

# **Impact of Application of the Organization's Resources Planning System on Development of the Creative Abilities in Jordanian Universities**

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**Abstract:** *This study aimed to identify the impact of application of the organization's resources planning system on development of the creative abilities in Jordanian universities. To achieve the study objectives the researcher designed a questionnaire included on (44) items, was testing the tool sincerity and its reliability. Then the questionnaire applied on a sample study of (188) faculty members were selected randomly using a stratified random sample method from among the faculty members in three Jordanian universities. The study found a number of results, among of them the following: The assessment of the faculty members of the surveyed universities for the application level of the organization's resources planning system dimensions were (positive). Also, their assessment of the creative abilities dimensions were (positive) as well. There exist a statistically significant impact at the significance level ( $\alpha = 0.05$ ), for application of the organization's resources planning system and the dimensions (the operational, administrative, strategy, information technology, and organizational), on development of the creative abilities in the Jordanian universities. And it was the (operational) dimension is the most of the organization's resources planning system dimensions influential on improving the creative abilities.*

**Keywords:** *Organization's resources planning system, Creative abilities, Mental flexibility, Jordanian universities.*

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## **I. INTRODUCTION**

Organizations are facing growing challenges in terms of severity and complexity as a result of the recent trend toward globalization, as competition became the rule rather than the exception and in light of the large number of various products that are available to fulfill the consumers' needs and desires (Motawani, et al, 2005). So that the organizations seek to improvement or preserving their competition potentials against the global market challenges and mostly they use information technology to enhance their performance; as it was revealed that the enterprises which invested in the enterprise's resources planning system (ERP) had shown high levels of good performance (Joseph, 2008). The organization's resources planning system software is considered as one of the most widely used software packages recently, and the most important development aspect in the field of information technology application by enterprises because it is an integrated set of software that contributes in assisting the enterprise toward an effective usage of resources through providing an integrated set of software to respond to the organizations increasing demand on information processing (Dezdar, 2012). (Tasai et al. 2007) found that organization's resources planning system application can distinguish the enterprise by many positives such as minimizing the operation cycle time, upgrading the organizations efficiency and generating the information in a shorter time. In addition to that, organizations resources planning system enables the managers to control adjust and monitor the operations which minimize decisions' making time period.

As a result for that; organizations seek to apply the organization's resources planning system in order to achieve an efficient and developed procedure to perform business (Mohan & Doran, 2008). But many organization's resources planning system application projects can fail which is a problem that needs to be addressed by organizations as this failure can lead to the destruction of the entire organization (Helligerber, 2000). In other words, the organization's resources planning systems is responsible for the connection of different business units within the organization such as accounting, manufacturing and human resources in one system with an integrated platform for information flow through the enterprise ( Behishty, 2006). The importance of organization's resources planning system is in supporting the higher management and providing a comprehensive picture for the project, strategies, goals and directions that should be adopted to start the project (Hamilton, 2003). Therefore, the basic objective of this study is to explore the impact of organization's resources planning system adopting on enhancing the innovation potentials making use of the organization's resources planning systems benefits.

## II. METHODOLOGY

### 1.1. The Study Problem and its Questions

Many indicators refer to the need or desire of many organizations that apply organization's resources planning systems instead of the traditional software solutions to be introduced to the success factors of this application. The studies revealed that growth factor in western countries that adopted (ERP) is about 11% annually according to its benefits and positives. On the other, hand a true fear of applying (ERP) in the developing countries is existing because there is a good possibility for this application to fail and to cause serious damages as a result of this failure. Therefore, this study explores the success factors of organization's resources planning systems through answering the following questions:

- a. What the application level for organization's resources planning system in the Jordanian universities?
- b. What the assessment level of Jordanian faculty members for creative abilities in the Jordanian universities?
- c. Is there exist impact for the organization's resources planning system dimensions on development the creative abilities in Jordanian universities?

### 1.2. The Study Importance

The importance of this study stems from the following:

- a. Acknowledging the failure reasons of (ERP) to find solutions that lead to the success; therefore, achieving success to each of the organization's that are selling or using (ERP) system.
- b. Proceeding on studying the (ERP) system application success factors because it is a short life system products.
- c. Conducting more studies in the developing countries to identify the (ERP) system application success factors.
- d. Organization's resources planning systems application is considered as one of the most important strategies that facilitate organizations' work and efficiency of decisions making.

### 1.3. The Study Objectives

This study seeks to achieve many objectives including the following:

- a. Recognition the concept of the organization's resources planning system and their properties and benefits.
- b. Recognition the concept of innovation and creative abilities and its types.
- c. Analyzing the impact of the organization's resources planning system application and its dimensions on developing the creative abilities in Jordanian universities.

### 1.4. The Study Hypotheses

In order to achieve the study objectives, the researcher has assumed the following hypothesis in its null form ( $H_0$ ):

**H<sub>0</sub>**: There is no statistically significant effect at the significance level ( $\alpha \leq 0.05$ ) for the organization's resources planning system application through its dimensions (operational, administration, strategy, information technology, and organizational) on development the **creative abilities** in Jordanian universities.

From that the following hypotheses can be derived:

**H<sub>01</sub>**: There is no statistically significant impact at the significance level ( $\alpha \leq 0.05$ ) for the organization's resources planning system application through its dimensions (Operational, administrative, strategy, information technology, and organizational) on development the **originality** in Jordanian universities.

