

The Relationship Between Computerized Accounting Information Systems and Rationalizing the Government Expenditures at the General Budget of Jordan

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Abstract

The study aimed to measure the relationship between computerized Accounting Information Systems (CAIS) and rationalizing the government expenditures at the general budget of Jordan, and the study sample consist of (176) employees who work in the Jordanian Ministry of Finance departments, which amounted to (22), including department managers and their assistants, financial auditors, and accounting departments' heads and accountants working in the departments. The study relied on the descriptive analytical approach, and the multiple correlation analysis was used to test the study hypotheses. The results showed the existence of a moral relationship between the dimensions of CAIS (human resources, equipments and devices, databases, procedures, and control) and rationalizing the government expenditures at the general budget of Jordan, and the study's recommendations included the need to provide governmental units with sufficient number of experts and programmers, in order to operate, manage, and maintain the devices and equipments, and data files, in a way that ensures the highest levels of control.

Keywords: Computerized accounting information systems (CAIS), rationalization, government expenditures, general budget, Accounting Information Systems (AIS).

1. Introduction

General budget considers basic tool for the financial policy of government institutions, since it's based on studied predictions of government revenues and expenditures, and it also reflect the different government policies, in term of determining the spending priorities, selecting the programs and projects that accomplish the general objectives, and providing the regulatory standards that govern the activities of governmental financial sector, where its main task represented in funding the public goods and services. At the same time, the general budget considers an important tool in the hands of government, which makes it interfere in the performance of economy in general (Šatanová & Potkány, 2004).

The governmental units in many countries seek to the optimal distribution of resources allowance, and attain control over the performance of these units, in order to achieve the best possible utilization of these resources, through the preparation of general budget in the government units, and this in turn requires to provide information about the financial performance of these units, the cost of services it provide, and the efficiently level of programs it implement, and here the importance of accounting information systems show to ensure accuracy and appropriateness of the required information and the correct flow of it, and in a way that achieve the optimal allocation of resources, and the efficient control on the performance of governmental units (Al-Sakha, Z & Al-Sindi, A. 2010).

The value of accounting Systems characterized by accuracy and efficiency dramatically shows through the ability of this Systems to provide assistance to all governmental institutions, where it contributes to improving the quality of provided services, reducing the general overheads, limiting the misuse of resources phenomenon, reducing the non-justified spending, and identifying the faults in the inward and outward movement of funds to the country general treasury, and also contributes to the knowledge and expertise, which devolves at the end to develop the work and raise its efficiency, through the ability of Systems to provide the appropriate information at the right time (Al-Rasheedy, 2016).

Therefore, Jordan Ministry of Finance sought to keep up with the technological developments, by introducing the most modern information systems technologies to all the government departments, in order to complete building the infrastructure, for the purpose of establishing an integrated accounting information systems, which work to raise the performance efficiency and improve the provided services level of citizens and other institutions, with the fact that Jordan Ministry of Finance consider one of the ministries that took the center stage, due to its contribution to the development of Jordan's national economy (www.mof.gov.jo).

The study problem assimilates a clear weakness in the composition and preparation of the general budget, through the significant increase in the volume of government expenditures, which makes it necessary to guide the government departments to keep the general resources away from waste and misuse, and also to stay away

from spending on things or purposes that not associated with the work of public institutions, through the reliance on a computerized accounting information Systems capable of controlling and following up the performance of various expenditure items related to the public expenditures. Therefore, the study problem can be represented in the following question:

“Is there any relationship between computerized accounting information systems and the rationalization of government expenditures at the general budget of Jordan?”

This study aims to identify the relationship between computerized accounting information systems, through the use of several variables, such as human resources, devices and equipments, databases, procedures, and controls and rationalize the public overheads and expenditures in the general budget.

The theoretical importance of the study derives from its topic, about the relationship between CAIS and rationalizing the government expenditures at the general budget of Jordan, where this study will help to improve the efficiency of governmental institutions performance by providing a conceptual framework that link between the CAIS and the rationalization of government expenditures in Jordan's general budget, where the link itself represent a valuable addition, especially if there is a lack in this type of studies, after looking into the Jordan's writings, therefore this study may enrich the Jordanian, Arabic, and global libraries in this field, where several variables were used in this study, such as procedures and controls which weren't cover by the previous studies combined, where the practical importance of the study shows by providing the suggestions and treatments to other governmental ministries and institutions in Jordan, and put it into practice, implement it, and take advantage of it, in order to upgrade the performance of those ministries and institutions, through the efforts of its members, and through the utilization of the CAIS to treat and deal with the shortcomings, unfavorable, and obstacles, that get in the way of rationalizing the government expenditures in the general budget of Jordan.

