

Performance Evaluation of Enterprise Resources Planning (ERP) Systems at the Jordanian Industrial Companies as Perceived by the Mangers

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Abstract

This study aimed to know the level of the performances of the resources planning systems at the Jordanian industrial companies from the managers point of new stud population consisted of all mangers in the middle and low administration at the Jordanian industrial companies, the number of the mangers was (155) The study depended on the descriptive analytical method, and used the questionnaire for data collection. The most important results that the study reached are the following: The level of the performance of the ERP systems at the Jordanian Industrial Companies is high at significance level ($\alpha \leq 0.05$). The results showed that the level of the ERP systems, performance according to strategic dimension, occupational practical dimension, administrative dimension, and the information technology infrastructure dimension was high.

Key Words : Enterprise, Resources, Planning.

ملخص

«تقييم أداء نظم تخطيط موارد المنظمة في الشركات الصناعية الأردنية من وجهة نظر المديرين»

هدفت هذه الدراسة لمعرفة مستوى أداء نظم تخطيط موارد المنظمة في الشركات الصناعية الأردنية من وجهة نظر المديرين. تكون مجتمع الدراسة من كافة المدراء في الإدارة المتوسطة والمنخفضة في الشركات الصناعية الأردنية. بينما تكونت عينة الدراسة من (155) مديرا. اعتمدت الدراسة على المنهج الوصفي التحليلي واستخدمت الاستبانة من أجل جمع البيانات. توصلت الدراسة إلى نتائج كان من أهمها : كان مستوى أداء نظم تخطيط مصادر المشروع في الشركات الصناعية الأردنية عاليا على مستوى ($\alpha \leq 0.05$) وأظهرت النتائج أن مستوى أداء نظم تخطيط مصادر المشروع حسب البعد الاستراتيجي، بعد الممارسة الوظيفية، البعد الإداري وبعد البنية التحتية لتكنولوجيا المعلومات كان مرتفعا.

المشروع، الموارد، التخطيط

The General Frame of the Study

Introduction

The researchers interest in organizing the enterprise resources planning appeared, sinceⁱ indicated that implementing the enterprise resources planning systems might achieve to the businesses organizations many advantages , including reducing the life – cycle period, rising the organizations efficacy, creating the information rapidly, granting the mangers the capability to control all the businesses processes, monitoring and controlling them that will affect the speed of the decision making process.

The application of the organization resources planning systems does not mean the continuous success of the businesses organizations, because these organizations might fail in applying the systems, that will cause the end of these establishments.

Senn, indicated that a high percentage of the mangers believe that eliminating the project the organizations planning systems and its resources that will cause the complete harm to the organization, this confirms the necessity for the organizations to take the proper decisions in adopting these systems.

For this reason, this study comes to reveal the extent of the importance and evaluating the performance of the organization resources planning systems at the Jordanian industrial companies , and to know the level of the performance of the organization's resources planning systems in improving their performance through evaluating the performance of the organization resources planning systems in the Jordanian industrial companies from the mangers point of new.

Problem Study

In the frame of the changes that the businesses organizations are witnessing, the current researches indicates that the applications of the organization resources planning systems increasing by (32%) during the coming years .

Yousefⁱⁱ since the organization's resources planning systems seek to provide a package of software's that provide integrated resolutions to all the processes in the businesses organizations know the extent of applying the organization's resources planning systems, and to know the level of the application, evaluating the level of the application, and to know the extent of the establishment's success in applying the orga-

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nization resources planning systems. Also, the problem represents in that not performing the evaluation for long periods might result in effects that could lead to the organizations failure.

The study Objectives:

This study aims to know the following:

- 1 To know the evaluation of the organization's resources planning systems performance.
- 2 Clarifying the extent of using the reference variables for the researcher and to those who have the interest in the administrative work to benefit from the most important results inferences and recommendations that it is expected to reach in this study for the possibility of application to the organizations.
- 3 To know the negative effects of the ineffective application of the performance of the organization resources planning systems at the Jordanian industrial companies.
- 4 Evaluating the level of application the enterprise resources planning.

