IMPACT OF COMPUTERIZED ACCOUNTING INFORMATION SYSTEMS’ EFFECTIVENESS IN INCREASING THE EFFICIENCY OF HUMAN CAPITAL: FIELD STUDY IN THE FINANCIAL DEPARTMENT IN THE PUBLIC JORDANIAN UNIVERSITIES

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Abstract

The study aimed to identify the positive impact of Computerized Accounting Information Systems’ effectiveness in increasing the efficiency of human capital in the financial departments in the public Jordanian universities. The significance of the study lies in addressing a very important issue concerning the significance of computerized accounting information systems and their ability in raising the efficiency of human capital which affects positively the outputs of the computerized accounting information systems applied in the financial departments in the Jordanian public universities.

The population of the study consists of all the employees in the financial departments in thirteenth Jordanian public universities in 2014 where 75 questionnaires were retrieved out of 80 distributed to the employees of the financial departments. Data were collected and analyzed using SPSS.

The results showed positive impact of Computerized Accounting Information Systems regarding factors of human capital (knowledge, creativity, skills) in the Jordanian public universities as the management of the Jordanian public universities provide the most necessary requirements to increase the efficiency of the computerized accounting system to ensure the good quality of the outcomes.

The study came up with some recommendations as managements of Jordanian public universities should fill the administrative vacancies based on the experience, skill and knowledge of the employees, follow a policy of acquiring and generating knowledge at the level of the individual in the financial departments and concentrate on the companies of awareness to adopt with the challenges of era of information so as to keep up with new innovations.

Keywords: efficiency of human capital, efficiency of computerized accounting systems.

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Introduction

Since the seventies, most countries have exerted great effort for developing the human capital and enhancing its role in leading the development process. And although of the variance in the different methods used by different countries to increase the efficiency of human capital, education, training and creativity remain the most important factors in leading human development.

The vision of the Jordanian development is based on building a modern economy where the human capital is its major fortune and its basic growth element and building an economy that is capable to deal with this fortune in different sectors. This vision relies on objective justifications represented by the strength of the human capital and its ability to face the challenges which could be imposed on the Jordanian economy. Having realized the great importance of the concept of human capital and its role in the society’s qualitative and quantitative development in light of the efficiency of computerized accounting information systems which reduce the number and the value of the vacancies which do not need high skills and create instead new vacancies based on knowledge and innovation. Moreover, changing the relevant importance of the product’s factors requires developing human capital in terms of quantity and quality.

There was an agreement that challenges of the current century could be faced by developed and grown human capital both at the individual or society level. And therefore, this study tries to shed a light on the impact of the efficiency of the computerized accounting information systems in the efficiency of human capital in the financial departments in the Jordanian public universities.

Problem of the study

The higher education sector in Jordan witnesses development of the advanced applications in the information technology specialized in the human capital which helps improvement of the market outputs in the universities and the control of the expenditures but these systems need further studying and taking into accounts the opinions of the experts and whoever is interested to determine its efficiency and effectiveness in the status of market outputs.
Based on what has been mentioned previously, the problem of the study lies in investigating and identifying the efficiency of computerizing accounting information systems in the increasing the efficiency of human capital in the financial departments in the Jordanian public universities through answering the following questions:

1- What is the effectiveness of computerizing accounting information systems and their relation to the efficiency of human capital?

2- Is there an impact of the computerizing accounting information systems concerning the elements of human capital (knowledge, experience, creativity, skill) applied in the financial departments in the Jordanian public universities?

Significance of the study

The significance of this study lies in addressing an important issue which is computerized accounting information systems and their impact in increasing the human capital’s efficiency which in turn affects positively the outputs of the computerized accounting information system of the financial departments in the public universities.

This study is expected to be helpful to the accountants and programmers in terms of increasing the level of efficiency of the accounting systems used in the organization and hopefully the study’s results help in increasing the awareness of people are responsible for the accounting system towards the importance of information technology and investment in human capital to achieve the development of the computerized accounting information systems which in turns will help in taking the appropriate decisions to treat the shortage in the computerized accounting information systems used in the Jordanian public universities.