2. Theoretical framework

2.1 Computerized accounting information systems (CAIS)

CAIS play a key role in operation, treatment, storage, transportation, and financial data processes for the benefit of units through the computer, communication methods, network connections, and other equipments, and operate, run, and submit data as information to the users, where they benefit from its outputs (Hall, 2011). CAIS consider as the unit structure used in the implementation of accounting work, and contain interconnected set of documents, books or ledgers, records, reports, and procedures, which are done electronically by collecting, analyzing, recording, catalog, summarizing, and interpreting data that are related to the economical transactions of financial status (Romeny & Steinbert, 2014). Researchers in this paper will explain the elements of CAIS, which includes human resources, equipments, databases, procedures, and controls, as follows:

2.1.1 Human resources

Human resource considers one of the major components of AIS, and the importance of finding human resource within the AIS components increase within the electronic systems, in terms of the need for qualified human elements, scientifically and practically, and able to perform the accounting work, under the use of modern information systems, the variety of actors who have relationships with the economic unit that work performed in it, and also raise data and information that require collecting, operating, and delivering it as useful information to the relevant parties, in order to take the appropriate decisions (Al-Hibaiti & Al-Saqa, 2003). The human resource means those persons who deal with one or more of the AIS components, such as programmers, or accountants who use this Systems (Al-Qudah, 2011).

2.1.2 equipments, machines and Devices

The equipments, machines, and devices consider the basic means and components in the operation of CAIS, since job can't be done without it, either in terms of operating and processing data with the required speed and accuracy, or the possibility of communicating with the parties who are dealing with, and delivering the required data and information to them. The physical equipments used in the input, processing, and output activities of information systems, which consider the mediator between the users and the central processing unit (CPU), and through it data would be process to generate information through the output unit, which delivers the computer and its applications to the external environment, and transfer the results to CPU and the secondary memory unit that used to store the system output for long periods (Laudon & Laudon, 2006).

2.1.3 Databases

The economic units should have structured and centralized single source of data and information, that would be in the form of master file and allows the authorized individuals to deal with these data and information, in a way that meet the needs of beneficiaries, and this source or concept called database, which is a virtual container that; in this case use to store all data related to the financial transactions, which took place electronically in the organization, to become as useful information that easy to access, return to, and benefit from (Al-Qudah, 2011), and it's also a collection of stored data in files that are connected logically and coordinated centrally, where these rules and procedures facilitate the process of creating a database that used to store the data, add to it, and delete from it, in addition to retrieve some of it and generate the reports (Romney & Steinbart, 2014).

2.1.4 Procedures

The clear procedures that can be easily implemented consider an important and necessary matter, in order for the workflow to be smooth and streamline, especially the actions and procedures that written in the form of set of specific steps and instructions inside the unit, it is a set of policies and methods that should be followed when using, operating and dealing with the information Systems, and Its also a set of instructions for the individuals who deal with information systems, and it's a process that includes a description and arrangement for the group of specific steps and instructions to execute all the computer operations (Taha, 2000), where it's unlikely for the equipments or databases that were described earlier to perform its tasks and functions accurately without putting a specific work plan.

2.1.5 Control

The implemented accounting control procedures must meet both requirements of the management and legal system about the control of public funds, and also accounting system itself must be obliged to include the sufficient controls that guarantee the fullness, accurateness, and influence of all information. The exercise of individual transactions as expenditures are dedicated, considered, and certified, and is the most essential components of financial control, where the department managers are mainly accountable for controlling individual expenditure transactions. The key components of expenditure control are as follows: (www.finance.gov.yk.ca)

Departments must make sure, there is adequate original balance presented before expenditure is opened in the proper appropriation, allocation, or entry integrated in the estimations to release the obligation.

Departments are required to endorse with regard to each payment, that the related services have been executed or commodities received at costs that are either sensible or in agreement with the contract conditions.