The study Importance :

The importance of the study represents in that it investigates a new topic, and one of the pioneering studies to the researcher's knowledge that takes in to account to what has been mentioned, and that investigates the topic evaluating the performance of the organization's resources planning systems in the Jordanian industrial companies from the managers' point of view that might positively reflects on the Jordanian industrial companies.

Also, the importance of the study stems from testing the performance evaluation dimensions of the organization's resources planning systems because of their effect on developing the organization's resources, and achieving the goals that the Jordanian industrial companies seeks for.

The importance of the study appears from being way to go ahead by the interesting researchers in this topic, that will reflect on the scientific knowledge related to the topic in focusing on the weakness points if present and the attempt enhancing it and confirming and increasing the strengths.

So, this study considers a path to conduct more studies to know the performance level of the enterprise resources planning.

The study Hypotheses :

Ho1 : the basic hypothesis (null-hypothesis: the performance level of the organization's resources planning is low at the Jordanian industrial companies at significance level ($\alpha \leq 0.05$))

Ho2 : The second basic hypothesis (second null-hypothesis) : there are no differences in the study sample's answers at significance level ($\alpha \leq 0.05$) regarding the performance of the organization resources planning systems attribute to the personal factors collectively (gender, age , scientific qualification, and occupational experience).

The Procedural Definitions :

Enterprise resource planning system (ERP) :

A package of ready measurement applied software, that include integrative resolutions to the all basic works in the enterprise that form the spinal cord of any enterprise, such as:

- Supply chain management, monitoring the inventory, human resources management, customers relations management and accounting processes in the enterprise to enhance and to improve the enterprise capability for competitionⁱⁱⁱ .
- Performance: performance identifies as the sum results of a function, or a work , or an activity, it is the indicator through which we measure the enterprise capability to succeed in achieving it goals and improving its internal processes^{iv}.
- Enterprise resources planning system performance: A chain of "atypical units" or application that connected smoothly together through common data base and aim at achieving the integration between the practices of the businesses the most important commercial processes in the enterprise (Such as accounting finance, human resources, production and distribution to coordinate the activities and exchange of information) to contribute to achieving the enterprise objectives^v.

The Study Limitations :

a- The subjective Limit : The study is limited in its subjectivity to the enterprise resource planning systems performance at the Jordanian industrial companies.

b- The spatial limit : this study is applied to the Jordanian industrial companies.

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c- The human limit : This study is implemented on the Managers category at the Jordanian industrial companies.

d- temporal limit : This study was conducted in the year 2013.

Theoretical Frame and Literature Review

The internet services are increasing by the increasing appeal to the resolutions of the enterprise resources planning systems by the companies, these systems characterized by the complexity in linking all the internal systems to the external environment that has led to the emergence of a methodology to arrange the information in a way that includes all the human and technical factors together.

This research focuses on many factors: consistency between the enterprise resources planning systems and the work's procedures, top management support, competence of the information technology division, supporting the enterprise resources planning providers, the enterprise resources planning systems consist of a chain of "atypical units", or the application linked together smoothly through common data base and aim at achieving the integration between the practices of the businesses management and information technology through merging the most important commercial processes in the enterprise (like accounting, finance, human resources, production & distribution to coordinate the activities and exchange information) to contribute to achieving the enterprise objectives^{vi}.

In other words, the enterprise resources planning systems link the different enterprise businesses unites, like financial accounting, manufacturing, and the human resources in on integrated system that has the common platform for the information flow through the enterprise businesses (Wu, 2006).

Enterprise resources planning systems help the different divisions through the work to coordinate the activities and the participation in the information^{vii}.

Consistency between the system and the businesses procedures in an enterprise is an important issue through implanting the enterprise resources planning, and affects the extent to which the enterprise is able to satisfy the client's needs^{viii}.

The importance of the enterprise resources planning stems from supporting the top management, and giving the comprehensive picture about the enterprise, the strategies, the goals and the orientations that the enterprise should implement^{ix}.

Enterprise sources planning systems consider one of the distinguish institutional activities and more spread in the last decade, and their application became very important to the establishments. For example the enterprise resources planning systems estimated (30%) from the total changing activities in the establishments in these day (Jarvenpa, 1998).

