The Compatibility of (GFMIS) with the Internal Control System

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Abstract

This study aimed at showing the compatibility of (GFMIS) with requirements of the Internal Control System (ICS). The study problem is searching in the compatibility of (GFMIS) to achieve requirements of (ICS) (control environment, risk assessment, control activities, information and communication and monitoring). The community of the study is from the Jordanian governmental sector. (160) questionnaires are distributed to the internal auditor working in such organizations. (147) questionnaires are valid to be analyzed. The study revealed that (GFMIS) is moderately consistent with the requirements of (ICS), in general. The study recommends to develop (GFMIS) in accordance with the (ICS) international standards. From other hand, the study recommends that not only the traditional control is interested in, but also increasing interest in risk control and adopting a system that provides financial and accounting information required checking and assessing the optimal use of available resources.

Key words Government Financial Management Information System (GFMIS), Internal Control System (ICS)

1. Introduction

In recent years, the Jordanian government aimed at developing systems of the governmental sector through applying the (GFMIS)[1] system. Such system aims at providing computerized, integrated and connected financial and accounting system to manage the governmental financial processes of all ministries and governmental departments (governmental sector), ensuring safety, transparency and effectiveness in assessing the financial and accounting processes through featured standards, job duties and the optimal use of resources (Shannak, 2015), (Diamond and Khemani, 2006). It provides a unified, integral financial and accounting data base helping in managing the public funds effectively and sufficiently (Abushamsieh *et al*., 2013), (Gabriel, 2014) (Rahman, 2016). Also, the governmental goal of (GDMIS) is to apply concurrent monitoring processes to the allocation of funds in the General budget law (Al Murtada and Hamdan, 2015). As well as enabling the ministries and governmental departments to carry out effectively the tasks of the financial, accounting and monitoring department, ensuring that the principle of fiscal transparency is achieved (Abushamsieh *et al*., 2013). In addition, it results in raising sufficiency of monitoring processes of public funds and creating financial reports that unify the information system and financial and accounting data bases. This leads to improving the general budget session in the country, enhancing the effectiveness of the governmental performance, providing a good service to citizens. Based upon the above, this study is to show the compatibility of (GFMIS) in order to achieve the requirements of (ICS) in the Jordanian governmental sector.

1.1. The study problem:

Appearing the financial violations, errors and cases of financial corruption in the Jordanian government repeatedly[2], even after carrying out control and internal auditing programs, question in the validity of assurances and results of regulatory examinations. Also, carrying out monitoring and internal auditing programs more vigilantly, requires providing (GFMIS) consistent with the updated and developed

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[1] http://www.moe.gov.jo/Files/(12-7-2010)(8-18-26%20AM).pdf
[2] Transparency International Corruption Perceptions Index 2012, http://www.ey.com/Publication/vwLUAssets/2012_TI_CPI/$FILE/2012%20TI%20CPI.pdf

(ICS) (Al-Qtaish, 2011). If such information is provided, (ICS) can be planned to implement. It means that lacking, and failing in identifying and classifying in advance some financial governmental information (Sheriff and Dauda, 2014), in order to be consistent with needs of (ICS), can prevent doing some monitoring examinations and tests that can be performed to get more assurances. Thus, it is possible that there is a lack in doing monitoring examinations and procedures, allowing the financial violations to be occurred and the public funds are not kept or even prejudice to some basic goals for which the (GFMIS) is planned (Al Ebady, 2014). Providing (GFMIS) with no compatible and right quality characteristic (ICS), means using governmental financial information with a degree of inaccuracy and unreliability (Al-Qtaish, 2011), and (Gibril, 2014). Thus, applying examinations of (ICS) to such information may give right monitoring indicators regarding the procedure but error and misleading regarding the validity of results. So, the need of providing (GFMIS) is more compatible for requirements of (ICS) (Abushamsieh *et al.*, 2013**)** (Diamond and Kehamni, 2010**)**. *The question in which this study issue is searching is: To what extent is (GFMIS) compatible to achieve (control environment, risk assessment, control activities, information and communication, and monitoring in the Jordanian governmental sector).*

1.2. The study objectives

This study seeks to achieve a main goal that is; studying the compatibility of (GFMIS) with requirements of (ICS) as it is featured by specific characteristic (ICS) contributing to achieving the system effectively, such features or characteristic (ICS) can be summed up in the field including control environment, assurances, control activities, risk control, and performance assessment control.