**H<sub>02</sub>**: There is no statistically significant impact at the significance level ( $\alpha \leq 0.05$ ) for the organization's resources planning system application through its dimensions (operational, administration, strategy, information technology, and organizational) on development of **intellectual fluency** in Jordanian universities.

**H<sub>03</sub>**: There is no statistically significant impact at the significance level ( $\alpha \leq 0.05$ ) for the organization's resources planning system application through its dimensions (operational, administration, strategy, information technology, and organizational) on development the **mental flexibility** in Jordanian universities.

**H<sub>04</sub>**: There is no statistically significant impact at the significance level ( $\alpha \leq 0.05$ ) for the organization's resources planning system application through its dimensions (operational, administration, strategy, information technology, and organizational) on development the **allergies to problems** in Jordanian universities.

## III. THEORETICAL FRAMEWORK & LITERATURE REVIEW

### 2.1. The Theoretical and Conceptual Framework

#### 2.1.1. Enterprise Resources Planning System (ERP) Concept

ERP system is considered as the result of the needs of material resources planning (MRP) system development, the close loop of material resources planning systems and industrial material resources planning systems (MRPII). It can be said that in the nineteen of the twentieth century two main factors had contributed to the establishment of the system which are: the electronic trade explosion and the two digits date writing

problem, which was known as (Y2K) problem (Guiggin, 2005). As a result of the projects expansion and their needs for information's integration within a comprehensive frame, ERP systems appeared. (Hall, 2011) thinks that Gartner Group is the one who invented the ERP term then it was widely used. material resources planning system (MRP) classifies the raw material and its components and the branch manufacturing operations. Also material resources planning system (MRPII) classifies the production lines and the goods allocation. In addition, the expansion in the rest works, functions led to the establishment of an integrated system that serves the whole enterprise which is ERP (Hoofr, 2005).

(Alter, 2002) thinks that ERP system took a part of its name from the industrial materials planning system but it changed the word "industrial" into "enterprise" to indicate a wider field with a main goal of integrating the entire departments and activities through the enterprise by a unified computer system to serve all the enterprise's needs (Turban, et al., 2002). The authors in the (ERP) literature contradicted in explaining the term ERP; as they had various opinions regarding its concept. Some of them considered it as just a set of software applications where data integrated inside a unified data base and some of them recognized it as an integrated system of enterprise business management (Daft, 2003). According to these two perspectives, (Altaweel & Younis, 2013) provide a definition of ERP system as an administrative software system that uses the power of computers to support, gather and control the entire enterprise activities through one data base depending on an integrated set of models that works in consistence with enterprise information systems to serve its needs on its entire management levels.

### **2.1.2. ERP System Properties**

(Haag, et al., 2007) (Pearlson & Saunders, 2009) identified a set of system properties which are:

**a. Flexibility:** ERP system is capable of responding to the enterprise various future needs. This is possible because of the fact that ERP system builds the server technology and enables operating it on the different data base servers.

**b. Inclusiveness:** ERP system should be able to support a set of various enterprise operations. Therefore, ERP can cover different units that existence force allowing any prototype unit to be connected or seized as needed without disabling the other units.

**c. Consolidated Data Base:** ERP system is distinguished by using a consolidated data base on the level of enterprise in which every part of the data is stored through central databases systems (DBMS) that work on improving sharing information between work functions and operations with the ability to analyze large quantities of data.

**d. Best Practice:** ERP system reflect best industrial practice of business operations in general for its applications and reengineering the business operations most of the time.

**e. Instant:** ERP system is distinguished by its instant nature of operations which results in decreasing the total processing time and the allowance of management feedback.

**f. Open Models:** ERP system should allow any unit to be connected or seized when needed without affecting other units.

**g. Beyond the Enterprise:** ERP existence is not limited to the enterprise boundary limits, but it should support connecting with entities outside the enterprise.

### **2.1.3. ERP System Benefits**

(Krajewski & Ritzman) think that ERP benefits are:

- 1- It is considered as great achievement in information technology field.
- 2- It contributes in providing problems and practical applications solutions.
- 3- It is considered as an effective system in collecting, analyzing and storing data.
- 4- It is a substitution for the old information systems.
- 5- It contributes in reducing goods' delivery time.
- 6- It contributes auditing inventory as (IBM) applied the system reducing the check time to 3 seconds instead of 20 hours.

(Divis, et al., 2003) think that if the system is installed in a correct way it will provide a competitive aspect that justifies the investment in time and money; obtaining benefits that include:

- 1- Reducing mistakes during general use of data bases.
- 2- Reducing response time required to meet the client needs.
- 3- Reducing required time for inquiries' response.
- 4- Achieving best communications through the entire enterprise.

### **2.1.4. Reasons for organizations to adopt ERP system**

(Mejie, et al., 2005) and (Tadinen, 2005) think that companies decide to adopt (ERP) system for the following reasons:

- 1- The integration of the financial data in one supply to financial department, sales department and the missing business units in the enterprise.