The importance of understanding the enterprise resource planning stem from the need for institutional organizational change, while the failure ration of the enterprise resources planning systems might accede (60%) when applying them^x .

The reports about half of the total high ten mistakes result from the information technology pertain to ERP systems, the reason behind that the pioneering vendors in the market, with loses range from 6 Million Dollars and reaching 100 Million Dollars. The importance of the availability of the ERP systems was verified by specialized persons in the information systems through providing the ideas and perspectives.

The studies indicate that all these software will be (47.6 Billion Dollars) adoption by the year 2011. Also some estimates indicate that the adoption the ERP systems raised by (75%) between the mean of the large manufacturing companies , and (60%) of the services companies , and rises to (80%) between the largest 500 companies.

Application of the ERP systems was based on redesigning the commercial processes, employing new software to support that new commercial process^{xi}.

Enterprise resource planning systems was identified by the pioneering vendors in the and employing it in all the organizations divisions because o the increasing growth in it, also, when un-competent, so the enterprises make the decision to replace them by the integrated enterprise resources planning systems, in addition to new equipments and software to provide short and long term benefits, such as introducing the capability measure for its prosperity in the future.

The new ERP system application process at the organization is a complex process, while usually welcomed as a way to make the employee more effective and competent in his work, the articles in this domain include topics such as application procedures, the effective success elements, the risks and complications in the applications of the ERP systems and the successful strategies for the application of the effective ERP systems.

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The applications relating to the implementation and application stage divide into four topics as follows :

Implementation / Application theories, Application success, other applications topics , and application case studies.

While the third domain focuses on the theoretical research models that develops to cover specific features such as the use of applied formation instruments in the texts of the WRP systems.

And new theories formed to work and comparisons between the processes.

Most of frequent risks factors for the applications of the ERP systems are deficient selection for the application, strategic thinking and the ineffective planning strategy, poor techniques for the project management and the bad administrative communication, defect and ineffective administrative change, and defect in the training.

Enterprise resources planning systems :

ERP systems aim at helping the administration through determining the best businesses practices, providing the administration with the appropriate information for making the decision timely. ERP systems were designed to improve all sides of the basic processes through all the companies' back offices starting from planning, implementation, management and monitoring^{xii}, they achieve that by capturing the processes, and coordinate continuously in a center data base^{xiii} as a result, the ERP systems are more able to effectively facilitate the daily tasks, and reducing the double and additional activities that consume time and money through reducing the basic procedures, get rid of the data warehouses by establishing central data warehouse, and the hop in assigning and managing the resources more effectively, reducing the indirect costs, improving the strategic planning to evaluate the needs required by the results.(Business Software, 2010).

Success of Enterprise Resources planning systems :

Previous literatures used many models measure the extent of success of different types of information systems, the most important was Delone & Maclean model that takes into account the system's quality and the information quality, users satisfaction, individual and organizational influences as important indicator in the success of information systems by able and trained employees to interact with the system is a very important issue in affecting the system's outputs^{xiv}.

System's Quality, Information quality and service quality :

Delone & Maclean^{xv} had confirmed the importance of service quality, systems quality and information quality as basic factors for the success of the enterprise resources management systems. Al-Faori (2012) found a relation with statistical evidence between ERP systems effectiveness (Information quality, systems quality and users satisfaction).

^{xvi} confirmed that systems quality is basic priority to implement resources management systems successfully, (Petler et al., 2013) mentioned that service quality which is the type of support received by those who use the systems as basic factor for the enterprise resources management systems success.

Literature Review :

Literature reviews form important heritage and important source for all researchers, they help them in forming scientific backgrounds about their studies and researches.

Their review made by the researcher aims at receiving the clear vision about the cognitive accumulation in the study field, also aims at knowing the literatures that help the researcher to see what those studies provided in that field.

In this study, a number of studies introduced that had addressed ERP systems' performance, these studies arranged according to time series from the oldest to the newest.

1 Kim^{xvii} (2011) the Effects of switching costs on user resistance to enterprise systems implementation.

2 This study aimed to know the effect of shift costs on the employees resistance to implement the ERP systems. The study's methodology depended on a sample from manufacturing company, a questionnaire for the employees was built.

