to define a new construct associated with the ERP implementation and the development of new multi-item measurement scales for measuring these constructs.

- In (Motwani et al, 2005) the research entitled "Critical factors for successful ERP implementation: Exploratory findings from four case studies," factors were studied that lead to success or failure of ERP projects. Data was collected primarily through interviews, observations, and archival sources and tried to answer the following two questions. First, “What factors facilitate and inhibit the success of ERP projects?” and “What critical factors/issues need to be considered during each stage of the implementation?”

  The study recommended that more comprehensive empirical studies be conducted to study the direct and indirect relationships among the critical factors and the actual benefits of ERP implementation. Also it shows the need for empirical studies to examine the approaches adopted for the evaluation, selection and project management of ERP systems and ERP success.

- In their study, "Identifying critical issues in enterprise resource planning (ERP) implementation", Ehie & Madsen (2005) used the mailed questionnaire to aid those companies that are about to implement ERP. This paper attempts to empirically identify those factors that are critical to the implementation of ERP systems. This study can be summarized as follows:

ERP implementation should not be viewed as just an IT solution but as a system that would transform the company into a more efficient and effective organization. Successful implementation of ERP is a complex manner tied to top management setting the strategic direction of the implementation process.

A sound and thorough understanding of project management principles and its application is critically linked to successful ERP implementation.

- Research (Kim & Lee, 2006) entitled "Factors affecting the implementation success of Internet-based information systems" suggests a research model that examines the factors that affect the implementation success of the specific technology and suggests eight factors, comprising the characteristics of Internet Information Service (IIS) technology: innovation, organizational factors, and IS related factors affect the implementation success of IIS. The suggested model was empirically tested using survey results from Korean companies that have adopted IIS.

  The study provided a fuller examination than previous reports of various factors that lead to the implementation success of IIS, including the characteristics of IIS technology innovation, organizational factors, and IS related factors.

- Research (Morton & Hu, 2008) entitled "Implications of the fit between organizational structure and ERP: A structural contingency theory perspective", developed a set of propositions about the relationships between the characteristics of ERP systems and the dimensions of organizational structure based on structural contingency theory and suggested that ERP systems are a good fit with some organization types, but a poor fit with others. Organizations whose structures are a better fit with ERP systems are likely to have greater chances of successful implementations. Organizations whose structures are a poor

fit with ERP systems are likely to face organizational resistance to the systems and thus increase the chances of unsuccessful implementation.

- Researchers (Kwahk & Lee, 2008) wrote "The role of readiness for change in ERP implementation: Theoretical bases and empirical validation" and studied the formation of readiness for change and its effect on the perceived technological value of an ERP system leading to its use. They then developed a model of readiness for change incorporating TAM and TPB. This model was then empirically tested using data collected from users of ERP systems in Korea.

  The results showed how readiness for change indirectly influenced the behavioral intention to use ERP systems and was directly affected by organizational commitment and perceived personal competence.

- In his study "Management based critical success factors in the implementation of Enterprise Resource Planning systems," Bradley (2008) used an open-ended list of sixty-eight questions in structured interviews with 20 people in 8 firms to examine the use of management-based critical success factors suggested by the ERP and IS literature in ERP implementation. The findings of this research are summarized in three categories:

  Implementation management techniques were used at successful firms but used less or not at all at unsuccessful firms. These practices were considered essential to success, but which did not differentiate between successful projects and unsuccessful projects. These factors may be necessary for project success but do not appear sufficient to guarantee success. Management practice supported the literature that is not supported in the case study.

- Researchers (Hakim & Hakim, 2009) wrote under title "A practical model on controlling the ERP implementation risks." By reviewing the intra- and extra- organizational limitations they tried to provide a suitable and practical model for decision makers to take precise steps in implementing ERP systems in Iran. The model was implemented in Bahman Motors, one of the most prominent auto companies in Iran, which could be used as a perfect example for implementation of the ERP system. The result for the study was concluded that it is absolutely essential for Bahman to implement the ERP system in the long run in order to remain competitive in the Auto Industry, and also to be able to tackle its internal and external threats.
- Research (Rabaai, 2009) under the title “The impact of organizational culture on ERP systems implementation: lessons from Jordan” studied some aspects of Jordanian culture which influence ERP implantation and used a survey of 55 questions that was sent to 48 organization all over Jordan in both private and public sectors.

  The study displayed how the deep culture of public sector organizations affects timely implementation. While Jordan’s private sector will adopt a differentiated organizational culture more suited to rapid decision making in the future. Whether or not the Jordanian culture adapts to Western norms will be interesting to watch.
- In (Morris & Venkatesh, 2010) the research article entitled " Job characteristics and job satisfaction: understanding the role of enterprise resource planning system implementation," the authors aim to examine the impact of Enterprise Resource Planning (ERP) systems implementation on job satisfaction and contend that the implementation of an ERP system will interact with job characteristics to influence job satisfaction.

A content analysis based on a 12-month study of 2,794 employees in a telecommunications firm found that ERP system implementation moderated the relationships between three job characteristics (skill variety, autonomy, and feedback) and job satisfaction.

Finally the study concluded that the process of implementing new ERP systems in organizations is complex. Though it is still hailed as a way to make employees more effective and efficient in their jobs.

- More research (Wu, 2011) entitled "Segmenting and mining the ERP users' perceived benefits using the rough set approach" attempts to segment the ERP users into two subgroups according to the notion of Herzberg's Motivation-Hygiene theory, and further, to uncover imperative perceived benefits for distinct subgroups of ERP users employing the rough set theory. The results of this study should provide better understanding and knowledge of strategic implications for both ERP system adopters and vendors, and thus advance the scope of ERP implementations.

  This paper highlighted the importance of the fact that organizations are willing to continue managing ERP implementations if perceived benefits surpass perceived risks and costs, and therefore meets the challenging issue of segmenting and mining ERP users' perceived benefits. To this end, this study segments the ERP users into two subgroups based on the conception of Herzberg's Motivation-Hygiene theory, and then explores the perceived benefits for these two subgroups using the RST.

  - In (Hwang & Grant, 2011) another research article entitled "Behavioral aspects of enterprise systems adoption: An empirical study on cultural factors", the authors aim to apply individual-level measurement of cultural orientation, such as power distance and

uncertainty avoidance, to the recent findings of computer self-efficacy and ERP adoption belief satisfaction and show the important role of individual-level cultural orientation and its influence on computer self-efficacy and perceived ease of use of ERP systems, which would be important behavioral aspects of ERP systems for the IS community. The findings in this research among the individual-level cultural orientations, general computer self-efficacy, and perceived ease of use of ERP systems can be a stepping stone to the future IS research to understand the enterprise systems.

- Researchers (D'Souzab & Madapusia, 2012) published research under the title "The influence of ERP system implementation on the operational performance of an organization."They studied and discussed the changes in operational performance that result from enterprise resource planning (ERP) system implementation. Data was collected through 203 mailed questionnaire and finally suggested that an 8-module ERP system (Financials, Controlling, Plant maintenance, Material Management, Product Planning, General Logistics, Quality Management and Advance planner optimizer/ advance planner scheduler) provides optimal systemic benefits for the stereotypical firm in the Indian production sector and suggested that merely throwing more modules (beyond the eight modules identified in this study) at existing business challenges may not help either.
- "Investigating the Impact of Organizational Culture on Enterprise Resource Planning Implementation Projects ", (Dezdar & Ainin, 2012) studied the effect of organizational culture on ERP implementation and discussed that there is couple of factors that affects ERP's implantation success or failure in organizations. So the need for better understanding and identifying became urgent. They used a survey questionnaire distributed among ERP users in Iranian organizations.

The research results reconfirmed that organizational culture is positively related with successful ERP implementation; organizational culture has been overlooked in prior studies. The results recommend that ERP adopter companies should be aware of the cultural dissimilarities embedded in ERP systems. The data from the study revealed that the likelihood of ERP system implementation increases when organizations have such cultural attributes such as collaboration, consensus and cooperation.

2.5 WHAT DOES DISTINGUISH THE CURRENT STUDY FROM PREVIOUS STUDIES?

1. Many studies have addressed several serious issues for successful ERP implementation without making a clear link with ERP benefits.
2. To the best knowledge of the researcher, this is the first study that tries exploring the impact of key organizational factors on ERP benefits in Jordanian organizations.
3. While most previous studies focused on ERP implementation key organizational factors and were conducted in developed countries, the current study reflects the experience of a developing country.

CHAPTER 3

Method and Procedures

3.1 INTRODUCTION

3.2 STUDY METHODOLOGY

3.3 STUDY POPULATION AND SAMPLE

3.4 STUDY TOOLS AND DATA COLLECTION

3.5 STATISTICAL TREATMENT

3.6 VALIDITY

3.7 RELIABILITY

3.1 Introduction

This chapter is divided into six sections: study methodology, study populations and samples, study tools and data collection, statistical treatment, reliability, and validity.

3.2 Study Methodology

The descriptive research method will be used from relevant published literature by previous scholars in books, scientific studies and articles and official reports.

3.3 Study Populations and Samples

The population of this study includes all users in Jordanian organizations that successfully implemented ERP Microsoft dynamics Great Planes (GP). The list of these Jordanian organizations has been obtained from Microsoft golden partner in Jordan, which is a specialist association implementing and selling Microsoft business packages. The sample of this research is a random one that represents 30% of the research population. The respondents can be simply described as users who interact with ERP system frequently to do their job tasks.

A questionnaire reflecting the study objectives and questions was developed. The questionnaire was distributed to 180 users in organizations that have already implemented ERP systems. Only 112responded to this questionnaire. Out of the returned questionnaires, 11 responses were excluded due to missing values and multiple answers to questions. Accordingly, only 101 responses were valid for data analysis. The following is the

descriptive analysis for the sample based on the characteristics of organizations they work for.

Table 3.1 shows the descriptive analysis in terms of frequencies and percentages for the study sample based on the type of the company they work for.

Table 3.1: Descriptive Statistics of the Study Sample according to Organization Type

Organization Type (Sector)	Frequency	Percentage
Public Sector or NGOs	21	20.8%
Private Sector	80	79.2%
Total	**101**	**100%**

Table 3.1 shows that the majority of respondents (79.2%) are working for organizations listed in the private sector whilst only (20.8%) of the respondents are employed by the public sector or working for Non-Governmental Organizations (NGOs).

Table 3.2 shows the descriptive analysis in terms of frequencies and percentages for the study sample based on the nationality of the organization they work for.