- 2- Unifying the manufacturing operations especially the multi department operations to save time, increase the productivity and reduce employees' number.
- 3- Unifying the human resources information in one system as it is a simple way of following up with time usage and communications regarding benefits and services.
- 4- Substituting the old systems and competing in the market.
- 5- Simplifying the systems and unifying them as well as easing their identification.
- 6- Enhancing the interaction between the clients and the equippers.
- 7- Restructuring the enterprise and enhancing its performance of decision making.
- 8- The integration between the functions and the operations units.
- 9- Enhancing decision making inside the enterprise.

#### **2.1.5. Creative Concept**

Creative is considered as one of the most modern and significant subjects in the management field; therefore, managers give it a great concern and encourage employees to do so; as it became on top of goals list that enterprises seek to achieve. Innovation supports the power of any enterprise that distinguishes it from the other enterprises and only creative enterprises can achieve success which requires intensive efforts from the higher management that support innovation process which usually starts from inside (Ibrahim, 2002). Creative is the mastering of professional work with some perfection. Innovation is not only enhancing the performance of work with high skills but contributing in the development toward the best, and adding something new after performing the work with the required skills. Innovation became a must in all life aspects on different levels where the individuals, education systems, industrial sectors, media and society institutions are on top of these levels (Reda, 2002). (Daft, 2003) pointed to that technical innovation is a process that starts from the bottom to the top of enterprise pyramid. So innovation can be generated and supported by the lowest levels of management that has technical experience. But the management innovation is an effective operation that starts from bottom to top where innovation is adopted and applied by the highest levels of management.

#### **2.1.6. Creative Abilities Concept**

(Teti, 2001) thinks that creative abilities are: the mental abilities that should be available by individuals so they can come up with some types of innovative behavior that distinguishes the innovative person who is capable of innovative thinking and among the most important of them are:

- 1- **Originality:** which is the ability of generating new, useful and rare ideas that are not associated with repeating previous ideas, which is the production of the rare and prior to time thinking. Many researchers agree that the originality is "the ability to produce original responses or non statistically previously repeated ones inside the individual group as the less common is the idea the more original it is (Jarwan, 2002).
- 2- **Intellectual Fluency:** The fluency means the person's ability to produce. It large number of ideas that exceeds the general average, within a limited time. It is said ideational fluency is innovation potentials bank. Therefore it is more likely for the innovative person to have ideational fluency and the fluency itself is identified by a measured quantity using the number of responses and the initiation time (Rashwan, 2001).
- 3- **Mental Flexibility:** it is the ability to take different roots and to think in different ways that classification differs from normal classification, and to look at the problem from various aspects. In addition it is the degree of ease that a person can change a position or a certain point of view, and avoid blind support for certain ideas. It also means approaching issues from several angles (Alsoror, 2002).
- 4- **Allergies to Problems:** it means the awareness of problems' existence, needs or elements of weakness in the surrounding or the position. That means some individuals are faster than others in noticing the problem and investigating its existence in the situation and there is no doubt that discovering the problem is the first step in the search for its solution. Noticing unusual, rare or confusing things in the individual's surrounding or implementing and questioning them is related to problems' sensitivity potential. There is no doubt that people with high potential of realizing the diffusions in different situations have more chances to interfere and search these issues and therefore, they have more chances for creative innovation (Jarwan, 2002).

#### **2.2. Literature Review**

- Study of (Elragal & Al-Serafe, 2012) entitled: The Effect of ERP System Application on Business Performance, An Exploratory Case-Study.

The study aims to explore the effect of the enterprise resources planning systems on business performances. The study field was a company from the average and small global companies that has a large branch in Egypt and this branch was chosen as the study sample because the company had effectively applied enterprise resources system. The study found that a lot of the business performance's benefit and goals expected from enterprise resources planning system were achieved after applying the system. Also the study found that some of the results that were expected from the system were not achieved in the expected or required level, and that there was positive relation between the performance of work and the enterprise resources planning system.

- Study of (**Justyna, 2012**) entitled: Assessing the Effect of ERP System Application on the Arithmetic means Enterprises.

The study aims to explore the effect of applying ERP system to achieve the strategic goals of using the balanced performance card where the researcher established the system application goals for each of the four dimensions of the balanced performance card and the indicators that help measuring these goals. The study was applied on 6 companies in Poland through the personal interviews and distributing a questionnaire on these companies' managements. The study found that the application of ERP system has helped in enhancing these companies, management performance and the companies position in the market. Also, the study found that there is a need for enhancing and developing the ERP system in these companies and that using the balanced performance card was a proper way to explore the success of ERP system application in companies.

- Study of (**Alfaoury, 2012**) entitled: The Effect of Enterprise's Resources Planning System Efficiency on the Institutional Performance Excellence, Applied Study on Greater Amman Municipality.

The study aims to explore the effect of enterprise's resources planning system efficiency to achieve of institutional performance excellence of greater Amman Municipality. To achieve this objective, the researcher used a questionnaire that was designed to collect the initial information and consists of 30 paragraphs, then distributed it to the study sample which consists of Greater Amman Municipality financial department employees who are using ERP system. The study found a statistically significant relation between the enterprise's resources planning system efficiency according to the dimensions (information quality, system quality, beneficiary satisfaction) as they work in one set to achieve the distinction of enterprise performance.

- Study of (**Barakat, 2011**) entitled: Measurement of Enterprise's Resources Planning System Effect on the Investment Revenues in the Saudi Industrial Companies.