2.2 Rationalization of expenditures in the general budget

Government expenditures consider one of the important and major financial tools that used by the government, in order to satisfy the general needs and achieve the objectives of the society, but the size of those expenditures increase the level of government interference in the economical activities, where the capital expenditure policy largely reflect the targeted goals by the government , which seek to elevate the national economy by accelerating the development cycle, the rationalization process of government expenditure is achieving the government expenditures by using it; in the best way possible, and preventing it from any misuse or waste on the non-public benefit purposes (Al-Jbouri & Al-Zamlli, 2014), (Al-Rasheedy,2016).

3. Literature Review

The authors in this paper review some of the researches and studies, which are directly related to the study topic, and some of those studies:

The study of (Al-Weshah, et.al, 2013) aimed to highlight the important of budgets role in the planning and controlling to rationalize the expenditures in Jordan municipal councils, and improve its ability to perform the productivity and service projects to serve the local community members, and therefore reduce the burden on the government and its general budget. The study results showed the existence of budget importance in the planning and controlling to rationalize the government expenditures, at the municipal workers with medium level, and budgets' contributions in the rationalization of government spending with medium percentage. While the study of (Al-Pasha, 2005) aimed to develop the proposals and suggestions that help in the control system development of the general payment, achieve the independency of control devices in the Palestinian authority, and examine the discrepancies that may occur, through the actual implementation of general budget, and by exposing its reasons and analyzing it. The study results found the need to activate the budget role as a tool for controlling the general expenditures, and the need to pay attention to the computerized accounting system, to activate the control on the general payments and settlements and reduce the errors, by creating a special unit to monitor and control the computer applications, to ensure the validity of operational processes and its suitability level with the existing control systems. Where the study of (Al-Rasheedy, 2016) aimed to identify the role of accounting information systems in rationalizing the expenditures reporting in the government budget in Kuwait. The study found a moral role between the dimensions of accounting information systems (human resource, hardware, software, databases) in rationalizing the expenditures reporting in the government budget in Kuwait. The study recommended that the Kuwaiti government should have the sophisticated high-tech software to be used in rationalizing the expenditures reporting in the government budget in Kuwait. While the study of (Al-Dalabeeh & Al-Shbiel, 2012) acknowledged in their study the (CAIS) role in reducing the costs of medical services offered, at King Abdullah University Hospital. Study results illustrated the important role of (CAIS) in reducing medical service costs at the hospital, and demonstrated a positive correlation between each elements of the (CAIS), such as human resources, hardware, equipments, software, databases, and procedures, and the reduction of medical service costs at the hospital. The study recommended to preserve the highest levels of (CAIS), through keeping pace with the most recent improvements in the fields of software, hardware, and databases, performing the

normal maintenance, which aid to elevate the level of services offered to patients at King Abdullah University Hospital, and expand work procedures in conjunction with the advancement of (CAIS). But the study of (Rababa'h, 2010) aimed to figure out the impact of accounting information quality on the rationalization of public expenditures, in agreement with the international criteria by concentrating on cost accounting of public possessions, developing financial reports by relying on the accumulation starting point of government accounting, shifting the role of internal audit, and its ability to monitor, manage, and decrease government expenditures. The results illustrated that quality of accounting information linked to the costs of public possessions, and the reduction of it, where the concepts of accounting, controlling, an monitoring, and the internal audit systems have an important impact on the rationalization of government expenditures. While (Al-Sheikh, 2000) performed a study that aimed to recognize the cost reduction concepts and the essential steps or programs that have to be put into practice, in order to reduce costs. The results showed that uncertainty in defining the cost reduction concepts can lead to undesired results or produce new financial obligations, and also showed complex techniques for decreasing costs, which relied on the cost reduction programs, and on the actions, behaviors, and different sizes of economical unit. But the study of (Bagrahoff et al, 2005) illustrated that AIS related to the process of gathering data and converting it into information that help in the decision-making process, and these information isn't limited to economical or financial information, since it may contain other information, such as the quality of services produced, which means that information produced by AIS may contain both financial and non-financial information. Bagrahoff et al also found that AIS stands on five principles apart from the fundamental financial accounting principles, which are control principle, relevance principle, compatibility principle, flexibility principle, and cost-benefit principle, and conclude the significant of those five principles, in order for AIS to reach its objectives. The control principle is essential because AIS is concerned with the existing internal controls in the organizations. These internal controls are crucial to guarantee that transactions are practiced properly, in the local government areas or agencies (LGAs) to reduce the risk of mistreated properties (Vaassen, 2002). The study of (Seddon, 1991) stated that AIS has to reflect on the operations of organizations, where in the relevance principle, AIS must be in control of all essential information to soften the process of decision-making, and it required to be proposed along the environment and surroundings of the organization. For example, in public sector organizations, AIS needs to reflect on its structures and initial operations, by offering information to the appropriate management of public resources, permitting delegations and discussions, and consulting the general public to identify how financial and other resources are accounted for (Temu & Chalu, 2006). In addition, AIS needs to meet the terms of public accounting in the public sector settings, which contain the establishment of public control systems (Sakurauchi, 2002), and also the cost-benefit principle concerned with assessing the cost of supplying the added information generated by the AIS, and the significance or advantage of these information (Bagrahoff et al, 2005).