Table 3.2: Descriptive Statistics of the Study Sample according to Nationality of the Organization

Nationality of the Organization	Frequency	Percentage
Jordanian	89	88.1%
Foreign	8	7.9%
Multiple Nationalities	4	4.0%
Total	**101**	**100%**

Table 3.2 shows that 89 respondents are working for Jordanian organizations and this represents 88.1% of the sample size. Whilst 8 respondents are working for foreign organizations, only 4 respondents are working for organizations with multiple nationalities;

and these represent 7.9% and 4.0% respectively of the study sample. Table 3.2 shows the descriptive analysis in terms of frequencies and percentages for the study sample on the basis of the size of the organizations in terms of their number of employees.

Table 3.3: Descriptive Statistics of the Study Sample according to Organization Size (Number of Employees)

Organization Size (Number of Employees)	Frequency	Percentage
1-50 Employee	23	22.8%
51-150 Employee	30	29.7%
151-250 Employee	14	13.9%
More than 250 Employee	34	33.7%
Total	**101**	**100%**

Table 3.3 shows that 23 respondents who represent 22.8% of the study sample work for small organizations where the number of employees is between 1 and 50. Table 3.3 also shows that 30 respondents who represent 29.7% of the study sample work for organizations having number of employees the range between 51 and 150. The number of respondents who work for organizations with a number of employees ranging between 151 and 250 is 14, which represents 13.9% of the study sample. Finally, the number of respondents who work for large organizations having more than 250 employees is 34 and this represents 33.7% of the study sample.

Table 3.4 shows the descriptive analysis in terms of frequencies and percentages for the study sample on the basis of their organization size in terms of capital.

Table 3.4: Descriptive Statistics of the Study Sample according to Organization Size (Capital)

Organization Size (Capital)	Frequency	Percentage
Less than 5 Million (JOD)	6	5.9%
More than 5 and less than 10 Million (JOD)	58	57.4%
More than 10 and less than 15 Million (JOD)	32	31.7%
More than 15 Million (JOD)	5	5.0%
Total	**101**	**100%**

Table 3.4 shows that the organization size in terms of capital for 6 respondents of the sample is less than 5 Million (JOD) and this represents about 5.9% of the sample size. The number of respondents who work for organizations with capital that is more than 5 Million (JOD), but less than 10 Million (JOD) is 58 and this represents 57.4% of the study sample. The number of respondents who work for organizations with capital that is more than 10 Million (JOD), but less than 15 Million (JOD) is 32 and this represents 31.7% of the study sample. Finally, the number of respondents who work for organizations with capital that is 15 Million (JOD) or more is 5 and this represents 5.0% of the study sample.

Table 3.5 shows the descriptive analysis in terms of frequencies and percentages for the study sample on the basis of their organizations' domain of business.

Table 3.5: Descriptive Statistics of the Study Sample according to Domain of Business

Domain of Business	Frequency	Percentage
Food	31	30.7%
Software	0	0%
Education	6	5.9%
Drugs and Medical Equipment	4	4.0%
Clothes	0	0%

Domain of Business	Frequency	Percentage
Tourism	0	0%
Airways	11	10.9%
Home Appliances	0	0%
Telecommunication	1	1.0%
Real Estate	8	7.9%
Ceramic	0	0%
Others	40	39.6%
Total	**101**	**100%**

Table 3.5 shows that 31 respondents work in organizations doing business in the domain of Food and this represents 30.7% of the study sample. Only 6, 4, 11, 1, and 8 respondents work in organizations operating in the domain of Educations, Drugs and Medical Equipment, Airways, Telecommunication, and Real Estate respectively. Finally, the number of respondents (who work in organizations operating in other domains of business) is 40 and this represents 39.6% of the study sample.

Table 3.6 shows the descriptive analysis in terms of frequencies and percentages for the study sample based on the number of years since the implementations of ERP systems in their organizations.

Table 3.6 Descriptive Statistics of the Study Sample according to ERP Live Year

Number of Years (ERP System)	Frequency	Percentage
Less than One year	8	7.9%
One year or more and less than Two years	37	36.6%
Two years or more and less than Three years	27	26.7%
More than Three years	29	28.7%
Total	**101**	**100%**

Table 3.6 shows that the number of respondents who work for organizations having ERP systems for less than a year is 8 and this represents 7.9% of the study sample. The number of respondents who work for organizations having ERP systems for more than a year but less than 2 years is 37 and this represents 36.6% of the study sample. The number of respondents who work for organizations having ERP systems for more than two years but less than 3 years is 27 and this represents 26.7% of the study sample. Finally, the number of respondents who work for organizations having ERP systems for more than 3 years is 29 and this represents 28.7% of the study sample.

3.4 Study Tools and Data Collection

The current study used descriptive and analytical methods to collect and analyze data and answer questions and test hypothesis. The data was based on two sources:

1- Secondary sources: books, journals, articles, & theses to write the theoretical framework of the study.

2- Primary sources: To answer the questions and hypothesis, a questionnaire was designed (Appendix 5) to understand the key organizational factors impact on Microsoft dynamics great planes (ERP) perceived benefits.

The questionnaire was developed based on the variables of this study identified based on list of previous studies presented in Appendix 6. The questionnaire entailsfour sections. These sections are:

i. Demographic variables (part 1): which collected by closed-ended questions (Company Type, Nationality, Company Size (Number of Employee),Company Size (Money),Company Specialist, ERP System Live year).

ii. Internal organization environmental factors (Question 1): top management support, business process reengineering, company-wide support, effective project management, and organizational cultural.

iii. External organization environmental factor (Question 1): Vender Support.

iv. ERP perceived benefits (Question3):Information technology infrastructure perceived benefits, Operational perceived benefits, Managerial perceived benefits, Strategic perceived benefits and Organizational perceived benefits.

3.5 Statistical Treatment

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 Smart PLS 2.0 M3. Smart PLS 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 a simple regression analysis, multiple regression analysis, stepwise multiple regression analysis, and path analysis.

Descriptive Statistics: Constructs

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

Table 3.7: liker-type scale

Strongly Agree	Agree	Neutral	Disagree	Strongly 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

The researcher has 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 users of ERP systems. Next, the researcher presents the means and the standard deviations for each of the study's constructs along with their items.

3.6 VALIDITY

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 5 professors in public and private universities in Jordan 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 adds to its validity.

The Readiness and Validity of Data for Regression Analyses

To answer research questions and test the study hypotheses, regression analyses needs 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.

1. **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±2.54. Using Kolmogorov-Smirnov tests, data need to be significant so as to ensure its validity (Hair et al., 2006).

Table 3.8: Test of Normality: Skewness-Kurtosis

Construct	Skewness	Kurtosis
Top Management Support	-0.206	-1.088
Business Process Reengineering	-0.493	-0.589
Effective Project Management	-1.148	0.531
Company-Wide Commitment	-0.638	-0.734
Organizational Culture	-0.585	0.126
Vendor Support	-0.656	-0.642
IT Infrastructure Perceived Benefits	-0.253	-1.182
Operational Perceived Benefits	-1.179	-0.157
Managerial Perceived Benefits	-0.572	-0.500
Strategic Perceived Benefits	-1.090	1.436
Organizational Perceived Benefits	-0.644	-0.241

Table 3.8 indicates that data is normally distributed as the skewness and kurtosis values are all within the range ±2.54.

Table 3.9: Test of Normality: Kolmogorov-Smirnov

Construct	Sig. (p value)
Top Management Support	0.000*
Business Process Reengineering	0.000*
Effective Project Management	0.000*
Company-Wide Commitment	0.000*
Organizational Culture	0.000*
Vendor Support	0.000*
IT Infrastructure Perceived Benefits	0.000*
Operational Perceived Benefits	0.000*
Managerial Perceived Benefits	0.000*

Strategic Perceived Benefits	0.000*
Organizational Perceived Benefits	0.000*

***Significant at p≤0.05

Table 3.9 indicates and confirms that the data is normally distributed given that all constructs are significant at p≤0.05. Therefore, normality of data as one of the prerequisites for regression analyses is assured in this study.

2. **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 3.10 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 3.10 Multicollinearity Test

Construct	Tolerance	VIF
Top Management Support	0.757	1.321
Business Process Reengineering	0.533	1.876
Effective Project Management	0.523	1.913
Company-Wide Commitment	0.480	2.084
Organizational Culture	0.378	2.645
Vendor Support	0.601	1.663
IT Infrastructure Perceived Benefits	0.279	3.578

Operational Perceived Benefits	0.228	4.385
Managerial Perceived Benefits	0.316	3.166
Strategic Perceived Benefits	0.573	1.745
Organizational Perceived Benefits	0.391	2.559

3. 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 positive, then constructs are independent and data are ready and valid to be used within regression analyses. Based on the values in Table 3.11, the constructs are independent as they correlate with themselves in a way that is stronger in comparison to their correlations with other constructs.

Table 3.11: Bivariate Pearson Correlation

	TMS	BPR	EPM	WC	OC	VS	INF	OPR	MG	STR	ORG
TMS	**1.00**										
BPR	.128	**1.00**									
EPM	.274**	.452**	**1.00**								
WC	-.027	.615**	.333**	**1.00**							
OC	.266**	.581**	.628**	.614**	**1.00**						
VS	.445**	.315**	.528**	.209*	.475**	**1.00**					
INF	.013	.642**	.388**	.741**	.682**	.151	**1.00**				
OPR	.078	.750**	.554**	.680**	.623**	.366**	.790**	**1.00**			
MG	.125	.569**	.410**	.624**	.498**	.240*	.732**	.804**	**1.00**		
STR	.078	.346**	.336**	.399**	.495**	.108	.613**	.460**	.425**	**1.00**	
ORG	.272**	.514**	.651**	.508**	.604**	.431**	.647**	.740**	.683**	.532**	**1.00**

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

TMS: Top Management Support; BPR: Business Process Reengineering; EPM: Effective Project Management; WC: Company-Wide Commitment; OC: Organizational Culture; VS: Vendor Support; INF: IT Infrastructure Perceived Benefits; OPR: Operational Perceived Benefits; MG: Managerial Perceived Benefits; STR: Strategic Perceived Benefits; and ORG: Organizational Perceived Benefits.

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

3.7 RELIABILITY

In order to measure the internal consistency and reliability of the study's constructs, Cronbach's alpha (α) measure was used. The scales' reliabilities were measured and the Cronbach's alphas of all scales as in Table 3.12 were ranged between (0.775) and (0.941); indicating good reliabilities of the scales (Hair et al., 2006).