1.3. The importance of study:

The importance of this study is in detecting the compatibility of (GFMIS) with requirements of (ICS) in Jordon, leading to know the degree of completing the function and performance of each component of (ICS) requirements. Thus, weaknesses and shortcomings can be detected in such requirements resulting from unavailability of information that must be provided by (GFMIS). Thereof, the governmental financial information can be reconstructed to be compatible, executable and workable as so designed by requirements of control in order to increase effectiveness of (ICS). The importance of study can be determined more detailed in the following points:

Indicating the view based on modern scientific foundations in the necessity of integration (GFMIS) represented in the need of providing all information required to (ICS) departments in Jordon to be able to carry out its works effectively within the total system represented in the governmental unit, contributing to achieve effectively the general goals of government.

a) Giving better view and interpretations about results of (ICS) examinations with respect to completion, reliability degree, putting an end to risks resulting from the unavailability of compatible governmental financial information. Improving effectiveness of (ICS) is therefore done by covering this shortcoming.

b) Assessing the compatibility of (GFMIS) with regard to its effect on designing relevant internal controls, will lead to selecting the optimal internal controls on which the government will depend as well as the accountancy debts in identifying the nature, time and procedures of auditing.

c) Assessing the compatibility of (GFMIS) and its relations with the monitoring systems used by the government, will lead to revealing results helping in developing the applied (GFMIS) in order to play its role in providing effectively and sufficiently the governmental information.

1.4. Hypotheses of the study

At the light of determining the study problem, objectives, and importance, hypotheses are formed as the following:

The key hypothesis: (GFMIS) is not compatible with the internal control system, the sub-hypothesis H0a to H0e have been listed below:

H0$_a$: (GFMIS) is not compatible with control environment.

H0$_b$: (GFMIS) is not compatible with risk assessment.

H0$_c$: (GFMIS) is not compatible with Control Activities.

$H0_d$: (GFMIS) is not compatible with Information and Communication.
$H0_e$: (GFMIS) is not compatible with Monitoring.

2. Literature review

The study of Al Murtada and Hamdan (2016) aimed at measuring the role of (GFMIS) in raising effectiveness of preparing governmental budgets. The community is from the financial departments applying the system in the Jordanian governmental sector. The study reveals that (GFMIS) plays an important role in increasing the effectiveness of governmental budgets in its all phases (preparation, declaration, implementation, and monitoring implementation) in the Jordanian governmental sector. Based upon these results, the study recommends with many recommendations. One of the most important of them is the necessity to develop (GFMIS) continuously to improve the efficiency of managing expense and government revenues leading to reduce general budget deficit and keep on sustainability of financial stabilization. In addition, Gibril, (2014) has conducted a study aiming at showing the effect of (GFMIS) on the excellence of governmental financial performance in Jordan. The study depends on the analytic descriptive approach to test the study hypotheses. One of the important results that the study revealed is that (GFMIS) is applied in governmental organizations, and that this application of system to financial management, accountancy, human resources, customer services, has an effect. The study has recommended that expanding in developing (GFMIS) is necessary, and it is necessary also to develop the internet, data base, and computers used in the governmental organization applying the system to benefit management in fields of assessment and control.

Sheriff and Dauda, (2014) conducted a study aiming at identifying to what extent globalization contributes to all over the world turning the society from the manual financial management system to (GFMIS (GFMIS) also contributes effectively to the financial management in Nigeria. Although this system is applied, corruption still exists and the governmental finance suffers from mismanagement. This study recommends that monthly financial accountability should be done in the governmental organizations. The study revealed that the monthly financial accountability should be serious in all governmental organizations; serious penalties should be applied to the demoralized officials in order to avoid financial fraud and misuse of (GFMIS). Karadag (2015) conducted a study aiming at recognizing the challenges accompanying (GFMIS) when applied to small and medium projects and analyzing the key role of the financial management in identifying such challenges and practices that affect on the regulatory performance in Turkey in view of the strategic management. In order to achieve the goal of this study, the researcher asks managers of small and medium projects a set of questions to show the role of the applied (GFMIS) in addition to the accompanying challenges.