On the other hand, the study (Alaqah, 2017) aimed to figure out the effect of public expenditure on some economic variables in Jordan during the period (2002-2015). The study showed the statistically significant positive correlation between general and current capital expenditure, GDP and per capita GDP. In a similar study, the results of (Al Bataineh, 2012) study showed that the government expenditure at the aggregate level has positive impact on the growth of GDP, While the results study of (Garcia, 2012) showed demonstrate unequivocal unidirectional causality from revenue to expenditure in the Spanish Autonomous Regions.

4. Study methodology

The study considers one of the field studies, where researchers follow in it the descriptive analytical approach, in order to recognize the relationship between CAIS and rationalizing the government expenditures in the general budget of Jordan. The study population include all the departments of the Ministry of Finance in Jordan amounted to (22) departments, and the study sample represented in the departments' managers of Ministry of Finance and their assistants, and the financial auditors who work in the departments of Jordanian Ministry of Finance (www.mof.gov.jo,2018), and distributed (220) questionnaires on these departments, and the researchers recovered (187) of it, with (85%) of the total distributed questionnaires, and excluded (11) after sorting the questionnaires, due to its non-suitability and non-validity for statistical analysis and the apparent random during filling it, therefore the sample settled on (176) respondents, at (80%) of the total distributed questionnaires.

5. Study hypotheses

Based on the above study problem components, the study seeks to test the following hypothesis:

1st primary hypothesis: H₁: There is a statistically significant relationship between the computerized accounting information Systems and rationalizing the government expenditures at the general budget of Jordan

This first hypothesis will be divided into the following secondary hypotheses:

1st secondary hypothesis: H₁₋₁: There is a statistically significant relationship between the human resources used in computerized accounting information Systems and rationalizing the government expenditures at the general budget of Jordan.

2nd secondary hypothesis: H₁₋₂: There is a statistically significant relationship between the equipments and devices used in computerized accounting information Systems and rationalizing the government expenditures at the general budget of Jordan.

3rd secondary hypothesis: H₁₋₃: There is a statistically significant relationship between the databases used in computerized accounting information Systems and rationalizing the government expenditures at the general budget of Jordan.

4th secondary hypothesis: H₁₋₄: There is a statistically significant relationship between the procedures used in computerized accounting information Systems and rationalizing the government expenditures at the general budget of Jordan.

5th secondary hypothesis: H₁₋₅: There is a statistically significant relationship between the control used in computerized accounting information Systems and rationalizing the government expenditures at the general budget of Jordan.

6. Analysis

6.1 Study tool consistency

Table (1) The results of Cronbach Alpha coefficient test

Dimension	Number of paragraphs	Alpha value	Results
Dimension related to the independent variable: CAIS	36	0.936	Acceptable
Dimension related to the dependent variable: rationalizing the government expenditures at the general budget of Jordan	10	0.854	Acceptable
Overall dimensions	46	0.941	Acceptable

The table (1) above shows that Cronbach coefficient Alpha for the answers of the study population on the questionnaire paragraphs, for each dimension was greater than the minimum acceptable coefficient alpha of (70%) (Sekaran, 2010), and the coefficient Alpha value for the paragraphs; as a whole was also greater than (70%), which indicate the existence of acceptable degree of credibility in the answers, and there are also internal consistency between the questionnaire paragraphs, therefore it's possible to generalize the results on the study population.