Objectives of the study

The study seeks to achieve the major objective which is to identify the impact of computerized accounting Information Systems’ effectiveness in increasing the efficiency of human capital in the financial departments in the public universities through achieving the following sub objectives:

1) Revealing the meaning of the efficiency of Computerized Accounting Information Systems’ and their relation to the increase of the human capital’s efficiency and its factors and significance.
2) Revealing the impact of Impact of Computerized Accounting Information Systems’ effectiveness in increasing the efficiency of human capital (experience, knowledge, creativity, skill) in the financial departments in the public universities

**Previous studies**

- Nika’s study (2012) entitled by: “The Increased Significance of Education as an Investment in Human Capital, Contemporary Readings in Law and Social Justice” aimed at revealing the increased significance of education as an investment in human capital. The study showed that there were few comprehensive evaluated researches about the extent of the impact of globalization in investments in human capital and forces that form human capital accumulation plus the interaction between education and the capacity of the experienced people in acquiring skills. The study concluded the necessity of paying attention to globalization and education in investment in human capital for the benefits which the organizations can achieve. Every organization particularly should be interested in revealing the real impact of globalization in its work’s results and the education’s role in human capital accumulation.

- The study of Abo Al-Ghanam (2012) entitled by: the impact of developing Intellectual Capital on the efficiency of strategic accounting information system in food industries companies in Jeddah. The study aimed to identify the impact of Intellectual Capital on the efficiency of strategic accounting information system in food industries companies in Jeddah. A questionnaire which was developed was distributed to 401 employees in seven food industries companies. Data were analyzed using SPSS. The study came up with the following results: the respondents’ perspectives of the levels of developing the intellectual capital and the managers’ efficiency were low. Additionally, there was impact to dimensions of developing intellectual capital on the efficiency of the strategic information systems in the food industries companies in Jeddah.

- Shaltoot’s study (2009) entitled by: “Developing human resources as a strategic entrance to maximize investment in human being.”

This study aimed to identify human resources development as strategic entrance to maximize the investment in Human beings of UNRWA in the Gaza Strip. And it also aimed to verify
the extent of employing strategies of developing human resources and their impact on preparing the employee who are characterized as effective, efficient, skilled, and was prepared on scientific basis. The population of the study consisted of 665 employees who worked at grades between Gr.8 and Gr.20 while the sample of the study consisted of 253 employees representing 40% of the population of the study. The results showed that having a clear policy for planning and developing methods of recruiting human resources has a positive impact on maximizing these resources with 71.37% but having a clear policy for selecting and hiring human resources was 73.35%. Additionally, results showed following modern systematic training plans and programs has an impact on maximizing investment in human resources with 69.64% and so it was for the evaluation system used with 65% and planning and developing career with 64.88%.

- Safar’s study (2008), entitled by: “impact of human capital in banking performance: Analytical study of opinions of a Jordanian commercial banks’ sample”, aimed to present and apply a model showing the impact of human capital in the performance in terms of its influence in the banking performance, determining bases and the suitable standards to develop the Jordanian commercial banks’ performance and its success by being granted the competitive advantage which relies on the creativity and the continuous innovation of its performance. The study’s results revealed the Jordanian commercial management’s interest in achieving the success of its performance and the creativity and innovations variables came in the first rank in terms of their impact in the performance while knowledge variable came second.

- Makhadma’s study (2007) entitled by: “impact of accounting information systems on investment decisions: an applicable study on Jordanian companies”, aimed at investigating the impact of accounting information systems on investment decisions in area of the computerized accounting systems through revising the accounting information systems and showing types of investments decisions and linking between them in light of computerized accounting systems. The results revealed the following factors as appropriate timing, ability of prediction, inverse feed, honest expression, neutrality, comparative and software used in the companies affect the process of investment decisions except neutrality and comparative factors as it was found that all the qualitative characteristics of the accounting information
were available in great extent in the computerized accounting information system. The study came up with some recommendations that enhance using the computerized accounting systems and so the efficiency of taking investment decisions will be increased.

- Study of Ruel, Huub, Bondarouk, Tanya & Velde, Mandy van der (2007) entitled by: “measuring extent of information technology’s contribution in managing human resources in the efficiency of human resources’ performance: case study of a Dutch Ministry, aimed to measure extent of information technology’s contribution in managing human resources in the efficiency of human resources’ performance through introducing a model designed to a Dutch Ministry and it aimed to look at whether this is of benefit to the Ministry. The study concluded that actual application of information technology in human resources management is liked with the efficiency of human resources management. The study recommended conducting further quantitative researches concerning measuring the efficiency of information technology and introducing other variables in the model which the researchers concluded.