Table 3.12 Reliability Analysis for the Constructs

Construct	Items	Cronbach's alpha (α)
Top Management Support	1-2	0.811
Business Process Reengineering	3-5	0.895
Effective Project Management	6-9	0.883
Company-Wide Commitment	10-12	0.940
Organizational Culture	13-22	0.782
Internal Organizational Environment	1-22	0.908
External Organizational Environment (Vendor Support)	23-25	0.875
IT Infrastructure Perceived Benefits	26-28	0.901
Operational Perceived Benefits	29-33	0.941
Managerial Perceived Benefits	34-36	0.797
Strategic Perceived Benefits	37-42	0.814
Organizational Perceived Benefits	43-46	0.775
Perceived Benefits	26-46	0.947
The Questionnaire	1-46	0.959

Chapter 4

Results and Hypothesis Testing

4.1 INTRODUCTION

4.2 STUDY QUESTIONS ANSWERS

4.3 STUDY HYPOTHESIS TESTING

4.1 INTRODUCTION

According to the research purpose and research framework presented in a previous chapter, this chapter describes the results of the statistical analysis of the data collection for the research question and research hypothesis. The data analysis included the result of the description of the means and standard deviations for questionnaire results to answer study questions and test study hypotheses**.**

4.2 STUDY QUESTIONS ANSWERS

Q1. What are the key organizational factors that determine ERP perceived benefits?

1. Internal Organizational Environment

This construct can be deconstructed into five sub-constructs as follows: Top Management Support, Business Process Reengineering, Effective Project Management, Company-Wide Commitment, and Organizational Culture. The means and standard deviation of each sub-construct along with its items are shown below.

1.1 Top Management Support

Table 4.1: Descriptive Analysis for the Construct: Top Management Support

#	Items	Mean	STD	Rank	Level
1	Top Management is providing leadership	3.96	0.761	1	High
2	Top Management is providing the necessary resources	3.86	0.722	2	High
Overall Mean		**3.91**	**0.742**		**High**

Table 4.1 shows that means of (Top Management Support) items are (3.96) and (3.86) with an overall mean of (3.91). The level of such an overall mean is high. Item number (1) got the highest mean, which is (3.96) with a standard deviation of (0.761). The statement concerning item number (1) is as follows: (**Top Management is providing Leadership**). On the other hand, item number (2) came last on the basis of mean values. The mean of this item is (3.86) and its standard deviation is (0.722) and thus is considered also high in terms of level. The statement of this item is as follows: (**Top Management is providing the necessary resources**).

Accordingly, the descriptive statistics concerning the construct (Top Management Support) indicate that Top Management Support within the sampled organizations are considered high in terms of level when it comes to the implementation and operation of ERP Systems.

1.2 Business Process Reengineering

Table 4.2: Descriptive Analysis for the Construct: Business Process Reengineering

#	Items	Mean	STD	Rank	Level
1	Company's capability of reengineering	3.44	0.842	1	Medium
2	Company's readiness for change	3.39	0.836	2	Medium
3	Company's willingness to reengineering	3.35	0.727	3	Medium
Overall Mean		**3.39**	**0.802**		**Medium**

Table 4.2 shows the mean of (Business Process Reengineering) items range between (3.35) to (3.44) with an overall mean of (3.39). The level of such an overall mean is medium. Item

number (5) got the highest mean, which is (3.44) with a standard deviation of (0.842). The statement concerning item number (1) is about the **company's capability of reengineering**.

On the other hand, item number (3) came last on the basis of mean values. The mean of this item is (3.35) and its standard deviation is (0.727) and thus considered medium in terms of level. The statement of this item is about the company's willingness to reengineer.

Accordingly, the descriptive statistics concerning the construct (**Business Process Reengineering**) indicate that practices of Business Process Reengineering within the sampled organizations are considered medium in terms of level when it comes to the implementation and operation of ERP Systems.

1.3 Effective Project Management

Table 4.3: Descriptive Analysis for the Construct: Effective Project Management

#	Items	Mean	STD	Rank	Level
1	Having periodic project status meetings	3.85	0.899	1	High
2	A realistic time frame	3.79	0.852	2	High
3	Having an effective project leader who is also a champion	3.62	0.661	3	Medium
4	Having project team members who are stakeholders	3.55	0.900	4	Medium
Overall Mean		**3.71**	**0.828**		**High**

Table 4.3 shows the mean of (Effective Project Management) items range between (3.55) to (3.85) with an overall mean of (3.71). The level of such an overall mean is high. Item number (1) got the highest mean, which is (3.85) with a standard deviation of (0.899). The

statement concerning item number (1) is about whether **having periodic project status meetings**.

On the other hand, item number (4) came last on the basis of mean values. The mean of this item is (3.55) and its standard deviation is (0.900) and thus considered medium in terms of level. The statement of this item is as follows: (**Having project team members who are stakeholders**).

Accordingly, the descriptive statistics concerning the construct (Effective Project Management) indicate that Effective Project Management within the sampled organizations are considered high in terms of level when it comes to the implementation and operation of ERP Systems.

1.4 Company-Wide Commitment

Table 4.4: Descriptive Analysis for the Construct: Company-Wide Commitment

#	Items	Mean	STD	Rank	Level
1	Other people outside the teams support the project.	3.70	1.025	1	High
2	Functional department heads commit helps in implementing ERP project.	3.64	0.986	2	Medium
3	Functional department heads provide necessary resources to support their subordinates.	3.59	0.839	3	Medium
Overall Mean		**3.65**	**0.950**		**Medium**

Table 4.4 shows the mean of (Company-Wide Commitment) items range between (3.59) to (3.70) with an overall mean of (3.65). The level of such an overall mean is medium. Item number (1) got the highest mean, which is (3.70) with a standard deviation of (1.025). The

statement concerning item number (1) is as follows: (**Other people outside the teams support the project**).

On the other hand, item number (3) came last on the basis of mean values. The mean of this item is (3.59) and its standard deviation is (0.839) and thus considered medium in terms of level. The statement of this item is as follows: (**Functional department heads provide necessary resources to support their subordinates**).

Accordingly, the descriptive statistics concerning the construct (Company-Wide Commitment) indicate that Company-Wide Commitment within the sampled organizations is considered medium in terms of level when it comes to the implementation and operation of ERP Systems.

1.5 Organizational Culture

Table 4.5: Descriptive Analysis for the Construct: Organizational culture

#	Items	Mean	STD	Rank	Level
1	The glue in our firm is innovation and development.	3.97	1.162	1	High
2	Our firm is a very dynamic and entrepreneurial place.	3.88	1.143	2	High
3	Our firm emphasizes on growth and acquiring new resources.	3.84	1.075	3	High
4	Our firm emphasizes on competitive actions and achievement.	3.70	0.769	4	High
5	Our firm is a very formalized and structured place.	3.70	0.625	5	High
6	Our firm emphasizes on permanence and stability.	3.69	0.674	6	High
7	The glue is tasks and goal accomplishment.	3.67	0.665	7	Medium
8	Our firm is a very personal place, like an extended family.	3.39	0.948	8	Medium

9	Our firm emphasizes on human resources.	3.32	0.916	9	Medium
10	The glue in our firm is loyalty and tradition.	3.29	0.920	10	Medium
Overall Mean		**3.65**	**0.890**		**Medium**

Table 4.5 shows the mean of (Organizational Culture) items range between (3.29) to (3.97) with an overall mean of (3.65). The level of such an overall mean is medium. Item number (14) got the highest mean, which is (3.97) with a standard deviation of (1.162). The statement concerning item number (1) is as follows: (**The glue in our firm is innovation and development**).

On the other hand, item number (9) came last on the basis of mean values. The mean of this item is (3.29) and its standard deviation is (0.920) and thus considered medium in terms of level. The statement of this item is as follows: (**The glue in our firm is loyalty and tradition**).

Accordingly, the descriptive statistics concerning the construct (Organizational Culture) indicate that Organizational Culture within the sampled organizations is considered medium in terms of level when it comes to the implementation and operation of ERP Systems.

Table 4.6 summarizes the means and standard deviations of the dimensions of the Internal Organizational Environment in a descending order on the basis of their means.

Table 4.6: Descriptive Analysis for Dimensions of the Internal Organizational Environment

#	Dimensions	Mean	STD	Rank	Level
1	Top Management Support	3.91	0.742	1	High
2	Effective Project Management	3.71	0.828	2	High
3	Company-Wide Commitment	3.65	0.950	3	Medium
4	Organizational Culture	3.65	0.890	4	Medium
5	Business Process Reengineering	3.39	0.802	5	Medium
Overall Mean		**3.662**	**0.842**		**Medium**

Table 4.6 indicates that the level of application and deployment of Top Management Support is the highest in the sampled organizations whilst the application of Business Process Reengineering is the lowest one in the context of ERP Systems implementation and operation.

2. External Organizational Environment

Only one dimension (i.e. Vendor Support) is listed within the construct of External Organizational Environment. Descriptive statistics in terms of means and standard deviations for the Vendor Support Construct along with its items are provided next.

2.1 Vendor Support

Table 4.7 Descriptive Analysis for the Construct: Vendor Support

#	Items	Mean	STD	Rank	Level
1	Qualified consultants with knowledge ability in both enterprises' business processes and information technology including vendors' ERP systems.	3.71	1.099	1	High
2	Participation of vendor in ERP implementation.	3.71	0.841	2	High
3	Service response time of the software vendor.	3.67	1.087	3	Medium
Overall Mean		**3.70**	**1.009**		**High**

Table 4.7 shows the mean of (Vendor Support) items range between (3.67) to (3.71) with an overall mean of (3.70). The level of such an overall mean is high. Item number (1) got the highest mean, which is (3.71) with a standard deviation of (1.099). The statement concerning item number (1) is as follows: (**Qualified consultants with knowledge ability in both enterprises' business processes and information technology including vendors' ERP systems**).

On the other hand, item number (2) came last on the basis of mean values. The mean of this item is (3.67) and its standard deviation is (1.087) and thus considered medium but close to high in terms of level. The statement of this item is about the **service response time of the software vendor**.

Accordingly, the descriptive statistics concerning the construct (Vendor Support) indicate that Vendor Support for the sampled organizations is considered high in terms of level when it comes to the implementation and operation of ERP Systems.

Q2. *What are the main perceived benefits of Microsoft dynamic great planes ERP system in Jordanian organizations?*

Perceived Benefits

This dimension compromises five constructs: IT Infrastructure Perceived Benefits, Operational Perceived Benefits, Managerial Perceived Benefits, Strategic Perceived Benefits, and Organizational Perceived Benefits. The descriptive statistics in terms of means and standard deviations for these five constructs along with their items are provided next.