The study aims to identify if there was an actual application for the enterprises resources planning system in the Saudi industrial companies, then to identify the effect of resources' planning application's level on the industrial companies' investment's revenues. A questionnaire was designed and distributed on the listed industrial Saudi companies. Four main and four auxiliary hypotheses were assumed and they were statistically tested. The results showed that application for the enterprises resources planning system has an effect on the investment's revenues in the Saudi corporations.

- Study of (**Hassan, 2010**) entitled: Critical Success Factors of Enterprise Resources Planning Systems Application, applied study on Jordanian industrial companies that applied (BAAN LN) system.

The study aims to identify the most important factors that were mentioned in previous studies and have effect on the success or failure of (ERP) system application. Also the study was initiated from noticing difference between the benefits and risks of the system application; where the benefits achieved the highest levels in serving the company operations in an integrated system connecting them in a main information base; which increase the accuracy and speed of transition and exchanging the information between the system users. The study found a significant relation between the administrative factors and the successful application of the system.

- Study of (**Allawzi, 2008**) entitled: Experimental Investigation on the Effective Factors on the Success of Enterprise Resources Planning Systems Application in Jordan.

The study aims to identify the critical success factors when applying enterprise resources planning systems through conducting this study on a sample of cellular phones and networks operators and identifying the various dangers and basic challenges that face companies when applying the enterprise resources planning system. The researcher concluded that there are effective factors inside the enterprise like: (the consistency of the company strategies and the work procedures with (ERP) systems, the rules of changing management, support and commitment of the higher management, project management basics, end users support and technical support), and there are effective factors outside the enterprise like (supporting the external consultant and supporting the operation of selecting sellers or enterprise resources planning systems providers).

- Study of (**Madapusi, 2008**) entitled: Post-Application Evaluation of Enterprise Resource Planning ERP Systems.

The study aims to reveal enterprise resources planning systems and evaluate the performance advantages that resulted from different cases of enterprise resources systems application .It also aims to reveal the effect of basic success factors on the enterprise resources planning system development. The study sample consisted of 900 companies that belong to India Industry Union. The study found that there were various contributions of the enterprise resources planning systems models with different measurements of the performance changes, the total contribution of enterprise resources planning system in making the changes and also found that the companies that gave importance for the success factors through executing the enterprise resources planning systems factors had achieved higher performance than those companies which focus on the cusses factors through preparatory development of the enterprise resources planning system.

- Study of (Eetzady, 2008) entitled: The Effect of ERP System Investments on Enterprise Performance.

The study aims to reveal the enterprise resources planning systems effectiveness on the financial performance of public companies over (4) years period of time. The study sample consisted of (158) companies belong to the public sector in the United Nations, and the participators were divided into two groups; the first group consisted of 79 companies of the public sector which did not adopt enterprise resources planning systems and the second group consisted of (79) company of the public sector companies that adopted enterprise resources planning systems .The study found no statistically significant financial performance differences between the two groups.

#### IV. METHOD & PROCEDURES

This topic is addresses the adopted of the study approach, the study population and its sample, and the study tool and testing its sincerity and reliability, and the most important of thee statistical processing methods that were used to analyze data in order to achieve the results, which are as follows.

##### 3.1. The Study Approach

The study adopted the descriptive and analytical approaches to achieve the study objectives. the descriptive approach aims to describe the response of the study sample members to the study variable. As for the analytic approach it was used to analyze the impact of enterprise's resources planning system application on developing of innovation potentials in Jordanian universities.

##### 3.2. The Study Population and its Sample

The study population consists of (1956) faculty members from three Jordanian universities which are (Hashemite University, Yarmulke University and Zarqa University). As a result of the size of the study community; the researcher chose a Stratified Random Sample with (10%) of the study community and the initial sample became (196) faculty members. After that (196) questionnaires were distributed to the sample universities faculty members and (190) questionnaires were received back with a percentage of (96.9%). After testing the received questionnaires two of them were eliminated, so the statistically valid received questionnaires was (188) questionnaires s, and the percentage of the valid questionnaires for analysis from the total distributed questionnaires was (95.9%) and, therefore, the study final sample was (188) faculty members.

##### 3.3. The Study Tool

For the purpose of collecting data and information that are required for the study, the researcher designed a questionnaire based on some previous studies and theoretical literature in the field of enterprise resources planning system and innovation potentials, where the form included (44) items in its final shape and these paragraphs were allocated on dimensions of independent and dependant variables.

###### a. Tool Sincerity

In order to test the tool sincerity, it was displayed before four juries of the faculty members of Zarqa University, and the juries agreed on the items content and recommended some language adjustment and eliminating some items and replacing them with new items that fit with study variables.