3 Results indicated that the unexpected costs and the un-modifiable change costs lead to direct increase in the user resistance to resources planning system and shows that these costs lead the reduction of the perceived value of the system that the user resistance to resources planning system and shows that these costs lead the reduction of the perceived value of the system that the user expect when re-engineering the shift processes result from inserting new technology to the company.

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4 (Chan et al., 2011)^{xviii} study entitled “(ERP)II Readiness in Jordanian industrial companies”.

5 This study aimed at investigating the readiness of the Jordanian industrial companies to implement ERP through conducting empirical study by using the questionnaires.

6 The study results revealed that the Jordanian industrial companies process all the specific components to ERP except (CRM) and (PRM), while they suffer greatly from the lack of integrity and businesses intelligence.

7 The results of the study focused on encouraging the Jordanian industrial companies to review their strategies for the ERP systems integration to achieve the maximum revenue on the information technology investment.

8 Elrageal & al-Serafi (2012)^{xix} study entitled “The Effect of ERP system implementation on Business performance: An Exploratory case-study”.

9 This study aimed to know the effect of the resources planning systems on the businesses performance study sample was one of the global middle and small company that has big branch in Egypt. This branch was selected as a study sample because the company applies the resources planning system effectively. The study results showed that many of the benefits and the goals pertain to the desired businesses performance from the resources planning system in the company were achieved after implementing the system. Also, the results included that some of the desired results from the resources management system did not achieved as expected and needed.

10 The study reached the results the presence of positive relation between the businesses processes and the resources planning systems.

11 Garg and Garg (2013)^{xx} Study entitled “An Empirical study on critical failure factors for enterprise resource planning implementation in Indian retail sector”.

12 Researchers in this study focused on the process determining and analyzing failure factors of implementing ERP system by using cause and result and parito analysis, as a result of the presence of many barriers that prevent the successful implementation of ERP system. Data was collected through the questionnaire/interview, questionnaires were distributed to the sponsoring parties of the project implementing ERP systems in the retail sector in India.

13 Results showed that the decisive failure elements are :

14 In-competent resources, users resistance to change, high rate of consumption from the project's team members, un-realistic & in effective project scheduling, also noted that the users effective was weak.

15 (Ram et al., 2013)^{xxi} study entitled "Examining the role of system Quality in (ERP) projects"

16 This study aimed at investigating the role of the perceived system quality (PSQ) as the feature for the success implementation of (ERP) projects, and the mutual relations with other features that affect the results of the process the enterprise dependence on the system with the use of the structural equation model.

17 The present relations with the study data were analyzed. Perceived system quality is important for the success of implementing (ERP) project, also, (PSQ) has positive effect on other reasons for the enterprise to adopt the system like information quality, organizational readiness and perceived strategic value for the adoption.

18 (Saini et al., 2013)^{xxii} study entitled: "Identifying success factors for implementation of (ERP) at Indian SMEs: A comparative study with Indian large organizations and the global trend"

This study aimed at determining the success factors for implementing (ERP) systems at the Indian SMEs and the introduction of a comparative study with the prevailing trend in the global trend and the large Indian organization.

A methodology based on a wide range of survey study was used, and the researcher evaluated the success factors to implement the ERP system at the small and middle Indian companies and making the comparison with the large Indian companies and the global trends.

The researchers also tried to give an obvious explanation to the possible causes that lead to differences between the influencing factors in the success of (ERP) systems at the small and medium companies and the comparison with the large companies and the global trends.

The study results included four of five factors, assumed technological factors that to a great limit related to success of implementing the (ERP) system, which are: comprehensively in the merging plan in the process developing and merging the software, data transforming plan, the extent of a comprehensive system test. Also, other factors

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greatly related to the successful implementation of (ERP) system, including in the team, team empowerment in decision making was important for the team's moral spirit to implement, and the used comprehensive training.

The study methodology and the statistical treatment :

Study methodology :

This study pertains to the d descriptive analytical style that aims to study and analyze the facts related to the nature of the research problem to reach accurate and sufficient information about it.

The descriptive analytical method is one of the methods through which to study the phenomenon as real. The descriptive method is the one through which we describe the study population, while the analytical method is the one through which we analyze the questionnaire's items by inserting them in the computer.