1. **IT Infrastructure Perceived Benefits**

Table 4.8: Descriptive Analysis for the Construct: IT Infrastructure Perceived Benefits

#	Items	Mean	STD	Rank	Level
1	ERP Implementation helps in building business flexibility for current and future changes.	3.73	1.104	1	High
2	The Implementation of ERP leads to IT costs reduction.	3.64	1.101	2	Medium
3	The Implementation of ERP Systems Increases IT infrastructure capability.	3.41	1.012	3	Medium
Overall Mean		**3.59**	**1.072**		**Medium**

Table 4.8 shows the mean of (IT Infrastructure Perceived Benefits) items range between (3.41) to (3.73) with an overall mean of (3.59). The level of such an overall mean is medium. Item number (1) got the highest mean, which is (3.73) with a standard deviation of (1.104). The statement concerning item number (1) is as follows: (**ERP Implementation helps in Building business flexibility for current and future changes**).

On the other hand, item number (3) came last on the basis of mean values. The mean of this item is (3.41) and its standard deviation is (1.012) and thus considered medium in terms of level. The statement of this item is as follows: (**The Implementation of ERP Systems Increases IT infrastructure capability**).

Accordingly, the descriptive statistics concerning the construct (IT Infrastructure Perceived Benefits) indicate that the perceived benefits in terms of IT Infrastructure due to ERP implementation for the sampled organizations are considered medium in terms of level from the perspective of the study's sample.

3. Operational Perceived Benefits

Table 4.9: Descriptive Analysis for the Construct: Operational Perceived Benefits

#	Items	Mean	STD	Rank	Level
1	The Implementation of ERP Systems leads to Cycle time reduction.	3.86	1.096	1	High
2	The Implementation of ERP Systems leads to Productivity improvements.	3.79	0.993	2	High
3	The Implementation of ERP Systems leads to Quality improvements.	3.72	0.950	3	High
4	The Implementation of ERP Systems leads to Cost reduction.	3.72	1.031	4	High
5	The Implementation of ERP Systems leads to Customer services improvement.	3.59	0.918	5	Medium
Overall Mean		**3.74**	**0.998**		**High**

Table 4.9 shows the mean of (Operational Perceived Benefits) items range between (3.59) to (3.86) with an overall mean of (3.74). The level of such an overall mean is high. Item number (1) got the highest mean, which is (3.86) with a standard deviation of (1.096). The statement concerning item number (1) is as follows: (**The Implementation of ERP Systems leads to Cycle time reduction**).

On the other hand, item number (5) came last on the basis of mean values. The mean of this item is (3.59) and its standard deviation is (0.918) and thus considered medium in terms of level. The statement of this item is as follows: (**The Implementation of ERP Systems leads to Customer services improvement**).

Accordingly, the descriptive statistics concerning the construct (Operational Perceived Benefits) indicate that operational perceived benefits for the sampled organizations due to ERP implementation is considered high in terms of level from the perspective of the study's sample.

4. Managerial Perceived Benefits

Table 4.10 Descriptive Analysis for the Construct: Managerial Perceived Benefits

#	Items	Mean	STD	Rank	Level
1	The Implementation of ERP Systems leads to better resource management.	3.57	0.853	1	Medium
2	The Implementation of ERP Systems leads to performance improvement.	3.52	0.747	2	Medium
3	The Implementation of ERP Systems leads to improved decision making and planning.	3.39	1.039	3	Medium
Overall Mean		**3.49**	**0.880**		**Medium**

Table 4.10 shows that the mean of (Managerial Perceived Benefits) items ranges between (3.39) to (3.57) with an overall mean of (3.49). The level of such an overall mean is medium. Item number (1) got the highest mean, which is (3.57) with a standard deviation of (0.853). The statement concerning item number (1) is as follows: (**The Implementation of ERP Systems leads to better resource management**).

On the other hand, item number (3) came last on the basis of mean values. The mean of this item is (3.39) and its standard deviation is (1.039) and thus considered medium in terms of level. The statement of this item is as follows: (**The Implementation of ERP Systems leads to improved decision making and planning**).

Accordingly, the descriptive statistics concerning the construct (Managerial Perceived Benefits) indicate that managerial perceived benefits for the sampled organizations due to ERP implementation is considered medium in terms of level from the perspective of the study's sample.

5. Strategic Perceived Benefits

Table 4.11: Descriptive Analysis for the Construct: Strategic Perceived Benefits

#	Items	Mean	STD	Rank	Level
1	The Implementation of ERP Systems helps in building external linkages.	4.02	0.678	1	High
2	The Implementation of ERP Systems supports business growth.	3.98	0.510	2	High
3	The Implementation of ERP Systems helps in building cost leadership.	3.81	0.857	3	High
4	The Implementation of ERP Systems supports business alliances.	3.79	0.653	4	High
5	The Implementation of ERP Systems helps in generating product differentiation.	3.68	0.882	5	High
6	The Implementation of ERP Systems helps in building business innovations.	3.64	0.642	6	Medium
Overall Mean		**3.82**	**0.704**		**High**

Table 4.11 shows that that mean of (Strategic Perceived Benefits) items range between (3.64) to (4.02) with an overall mean of (3.82). The level of such an overall mean is high.

Item number (1) got the highest mean, which is (4.02) with a standard deviation of (0.678). The statement concerning item number (1) is as follows: (**The Implementation of ERP Systems helps in building external linkages**).

On the other hand, item number (6) came last on the basis of mean values. The mean of this item is (3.64) and its standard deviation is (0.642) and thus considered medium in terms of level. The statement of this item is as follows: (**The Implementation of ERP Systems helps in building business innovations**).

Accordingly, the descriptive statistics concerning the construct (Strategic Perceived Benefits) indicates that strategic perceived benefits for the sampled organizations due to ERP implementation is considered high in terms of level from the perspective of the study's sample.

6. Organizational Perceived Benefits

Table 4.12: Descriptive Analysis for the Construct: Organizational Perceived Benefits

#	Items	Mean	STD	Rank	Level
1	The Implementation of ERP Systems helps in changing work patterns.	3.61	0.948	1	Medium
2	The Implementation of ERP Systems helps in facilitating business learning.	3.48	0.923	2	Medium
3	The Implementation of ERP Systems leads to Empowerment.	3.34	0.803	3	Medium
4	The Implementation of ERP Systems helps in building common visions.	3.21	0.941	4	Medium
Overall Mean		**3.41**	**0.904**		**Medium**

Table 4.12 shows that that mean of (Organizational Perceived Benefits) items range between (3.21) to (4.61) with an overall mean of (3.41). The level of such an overall mean is medium. Item number (1) got the highest mean, which is (3.61) with a standard deviation of (0.948). The statement concerning item number (1) is as follows: (**The Implementation of ERP Systems helps in changing work patterns**).

On the other hand, item number (4) came last on the basis of mean values. The mean of this item is (3.21) and its standard deviation is (0.941) and thus considered medium in terms of level. The statement of this item is as follows: (**The Implementation of ERP Systems helps in building common visions**).

Accordingly, the descriptive statistics concerning the construct (Organizational Perceived Benefits) indicate that organizational perceived benefits for the sampled organizations due to ERP implementation is considered medium in terms of level from the perspective of the study's sample. Table 4.13 summarizes the means and standard deviations for the constructs of Perceived Benefits dimension.

Table 4.13: Descriptive Analysis for the Constructs of Perceived Benefits

#	Dimensions	Mean	STD	Rank	Level
	Strategic Perceived Benefits	3.82	0.704	1	High
	Operational Perceived Benefits	3.74	0.998	2	High
	IT Infrastructure Perceived Benefits	3.59	1.072	3	Medium
	Managerial Perceived Benefits	3.49	0.880	4	Medium
	Organizational Perceived Benefits	3.41	0.904	5	Medium
Overall Mean		**3.61**	**0.9116**		**Medium**

Table 4.13 indicates that overall perceived benefits for the sampled organizations due to ERP implementations is medium. The construct of Strategic Perceived Benefits is the highest, whilst Organizational Perceived Benefits is the lowest from the perspective of the study's sample.

Q3. What are the impacts of key organizational factors on perceived benefits Of Microsoft dynamics great planes ERP system?

To answer this question, the researcher tested a couple of hypothesis shown in the next part.

4-3 Study Hypotheses Testing

H01: Internal Organizational Environment has no impact on Microsoft great planes ERP perceived benefits ($\alpha \leq 0.05$).

To test the first hypothesis, simple regression analysis was utilized first in order to test the impact of Internal Organizational Environment on ERP Perceived Benefits as shown in Table 4.14.

Table 4.14 Simple Regression Analysis for H01

R	Beta	R^2	Adjusted R^2	F Value	P Value
0.697	0.697*	0.461	0.455	84.611	0.000*

***Significant at $p \leq 0.05$**

Table 4.14 shows that F Value is equal to (84.611) at a significant level ($p \leq 0.05$). This indicates that there is a relationship between Internal Organizational Environment and ERP Perceived Benefits; thus null hypothesis is rejected. The Beta value indicates that the impact of Internal Organizational Environment on ERP Perceived Benefits is positive and equals to 69.7%. Based on the value of adjusted R^2, Internal Organizational Environment explains about 45.5% of the variance in ERP Perceived Benefits.

Further, the researcher here tests the impact of the dimensions of Internal Organizational Environment altogether on ERP Perceived Benefits using multiple regression analysis. Table 4.15 shows the results.

Table 4.15 Multiple Regression Analysis of Internal Organizational Environment Dimensions on ERP PerceivedBenefits

R^2	Adjusted R^2		F Value		P Value
0.650	**0.632**		**35.297**		**0.000***
Constructs	**B Value**	**St. Error**	**Beta**	**T Value**	**P Value**
Top Management Support	0.000	0.064	0.000	-0.006	0.995
Business Process Reengineering	0.229	0.075	0.253	3.052	0.003*
Effective Project Management	0.164	0.074	0.178	2.219	0.029*
Company-Wide Commitment	0.264	0.064	0.360	4.114	0.000*
Organizational Culture	0.254	0.126	0.197	2.024	0.046*

***Significant at $p \leq 0.05$

Dependent Variable: **ERP Perceived Benefits**

Table 4.15 indicates that the dimensions of Internal Organizational Environment (i.e. Top Management Support, Business Process Reengineering, Effective Project Management, Company-Wide Commitment, and Organizational Culture) altogether explain about 63.2% of the variance in ERP Perceived Benefits on the basis of the Adjusted R^2 Value. The F Value is equal to (35.297) and thus significant at ($p \leq 0.05$). This assures that there is a relationship between the dimensions of Internal Organizational Environment and ERP Perceived Benefits.