###### b. Tool Reliability

To test the study's tool reliability, the researcher used Cronbach's Alpha coefficient to measure (internal consistency of the items), which total value for the tool was (0.907) and this value is considered to be very good regarding the administrative and humanities researches, as shown in the following table (1):

**Table 1.** Cronbach's Alpha coefficient (internal consistency of the items)

Study Variables	No. of items	Cronbach's Alpha	Stability Ratio
Operational	5	0.629	%62.9
Administration	5	0.722	%72.2
Strategy	5	0.917	%91.7
Information Technology	4	0.934	%93.4
Organizational	5	0.856	%85.6
Originality	5	0.869	%86.9
Intellectual fluency	5	0.874	%87.4
Mental flexibility	5	0.828	%82.8
Allergies to problems	5	0.848	%84.8
<b>Overall Tool</b>	<b>44</b>	<b>0.907</b>	<b>%90.7</b>

#### V. RESULTS AND DISCUSSION

This topic aims to display the results of data statistical analysis with respect to the sample members responses to the questionnaire and to display the results in light of questions answers and testing the study hypothesis which has been obtained from using some statistical procedures of (SPSS). For the purpose of

measuring and assessing the sample members responses about the study variables titled (impact of application of the organization's resources planning system on development of creative abilities in Jordanian universities). The test standard (3) out of (5) degrees was adopted and to of display the study results; it was classified as follows:

**4.1. Results Related to the Study's 1<sup>st</sup> Question**

**What the application level of organization's resources planning system in Jordanian universities from their perspective of faculty members?**

To answer the 1<sup>st</sup> question, the means and standard deviations for the faculty members estimations about the organization's resources planning system level of application regarding (operational, administration, strategy, information technology, and organizational) were calculated. The results displayed in table (2) refer to a (high) general mean for the variable (organization's resources planning system), as its value was (3.94) with a standard deviation of (0.51), and the mean was greater than the test criteria (3) of (5) degrees. This result indicates that the faculty members' response for application level of (organization's resources planning system) was (positive), and this means that the faculty members level of assessment for the application of the mentioned variable dimensions was (high).

**Table 2.** Means and Standard Deviations of the Organization's Resources Planning System Dimensions (N = 188)

No.	Organization's resources planning dimensions	Means	Std. Dev.	Rank	Application level
1	Operational	4.01	0.41	1	High
2	Administration	3.99	0.42	2	High
3	Strategy	3.88	0.71	5	High
4	Information Technology	3.93	0.63	3	High
5	Organizational	3.89	0.65	4	High
-	<b>General mean</b>	<b>3.94</b>	<b>0.51</b>	-	<b>High</b>

It is noticed from the results in table (2) that the dimension (operational) came in the (first) rank regarding its importance for Jordanian universities faculty members with mean (4.01) and standard deviation (0.41), and the (administration) dimension came in the (second) rank with mean (3.99) and standard deviation (0.42), while the (information technology) came in the (third) rank with mean (3.93) and standard deviation of (0.63), and the (organizational) dimension came in the (forth) rank with mean (3.89) and standard deviation (0.65), and finally the (strategy) dimension came in the (last) rank with mean (3.88) and standard deviation (0.71).

**4.2. Results Concerning the Study's 2<sup>nd</sup> Question**

**What the level of application of innovation potentials in Jordanian universities from their perspective of faculty members?**

To answer the 2<sup>nd</sup> question, means and standard deviations for the faculty members estimations about the creative abilities represented by (originality, intellectual fluency, mental flexibility, and allergies to problems).The results displayed in table (3) refer to a high general level of mean for the variable (creative abilities), as its value was (4.01) with a standard deviation (0.55), and the mean was greater than the test criteria (3) of (5) degrees .This result indicates that the faculty members' response for application level of (creative abilities) was (positive), and this means that the faculty members level of assessment for application of the mentioned variable dimensions was (high).

**Table 3.** Means and Standard Deviations of the Creative Abilities Dimensions (N = 188)

No.	Creative Abilities Dimensions	Means	Std. dev.	Rank	Application level
1	Originality	4.04	0.63	3	High
2	Intellectual fluency	4.06	0.62	1	High
3	Mental flexibility	3.90	0.64	4	High
4	Allergies to problems	4.05	0.63	2	High
-	<b>General mean</b>	<b>4.01</b>	<b>0.55</b>	-	<b>High</b>

It is noticed from the results in table (3) that the dimension (intellectual fluency) came in the (first) rank regarding its importance for Jordanian universities faculty members with mean (4.06) and standard deviation (0.62), and the (allergies to problems) dimension came in the (second) rank with mean (4.05) and standard deviation (0.63), while the (originality) came in the (third) rank with mean (4.04) and standard deviation (0.63), and finally the (mental flexibility) dimension came in the (last) rank on the Jordanian universities faculty members assessment of priorities with mean (3.90) and standard deviation (0.64).

**4.3. Results related to Test the Study Hypotheses**

Before testing the study hypothesis and sub-hypotheses emanating from it, we should check the data normal distribution. Results presented in Table No. (4), refer to the (One-Sample Kolmogorov-Smirnov) test results regarding the data variables normal distribution property.

**Table 4.** Results of (One-Sample Kolmogorov-Smirnov) Test

Study Variables	(Kolmogorov -Smirnov) (Z)	Sig. (P-value)
Operational	3.774	0.000
Administration	2.013	0.000
Strategy	2.259	0.000
Information Technology	3.845	0.000
Organizational	3.954	0.000
Originality	2.875	0.000
Intellectual fluency	2.568	0.000
Mental flexibility	2.725	0.000
Allergies to problems	2.319	0.000

**Tabulated Value of (Z) at the significance level ( $\alpha = 0.05$ ) = 1.96**

It is seen from the results contained in Table (4), that property of normal distribution of data for all dimensions of the study variables is not verified. This is supported by the calculated values of (Z) for dimensions, which is greater than the tabulated value of (Z) amounting to (1.96), as well as the statistical significance values for all the mentioned dimensions are less than the significance level ( $\alpha = 0.05$ ). After being sure that one of the data properties of the study variables which is represented by (normal distribution) property is not verified, the researcher used a non-parametric test which is (Kendall's W) Test, in order to test the validity of the study hypothesis and sub-hypotheses to check its validity, as follows:

**4.3.1. Test the Study Hypothesis:**

**H<sub>0</sub>:** There is no statistically significant impact at the significance level ( $\alpha \leq 0.05$ ), for the organization's resources planning system application through its dimensions (operational, administration, strategy, information technology, and organizational) on improvement the **creative abilities** in Jordanian universities.