To implement the method, the researcher distributed the questionnaire to the study simple individuals to collect and analyze the data by the (SPSS) program.

Study population and sample :

Study population consisted of the workers at the Jordanian industrial companies, while the study sample consisted of the managers in the middle and low management at the Jordanian companies, the number of the sample was (620) individuals, (25%) was taken from the total number according to Sekaran (2000), the total number)155) individuals, (180) questionnaires were distributed to the study sample by addressing the managers working at the Jordanian industrial companies as simple random sample, (86.1%) of the total distributed questionnaires (167) questionnaires were retrieved (92.8%) 12 questionnaires were excluded because of their irrelevance for analysis, the reminder (155) questionnaires usable for the statistical analysis.

Data Collection Methods :

The Secondary Data :

Secondary data were obtained through reviewing related to the study topic, using them to build the study tool, and reviewing the results of the previous studies, determining the consistency and contradiction between them and the results of this study.

The preliminary Data :

The researcher has designed a questionnaire after reviewing the related studies as a mean to collect the preliminary data, and distributed to the working evaluate the performance of the (ERP) systems at the Jordanian Industrial companies from the managers point of view.

The study instrument :

The researcher has designed the study instrument based on the previous studies.

The used statistical methods in the study:

To analyze the study data and to test its hypotheses, the fivefold measure was adopted in answering the questionnaire's questions that ranged from (Strongly agree, strongly disagree). And given the weights (1, 2, 3, 4, 5) to treat the collected data, the statistical package for the social sciences was used (SPSS) software, and though it the following statistical methods were adopted:

- 1 Descriptive statistics, frequencies & Percentage to describe the sample, the means and the standard deviations to reveal the attitudes of the study individuals answers to the study questions and the extent of their scattering.
- 2 t-test for one sample and to two independent samples.
- 3 One way Anova Analysis.
- 4 Cheve test for the post comparison.

Illustrating and discussing the Results:

Hypotheses testing:

The first basic null – hypothesis : the level of the performance of ERP systems is low at the Jordanian industrial companies at significance level ($\alpha \leq 0.05$)

The first sub null-hypothesis : The level of the performance of (ERP) systems according to the strategic dimension is low at the Jordanian industrial companies at significance level ($\alpha \leq 0.05$)

To answer this hypothesis , t-test is used for one sample that its results appears in table number (1)

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Table (1)

Results of t-test for one sample to evaluate the performance of the (ERP) systems according to the strategic dimension

Result of the null-hypothesis	Significance	(t)	Freedom Degree	Standard deviation	arithmetic mean
rejection	000	21.770	154	0.58	4.01

It is clear from table (1) that (t) calculated value reached 21.77, which is higher than (t) tabulated at significance level ($\alpha \leq 0.05$), so the null-hypothesis for the first hypothesis that indicates to the performance level of the ERP systems according to the strategic dimension achieved at a medium degree and higher at significance level ($\alpha \leq 0.05$).

- The second null sub hypothesis: the performance level of the ERP systems according to the occupational practical dimension is low at significance level ($\alpha \leq 0.05$).

To answer this hypothesis (t) test was used for one sample that its results appear in table number (2).

Table (2)

t-test results of an independent sample for the evaluation level of the performance of ERP systems according to the occupational Dimension

Result of the null-hypothesis	Significance	(t)	Freedom Degree	Standard deviation	arithmetic mean
rejection	000	15.109	154	0.73	3.89

It is clear from table (2) that (t) statistical value reached 15.109, which is higher than (t) tabulated at value 1.96 at significance level ($\alpha \leq 0.05$), so the null-hypothesis for the second hypothesis for the second sub-hypothesis that indicates to the performance level of the

ERP systems according to occupational dimension that was high at significances level ($\alpha \leq 0.05$).

- The third null sub hypothesis: the performance level of the ERP systems according to the administrative dimension is low at significance level ($\alpha \leq 0.05$).

To answer this hypothesis (t) test was used for one sample was used that it results appear in table number (3).