Moreover, on the basis of t values, one can tell that Business Process Reengineering, Effective Project Management, Company-Wide Commitment, and Organizational Culture have a positive impact on ERP Perceived Benefits at ($p \leq 0.05$); Whilst Top Management Support shows no significant impact on ERP Perceived Benefits at ($p \leq 0.05$).

The researcher also utilized the stepwise multiple regression to determine the weight of importance of each dimension of Internal Organizational Environment in the regression

model in explaining ERP Perceived Benefits. As shown in Table 4.16, Company-Wide Commitment came first and explains 48.0% of the variance in ERP Perceived Benefits. Effective Project Management was second in rank and together with Company-Wide Commitment explains about 58.1% of the variance in ERP Perceived Benefits. Business Process Engineering was third in rank and together with the aforementioned dimensions (i.e. Company-Wide Commitment and Effective Project Management) explains about 62.3% of the difference in ERP Perceived Benefits. Organizational Culture was fourth in rank and together with Company-Wide Commitment, Effective Project Management, and Business Process Engineering explains about 63.5% of the variance in ERP Perceived Benefits. Top Management Support was excluded from the regression analysis as it was not found to be significant in the former multiple regression analysis as shown in Table 4.16.

Table 4.16 Stepwise Multiple Regression Analysis of Internal Organizational Environment Dimensions on ERP Perceived Benefits

Order of Constructs in the Regression Model	Adjusted R^2	F Value	T Value	Beta	P Value
Company-Wide Commitment	0.480	93.363	4.263	0.360	0.000*
Effective Project Management	0.581	70.374	2.245	0.178	0.027*
Business Process Reengineering	0.623	56.052	3.072	0.253	0.003*
Organizational Culture	0.635	44.586	2.088	0.197	0.039*

***Significant at $p \leq 0.05$

Dependent Variable: **ERP Perceived Benefits**

H01a*: Top Management Support has no impact on Microsoft great planes ERP perceived benefits ($\alpha \leq 0.05$).

To test the first sub-hypothesis, simple regression analysis was utilized first in order to test the impact of Top Management Support on ERP Perceived Benefits as shown in Table 4.17.

Table 4.17 Simple Regression Analysis for H01a

R	Beta	R^2	Adjusted R^2	F Value	P Value
0.123	0.123	0.015	0.005	1.531	0.219

***Significant at $p \leq 0.05$

Table 4.17 shows that F Value is equal to (1.531) at significance level ($p \leq 0.05$). This indicates that there is not a significant relationship between Top Management Support and ERP Perceived Benefits; thus null hypothesis is accepted. The Beta value indicates that there is no significant impact of Top Management Support on ERP Perceived Benefits.

Further, the researcher here tests the impact of Top Management Support on the dimensions of ERP Perceived Benefits using SmartPLS structural equation modeling as shown in Figure 1. The use of PLS-SEM is preferred when the sample size is small and when there is more than one dependent variable (Hair et al., 2006).

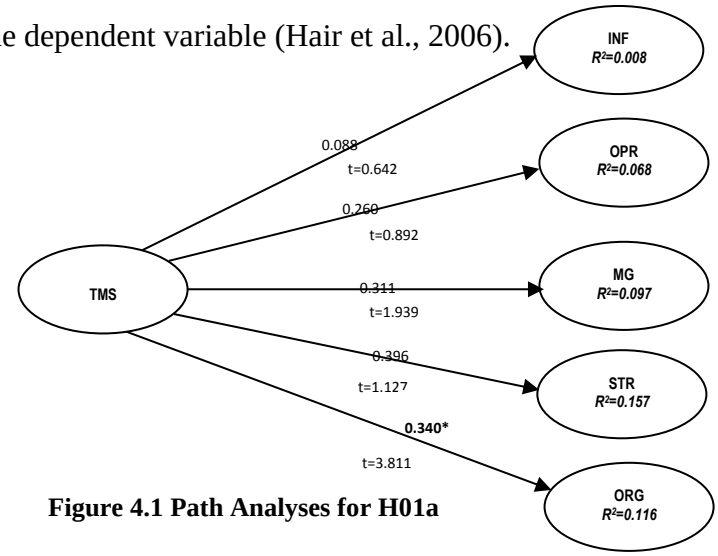

Figure 4.1 Path Analyses for H01a

***Significant at $p \leq 0.05$

TMS: Top Management Support; INF: IT Infrastructure Perceived Benefits; OPR: Operational Perceived Benefits; MG: Managerial Perceived Benefits; STR: Strategic Perceived Benefits; and ORG: Organizational Perceived Benefits.

Figure 4.1 shows that Top Management Support has a significant positive impact only on Organizational Perceived Benefits (t=3.811). The Beta value, which indicates the strength of such an impact, is equal to (34.0%). On the basis of R^2 Value, Top Management Support explains 11.6% of the variance in Organizational Perceived Benefits.

H01b*:* Business Process Reengineering has no impact on Microsoft great planes ERP perceived benefits ($\alpha \leq 0.05$).

To test the second sub-hypothesis, simple regression analysis was utilized first in order to test the impact of Business Process Reengineering on ERP Perceived Benefits as shown in Table 4.18.

Table 4.18 Simple Regression Analysis for H01b

R	Beta	R^2	Adjusted R^2	F Value	P Value
0.670	0.670*	0.449	0.444	80.730	0.000*

***Significant at $p \leq 0.05$

Table 4.18 shows that F Value is equal to (80.730) at significance level ($p \leq 0.05$). This indicates that there is a significant relationship between Business Process Reengineering and ERP Perceived Benefits; thus null hypothesis is rejected. The Beta value indicates that there is a significant positive impact of Business Process Reengineering on ERP Perceived Benefits (67.0%). Based on the value of Adjusted R^2, Business Process Reengineering explains about 44.4% of the variance in ERP Perceived Benefits.

Further, the researcher here tests the impact of Business Process Reengineering on the dimensions of ERP Perceived Benefits using Smart PLS structural equation modeling as shown in Figure 4.2. The use of PLS-SEM is preferred when the sample size is small and when there is more than one dependent variable (Hair et al., 2006).

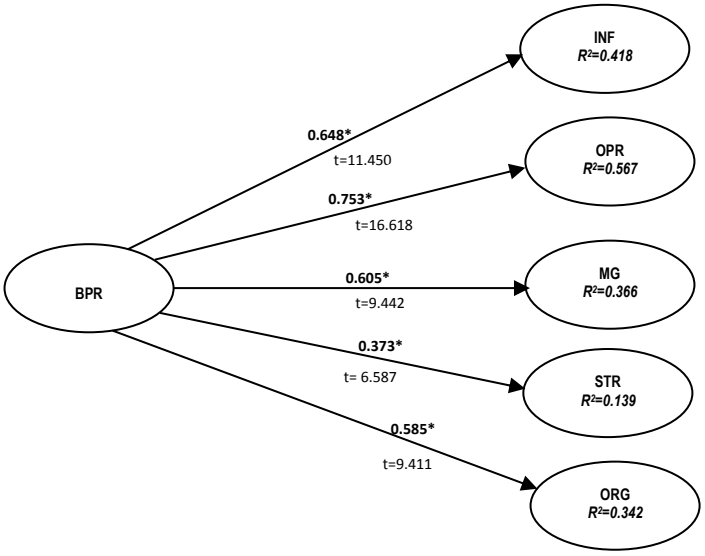

Figure 4.2 Path Analysis for H01b

*****Significant at $p \leq 0.05$

BPR: Business Process Reengineering; INF: IT Infrastructure Perceived Benefits; OPR: Operational Perceived Benefits; MG: Managerial Perceived Benefits; STR: Strategic Perceived Benefits; and ORG: Organizational Perceived Benefits.

By referring to Figure 4.2 and on the basis of t values, it is indicated that Business Process Reengineering has significant positive impacts on all types of Perceived Benefits (i.e. IT Infrastructure Perceived Benefits, Operational Perceived Benefits, Managerial Perceived Benefits, Strategic Perceived Benefits, and Organizational Perceived Benefits). The Beta values, which indicate the strength of such impacts, are also shown in the figure. On the basis of R^2 Value, Business Process Reengineering explains 41.8%, 56.7%, 36.6%, 13.9%, and 34.2% of the variance in IT Infrastructure Perceived Benefits, Operational Perceived Benefits, Managerial Perceived Benefits, Strategic Perceived Benefits, and Organizational Perceived Benefits, respectively.

H01c: Effective Project Management has no impact on Microsoft great planes ERP perceived benefits ($\alpha \leq 0.05$).

To test the third sub-hypothesis, simple regression analysis was utilized first in order to test the impact of Effective Project Management on ERP Perceived Benefits as shown in Table 4.19.

Table 4.19 Simple Regression Analysis for H01c

R	Beta	R^2	Adjusted R^2	F Value	P Value
0.536	0.536*	0.288	0.280	39.964	0.000*

***Significant at $p \leq 0.05$

Table 4.19 shows that F Value is equal to (39.964) at a significant level ($p \leq 0.05$). This indicates that there is a significant relationship between Effective Project Management and ERP Perceived Benefits; thus null hypothesis is rejected. The Beta value indicates that there is a significant positive impact of Effective Project Management on ERP Perceived Benefits (53.6%). Based on the value of Adjusted R^2, Effective Project Management explains about 28.0% of the variance in ERP Perceived Benefits. Furthermore, the researcher here tests the impact of Effective Project Management on the dimensions of ERP Perceived Benefits using Smart PLS structural equation modeling as shown in Figure 4.3. The use of PLS-SEM is preferred when the sample size is small and when there is more than one dependent variable (Hair et al., 2006).

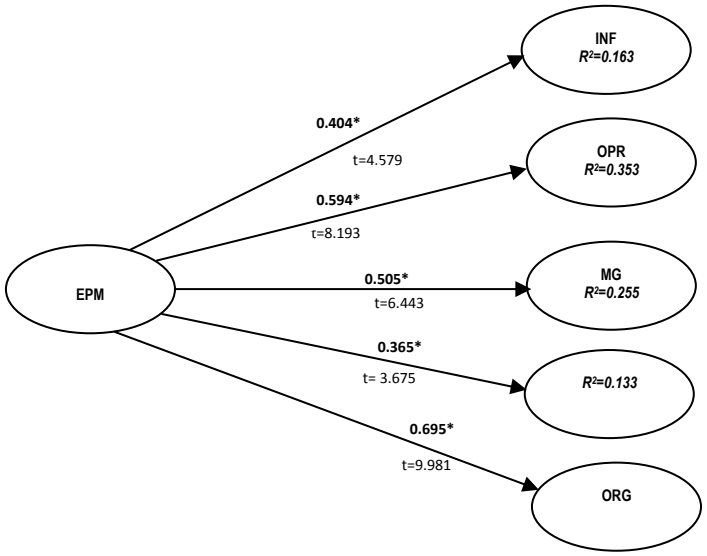

Figure 43 Path Analysis for H01c

*****Significant at $p \leq 0.05$

EPM: Effective Project Management; INF: IT Infrastructure Perceived Benefits; OPR: Operational Perceived Benefits; MG: Managerial Perceived Benefits; STR: Strategic Perceived Benefits; and ORG: Organizational Perceived Benefits.