The results of the study have shown that (GFMIS) contributes much to reduce the main challenges that such projects face, affecting on financial and strategic performance in Turkey. Al Ebady (2014), conducted a study aiming at identifying controls of (ICS), its relation with controlling the government spending. It also aims at identifying the concepts, types and elements of (ICS) and identifying the strengths and weaknesses in (ICS) applied in the Jordanian governmental units. This study uses the descriptive statistic methods to analyze data and test hypotheses. One of the most important results that the study revealed is the lack of training and habilitation of financial employees in the governmental units regarding financial regulations and training on the modern accounting bases. At the light of results, the study recommends regarding controls of (ICS) with providing enough care to control the government spending and decrease wastes.

The study of Abushamsieh *et al.* (2013) aimed at identifying the transparency of (GFMIS) applied to organizations in the developing Arabic countries. This subject captures the attention of governments, researchers and international organizations especially in financial reporting in Arabic counties generally and Palestine in particular. The study researches for the financial standing in such developing countries to be more useful and transparent. The analytic descriptive approach is applied. The researcher develops a questionnaire in order to know the impact of such systems in raising efficiency, reporting and achieve profitability in such developing countries. The findings have shown that (GFMIS) is one of the important factors applied in order to solve financial crises and debts, and achieving profitability. Diamond and Kehamni (2010) conducted a study aiming at identifying the impact of (GFMIS) in advancing and developing

the developing countries in addition to investigate the main reason for failure (GFMIS) in developing countries. In order to achieve the goals of study, the researchers start to review the factors affecting in achieving the efficiency of (GFMIS) in the developing countries, hence analyzing the effecting problems in this application is done. The study has shown that there are several main factors that prevent FMIS to succeed in the developing countries. Such factors include the weak management and efficiency in application.

Dahman (2012) conducted a study aiming at viewing the computerized AIS applied in the Palestinian Ministry of Finance, therefore the effectiveness of AIS can be assessed regarding achieving the quality in financial reporting and determining whether there are obstacles that prevent achieving the quality in financial reporting released by such systems. The study summarizes some results including the controlling role of financial reports is weak. It cannot meet the needs of legislative bodies and regulators to do their control tasks. It does not include methods of financial analysis helping in doing comparisons among years, standards, and indicators, assisting to detect the deviations. In addition, it is difficult to coordinate between AIS applied in the administrations working with the ministry of finance and financial departments of other governmental units in exchanging information and financial reports.

From the other hand, Al shbil and Al momani (2013) conducted a study aiming at identifying the impact of computerized AIS that used in the governmental organizations on the tasks done by auditors of audit office to enhance the accountability and transparency. To achieve the study goals, the statistic descriptive methods are used to analyze data and test hypotheses. The study summarizes that there is an impact of the computerized AIS that used in the governmental organizations on the tasks of audit office and on enhancing the accountability and transparency. The study concludes with some recommendations including the necessity to enhance using the computerized AIS that used in the governmental organizations and enhance tasks of audit office as it has an important role in accountability and transparency and enhance field monitoring offices by providing professionals. Al Qatesh (2011) conducted a study aiming at showing to what extent we need to consider the Performance Audit and studying the compatibility of the current governmental accounting system in Jordon and proposing suggestions to develop. The statistic descriptive methods are used to analyze data and test hypotheses. The researcher detected that the current system fails in providing the information compatible for auditing the efficiency and effectiveness of performance. It is also necessary to develop the current auditing method through using the performance auditing in the Jordanian governmental sector.

3. Methodology of research

This study is considered as a field study in which the analytic descriptive approach is used in order to know the opinions of workers in the internal control units in the Jordanian governmental sector with regard to identifying the important requirements that (GFMIS) needs. Such requirements may increase the effectiveness of (ICS) in the organizations applying the system. The non- quantitative descriptive variables are studied, analyzed and turned into quantitative measurable variables through the questionnaire in order to test hypotheses and then indicate results and recommendations of the study.

3.1. Methods of gathering information

The inductive approach is used to gather the obtained information about the study variables with reference to sources of available official documents and theses, journals, researches, relevant books and the World Wide Web (internet). In the field aspect, the questionnaire is depended on as being one of the main sources in the field aspect to reach the real opinions of auditors about (GFMIS) in the actual fact of the community.