6.2 Personal characteristics of study population members

Table (2) Demonstration for the demographic personal characteristics

Personal characteristics	Category	Frequency	%
Experience	Less than 5 Years	26	14.8%
	From 5 Years – less than 10 Years	53	30.1%
	From 10 Years - less than 15 Years	70	39.8%
	15 Years or more	27	15.3%
	Total	176	100%
Qualification	Bachelor	99	56.3%
	Diploma or less	42	23.9%
	Master	27	15.3%
	PhD	8	4.5%
	Total	176	100%
Specialization	Accounting	114	64.8%
	Business Management	43	24.4%
	Finance and Banking	9	5.1%
	Others Specialization	10	5.7%
	Total	176	100%
Courses	CPA	2	1.1%
	CIA	53	30.1%
	ACPA	18	10.2%
	CFA	14	8%
	Hold no Courses	89	50.6%
	Total	176	100%

The results of table (2) indicate that (39.8%) of study population members have experience between (10

years to less than 15 years), while (14.8%) of individuals have less than 5 years of experience, and it's a positive indication, due to the distinct and long experience of the majority, which enhance the scientific capability to understand the questions on the study questionnaire and answer it properly. In regard to qualification, (56.3%) of the study sample members were Bachelor degree holders, while (15.3%) of the respondents were master degree holders, and this indicate that all respondents are well qualified to understand the questions of the questionnaire. As far as the Specialization, the accounting Specialization represents the majority of study population members with (64.8%), while the proportion of business management certificate holders amounted to (24.4%), which indicates that sample members who responded to the questionnaire are related to the study topic, and they hold functional majors that related to the field of study dimensions. Finally, in relation to number of Courses, it showed that people who obtain an CPA were only (1.1%) from the total study population members, while the percentage of individuals who obtain the CIA amounted to (30.1%), and also the percentage of individuals with an ACPA amounted to (10.2%), which indicate the broad expertise of employees in AIS, therefore this also helps to rationalize the government expenditures in the general budget of Jordan.

6.3 Hypotheses Test

Before testing the hypotheses, the appropriateness of the data should be tested for the linear regression analysis between two or more variables and the parametric tests. Thus, the regression model was tested to verify that there are no high reciprocal links between the independent variables (Anderson et al., 1993). A relationship between (70%) between two independent variables or more, is considered a high relationship that may lead to distorting the relationship between one variable and the dependent variable (HR, equipment, hardware, databases, procedures and control). Table (3) shows that the relationship between each pair of independent variables is not high, indicating that the results of the regression model are not affected by multi-joint error.

Table (3): Correlation analysis for independent variables

Variable	HR	Equipment	Databases	Procedures	Control
HR	1.000				
Equipment	0.554**	1.000			
Databases	0.412**	0.570**	1.000		
Procedures	**0.430	**0.442	**0.496	1.000	
Control	**0.449	**0.380	**0.282	**0.696	1.000

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

6-4 Multiple Linear Regression

To investigate the hypothesis, which state: "There is a statistically significant relationship between the computerized accounting information Systems and rationalizing the government expenditures at the general budget of Jordan", the multiple linear regression was implemented to find out the effect of using computerized accounting information Systems on rationalizing the government expenditures at the general budget of Jordan. Table (4) indicate the existence of statistically significant effect at level ($\alpha \geq 0.05$) for the use computerized accounting information Systems on rationalizing the government expenditures, where the value of the correlation coefficient amounted to ($R=0.726$), which is statistically significance value, and indicate a strong positive correlation between using computerized accounting information Systems on rationalizing the government expenditures, and also the value of the adjusted R-Square reached (0.512), which shows the combined independent variables to be capable of interpreting (52.6%) from variation in the dependent variable (rationalizing the government expenditures).

Table (4): Multiple Linear Regression for the effect of CAIS on rationalizing the government expenditures

Variables	Expected sign	Coefficient	T-Statistic	Prob	Tolerance	VIF*
(Constant)		1.906	4.743	0.004		
HR	+/-	0.393	5.641	0.000	0.617	1.621
Equipment	+/-	0.290	3.997	0.000	0.541	1.848
Databases	+/-	0.172	2.306	0.002	0.578	1.730
Procedures	+/-	0.533	8.300	0.000	0.417	2.396
Control	+/-	0.715	6.283	0.000	0.471	2.121
R	0.726	F-statistic		37.786		
R-squared	0.526	Prob (F-statistic)		0.000		
Adjusted R Square	0.512	Durbin-Watson statistic		1.801		

* All VIF values less than (10), and refer to the non-existence of any autocorrelation problem