By referring to Figure 4.3 and on the basis of t values, it is indicated that Effective Project Management has significant positive impacts on all types of Perceived Benefits (i.e. IT Infrastructure Perceived Benefits, Operational Perceived Benefits, Managerial Perceived Benefits, Strategic Perceived Benefits, and Organizational Perceived Benefits). The Beta values, which indicate the strength of such impacts, are also shown in the figure. On the basis of R^2 Value, Effective Project Management explains 16.3%, 35.3%, 25.5%, 13.3%, and 48.3% of the variance in IT Infrastructure Perceived Benefits, Operational Perceived Benefits, Managerial Perceived Benefits, Strategic Perceived Benefits, and Organizational Perceived Benefits, respectively.

H01d*:* Company-Wide Commitment has no impact on Microsoft great planes ERP perceived benefits ($\alpha \leq 0.05$).

To test the fourth sub-hypothesis, simple regression analysis was utilized first in order to test the impact of Company-Wide Commitment on ERP Perceived Benefits as shown in Table 4.20.

Table 4.20 Simple Regression Analysis for H01d

R	Beta	R^2	Adjusted R^2	F Value	P Value
0.697	0.697*	0.485	0.480	93.363	0.000*

***Significant at $p \leq 0.05$

Table 4.20 shows that F Value is equal to (93.363) at significance level ($p \leq 0.05$). This indicates that there is a significant relationship between Company-Wide Commitment and ERP Perceived Benefits; thus null hypothesis is rejected. The Beta value indicates that there is a significant positive impact of Company-Wide Commitment on ERP Perceived Benefits (69.7%). Based on the value of Adjusted R^2, Company-Wide Commitment explains about 48.0% of the variance in ERP Perceived Benefits.

Further, the researcher here tests the impact of Company-Wide Commitment on the dimensions of ERP Perceived Benefits using Smart PLS structural equation modeling as shown in Figure 4.4. The use of PLS-SEM is preferred when the sample size is small and when there is more than one dependent variable (Hair et al., 2006).

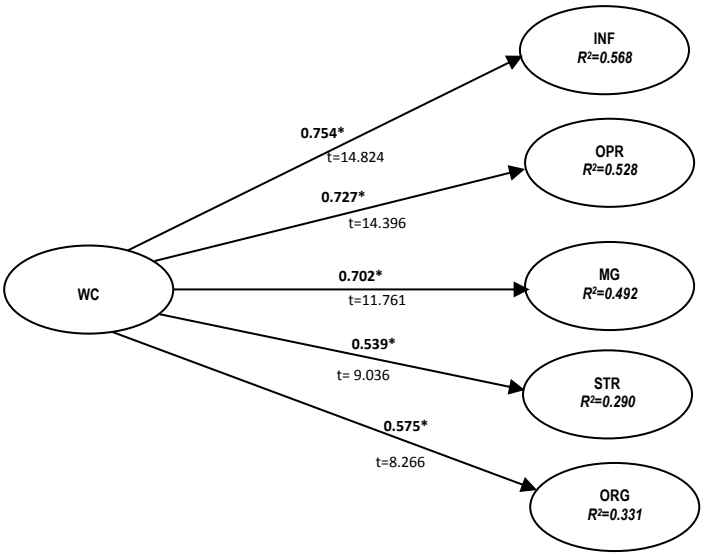

Figure 4.4 Path Analysis for H01d

*****Significant at $p \leq 0.05$

WC: Company-Wide Commitment; INF: IT Infrastructure Perceived Benefits; OPR: Operational Perceived Benefits; MG: Managerial Perceived Benefits; STR: Strategic Perceived Benefits; and ORG: Organizational Perceived Benefits.

By referring to Figure 4.4 and on the basis of t values, it is indicated that Company-Wide Commitment has significant positive impacts on all types of Perceived Benefits (i.e. IT Infrastructure Perceived Benefits, Operational Perceived Benefits, Managerial Perceived Benefits, Strategic Perceived Benefits, and Organizational Perceived Benefits). The Beta values, which indicate the strength of such impacts, are also shown in the figure. On the basis of R^2 Value, Company-Wide Commitment explains 56.8%, 52.8%, 49.2%, 29.0%, and 33.1% of the variance in IT Infrastructure Perceived Benefits, Operational Perceived Benefits, Managerial Perceived Benefits, Strategic Perceived Benefits, and Organizational Perceived Benefits, respectively.

H01e: Organizational Culture has no impact on Microsoft great planes ERP perceived benefits ($\alpha \leq 0.05$).

To test the fifth sub-hypothesis, simple regression analysis was utilized first in order to test the impact of Organizational Culture on ERP Perceived Benefits as shown in Table 4.21.

Table 4.21 Simple Regression Analysis for H01e

R	Beta	R^2	Adjusted R^2	F Value	P Value
0.678	0.678*	0.459	0.454	84.042	0.000*

***Significant at $p \leq 0.05$

Table 4.21 shows that F Value is equal to (84.042) at significance level ($p \leq 0.05$). This indicates that there is a significant relationship between Organizational Culture and ERP Perceived Benefits; thus null hypothesis is rejected. The Beta value indicates that there is a significant positive impact of Organizational Culture on ERP Perceived Benefits (67.8%). Based on the value of Adjusted R^2, Organizational Culture explains about 45.4% of the variance in ERP Perceived Benefits.

Further, the researcher here tests the impact of Organizational Culture on the dimensions of ERP Perceived Benefits using Smart PLS structural equation modeling as shown in Figure 4.5. The use of PLS-SEM is preferred when the sample size is small and when there is more than one dependent variable (Hair et al., 2006).

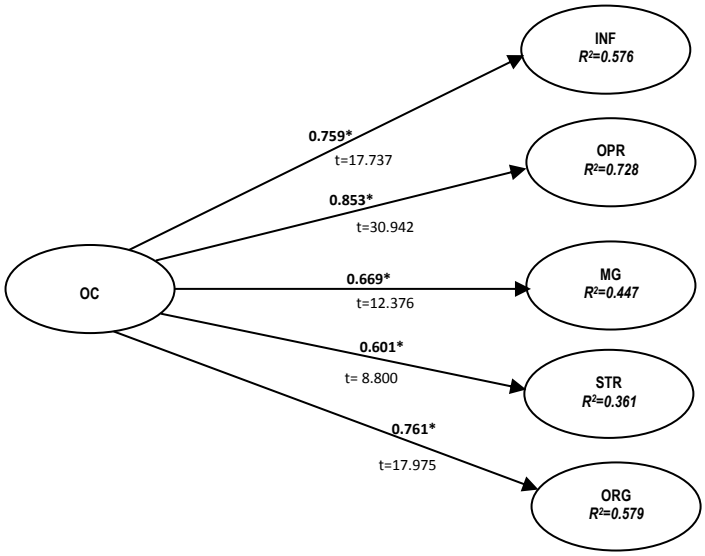

Figure 4.5 Path Analyses for H01e

*****Significant at $p \leq 0.05$

OC: Organizational Culture; INF: IT Infrastructure Perceived Benefits; OPR: Operational Perceived Benefits; MG: Managerial Perceived Benefits; STR: Strategic Perceived Benefits; and ORG: Organizational Perceived Benefits.

By referring to Figure 4.5 and on the basis of t values, it is indicated that Organizational Culture has significant positive impacts on all types of Perceived Benefits (i.e. IT Infrastructure Perceived Benefits, Operational Perceived Benefits, Managerial Perceived Benefits, Strategic Perceived Benefits, and Organizational Perceived Benefits). The Beta values, which indicate the strength of such impacts, are also shown in the figure. On the basis of R^2 Value, Organizational Culture explains 57.6%, 72.8%, 44.7%, 36.1%, and 57.9% of the variance in IT Infrastructure Perceived Benefits, Operational Perceived Benefits, Managerial Perceived Benefits, Strategic Perceived Benefits, and Organizational Perceived Benefits, respectively.

H02*:* External Organizational Environment represented by Vendor Support has no impact on Microsoft great planes ERP perceived benefits ($\alpha \leq 0.05$).

To test the second hypothesis, simple regression analysis was utilized first in order to test the impact of External Organizational Environment represented by Vendor Support on ERP Perceived Benefits as shown in Table 4.22.

Table 4.22 Simple Regression Analysis for H02

R	Beta	R^2	Adjusted R^2	F Value	P Value
0.296	0.296*	0.087	0.078	9.480	0.003*

***Significant at $p \leq 0.05$

Table 4.22 shows that F Value is equal to (9.480) at significance level ($p \leq 0.05$). This indicates that there is a significant relationship between External Organizational Environment represented by Vendor Support and ERP Perceived Benefits; thus null hypothesis is rejected. The Beta value indicates that there is a significant positive impact of External Organizational Environment represented by Vendor Support on ERP Perceived Benefits (29.6%). Based on the value of Adjusted R^2, External Organizational Environment represented by Vendor Support explains about 7.8% of the variance in ERP Perceived Benefits.

Further, the researcher here tests the impact of External Organizational Environment represented by Vendor Support on the dimensions of ERP Perceived Benefits using Smart PLS structural equation modeling as shown in Figure 6. The use of PLS-SEM is preferred when the sample size is small and when there is more than one dependent variable (Hair et al., 2006).

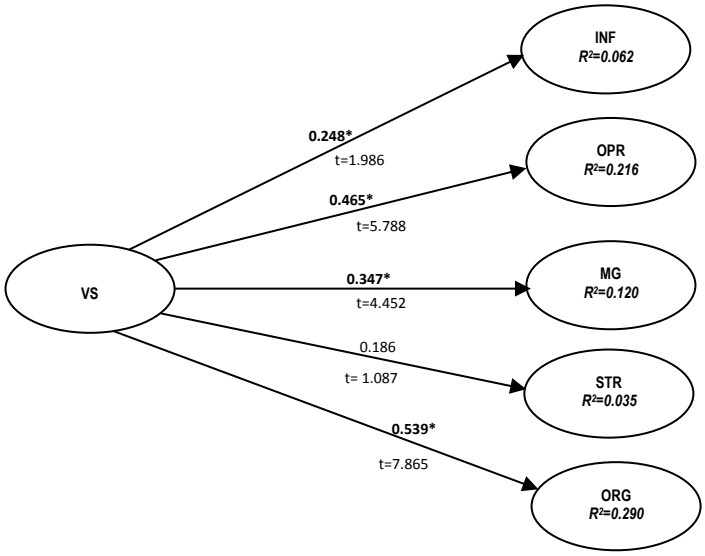

Figure 4.6 Path Analyses for H02

*****Significant at $p \leq 0.05$
VS: Vendor Support; INF: IT Infrastructure Perceived Benefits; OPR: Operational Perceived Benefits; MG: Managerial Perceived Benefits; STR: Strategic Perceived Benefits; and ORG: Organizational Perceived Benefits.