- The study of Rahahleh & Siam (2007) entitled by: “Evaluation of Computerized Accounting Information Systems Effectiveness in the Jordanian Commercial Banks”, aimed to evaluate the effectiveness of computerized accounting information systems effectiveness in the Jordanian commercial bank under the technological development through a set of standards that reflect the efficiency of these systems performance represented in quality, flexibility, simplicity, and reliability. and to achieve the study’s objectives, questionnaire was developed and distributed to the financial managers and the employees in the financial departments in the public management of the Jordanian commercial banks listed in Amman stock exchange. forty questionnaires out of forty five were retrieved and analyzed. the results showed the computerized accounting information systems in the Jordanian commercial banks are of a high degree of quality and reliability while their degree of flexibility and simplicity was moderate.
The study’s hypotheses:

1- There is no significant statistical relation between the efficiency of the computerized accounting information systems and the level of the employees of the financial departments in the public universities.

2- There is no significant statistical relation between increasing the efficiency of computerized accounting information systems and the level of experience in the financial departments in the public universities.

3- There is no significant statistical relation between increasing the efficiency of computerized accounting information systems and the level of knowledge in the financial departments in the public universities.

4- There is no significant statistical relation between increasing the efficiency of computerized accounting information systems and the level of creativity in the financial departments in the public universities.

Population of the study:

Population of the study consists of the financial departments in the Jordanian public universities, whose number is thirteen, for the year 2014.

Methodology of the study:

The study is divided into two parts:

- Theoretical study: it is a descriptive study for the secondary data which were collected from the secondary resources concerning the subject of the study which are: books, periodicals, scientific journals, Arabic and foreign articles, legislations and related laws to subject of the study.

- Field study: it depends on collecting data using a questionnaire which was developed by the researchers. Seventy five questionnaires were retrieved out of eighty which were distributed to the employees of the financial departments in the Jordanian public universities in 2014. Later, data were analyzed using SPSS.

Theoretical study

Before the sixties, the economists divided the factors of production into three major elements which were land, work and material capital. But starting from the sixties, much more attention was paid to the quality and the economic situation of the force labor. The appearance of human
capital’s concept and its rapid use in economy attracts the organizations’ managements’ attention and therefore, investment in human capital has been one of the most important types of investment. And because the human capital is one of the most important types of capital and it is more important than money and material capitals in added value’s generation, operation efficiency, achieving effectiveness of efficiency, ensuring profitability, competitive capability that increases the organizations’ superiority, and the success in light of globalization and the great rapid technological developments, the human capital has become the most important economic resource which most organizations and even countries and individuals focused on particularly in the developed countries (Arab British Academy for Higher Education, www.abahe.uk).

Similarly, the universities were interested in the concept of the human capital to raise their services’ level. So their interest in human capital have been increased in light of using the computerized accounting systems which requires having qualified and trained people who have a level of knowledge and the capacity of creativity to work on these systems.

The researcher, in this study, addressed the impact of Computerized Accounting Information Systems’ effectiveness on increasing the efficiency of human capital in the financial departments in the public Jordanian universities by studying the impact of efficiency of computerized accounting systems on the human capital’s elements (knowledge, experience, creativity, skill) in the public Jordanian universities.

First: Concept Of Human Capital & importance Of Investing In

It is difficult to determine precisely the concept of human capital because it is linked with human mind and its ideas and knowledge which include different aspects as awareness, intelligence, understanding, cognition, attention, observation, learning, experience, guessing, imagination, quick response, challenge, insisting, continuity, initiation, exploration and innovation and it is difficult to determine these aspects because they are intellectual operations in human mind but they could be seen through practicing the ideas and knowledge (Van Deventer, Martha Johanna, 2002:18)

The United Nations Development Program defined human capital as it is everything that exceeds the employee’ and workers’ productivity through the skills and the knowledge that they acquired by science and experience (United Nations Development Program, 2003, p90).
And Alifi defined human capital as set of concepts, knowledge, and information in one hand and the skills and performance’ factors on the other hand in addition to the attitudes, behaviors and values which human can get through training and education (Alifi, 2009, p:295).

**Importance of investment in human capital**

Human resources are considered one of the measures that is used as a measure to nations’ fortune since these resources have been the basic component of capitalism and the effective assets in the countries’ social and economic situation. And many scientific experts confirmed the importance of investment in human capital as Marshal who stated that the highest valuable type of investment is human capital which invests in human being since nations have been developed by human being and economy itself has limited value unless human forces are utilized to change fortune from quantitative amounts into multiple technological energies achieved the desired development (Mohammd, 2010).

The companies should plan for investment in these resources appropriately because after this process, the employees became the human capital who have knowledge and the company also has to implement this knowledge through acquiring, storing, transferring and implementing it. It is possible to say that human capital plays a vital role in the company’s learning (Ajlan, 2008).