3.2. Developing the study instrument

Developing the questionnaire includes several steps until it reaches the final forum. These steps are summarized as follows (Creswell, 2013):
1. Literatures relating to (GFMIS), (ICS) and relevant standards of auditing are reviewed.
2. The researcher classifies questions included in the questionnaire into several axes. The questionnaire is revised to make sure that it is comprehensive and covering the main aspects of the study.

3. The instrument is viewed to many specialist scholars as well as a number of internal auditors in the Jordanian governmental sector to make sure that it is comprehensive, evident and covering all aspects. The table model of questionnaire is prepared and formed including the questions and in the other side, there is a group of boxes. Another box is left and titled by the required notes and modifications to facilitate judgment.

4. The study instrument is modified under the notes expressed by arbitrators, especially the notes having consensus.

5. The questionnaire is distributed by hand to controllers, internal auditors working in the control and internal auditing units of the Jordanian governmental sector.

The study instrument includes (6) main fields as the following: The first field contains the demographic characteristics of respondents (Table 1). Such characteristics are like: Education, experience, occupational position, vocational certificates in auditing. The second field: It contains (11) items (Table 3) about the compatibility of (GFMIS) and the control environment. The third field: It contains (16) items (Table 5) about the compatibility of (GFMIS) and risk assessment. The fourth field: It contains (10) items (Table 7) about the compatibility of (GFMIS) and the control activities. The fifth field: It contains (9) items (Table 9) about the compatibility of (GFMIS) and information and communication. The sixth field: It contains (11) items (Table 11) about the compatibility of (GFMIS) and performance assessment.

3.3. The study sample

The study sample consists of (147) auditors in the Jordanian governmental sector, selected randomly from the study community. The researcher visits the Jordanian governmental organizations many times. He distributes (160) questionnaires to the auditors. He retrieves (155) questionnaires. After revising the questionnaires, it is shown that (8) questionnaires are invalid to be analyzing statistically. Thus, the number of study sample is (147) individuals. The researcher selects randomly the sample. Table (1) indicates the distribution of sample individuals according to personality variables.

Table 1. Distributing the sample individuals according to personality variables (N= 147)

Variable	Level	Frequency	Percentage
Education	Community College diploma	12	8.2
	Bachelor	120	81.6
	Post- graduate studies	15	10.2
	Total	**147**	**100.0**
Years of experience	Less than one year	3	2.0
	From one year to less than three years	39	26.5
	From three years to less than 6 years	48	32.7
	From 6 years to less than 12 years	22	22.4
	12 years and more	24	16.3
	Total	**147**	**100.0**
Functional level	Manager or Deputy – Manager of Auditing Unit	12	8.2
	Chief or Deputy Chief of Auditing Unit Department	39	26.5
	Auditor or Assistant auditor	96	65.3
	Total	**147**	**100.0**
Professional certificates	CMA	2	1.4
	CIA	-	-
	CPA	1	0.7
	JCPA	4	2.7
	Having no professional certificates	140	95.2
	Total	**147**	**100.0**

Throughout table 1, it is clear that the highest percentage of distributing the sample individuals of the study according to the variable of education is (81.6%) for the education (Bachelor); while the lowest percentage is (8.2%) for education (post – graduates studies). The highest percentage of distributing the

sample individuals of the study according to the variable of years of experience is (32.7%) for the period of experience (from 3 years to less than 6 years); while the lowest percentage is (2.0%) for the period of experience (less than one year). on the other hand, the highest percentage of distributing the sample individuals of the study according to the variable of functional level (65.3 %) for the functional level (auditor or assistant auditor); while the lowest percentage is (8.2) for the functional level (Manager or Deputy Manager of Auditing Unit). Also, the highest percentage of distributing the sample individuals of the study according to the variable of professional certificates is (95.2%) for the answer (having no professional certificates). This attributes to the fact that government sector does not focus on professional certificates when choosing personnel for employment just as the case in the private sector; moreover, the lowest percentage is (0.7%) for the answer (CPA). Finally we can say that previous percentages together are consistent with the normal distribution of function hierarchy of the auditing units' levels in general.