By referring to Figure 4.6 and on the basis of t values, it is indicated that Vendor Support has significant positive impacts on all types of Perceived Benefits (i.e. IT Infrastructure Perceived Benefits, Operational Perceived Benefits, Managerial Perceived Benefits, and Organizational Perceived Benefits), except Strategic Perceived Benefits. The Beta values, which indicate the strength of such impacts, are also shown in the figure. On the basis of R^2 Value, Vendor Support explains 6.2%, 21.6%, 12.0%, and 29.0% of the variance in IT Infrastructure Perceived Benefits, Operational Perceived Benefits, Managerial Perceived Benefits, and Organizational Perceived Benefits, respectively.

Chapter 5

Results Analysis & Recommendation

5.1 Conclusion And Recommendations

5.2 The Main Result Of The Study

5.3Study Conclusions

5.4 Study Recommendations

5.1 Conclusions and Recommendations

This study aimed at studying the key Organizational Factors on Microsoft Dynamics Great Planes (ERP) Perceived Benefits. It tries to determine the key organizational factors that lead to ERP perceived benefits in Jordanian organizations, and to determine and evaluate the main perceived benefits of Microsoft great planes ERP in Jordanian organizations. Finally, this study aimed to understand the impact of key organizational factors on perceived benefits. This study classified key organizational factors into Internal Organizational Factors and External Organizational Factors. Certainly, in this new digital world of business, the Enterprise Resource Planning (ERP) system seems to be the right solution. This is because in the current business environment ERP can provide organizations with various benefits such as optimizing and integrating business processes, maximizing operational and managerial profits, and improving strategic and organizational benefits.

To achieve the objectives of this study, the researcher has developed a novel model to measure the impact of key organizational factors on Microsoft Dynamics Great Planes (ERP) Perceived Benefits. An Extensive literature review has been done and was essential for developing research model. The model has three main constructs: internal organizational, external organizational environment, and perceived benefits. The construct of internal organizational environment includes the following sub-dimensions: Top management support, company-wide support, Business process reengineering, effective project management, and organizational culture, whilst the construct of external organizational environment has only one dimension – ERP vendor support. Finally, the

construct of perceived benefits consist of IT infrastructure perceived benefits, operational perceived benefits, managerial perceived benefits, strategic perceived benefits, and organizational perceived benefits.

The developed model was applied and tested in the context of Jordanian organizations, which successfully implemented ERP Microsoft dynamics Great Planes and the sample was determined to include users of ERP systems. For hypotheses testing, a questionnaire instrument was designed on the basis of the 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 101 responses 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 Smart PLS 2.0 M3, which follows the Structural Equation Modeling (SEM) Technique. Following data analysis, results were obtained and reported in chapter four.

5.2 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 private business organizations and more specifically companies included in the research sample. It also hoped that such decisions would be reflected positively on their business' benefits. Based on the data analysis and hypotheses testing in chapter 4, the research results generated from this piece of work can be summarized as follows.

- Top Management Support, within the sampled organizations, is considered high in terms of level when it comes to the implementation and operation of ERP Systems.

- The practices of Business Process Reengineering within the sampled organizations are considered medium in terms of level when it comes to the implementation and operation of ERP Systems.

- Effective Project Management within the sampled organizations is considered high in terms of level when it comes to the implementation and operation of ERP Systems.

- The Company-Wide support within the sampled organizations is considered medium in terms of level when it comes to the implementation and operation of ERP Systems.

- The Organizational Culture within the sampled organizations is considered medium in terms of level when it comes to the implementation and operation of ERP Systems.

- In the internal organizational environment, the level of Top Management Support is the highest in the sampled organizations, whilst doing Business Process Reengineering is the lowest one in the context of ERP Systems implementation and operation.

- Vendor Support for the sampled organizations is considered high in terms of level when it comes to the implementation and operation of ERP Systems.

- Perceived benefits of IT Infrastructure due to ERP implementation for the sampled organizations are considered medium in terms of level from the perspective of the study's sample.

- Operational perceived benefits for the sampled organizations due to ERP implementation is considered high in terms of level from the perspective of the study's sample.

- Managerial perceived benefits for the sampled organizations due to ERP implementation is considered medium in terms of level from the perspective of the study's sample.

- Strategic perceived benefits for the sampled organizations due to ERP implementation is considered high in terms of level from the perspective of the study's sample.

- Organizational perceived benefits for the sampled organizations due to ERP implementation is considered medium in terms of level from the perspective of the study's sample.

- Overall perceived benefits for the sampled organizations due to ERP implementation are medium. Whilst the Strategic Perceived Benefits is the highest, the organizational Perceived Benefits is the lowest from the perspective of the study's sample.

- Internal Organizational Environment explains about 45.5% of the variance in ERP Perceived Benefits.

- Business Process Reengineering, Effective Project Management, Company-Wide Commitment, and Organizational Culture have a positive impact on ERP Perceived Benefits; Whilst Top Management Support does not.

- The relative importance of dependent variables in explaining variance in perceived benefits of ERP comes as follows: Company-Wide Commitment came first; Effective Project Management was second; Business Process Engineering was third, and Organizational Culture was fourth. Overall, they are able to explain about 63.5% of the variance in ERP Perceived Benefits.

- There is not a significant impact of Top Management Support on ERP Perceived Benefits.

- There is a significant positive impact of Business Process Reengineering on ERP Perceived Benefits.

- There is a significant positive impact of Effective Project Management on ERP Perceived Benefits.

- There is a significant positive impact of Company-Wide Commitment on ERP Perceived Benefits.

- There is a significant positive impact of Organizational Culture on ERP Perceived Benefits.

- There is a significant positive impact of External Organizational Environment represented by Vendor Support on ERP Perceived Benefits.

5.3 Study Conclusions

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

- Organizations under investigation lack belief in the importance of reengineering, despite the current business environment described as unpredictable, ambiguous, and dramatically changed. This limited their opportunity to fully utilize these systems and achieve expected benefits.

- Despite the importance of company-wide support, it is still modest in organizations under investigation.

- There are discrepancies in the perceptions of ERP implementation expected benefits. The Strategic Perceived Benefits seems the most important; the organizational one is the least.

- Top Management Support does not influence perceived benefits of ERP implementation. It is expected that top management support play a critical role in the early stage of ERP implementation. However, the case in the current study seems ERP used such a long time and well-established firms.

- Business organizations would reap more benefits from ERP system implementation, if they give more attention to dominant culture, effective project management, doing business process engineering when it is needed, and guarantee continuous and consistence ERP vendor support.

- Amongst the dimensions of internal organizational environment, companywide-commitment is the most influential in perceived benefits of ERP.

5.4 Study Recommendations

According to the results and the drawn conclusions of study, the researcher here offers some recommendations that would enhance the deployment and utilization of ERP systems among Jordanian organizations. The researcher hopes that such recommendations would be

taken seriously into consideration so as to enhance the perceived benefits of ERP system. 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.

- Business organizations in Jordan that use ERP systems ought to pay more attention to combining companywide support to ensure the success of ERP system in delivering its expected benefits.

- Business organizations, which are thinking to buy or upgrade the available ERP system, should understand the importance of getting ERP vendor support to gain more benefits.

- More emphasizes should be allocated to create a culture that believes in ERP system expected benefits.

- There is a significant need at business organizations in Jordan to utilize ERP systems more successfully by aligning internal and external organizational environment properly.
- Business organizations managers should measure perceived benefit levels more frequently to gauge its impact on organizational performance.
- The current study as others cross sectional studies is not free of limitations. Therefore, future research avenues can be as follows:

- The current research depends mainly on the questionnaire to collect relevant data. This tool is not free of bias; future research can utilize other approaches such as interviews or focus groups to understand fully the phenomena under investigation.
- Although this study shed light on the hot spot of ERP perceived benefits, it does not claim the mutual factors that impact ERP perceived benefits. Thus, future research can extend the research model by adding other factors that may change the perceptions of ERP perceived benefits, such as IT self-efficacy, types of leadership, and turbulent business environment.
- The current study failed to find any impact for top management support on perceived benefits of ERP. This result is counterproductive with previous studies. Therefore, future studies can re-test and scrutinize the presumed impact by using objective data to measure expected benefits.
- The current study depends on one source of informant (users) without making clear discriminations between users. Future study can make taxonomy to ERP system users to further our understanding about why some users perceived more benefits than others.
- The generalizability of the research finding is limited to research sample and the results should be taken with caution. In order to increase the generalizability of the research results, future research can apply the same model but on other types of ERP systems such as SAP systems.

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APPENDIX 1: LIST OF JORDANIAN FOUNDATION WHICH IS USING ERP GP

No	Name
1	Near East Technology
2	Arabian Trade and Food industries
3	Near East Investments
4	Luminus Holding
5	The International Investor (TII Group)
6	Procco Financial Services
7	Seagulls Abdali
8	Blue River
9	Seagulls Media Services
10	Mazaj FM
11	Seagulls Communications
12	Out of Home
13	Arrow Food Distribution Co.
14	Federal Express (FedEx)
15	Nader Group
16	Omar Al Tousi Group
17	Luminus Catering
18	Applebees
19	Fuddruckers
20	Papa John's
21	Burger King
22	Cubic Art
23	InCubes
24	Camera House
25	Scientific and Medical Supplies
26	Rubicon Group Holding
27	ELM for Information Security
28	UTS

No	Name
29	Teqaniat
30	Mabco
31	iBAHN
32	BMB
33	HEWA Group
34	JorAmCo
35	AYLA Aviation Academy
36	Petra Airlines
37	MGC
38	Katakeet
39	Jordan Bromine Company Limited PFZ
40	Arab Drip Manuafcturing Technology (ADRITEC)
41	United for Iron Manufacturing (Al-Manaseer Group)
42	International Poultry Company (Tamam)
43	Next Healthcare
44	GE Healthcare EastMed
45	Zain Data
46	United AMSSCO Trading Co.
47	Al Turk Drug Store
48	Luminus Training Center
49	SAE Institute
50	Luminus for Languages (BELL)
51	Al Quds Collage
52	New Horizons
53	SOS Childrens Village Organization
54	The Jordan Hashemite Fund for Human Development (JOHUD)
55	Jordan Hashemite Charity Organization (JHCO)
56	King Abdulla II Fund for Development (KAFD)
57	National Council for Family Affairs (NCFA)
58	Queen Alia International Airport - Airport International Group

APPENDIX 2: THE QUESTIONNAIRE

الإخوة والأخوات مسوؤلي التطوير في الشركات الأردنية

تحية طيبة وبعد..