Table (3)

t-test results of an independent sample for the performance level of the ERP systems to the administrative dimension

Result of the null-hypothesis	Significance	(t)	Freedom Degree	Standard deviation	arithmetic mean
rejection	000	20.374	154	0.57	3.96

It is clear from table (2) that the calculated t-value reached 20.34, which is higher that (t) tabulated at value 1.96 at significance level ($\alpha \leq 0.05$), so the null-hypothesis and accepting the alternative that indicates to the high performance level of the ERP systems according to the administrative dimension at significances level ($\alpha \leq 0.05$).

- The Fourth null sub hypothesis: performance level of the ERP systems according to the information technology infrastructure dimension achieved at medium degree at significance level ($\alpha \leq 0.05$).

To answer this hypothesis (t) test was used for one sample was used that it results appear in table number (4).

Table (4)

t-test results of an independent sample for the performance level of the ERP systems to the administrative dimension

Result of the null-hypothesis	Significance	(t)	Freedom Degree	Standard deviation	arithmetic mean
rejection	0.000	19.382	154	0.73	3.89

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from table (4) it is clear that the (t) calculated value reached 19.382 , it is higher than (t) tabulated at value at significance level ($\alpha \leq 0.05$), so the null-hypothesis for the fourth sub-hypothesis rejected and accepting the alternative hypothesis that indicates the information technology infrastructure dimension was ($\alpha \leq 0.05$).

- The Fifth null sub hypothesis: the performance level of the ERP systems according to the organizational dimension is low at significance level ($\alpha \leq 0.05$).

To answer this hypothesis (t) test was used for one sample was used that it results appear in table number (5).

Table (5)
t-test results of an independent sample for the performance level of the ERP systems to the organizational dimension

Result of the null-hypothesis	Significance	(t)	Freedom Degree	Standard deviation	arithmetic mean
rejection	0.000	19.909	154	0.66	4.06

t- calculated value reached le 1.96 , which is higher that (t) tabulated at value 1.96 at significance level ($\alpha \leq 0.05$), so the null-hypothesis for the fifth sub-hypothesis rejected and accepting the alternative hypothesis that the performance level of the ERP systems according to the organization dimension is low at significances level ($\alpha \leq 0.05$).

The second null-basic hypothesis :

“there are no differences in the study sample’s answers at significance level ($\alpha \leq 0.05$) about the performance of the ERP systems attribute to the personal factors collectively (gender, age, scientific qualification, occupational experience).

To answer this hypothesis t-test for two independent samples was conducted to know the variance according to gender variable, and uni-variance analysis to know the variation according to the variables, qualification, experience & age. The following tables show the results.

Gender : to answer this hypothesis t-test for two independent sample was used. Table (6) shows the t-test results.

Table (6)
t-test results for the differences about the performance the ERP systems according to the gender variable

Significance level (Sig)	t-value	Standard deviation	Mean	Gender
0.49	-0.68	0.538	3.743	Males
		0.467	4.015	female

From table (6) it is clear that there are no difference with statistical significance at significance level 0.05 and less in the performance of ERP systems according to the gender variable, since (t) statistical value was (-0.68) that is not significant at level (0.05) and less, so there are no differences with statistical significance in the performance of the ERP systems attribute to the gender variable.

Age : Table (7) uni-variance analysis results for the differences in the study sample's answers at significance level ($\alpha \leq 0.05$) about the performance of the ERP systems attribute to the age variable

Significance level (Sig)	(F) Value	Squares' mean	Freedom degrees	Total squares	Variance source
0.159	0.86	.505	2	1.010	Between the groups
		.271	152	41.201	Within the group
			154	42.212	total

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From table (7) appears that there are no differences I the study sample's answers about the performance of the ERP systems attribute to the age variable.

1-- Scientific Qualification :

Table (8) : uni- variance analysis results for the difference in the study sample's answers at significance level ($\alpha \leq 0.05$) about the performance of the ERP systems attribute to the scientific qualification variable.

Significance level (Sig)	(F) Value	Squares' mean	Freedom degrees	Total squares	Variance source
0.45	3.163	.862	2	1.723	Between the groups
		.271	145	40.311	Within the group
			150	42.034	total

(f) statistical value reached 3.163 which is significant at significance level 0.05 and less. So there are no differences in the study sample's answers at significance level ($\alpha \leq 0.05$) about the performance of ERP system attribute to the variable scientific qualification.