According to the results of table (4), there is a positive statistical significant effect at level ($\alpha \geq 0.05$) of human resources on rationalizing the government expenditures, (at Coefficient=0.393, $p>0.000$), this indicates that the increase of one degree in human resources leads to rationalizing the government expenditures by

(39.3%), and this also ensures that T-Statistic Value of (4.743) was a positive value, and statistically significant at level ($\alpha \geq 0.05$), there is a positive statistical significant effect at level ($\alpha \geq 0.05$) of Equipment on rationalizing the government expenditures, (at Coefficient=0.290, $p > 0.000$), which indicates that the increase of one degree in Equipment leads to rationalizing the government expenditures by (29.0%), and also ensures that T-Statistic Value of (3.997) was a positive value, and statistically significant at level ($\alpha \geq 0.05$), and the results also revealed a positive statistical significant effect at level ($\alpha \geq 0.05$) of Databases on rationalizing the government expenditures, (at Coefficient=0.172, $p > 0.002$), which indicates that the increase of one degree in Databases leads to rationalizing the government expenditures by (17.2%), and also ensures the T-Statistic Value of (2.306) was positive value, and statistically significant at level ($\alpha \geq 0.05$), and the results also revealed a positive statistical significant effect at level ($\alpha \geq 0.05$) of Procedures on rationalizing the government expenditures, (at Coefficient=0.533, $p > 0.000$), which indicates that the increase of one degree in Procedures leads to rationalizing the government expenditures by (53.3%), and also ensures the T-Statistic Value of (8.300) was positive value, and statistically significant at level ($\alpha \geq 0.05$), and finally, there was a positive value, and statistically significant at level ($\alpha \geq 0.05$) of Control on rationalizing the government expenditures, (at Coefficient=0.715, $p > 0.000$), which indicates that increase of one degree in Control leads to rationalizing the government expenditures by (71.5%), and also ensures the T-Statistic Value of (6.283) was positive value, and statistically significant at level ($\alpha \geq 0.05$). Therefore, we accept the alternative hypothesis which stated: "There is a statistically significant relationship between the computerized accounting information Systems and rationalizing the government expenditures at the general budget of Jordan".

7. Conclusions

The present study examined the relationship between CAIS components (human resources, devices & equipments, databases, procedures, controls) and rationalizing the government expenditures at the general budget of Jordan, and the results of the study confirmed the existence of a significant correlation relationships between those components, and particularly in the rationalization of public and general expenditures, for the purpose of achieving the integrations between the different information systems within these departments, and management units.

The results of the study have important implications and effects on improving the efficiency of government departments performance, through the use of CAIS capable of providing assistance to all government departments, where it will contribute to improving the quality of service provided, rationalizing the government expenditures, and limiting the symptoms and signs of waste and abuse in the resources, through the reduction of random spending, identifying the disadvantages in the inflows and outflows to the country General Treasury, and by providing the appropriate information in the right time, and in a way that achieve the objectives of the general budget.

8. Recommendations and Suggestions for Future Research

According to the above results, the study recommends the need to provide the Jordanian Ministry of Finance departments, with enough experts and programmers to operate and manage, and maintain the equipments, devices and data files, in a way that ensures the highest levels of control and monitoring, according to what those units need, through directing the governmental departments at the Ministry of Finance of Jordan to use the sophisticated and developed devices and equipments with high technology to benefit from it at work, by providing information in the accurate ways. And devoting research efforts toward studying on the efficiency of computerized accounting information systems to activate the control of government expenditures and reduce errors to ensure the validity of operations and suitability to existing control systems.

References

- Al Bataineh, I. M. (2012). The impact of government expenditures on economic growth in Jordan. *Interdisciplinary Journal of contemporary research in business*, 4(6), pp 1320-1338.
- Al-Dalabeeh, A., & Al-Shbiel, S. (2012) The Role of Computerized Accounting Information Systems in Reducing the Costs of Medical Services at King Abdullah University Hospital, *Interdisciplinary Journal of Contemporary Research in Business*, Vol 6, No 4: pp 893-900.
- Alhubaity. K & Alsaqah.Z (2003) *Accounting Information System*, Al-Hadba'a University College. 1st ed., Mosul, Iraq. Available on line: www.kantakji.com/media/165133/file1594.pdf
- Aliqah, K. A. (2017). The Impact of Public Expenditures on the Indicators of Economic Growth in Jordan during the Period 2002-2015. *International Journal of Academic Research in Accounting, Finance and Management Sciences*, 7(2), pp97-104.
- Al-Jaburi, B & Al-Zamili, D (2016) Role of Governmental Expenditures in achieving the economical stability in Iraq for the period (2003-2012), *AL-Qadisiyah Journal For Administrative and Economic sciences*, 16(1), pp190-202.