3.4. Measurement

In order to analyze and test the hypotheses of study, Likert Scale Quintet was used to answer the paragraphs of instrument as per the following grade: grade (1) expresses the answer "strongly disagree", grade (2) expresses the answer "disagree", grade (3) expresses the answer "neutral" or " not interested", grade (4) expresses the answer "agree", and grade (5) expresses the answer "strongly agree". This Scale was also used to explain the arithmetic averages for the estimations of the sample individuals of study regarding every paragraph and every dimension of the questionnaire. With respect to the limits approved by the study when commenting on the arithmetic average of variables contained in the study model and for defining the grade of agreement, the researcher has specified three levels (high, medium, and low) based on the following equation (Sekaran, 2003):

Length of period = (maximum alternative - minimum alternative)/number of levels
($(5 - 1)/3 = 4/3 = 1.33$), and so the levels would be as follows:
- low degree of agreement: (from 1 – less than 2.33)
- medium degree of agreement: (from 2.33 – less than 3.66)
- high degree of agreement: (from 3.66 – 5)

3.5. Method of data analysis

In order to achieve the purposes of study and to ensure the reliability of its hypotheses , the researcher has employed the statistical methods in analyzing the data collected through the field study, through entering such data into computer within the program of statistical package for the social and economic sciences (SPSS Statistics V22.0); where researchers has employed statistical methods to describe the characteristics of respondent by using frequencies and percentages. moreover, a range of inferential statistics methods have been employed to test the hypotheses of study. In particular, the researcher has used the following statistical methods, Samuel B. Neil J, (2010):

1. *Alpha equation (Cronbach's):* to verify the stability of study instrument and that of its application.
2. *Means and standard deviations:* to learn about the extent of (GFMIS) compatibility to the internal control system.
3. *One Sample T-Test:* to test the hypotheses of study.

3.6. Stability of the study instrument

The application consistency has been investigated by distribution of study instrument twice on survey sample outside the study sample, consisting of (30) internal auditors, with a time lag of two weeks, and extracting Pearson Correlation among their marks in the two times, for the purpose of extracting the consistency coefficient of the test. In addition, Cronbach's equation has been applied for internal consistency, and table (2) reveals this. Throughout table No (2), it is shown that the consistency coefficient with Cronbach's Alpha for the fields of study has ranged from (0.81 – 0.93), which are large and acceptable values for the purposes of application, since most studies have pointed out that the ratio of accepting the consistency coefficient (0.70)9. On the other side, Pearson Correlations for the fields of study have ranged between (0.82 – 0.85), which are the values of statistical function at the significance level of ($\alpha \leq 0.05$); which indicates the consistency application of study instrument.

Table 2. Consistency coefficient of application with Pearson Correlation and Consistency coefficient of instrument with Cronbach's Alpha

Field	Consistency coefficient with Cronbach's Alpha	Coefficient of application with Pearson Correlation
Control environment	0.81	*0.83
Risk assessment	0.93	*0.82
Control activities	0.92	*0.84
Information and communication	0.88	*0.85
Monitoring	0.84	*0.84
The entire instrument	0.97	*0.85

Statistical significance at the significant level of (0.05 ≥ α)

4. Discussing the results

- Results related to the key hypothesis: (GFMIS) is not compatible with the internal control system; from which the following sub-hypotheses are branched:

Results related to the $H0_a$: (GFMIS) does not compatible with control environment.

In order to ensure the veracity of such hypothesis, the means as well as standard deviations have been extracted for the responses of sample individuals to all paragraphs of the field "control environment", in addition to applying the test (One Sample T-test) on the field as a whole. Table 3-4 reveals this.

Table 3-4. Means and standard deviations for the responses of sample individuals to all paragraphs of the field "control environment" in a descending order

Grade	Number	Paragraph	Mean	Standard deviation	Assessment degree
1	1	In (GFMIS), there is the frame through which the organization activities are planned, implemented, and monitored in order to achieve its purposes.	4.16	0.74	High
2	2	(GFMIS) takes into account the management considerations towards the efficiency levels of certain functions, and how to translate such levels into skills and basic knowledge.	3.92	0.86	High
3	3	(GFMIS) takes into account the management considerations towards the levels of skills required for assisting in securing economic, ethical, and organizational performance efficiently and actively.	3.45	0.89	Medium
4	11	(GFMIS) is in harmony with the management procedures to remove or reduce the motives and attractions which drives employees to involve in improper, illegal, or unethical procedures.	3.44	0.73	Medium
5	4	(GFMIS) ensures good understanding of the individuals` responsibilities relevant to internal control.	3.37	0.85	Medium
6	5	(GFMIS) cares for the matters of internal auditors in terms of their independency from the management	3.35	0.92	Medium
7	7	(GFMIS) cares for the matters of internal auditors in terms of the compatibility of their behaviors as well as their supervision of developing the internal control system.	3.27	0.72	Medium
8	8	(GFMIS) is in harmony with the management procedures in terms of preparing financial reports, information processing, and accounting tasks.	3.24	0.87	Medium
9	9	(GFMIS) is in harmony with the distribution of powers and responsibilities related to operational activities, and how the hierarchy of relationship and authorization was set.	3.23	0.80	Medium
10	6	(GFMIS) cares for the matters of internal auditors in terms	3.02	0.77	