انتشرت في الأردن في السنوات الأخيرة انظمة ادارة موارد الشركات وخاصة برنامج مايكروسوفت لإدارة موارد المنظمة.في هذا الاستبيان أسئلة يريد الباحث من خلالها أن يدرس العوامل البيئية الداخلية والخارجية التي تؤثر وقد لاتؤثر على المنافع المدركة لنظام مايكروسوفت لإدارة موارد المنظمة، ومن أجل اتمام بحث علمي متعلق بهذا الموضوع . لذا أرجو التكرم بالإجابة على كل فقرة من فقرات الاستبيان، بكل دقة وموضوعية، علماً بأن المعلومات التي ستدلي بها، ستعامل بسرية تامة، ولن تستخدم إلا لأغراض البحث العلمي فقط .. و لكم جزيل الشكر.

الباحث: عمر رفعت أوسي

جامعة الشرق الأوسط للدراسات العليا

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Tel: 079 64 63 888

المحور الأول:- بيانات الشركة:

نـــوع الشـــــركة:

☐ قطاع عام ☐ قطاع خاص

جنسية الشركة:

☐ أردنية ☐ أجنبية ☐ متعددة الجنسيات

حجم الشركة (حسب عدد الموظفين):

☐ 0 - 50 عامل ☐ 51- 150 عامل ☐ 151- 250 عامل

☐ أكثر من 250 عامل

حجم الشركة (حسب رأس المال):

☐ أقل من 5 ملايين ☐ 5 – 10 مليون ☐ 10 - 15 مليون

☐ أكثر من 15 مليون

مجال عمل الشركة

☐ غذائية ☐ البسة ☐ اتصالات

☐ برمجيات ☐ سياحة ☐ عقارات

☐ تعليم ☐ طيران ☐ مواد صحية

☐ ادوية و اجهزة طبية ☐ ادوات منزلية ☐ أخرى (اذكرها)

عدد سنوات تطبيق نظام إدارة موارد المنظمة داخل المنظمة:

☐ سنة فأقل ☐ سنتان ☐ ثلاث سنوات

☐ ثلاث سنوات فأكثر

المحور الثاني: أسئلة الاستبانة

السؤال الأول: هل توافق على أن عوامل البيئة الداخلية للمنظمة أثرت على تحقيق منافع لها من خلال تطبيق نظام مايكروسوفت لإدارة موارد المنظمة MS Dynamic Great Planes في المنظمة وما درجة ذلك التأثير؟ *رجاء ضع اشارة √ عند الإجابة المناسبة (اختر إجابة واحدة فقط)*

الرقم	العامل	اوافق بشدة	اوافق	محايد	لا اوافق	لا اوافق بشدة
أولا : دعم الإدارة العليا في المنظمة						
1	تقوم الإدارة العليا بتوفير قيادة مسوؤلة عن متابعة خطوات تطبيق نظام إدارة موارد المنظمة بشكل متواصل .					
2	توفر الإدارة العليا كافة الموارد اللازمة لتطبيق نظام إدارة موارد المنظمة.					
ثانيا : إعادة هيكلة نظام العمل داخل المنظمة						
1	المنظمة لديها الإستعداد لإجراء إعادة هندسة العمليات.					
2	لدى المنظمة الجاهزية للتغيير.					
3	المنظمة لديها القدرة على إعادة هندسة عمليات الأعمال.					
ثالثا: كفاءة إدارة المشروع						
1	لدى المنظمة جدول زمني معقول لتطبيق نظام إدارة موارد المنظمة.					
2	لدى المنظمة مواعيد دورية لمتابعة خطوات تطبيق نظام إدارة موارد المنظمة.					
3	توفر المنظمة مدير مشروع فاعل قادر على تطبيق نظام إدارة موارد المنظمة داخلها.					
4	تتيح المنظمة فريق عمل لتطبيق نظام إدارة موارد المنظمة من داخل المنظمة.					
رابعا: التزام أقسام المنظمة بالعمل على النظام الجديد						
1	يساهم إلتزام الأقسام الوظيفية في تطبيق نظام إدارة موارد المنظمة.					
2	يساهم توفير الدعم المقدم من رؤساء الأقسام الوظيفية لموظفيهم على تطبيق نظام إدارة موارد المنظمة.					
3	يساهم دعم باقي اقسام المنظمة على تطبيق نظام إدارة موارد المنظمة.					

الرقم	العامل	اوافق بشدة	اوافق	محايد	لا اوافق	لا اوافق بشدة
خامسا: ثقافة المنظمة						
الثقافة التطويرية:						
1	تعتبر منظمتنا ديناميكية ومكان عمل ريادي.					
2	يعتمد التماسك في منظمتنا على الإبتكار والتطوير.					
3	تركز منظمتنافي النمو من خلال الحصول على موارد جديدة.					
ثقافة المجموعة						
1	تتميز منظمتنا بالطابع الشخصي لبيئة العمل القريب من كونه عائلي.					
2	يعتمد التماسك في منظمتنا على الولاء والتقاليد.					
3	ترتكز منظمتناعلى الموارد البشرية في تحقيق النمو.					
الثقافة الهرمية او التسلسلية						
1	تعتبر منظمتنا منتظمة ورسمية.					
2	ترتكز منظمتنا على عاملي الأداء والثبات.					
الثقافة العقلانية						
1	يعتمد التماسك في منظمتنا على تنفيذ المهام وتحقيق أهداف المنظمة.					
2	ترتكز منظمتنا على الإجراءات التنافسية.					

السؤال الثاني: هل توافق على أن عوامل البيئة الخارجية للمنظمة (مزود نظام مايكروسوفت لإدارة موارد المنظمة MS Dynamic Great Planes في الأردن) أثرت على تحقيق منافع لها من خلال تطبيق نظام مايكروسوفت لإدارة موارد المنظمة MS Dynamic Great Planes في المنظمة وما درجة ذلك التأثير؟ *رجاء ضع اشارة √ عند الإجابة المناسبة (اختر إجابة واحدة فقط)*

الرقم	العامل	اوافق بشدة	اوافق	محايد	لا اوافق	لا اوافق بشدة
دعم مزودي نظام إدارة موارد المنظمة						
1	يستجيب المزودون مع متطلبات واستفسارات المنظمة.					
2	إن مزودي النظام لديهم الكفاءة التقنية والمعرفة بالعمل الاداري وآلياته .					
3	إن مزودي النظام للمنظمة يشاركون في تطبيق نظام إدارة موارد المنظمة وبخاصة في المراحل الأولى.					

السؤال الثالث: هل توافق على أن تطبيق نظام مايكروسوفت لإدارة موارد المنظمة MS Dynamic Great Planes قد حقق المنافع التالية لصالح المنظمة وما درجة تحقيق تلك المنافع؟ رجاء ضع اشارة √عندالإجابة المناسبة (اختر إجابة واحدة فقط)

الرقم	العامل	اوافق بشدة	اوافق	محايد	لا اوافق	لا اوافق بشدة
أولا : المنافع المدركة على البنية التحتية لتقنيات المعلومات في المنظمة						
1	تساهم البنية التحتية لتكنلوجيا المعلومات في بناء مرونة الأعمال للتغييرات الحالية والمستقبلية.					
2	يعمل نظام إدارة موارد المنظمة على التقليل من تكلفة تقنيات المعلومات.					
3	يساعد نظام إدارة موارد المنظمة في زيادة قدرة البنية التحتية لتقنيات المعلومات.					
ثانيا : المنافع التشغيلية المدركة						
1	يؤدي نظام إدارة موارد المنظمة الى التقليل من الكلفة التشغيلية.					
2	يؤدي نظام إدارة موارد المنظمة الى التقليل من زمن تنفيذ دورة العمل.					
3	يعمل نظام إدارة موارد المنظمة على زيادة الإنتاجية.					
4	يحسن نظام إدارة موارد المنظمة جودة الخدمات والمنتجات.					
5	يحسن نظام إدارة موارد المنظمة خدمة عملاء المنظمة.					

ثالثا: المنافع الإدارية المدركة						
1	يحقق نظام إدارة موارد المنظمة الموجود إدارة افضل لموارد المنظمة.					
2	يحسن نظام إدارة موارد المنظمة من عمليتي اتخاذ القرار والتخطيط.					
3	يحسن نظام إدارة موارد المنظمة الأداء العام للمنظمة.					
رابعا: المنافع الإستراتيجية المدركة						
1	يدعم نظام إدارة موارد المنظمة تطور العمل..					
2	يدعم نظام إدارة موارد المنظمة التحالفات في الأعمال التجارية.					

3	يعمل نظام إدارة موارد المنظمة على زيادة الابتكارات.					
4	يعمل نظام إدارة موارد المنظمة على تخفيض التكاليف مع الإبقاء على ذات الكفاءة.					
5	يخلق نظام إدارة موارد المنظمة ميزة تنافسية للمنتج.					
6	يؤدي نظام إدارة موارد المنظمة الى بناء علاقات أفضل مع الزبائن والموردين.					
خامسا: الفوائد التنظيمية المدركة						
1	يدعم نظام إدارة موارد المنظمة التغييرات التنظيمية					
2	يسهل نظام إدارة موارد المنظمة قدرة المنظمة التعليمية					
3	العمل بإستقلالية من خلال تمكين نظام إدارة موارد المنظمة المستخدمين إمتلاك النظام وزيادة مشاركتهم في إدارة العمليات.					
4	يجسد نظام إدارة موارد المنظمة رؤية مشتركة داخل المنظمة					

هل تريد إضافة أي ملاحظات أخرى ؟

أشكرك شكرا جزيلا لاجابتك

APPENDIX 3: PROFESSORS' QUESTIONNAIRE JURY

No.	Prof. name	University	Faculty
1	Abd Al Aziz El Betawi	Al Zaytounah University	Business Admin.
2	KamilHawajreh	MEU	Business Admin.
3	Mohammed Al Nuiymee	MEU	Business Admin.
4	Kamil Al Moughrabi	MEU	Business Admin.
5	Abd El Bari Durra	MEU	Business Admin.