**Computerized accounting information systems**

Recently, the companies, regardless their different activities, have increased their interest of the computerized accounting information systems which is represented by the increased investments in these systems and this great concern may due to usefulness in investment in these systems and getting benefit of the high capabilities of the computer as processing the operations rapidly and accurately plus the ability of saving information (Mohamad, 2013).

Also information technology has become one of the most important means which is used by different organizations in their different operations whether it is in operations of planning, supervising, or internal control, or documenting, or administrative affairs,…etc.

**Computerized accounting information systems:**

Using the computer in the accounting information systems has solved many problems faced the manual system; it reduces time and effort which are necessary for processing the operations, retrieving data plus creating a kind of self control on the input processes (Dalci & Tanis: 2009, p:46).
Daft (2010:199) defined accounting information systems: “Possible methods and activities used to transfer the organizational inputs as materials, ideas and information into outputs as goods to get benefit of them”.

While Hussein (2004) defined accounting information system as it is one of the factors of an organizations which operate the special data of the financial processes of the organization to produce information to the users of these information whether they were from inside or outside the organization so as to measure the performance of the organization and the management’s service in talking decisions. It is possible to define accounting information system as a system that gather, register, store and process data to produce information to decision makers (marshall&pul:2009). Deban & Abdlateif (2004), defined these systems as an integrative structure inside the economic unit that uses the available resources and other parts to transfer the economic information to accounting information in order to meet the needs of different users of information. And this kind of e-systems are based on the concept of accounting as the system accepts financial or economic data resulted from external processes and the outputs are in the form of financial information, therefore, the designer of e-accounting information systems should understand all the financial operations and their related procedures and these systems could be consisted of more than one E-System as every system has a specific function (Deban &Abdleief,2004).

Based on the previous definitions, the researcher concluded the necessity to have a set of factors as providing computers to process and store data, building a net that links these computers to facilitate passing data and information, providing a set software and qualified and trained human forces in addition to make the system’s requirements available.
Components Of Computerized Accounting Information Systems

The computerized accounting information system consists of a set of factors and interlocked parts that interact with each other to achieve an objectives or common ones and they are represented by the following (Sead, 2009):

1- Human factor (a set of individuals) : they are the people who implement the system including its steps and procedures and they manage the system in terms of its preparation, design, operation and extracting information. It is not possible not to have individuals within the accounting system’s work even in light of using the computer. The computer itself cannot do its work without the help of the individuals who feed it with data and the necessary programs for operation and identify the quality of the outputs in terms of shape and content. The individuals are considered as a very important requirement to the operation and the procedures in every information system so the banks have to develop and improve the skills of the employees working in the computerized accounting information system.

2- Hardware resources : include tools of input, processing and output.

3- Software resources : include software, applications programs, software of operating the computer’s systems and the programming languages. There are two types of programs (Qandalji&Janabi,2005): the system’s programs as the operation system’s program that controls the system of the computer and supports it and the applications programs which are programs that guide procedures and specific operations using specific functions of the computer by the user.

4- Information Resources: they are a set databases used in the system
Risks of Computerized Accounting Information Systems

Using computerized accounting information systems causes many risks that could be divided generally as follows: (A guide of International Federation of Accountants, 2000)

- Risks concerning disappearance of physical records.
- Risks concerning audit bond in the computerized accounting system field.
- Risks of manipulation and fraud
- Risks of viruses
- Risks concerning the employees’ lack of experience.

Field of study

To achieve the study’s objectives, data collected through questionnaires which were developed and distributed to 80 respondents representing financial managers and departments of financial departments at all the public Jordanian universities in 2014. Seventy-five questionnaires which were retrieved were analyzed using SPSS.

Description of the study’s tool

The tool consisted of 27 items that measured the impact of Computerized Accounting Information Systems’ effectiveness in increasing the efficiency of human capital in the financial departments in the public universities. The items of the questionnaire were scaled according to LICKERT measure as follows: Agree strongly (5), agree (4), neutral (3), disagree (2), strongly agree (1).