To test the validity of the study hypothesis (Kendall's W) Test was used, as shown in Table (5) as follows:

**Table 5.** Results of (Kendall's W) Test to measure the impact of application for the organization's resources planning system dimensions on development the (**creative abilities**) in Jordanian Universities

No.	Organization's resources planning dimensions	Mean Rank	Chi- Square ( $\chi^2$ )	df.	Sig.
1	Operational	3.86	24.751	5	0.000
2	Administration	3.24			
3	Strategy	3.49			
4	Information Technology	3.82			
5	Organizational	3.19			

**Chi-square Tabulated Value ( $\chi^2$ ) at degree of freedom (5) and ( $\alpha = 0.05$ ) = 11.07**

It is seen from the results contained in Table (5), that there exist statistically significant impact at the significance level ( $\alpha = 0.05$ ), for application of the organization's resources planning system represented by its dimensions (operational, administration, strategy, information technology, and organizational), on development the **creative abilities** in Jordanian universities. That is supported by the Chi-square calculated value ( $\chi^2$ ) amount of (24.751) which is greater than Chi-square tabulated value ( $\chi^2$ ) amounting to (11.07), as well as the statistical significance (0.000) is less than the significance level ( $\alpha = 0.05$ ). In light of the previous findings, the null hypothesis (H<sub>0</sub>) was **rejected**, and the alternative hypothesis (H<sub>1</sub>) was **accepted** which states: there exist statistically significant impact at the significance level ( $\alpha = 0.05$ ) for application of the organization's resources planning system represented by its dimensions of (operational, administration, strategy, information technology, and organizational), on improvement the **creative abilities** in Jordanian universities.

The results indicate that the (**operational**) is the most influence dimension of the organization's resources planning system dimensions on development the (**creative abilities**) in Jordanian universities. That is supported by the mean rank of (3.86), which the rank greater than the means rank of other dimensions. After the verification of the existence of impact of the organization's resources planning system dimensions application on development of creative abilities in Jordanian universities, must measure the impact of the application of organization's resources planning system dimensions on each of (**creative abilities**) dimensions should be tested, as follows:



**4.3.2. Test the 1<sup>st</sup> Sub-Hypothesis**

**H<sub>01</sub>:** There is no statistically significant impact at the significance level ( $\alpha \leq 0.05$ ), for the organization's resources planning system application through its dimensions (operational, administration, strategy, information technology, and organizational) on development of (**originality**) in Jordanian universities.

To test the validity of the 1<sup>st</sup> sub-hypothesis, (Kendall's W) test was used, as shown in Table (6):

**Table 6:** Results of (Kendall's W) Test to measure the impact of application for the organization's resources planning system dimensions on development the (**originality**) dimension in Jordanian Universities

No.	Organization's resources planning dimensions	Mean Rank	Chi- Square ( $\chi^2$ )	df.	Sig.
1	Operational	3.85	20.531	5	0.001
2	Administration	3.27			
3	Strategy	3.45			
4	Information Technology	3.69			
5	Organizational	3.16			

**Chi-square Tabulated Value ( $\chi^2$ ) at degree of freedom (5) and ( $\alpha = 0.05$ ) = 11.07**

It is seen from the results contained in Table (6), that there exist statistically significant impact at the significance level ( $\alpha = 0.05$ ), for the application of the organization's resources planning system dimensions of (operational, administration, strategy, information technology, and organizational), on development the (**originality**) dimension in Jordanian universities. That is supported by the Chi-square calculated value ( $\chi^2$ ) amount to (20.531) which is greater than the Chi-square Tabulated value ( $\chi^2$ ) amounting to (11.07), as well as the statistical significance (0.001) is less than the of significance level ( $\alpha = 0.05$ ). In light of previous results, the null hypothesis (**H<sub>01</sub>**) has been **rejected**, and the alternative hypothesis (**H<sub>11</sub>**) was **accepted**, which states: there exist statistically significant impact at the significance level ( $\alpha = 0.05$ ), for application of the organization's resources planning system dimensions (operational, administration, strategy, information technology, and organizational) on development the (**originality**) dimension in Jordanian universities.

The results indicate that (**operational**) is the most influence dimension of the organization's resources planning system dimensions on development the (**originality**) in Jordanian universities. That is supported by the mean rank (3.85), which the rank greater than the means rank of other dimensions.

**4.3.3. Test the 2<sup>nd</sup> Sub-Hypothesis**

**H<sub>02</sub>:** There is no statistically significant impact at the significance level ( $\alpha \leq 0.05$ ), for the organization's resources planning system application through its dimensions (operational, administration, strategy, information technology, and organizational) on development of (**intellectual fluency**) in Jordanian universities.