- Al-Pasha, A.(2005) Ways to activate the role of monitoring to control the financial performance of the general defenders of the Palestinian National Authority, *Unpublished MA Thesis*, The Islamic University – Gaza.
- Al-Qudah, G. M. A. , (2011), The Impact of Accounting Information Systems on Effectiveness of Internal Control in Jordanian Commercial Banks "Field Study", *Interdisciplinary Journal of Contemporary research in Business*, 2(9), PP:365-377.
- Al- Rasheedy, A. (2016) The Role of Accounting Information System in Rationalizing the Expenditures Reporting in the Government Budget-A field study in the Kuwaiti Ministry of Finance, *Unpublished MA Thesis*, Al al-Bayt University, Mafrqa.
- Al-Sakha,Z & Al-Sindi, A. (2010). The Effectiveness of accounting information systems in government units, *Tikrit Journal For Administration & Economics Sciences*, Volume: 17(6), pp 128-157.
- Al-Sheikh, E, (2002) .Methods and Procedures of Jordanian Universities' *Cost Reduction* , Amman Private University of Applied Sciences, , Amman, Jordan, 3(3): pp 68-82.
- Al-Weshah, M. Alqa'm, M. Al-Weshah,S. (2013) The Rule of Budgeting As A Tool For Planning, Control and Expenses Rationalizing in Al-Balqa' Province Municipalities -Field Study, *Dirasat: Administrative Sciences*, 41(1),PP 56-71.
- Anderson, D.R., Sweeney, D.R. and Williams, T.A. (1993), *Statistics for Business and Economics*, Fifth Edition, West Publishing Company, St. Paul, MN.
- Bagranoff, N. A., Simkin, M. G., & Norman, C. S. (2005). *Core concepts of accounting information systems* (9th ed.). Danvers, MA: John Wiley & Sons Inc.
- Garcia, M.J., 2012. The Revenues-Expenditures Nexus: a Panel Data Analysis of Spain's Regions (Running title: Tax-Expenditure, Expenditure-tax or Fiscal Synchronization). *International Journal of Academic Research in Economics and Management Sciences*, 1(1), p.24.
- Hall, James A. (2011), *The Accounting Information Systems*, South- Western: Cengage Learning.
- Laudon K. and Laudon J (2006), "*Management Information Systems*", 9th ed., Prentice Hall.
- Rababa'h, M. (2010) A Proposed Model for Measuring the Impact of the Quality of Accounting Information on the Rationalization of the Jordanian Governmental Expenditure in Accordance with International Standards, *Unpublished MA Thesis*, Amman Arab University, Amman, Jordan.
- Romney, M. B., & Steinbart, P. J. (2014). *Accounting information systems*. Pearson Higher Ed.
- Sakurauchi, F. (2002). Public Sector accounting system and public governance. *Keizai Sangyo Journal* (METI Journal).
- Šatanová, A., Potkány, M. 2004. Controlling - Modern tool of company control. *Ekonomický časopis*, Bratislava: *Slovak Academic Press s.r.o.* Vol. 52. No. 2. 2004, pp. 148 –165.
- Seddon, P. B. (1991). An Architecture for Computer-Based Accounting Information Systems. *Unpublished Doctor of Philosophy*, Department of Accounting and Finance, The University of Melbourne.
- Sekaran, U (2010) *Research Methods for Business: A Skill Building Approach*, New York: John Wiley and Sons Inc, 7th ed.
- Taha, Tareq, Banking Management and Banking information systems, *Al-Haramain for Computer*, Alexandria, 2000. P502.
- Temu, S. & Chalu, H.(2006). Exploring contingent variables of accounting information systems effectiveness in Tanzania's local government authorities. *Tanzanian Economic Trends*, 19(1), pp71-91.
- Vaasen, E.H.J. (2002). *Accounting Information Systems: A managerial approach*. John Wiley & Sons Ltd. www.finance.gov.yk.ca/general/fam.html, chapter5.
- www.mof.gov.jo/en-us/mainpage.aspx.