The questionnaire’s reliability & validity

To check the reliability and validity of the questionnaire, the researchers calculate the Internal Consistency coefficient using Cronbach Alfa and it was (85%) indicating the tool’s appropriateness for the purpose of the field study.
Distribution of the sample of the study according to the following characteristics: The sample of the study is distributed according to the following:

Table (1) Distribution Of The Study’s Sample

<table>
<thead>
<tr>
<th>Variable</th>
<th>Categories</th>
<th>Freq.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Job title</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Financial manager</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>Chief of department</td>
<td>28</td>
</tr>
<tr>
<td></td>
<td>Programmer</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>75</td>
</tr>
<tr>
<td>Specialization</td>
<td>Accounting</td>
<td>52</td>
</tr>
<tr>
<td></td>
<td>Management</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Banking &amp;finance</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Economy</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Computer</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td>Others</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>75</td>
</tr>
<tr>
<td>Years of experience</td>
<td>From 1-5</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td>From 6 – 10</td>
<td>39</td>
</tr>
<tr>
<td></td>
<td>more than 11</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>75</td>
</tr>
</tbody>
</table>

It is noted from the previous table the respondents were financial managers, heads of financial departments and programmers and this enhances the trust of the study’s results and the respondents’ capacity in understanding and answering the questionnaires’ questions. The previous table also showed that 75% of the sample of the study hold a degree in accounting followed by those who hold a degree in computer which means that the sample understands the questionnaire’s items plus the managements’ realization of the importance of specialization in the appointment process. Moreover, it is noted in the previous table that the years of experience of 79% of the respondents was more than 6 years which is a good indicator that the respondents have sufficient experience to answer the questionnaire’s questions.
Testing the study’s hypotheses

For the purpose of analyzing and testing the study’s hypotheses, the researchers calculated the means and standard deviations of the respondents’ responses of every item in the questionnaire and T test was also used to compare the degree of the calculated use with the mean of the degree of the acceptable use which is (3) at the level of significance (α>0.05) and the mean was used because it is considered the minimum of the acceptance degree according to the measurement which the study used to judge the means.

The results of the hypotheses are illustrated as follows:

1st hypothesis: there is no statistical significant relation between the efficiency of computerized accounting information systems and the level of the employees’ skill at the financial departments in the public universities. And the following table illustrates the means and the standard deviations of the items of the first hypothesis.

<table>
<thead>
<tr>
<th>Z</th>
<th>Items</th>
<th>Mean</th>
<th>Std</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Looking for human resources, the university relies on efficiency standards in appointing the employees.</td>
<td>3.8</td>
<td>.82</td>
</tr>
<tr>
<td>2</td>
<td>The university determines required level of knowledge and skill for filling the vacancies.</td>
<td>3.16</td>
<td>.55</td>
</tr>
<tr>
<td>3</td>
<td>Vacancies of administrative leadership are filled based on skill and knowledge of the employees.</td>
<td>3.28</td>
<td>.86</td>
</tr>
<tr>
<td>4</td>
<td>The university involves the employees in training courses about the computerized accounting systems to increase their skill.</td>
<td>3.09</td>
<td>.91</td>
</tr>
<tr>
<td>5</td>
<td>The university develops continuously its computerized accounting systems to ensure increasing the skill of its employees.</td>
<td>3.45</td>
<td>.85</td>
</tr>
<tr>
<td>6</td>
<td>Management of university provides all the necessary requirements to operate the computerized accounting system to ensure the quality of the programs’ outputs.</td>
<td>3.61</td>
<td>.93</td>
</tr>
<tr>
<td>7</td>
<td>The university seeks to reduce number committing mistakes in the computerized accounting systems by developing the employees’ skills.</td>
<td>3.41</td>
<td>1.2</td>
</tr>
<tr>
<td>8</td>
<td>The university is aware of developing the employees’ skills to get information from the applied accounting systems.</td>
<td>3.36</td>
<td>.76</td>
</tr>
</tbody>
</table>

It is noted from the previous table that item(6): “the university’s management is interested in providing all the necessary requirements to operate the computerized accounting information
system to ensure the quality of the output of the applied system,” has the highest mean (3.61) indicating the university’s high interest in providing the necessary requirements to operate the computerized accounting system to ensure the outputs’ quality. And the standard deviation (0.93) showed an agreement between the respondents’ opinions. While item (4) :“ the university lets the employees involve in training courses on the computerized accounting information systems to increase the employees’ skill,” got the lowest mean and this may due to lack of financial allocation in the university’s budget and the high cost of the training courses. The following tables illustrates the results of T test of the first hypothesis.