To test the validity of the 2<sup>nd</sup> sub-hypothesis, (Kendall's W) test was used, as shown in Table (7):

**Table 7.** Results of (Kendall's W) Test to measure the impact of application for the organization's resources planning system dimensions on development the (**intellectual fluency**) dimension in Jordanian Universities

No.	Organization's resources planning dimensions	Mean Rank	Chi- Square ( $\chi^2$ )	df.	Sig.
1	Operational	3.76	27.280	5	0.000
2	Administration	3.25			
3	Strategy	3.44			
4	Information Technology	3.66			
5	Organizational	3.10			

**Chi-square Tabulated Value ( $\chi^2$ ) at degree of freedom (5) and ( $\alpha = 0.05$ ) = 11.07**

It is seen from the results contained in Table (7), that there exist statistically significant impact at the significance level ( $\alpha = 0.05$ ), for the application of the organization's resources planning system dimensions of (operational, administration, strategy, information technology, and organizational), on development the (**intellectual fluency**) dimension in Jordanian universities. That is supported by the Chi-square calculated value ( $\chi^2$ ) amount to (27.280) which is greater than the Chi-square Tabulated value ( $\chi^2$ ) amounting to (11.07), as well as the statistical significance (0.000) is less than the of significance level ( $\alpha = 0.05$ ). In light of previous results, the null hypothesis (**H<sub>02</sub>**) has been **rejected**, and the alternative hypothesis (**H<sub>12</sub>**) was **accepted**, which states: there exist statistically significant impact at the significance level ( $\alpha = 0.05$ ), for application of the organization's resources planning system dimensions (operational, administration, strategy, information technology, and organizational) on development the (**intellectual fluency**) dimension in Jordanian universities.

The results indicate that (**operational**) is the most influence dimension of the organization's resources planning system dimensions on development the (**intellectual fluency**) in Jordanian universities. That is supported by the mean rank (3.76), which the rank greater than the means rank of other dimensions.

#### 4.3.4. Test the 3<sup>rd</sup> Sub-Hypothesis

**H<sub>03</sub>:** There is no statistically significant effect at the significance level ( $\alpha \leq 0.05$ ), for the organization's resources planning system application through its dimensions (operational, administration, strategy, information technology, and organizational) on development of (**mental flexibility**) in Jordanian universities. To test the validity of the 3<sup>rd</sup> sub-hypothesis, (Kendall's W) test was used, as shown in Table (8):

**Table 8.** Results of (Kendall's W) Test to measure the impact of application for the organization's resources planning system dimensions on development the (**mental flexibility**) dimension in Jordanian Universities

No.	Organization's resources planning dimensions	Mean Rank	Chi- Square ( $\chi^2$ )	df.	Sig.
1	Operational	3.88	20.205	5	0.001
2	Administration	3.34			
3	Strategy	3.48			
4	Information Technology	3.73			
5	Organizational	3.26			

#### Chi-square Tabulated Value ( $\chi^2$ ) at degree of freedom (5) and ( $\alpha = 0.05$ ) = 11.07

It is seen from the results contained in table (8), that there exist statistically significant impact at the significance level ( $\alpha = 0.05$ ), for the application of the organization's resources planning system dimensions of (operational, administration, strategy, information technology, and organizational), on development the (**mental flexibility**) dimension in Jordanian universities. That is supported by the Chi-square calculated value ( $\chi^2$ ) amount to (20.205) which is greater than the Chi-square Tabulated value ( $\chi^2$ ) amounting to (11.07), as well as the statistical significance (0.000) is less than the of significance level ( $\alpha = 0.05$ ). In light of previous results, the null hypothesis (**H<sub>03</sub>**) has been **rejected**, and the alternative hypothesis (**H<sub>13</sub>**) was **accepted**, which states: there exist statistically significant impact at the significance level ( $\alpha = 0.05$ ), for application of the organization's resources planning system dimensions (operational, administration, strategy, information technology, and organizational) on development the (**mental flexibility**) dimension in Jordanian universities. The results indicate that (**operational**) is the most influence dimension of the organization's resources planning system dimensions on development the (**mental flexibility**) in Jordanian universities. That is supported by the mean rank (3.88), which the rank greater than the means rank of other dimensions.

#### 4.3.5. Test the 4<sup>th</sup> Sub-Hypothesis

**H<sub>04</sub>:** There is no statistically significant impact at the significance level ( $\alpha \leq 0.05$ ), for the organization's resources planning system application through its dimensions (operational, administration, strategy, information technology, and organizational) on development of (**allergies to problems**) in Jordanian universities. To test the validity of the 4<sup>th</sup> sub-hypothesis, (Kendall's W) test was used, as shown in Table (9):

**Table 9.** Results of (Kendall's W) Test to measure the impact of application for the organization's resources planning system dimensions on development the (**allergies to problems**) dimension in Jordanian Universities

No.	Organization's resources planning dimensions	Mean Rank	Chi- Square ( $\chi^2$ )	df.	Sig.
1	Operational	3.77	27.889	5	0.000
2	Administration	3.23			
3	Strategy	3.40			
4	Information Technology	3.72			
5	Organizational	3.12			