Table (9) shafe test results for the post-comparisons

Higher studies	Bachelor	Middle diploma	scientific qualification
.10763	.23557		Middle diploma
-.12794			Bachelor

Form table (9) appraisal of the study sample's individuals differed according to the scientific qualification. Responses of the respondents who hold the middle diploma were higher compared to those who hold the Bachelor, this means that there is a high performance of the ERP systems of the Jordanian industrial companies.

1- Occupational Experience

Table (10) : uni-variant analysis results for the difference in the study sample's answer at significance level ($\alpha \leq 0.05$) about the performance of ERP systems attribute to the occupational experience

Significance level (Sig)	(F) Value	Mean of the squares	Freedom degrees	Sum of the squares	Source of the variance
.207	1.591	.433	2	.866	Between the groups
		.272	145	41.346	Inside the groups
			154	42.212	total

From table (10) (f) statistical value reached 1.591 it is not significant at level 0.05 and less. So there are no differences in the answers of the study sample at significance level ($\alpha \leq 0.05$) about the performance of the ERP systems attribute to the variable occupational experience.

Discussing the inferences and the recommendation:

Results related to testing the study hypotheses:

Accepting the results of the alternative first sub-hypothesis that the performance level of the ERP system according to the strategic dimension is high at significance level ($\alpha \leq 0.05$). this can be explained by that the Jordanian industrial companies believe that the strategic dimension is basic dimension in evaluating the performance of ERP systems at the Jordanian industries companies from the managers point of view.

The Jordanian industrial companies believe that the practical functional dimension as one of the dimension, for evaluating the performance of the ERP systems from the managers point of view.

The Jordanian industrial companies believe that the administrative dimension is one of the dimensions for evaluating the performance of the ERP systems from the managers point of view.

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- Information technology infrastructure is one of the dimensions for evaluating the performance of the ERP systems at the Jordanian industrial companies from the managers point of view .

- The Jordanian industrial companies believe that the organizational dimension is one of the important dimensions in evaluating the performance of the ERP systems from the managers point of view.

- Individuals according to gender variable at the Jordanian industrial companies see that the strategic dimension, the occupational dimension, the administrative dimension and the information technology infrastructure dimension, and the organizational dimension are important dimension in evaluating the performance of the ERP systems at the Jordanian industrial companies from the managers point of view.

- Individuals from different ages at the Jordanian industrial companies find that the above mentioned dimensions are important dimensions in evaluating the performance of the ERP systems from the managers point of view.

- Individuals with different scientific qualifications at the Jordanian industrial companies find that the previous dimensions are important in evaluating the performance of the ERP systems from the managers point of view and those who hold the middle diploma at the Jordanian industrial companies who spent long years of work have the awareness and the knowledge about the work's specifications and procedures.

- Individuals with different occupational experiences at the Jordanian industrial companies find that the previous dimensions are important dimensions in evaluating the performance of ERP systems at the Jordanian industrial companies the more the individuals experience the more they are able to apply the ERP systems that leads to improve their application at the Jordanian industrial companies.

Recommendations :

In the light of the previous results, the study reached a set of recommendations, the most important are the following:

1- The study recommends exerting more efforts to enhance those concepts relating to the businesses management and the attempt to implant them in the employees, and it is impossible to focus on one principle and ignoring the other principles because they are linked chains.

2- Increasing the employees efforts by enhancing and metalizing the team work principle especially in the light of the nature of the works, this will require opening more communication channels between the manger and the subordinates, and engaging the other administrative levels for more cooperation because total quality management means complete comprehensively and engaging all parties without exclusion.

3- Interest in continuous improvement is important because it is imposed by a set of factors, the most important factor is competition that requires training, qualifying and empowering the employees, conducting more seminars, conferences, brainstorming sessions to create new ideas continuously to contribute to the continuous improvement process.

4- The work to materialize the TQM principles to be more merged in the \organizations, organizational culture in a pivotal form to be an aspect of their organizational culture, and as the foundation for the success of their application.

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