Table (3): Results of T test of the first hypothesis

<table>
<thead>
<tr>
<th>First</th>
<th>Mean</th>
<th>Std</th>
<th>Tabulated T</th>
<th>Calculate T</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>there is no statistical significant relation between the efficiency of computerized accounting information systems and the level of the employees’ skill at the financial departments in the public universities</td>
<td>3.33</td>
<td>.70</td>
<td>2.052</td>
<td>3.309</td>
<td>.003</td>
</tr>
</tbody>
</table>

It is noted from the previous table the value of the calculated T (3.309) is bigger than the value of tabulated T (2.052) and according to the Decision Rule : “ accepting the null hypothesis if value of calculated T is less than the value of the tabulated one and rejecting the null hypothesis if the value of the calculated T is bigger than the value of the tabulated one,” the null hypothesis is rejected and the alternative one is accepted indicating that there was a statistical significant relation between the efficiency of computerized accounting information systems and the level of employees’ skills in the financial departments at public universities.

2nd hypothesis: There is no statistical significant relation between the efficiency of computerized accounting information systems and the level of the employees’ experience at the financial departments in the public universities. And the following table illustrates the means and the standard deviations of the items of the second hypothesis.
Table (4): Means & standard deviations of the second hypothesis

<table>
<thead>
<tr>
<th>N</th>
<th>Items</th>
<th>Mean</th>
<th>Std</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>The university’s employees’ desires are met in taking part in the educational programs especially which were related to the computerized accounting information systems.</td>
<td>2.88</td>
<td>.68</td>
</tr>
<tr>
<td>2</td>
<td>The university cares of raising the efficiency of computerized accounting information systems through the employees’ acquisition of the necessary experience.</td>
<td>2.92</td>
<td>.81</td>
</tr>
<tr>
<td>3</td>
<td>Administrative jobs are distributed based on the employees’ available experience.</td>
<td>2.98</td>
<td>.76</td>
</tr>
<tr>
<td>4</td>
<td>The management get benefit of the external experience to sole any shortage in the applied accounting information systems.</td>
<td>2.75</td>
<td>.81</td>
</tr>
<tr>
<td>5</td>
<td>The university provides financial or material incentives to motivate the employees to take part in the training courses so as to increase their experience.</td>
<td>2.06</td>
<td>.93</td>
</tr>
</tbody>
</table>

The previous table showed that item (3): “Administrative jobs are distributed based on the available employees’ experience,” got the highest mean(2,98) which means the university’s management’s low level of interest in distributing the administrative based on the employees’ available experience and this result may due to the interference of the Nepotism and the university management’s moody and the standard deviation (0.76) indicates the respondents’ agreement on this item.

The previous also showed item (5): “The university provides financial or material incentives to encourage the employees to participate in the training courses to have their experience increased,” got the least mean and the cause of the disagreement on this item may due to lack of allocated budget. And the following table illustrated the results of T test of the second hypothesis:
Table (5): T test’s results of the second hypothesis

<table>
<thead>
<tr>
<th>Second hypothesis</th>
<th>Mean</th>
<th>Std</th>
<th>Tabulated T</th>
<th>Calculated T</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>There is no statistical significant relation between the efficiency of computerized accounting information systems and the level of the employees’ experience at the financial departments in the public universities.</td>
<td>2.68</td>
<td>.72</td>
<td>2.052</td>
<td>2.023</td>
<td>.000</td>
</tr>
</tbody>
</table>

It is noted from the previous table the value of the calculated T (2.023) is less than the value of tabulated T (2.052) and according to the decision rule: “accepting the null hypothesis if value of calculated T is less than the value of the tabulated one and rejecting the null hypothesis if the value of the calculated T is bigger than the value of the tabulated one,” the null hypothesis is accepted and the alternative one is rejecting indicating that there was no statistical significant relation between the efficiency of computerized accounting information systems and the level of experience in the financial departments at public universities and this result may due to the university management’s lack of interest in employees’ involvement in the training course to increase their experience of the computerized accounting information systems used in the organization.

Third hypothesis: there is no statistical relation between the efficiency of computerized accounting information systems and the level of the employees’ knowledge at the financial departments in the public universities. And the following table illustrates the means and the standard deviations of the items of the third hypothesis.
Table (6): means and standards deviations of the items of third hypothesis

<table>
<thead>
<tr>
<th>N</th>
<th>Items</th>
<th>Mean</th>
<th>Std</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>The university follows a policy of acquiring and generating knowledge at the individual level in the financial department.</td>
<td>3.00</td>
<td>.90</td>
</tr>
<tr>
<td>2</td>
<td>The university tries to classify knowledge and store it in the information hardware in the financial department to ensure increasing the employees’ efficiency using the system.</td>
<td>3.32</td>
<td>.71</td>
</tr>
<tr>
<td>3</td>
<td>The university seeks to increase the knowledge between the departments and the employees in the financial departments to ensure the ease handling with the system</td>
<td>3.57</td>
<td>.73</td>
</tr>
<tr>
<td>4</td>
<td>The financial department’s management applies the new ideas at the employees’ level</td>
<td>3.25</td>
<td>.73</td>
</tr>
<tr>
<td>5</td>
<td>The senior leaderships’ knowledge of the employees’ creative and innovative ideas will increase the innovation spirit which in turns affects the development of the system.</td>
<td>3.28</td>
<td>.86</td>
</tr>
<tr>
<td>6</td>
<td>Knowing the process of generating and obtaining the computerized accounting information, the employees’ trust in the system will be increased.</td>
<td>3.28</td>
<td>1.04</td>
</tr>
</tbody>
</table>