#### Chi-square Tabulated Value ( $\chi^2$ ) at degree of freedom (5) and ( $\alpha = 0.05$ ) = 11.07

It is seen from the results contained in table (9), that there exist statistically significant impact at the significance level ( $\alpha = 0.05$ ), for application of the organization's resources planning system dimensions of (operational, administration, strategy, information technology, and organizational), on development the (**allergies to problems**) dimension in Jordanian universities. That is supported by the Chi-square calculated value ( $\chi^2$ ) amount to (27.889) which is greater than the Chi-square Tabulated value ( $\chi^2$ ) amounting to (11.07), as well as the statistical significance (0.000) is less than the of significance level ( $\alpha = 0.05$ ). In light of previous results, the null hypothesis (**H<sub>04</sub>**) has been **rejected**, and the alternative hypothesis (**H<sub>14</sub>**) was **accepted**, which states: there exist statistically significant impact at the significance level ( $\alpha = 0.05$ ), for application of the organization's resources planning system dimensions (operational, administration, strategy, information technology, and organizational) on development the (**allergies to problems**) dimension in Jordanian universities. The results indicate that (**operational**) is the most influence dimension of the organization's

resources planning system dimensions on development the (**allergies to problems**) in Jordanian universities. That is supported by the mean rank (3.77), which the rank greater than the means rank of other dimensions.

## **VI. CONCLUSIONS & RECOMMENDATIONS**

### **5.1. Conclusions**

- a) The assessment of the application level of the organization's resources planning system dimensions which are (operational, administration, strategy, information technology, and organizational) by the faculty members in Jordanian universities was (positive). This means that the assessment of application level of the mentioned dimensions from the perspective of the study sample in Jordanian universities was (high).
- b) The dimension (operational) came in the (first) rank regarding its importance for Jordanian universities faculty members, and the (administration) dimension came in the (second) rank, while the (information technology) came in the (third) rank, and the (organizational) dimension came in the (forth) rank, and finally the (strategy) dimension came in the (fifth) rank on the faculty members assessment of the priorities.
- c) The faculty members assessment of the (creative abilities) dimensions represented by (originality, intellectual fluency, mental flexibility, and allergies to problems) was (positive), and this means that the assessment of application level of the mentioned dimensions from the perspective of the study sample in Jordanian universities was (high).
- d) The (intellectual fluency) dimension came in the (first) rank with respect to its importance from the Jordanian universities faculty members perspective, and the (allergies to problems) dimension came in the (second) rank, while the (originality) dimension came in the (third) rank, and finally the (mental flexibility) dimension came in the (fourth) rank on from the perspective of the study sample in Jordanian universities faculty members assessment of the priorities.
- e) Results (Kendall's W) test indicated that there exist statistically significant impact at the significance level ( $\alpha = 0.05$ ), for application of the organization's resources planning system represented by its dimensions of (operational, administration, strategy, information technology, and organizational) on improvement the creative abilities in Jordanian universities. And the (operational) is the most influence dimension of the organization's resources planning system dimensions on improvement the creative abilities in Jordanian universities.
- f) There exist statistically significant impact at the significance level ( $\alpha = 0.05$ ), for application of the organization's resources planning system represented by its dimensions of (operational, administration, strategy, information technology, and organizational) on development the (originality) dimension in Jordanian universities. And the (operational) is the most influence dimension of the organization's resources planning system dimensions on development the (originality) in Jordanian universities.
- g) There exist statistically significant impact at the significance level ( $\alpha = 0.05$ ), for application of the organization's resources planning system dimensions (operational, administration, strategy, information technology, and organizational) on development the (intellectual fluency) dimension in Jordanian universities. And the (operational) is the most influence dimension of the organization's resources planning system dimensions on development the (intellectual fluency) in Jordanian universities.
- h) There exist statistically significant impact at the significance level ( $\alpha = 0.05$ ), for application of the organization's resources planning system represented by its dimensions of (operational, administration, strategy, information technology, and organizational) on development the (mental flexibility) dimension in Jordanian universities. And the (operational) is the most influence dimension of the organization's resources planning system dimensions on development the (mental flexibility) in Jordanian universities.
- i) There exist statistically significant impact at the significance level ( $\alpha = 0.05$ ), for application of the organization's resources planning system represented by its dimensions of (operational, administration, strategy, information technology, and organizational) on development the (allergies to problems) dimension in Jordanian universities. And the (operational) is the most influence dimension of the organization's resources planning system dimensions on development the (allergies to problems) in Jordanian universities.

### **5.2. Recommendations**

- a) The urge for the organization's to give importance for the (strategy) dimension that comes within organization resources planning systems dimensions because it was the (fifth) and the last rank in the universities faculty members sample assessment priorities. It is important that Jordanian universities concentrate on the mentioned dimensions for its significant impact on improvement the creative abilities in Jordanian universities.
- b) The importance of concentrating on the dimension (mental flexibility) that comes within the creative abilities, because it was the (fourth) and the last rank in the universities faculty members sample assessment priorities.

- c) Working on providing training courses and workshops where the organization's resources planning system and its significance in developing the Jordanian universities faculty members creative abilities can be discussed.
- d) The study suggests in the future working studies that address with other variables than those were addressed by the current study must be conducted and other statistical variables must be considered for the new studies instead of the variables that are used in the current study.

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