The previous table showed that item (3): “the university seeks to increase the knowledge between the departments and the employees in the financial departments to ensure the ease handling with the system,” got the highest mean (3.57) which means the university’s high level on interest in increasing the knowledge between department and the employees in the financial department. The value of the standard deviation of this item (0.73) showed an agreement between the respondents’ opinions concerning item 3. while item (1): “the university follows a policy of acquiring and generating knowledge at the individual level in the financial department. The cause of the employees’ low acquisition may due to the employees’ lack of involvement in the internal and external courses. And the standard deviation (0.90) showed an agreement between the respondents on this item. the following table illustrates the results of T test of the third hypothesis.
Table (7): T test results of the third hypothesis

<table>
<thead>
<tr>
<th>Third hypothesis</th>
<th>Mean</th>
<th>Std</th>
<th>tabulated T</th>
<th>Calculated T</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>There is no statistical relation between the efficiency of computerized accounting information systems and the level of the employees’ knowledge at the financial departments in the public universities.</td>
<td>3.28</td>
<td>.85</td>
<td>2.052</td>
<td>2.88</td>
<td>.000</td>
</tr>
</tbody>
</table>

The previous table (7) showed that the value of the calculated T (2.88) is bigger than the value of the tabulated T (2.052) and according to the decision rule: “accepting the null hypothesis if value of calculated T is less than the value of the tabulated one and rejecting the null hypothesis if the value of the calculated T is bigger than the value of the tabulated one,” the null hypothesis is rejected and the alternative one is accepted indicating that there was a statistical significant relation between the efficiency of computerized accounting information systems and the level of knowledge in the financial departments at public universities.

Fourth hypothesis: There is no statistical relation between the efficiency of computerized accounting information systems and the level of the employees’ innovation at the financial departments in the public universities. And the following table illustrates the means and the standard deviations of the items of the fourth hypothesis.
Table (8): Means & standard deviations of the items of the second hypothesis

<table>
<thead>
<tr>
<th>No</th>
<th>Items</th>
<th>Mean</th>
<th>Std</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>The university organizes guidance campaigns to adapt to the globalization challenges and Information Age to keep up with the new innovations.</td>
<td>2.96</td>
<td>.68</td>
</tr>
<tr>
<td>2</td>
<td>The university does not adopt the employees’ innovations to develop the applied system through supporting it financially.</td>
<td>2.81</td>
<td>.81</td>
</tr>
<tr>
<td>3</td>
<td>The university seeks to transfer from traditional thinking in developing the applied accounting programs to the scientific thinking to increase the employees’ creativity.</td>
<td>3.09</td>
<td>.76</td>
</tr>
<tr>
<td>4</td>
<td>The university develops team work between the programmers and the accountants operating in the financial department to enhance the individuals’ ability of innovation and development of the applied accounting systems.</td>
<td>4.08</td>
<td>.85</td>
</tr>
<tr>
<td>5</td>
<td>The managements adopts the employees’ sufficient knowledge and develops it to increase the ability of developing the system.</td>
<td>3.2</td>
<td>.93</td>
</tr>
<tr>
<td>6</td>
<td>The university cares of increasing the employees’ skills, experience, knowledge and creativity to ensure the fast access into the information stored in the system.</td>
<td>3.44</td>
<td>.64</td>
</tr>
<tr>
<td>7</td>
<td>The university is keen to increase the employees’ skills, experience, knowledge and creativity to ensure the quality of getting the information from the applied systems.</td>
<td>3.41</td>
<td>.80</td>
</tr>
<tr>
<td>8</td>
<td>The university is keen to increase the employees’ skills, experience, knowledge and creativity so as to get information from the system with a low cost.</td>
<td>3.50</td>
<td>.87</td>
</tr>
</tbody>
</table>

We can note the following from the previous table:

Item (4) which is: “the university seeks to develop team work between the programmers and accountants working in the financial department to enhance the individuals’ ability to create and develop in the accounting systems applied in the department” got the highest mean (4.08) and
this may due to the belief of the universities management of taking into account the opinions of the employees working on the accounting systems and adjusting them through the coordination between them and the programmers to develop the programs that serve the universities. And the standard deviation (0.85) indicates respondents’ agreement of this item. Whereas, item(2) : “universities do not adopt the employees’ innovations to develop the applied systems through expending on them” got the lowest mean and this may due to the universities weak capabilities to make a contract with Programming companies to develop their computerized accounting programs. And the following table shows rests of T test of the second hypothesis:

Table(9): Results of T test of the second hypothesis

<table>
<thead>
<tr>
<th>Second hypothesis</th>
<th>Mean</th>
<th>Std</th>
<th>Tabulated T</th>
<th>Calculated T</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>There is no statistical significant relation between the efficiency of computerized accounting information systems and the level of experience at the financial departments at public universities.</td>
<td>3.31</td>
<td>.90</td>
<td>2.052</td>
<td>2.88</td>
<td>.000</td>
</tr>
</tbody>
</table>

The previous table (9) showed that the value of the calculated T (2.023) is bigger than the value of the tabulated T (2.88) and according to the decision rule : “accepting the null hypothesis if value of calculated T is less than the value of the tabulated one and rejecting the null hypothesis if the value of the calculated T is bigger than the value of the tabulated one,” the null hypothesis is accepted and the alternative one is rejected indicating that there was no statistical significant relation between the efficiency of computerized accounting information systems and the level of experience at the financial departments at public universities.

Results & Recommendations

- Results:

1- The first null hypothesis was rejected and the alternative one was accepted which is : “there is a statistical significant relation between increasing the efficiency of the computerized accounting information systems and the level of the employees at the financial departments in the Jordanian public universities”. As the statistical analysis revealed the item “the management of the Jordanian public universities pay attention of
providing the most necessary requirements for operating the computerized accounting system to ensure the quality of the outcomes of the applied system” got the highest mean.

2- The second null hypothesis was accepted and the alternative one was rejected which is: “there is no a statistical significant relation between increasing the efficiency of the computerized accounting information systems and the level of experience of the financial departments at the Jordanian public universities,” as the statistical analysis of the items related to the second hypothesis showed that item “the management of the Jordanian public universities distributed the administrative jobs based on the employees’ available experience” got the lowest mean.

3- The third null hypothesis was rejected and the alternative one was accepted which is: “there is a statistical significant relation between increasing the efficiency of the computerized accounting information systems and the level of knowledge of the financial departments at the Jordanian public universities as the statistical analysis of the second hypothesis showed that item: “management of the Jordanian public universities seek to increase the knowledge between the departments and the employees in the financial departments to ensure the ease deal with the system” got the highest mean.

4- The fourth null hypothesis was rejected and the alternative one was accepted which is: “there is a statistical significant relation between increasing the efficiency of the computerized accounting information systems and the level of creativity of the financial departments at the Jordanian public universities as the statistical analysis of the second hypothesis showed that item: “management of Jordanian public universities seek to develop work team between programmers and accountants working in the financial department to enhance the individuals’ ability to create and develop in the accounting systems applied in the department”, got the highest mean.

Recommendations:

1- The managements of the Jordanian public universities should commit to the standard of filling the leadership vacancies relying on the employees’ experience, knowledge and skill in the financial departments to ensure increasing the efficiency of outputs of computerized accounting information systems.
2- The public universities should follow the policy of acquiring and generating knowledge at the individual’s level in the financial department in order to involve the employees in the conferences and internal and external courses ensure increasing the efficiency of outputs of computerized accounting information systems.

3- Managements of the Jordanian public universities should focus on the guidance campaigns to the employees helping them to adopt with the challenges of Information age so as to ensure increasing the efficiency of outputs of computerized accounting information systems.

4- Managements of the Jordanian public universities should adopt the employees’ innovations of systems applied in their departments and encourage them to create through providing rewards, incentives and promotions with a concentration on the financial or material incentives to motivate the employees to take part in the training courses to increase the employees’ expertise in order to ensure increasing the efficiency of outputs of computerized accounting information systems.

5- Managements of the Jordanian public universities should adopt specialized accounting programs in measuring the efficiency of human capital.

Proposed future Studies:

1) Studying the impact of the accounting programs on the efficiency of human capital in the Jordanian commercial banks.

2) Studying establishing accounting standards to measure the efficiency of human capital factors in the Jordanian universities.
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