Grade	Number	Paragraph	Mean	Standard deviation	Assessment degree
		of their participation at examining the controlling activities as well as the instructions directed to them.			Medium
11	10	(GFMIS) shows the policies which reveal matters relevant to the organization awareness, like the criteria of appointing the most qualified individuals, along with preferring practical experience, efficiency, the evidences of honesty and ethical behavior.	2.67	1.17	Medium
Field of "control environment" as a whole			3.38	0.51	Medium

Throughout table 3, it is revealed that the Means for the responses of sample individuals to paragraphs of the field "control environment" have averaged between (2.67 – 4.16). Paragraph No (1) "In (GFMIS), there is the frame through which the organization activities are planned, implemented, and monitored in order to achieve its purposes" comes in the first grade with a high assessment degree, while paragraph No (10) "(GFMIS) shows the policies which reveal matters relevant to the organization awareness, like the criteria of appointing the most qualified individuals, along with preferring practical experience, efficiency, the evidences of honesty and ethical behavior." comes in the last grade with a medium assessment degree. The Mean of the field "control environment" as a whole reaches (3.38) with a medium assessment degree.

Table 4. Results of applying One Sample T-test on the responses of sample individuals to the field of "control environment" as a whole

Hypothesis	Mean	Standard deviation	Assessment degree	T	Freedom marks	Statistical significance
H0$_a$: (GFMIS) does not compatible with control environment	3.38	0.51	Medium	9.05	146	0.00

Throughout table 4, it is revealed that there is a middle level of (GFMIS) compatibility with the control environment in government organizations, where (T) value of the control environment field has reached (9.05), and it is a value of statistical function at the significance level of (0.05 ≥ α) and the standards mark of quintet grading (3); since the Mean for the responses of sample individuals to the field of "control environment" were higher than the standard mark and with a medium degree; which indicates that (GFMIS) system is moderately compatible with the control environment in government organizations from the opinions of the study sample individuals. consequently, the hypothesis with the consistent formula would be accepted.

Results related the H0$_b$: (GFMIS) is not compatible with risk assessment.

In order to ensure the veracity of such hypothesis, the Mean s as well as standard deviations for the responses of sample individuals to all paragraphs of "Risk assessment" has been extracted, as well as applying the One Sample T-test on the field as a whole. Tables (5 and 6) show this.

Table 5. The Mean s as well as standard deviations for the responses of sample individuals to all paragraphs of "Risk assessment" in a descending order

Grade	Number	Paragraph	Mean	Standard deviation	Assessment degree
1	3	((GFMIS) provides reports determining the extent of the organization compliance with the government requirements for controlling the public funds.	3.65	0.80	Medium
2	2	(GFMIS) provides the procedures required for carrying out regular and periodic review of the different activities	3.63	0.85	Medium
3	4	(GFMIS) makes it possible to make sure of the legal conformity for the conditions which shall be followed in	3.55	0.76	Medium

Grade	Number	Paragraph	Mean	Standard deviation	Assessment degree
		transactions and operation inside the organization			
4	13	(GFMIS) is considered suitable for the purposes of applying the control on risks, and not only control on regular financial operations (usual control)	3.47	0.76	Medium
5	1	(GFMIS) involves the procedures of risk assessment, recognition, identification, and analysis.	3.45	0.81	Medium
6	6	(GFMIS) provides the procedures required for making reviews to prepare the programs of reducing costs.	3.43	1.03	Medium
7	7	(GFMIS) provides the evidences required for assuring the protection of assets with their different types	3.39	1.01	Medium
8	14	(GFMIS) provides the procedures required for examining and evaluating the optimum use of the available resources.	3.38	0.95	Medium
9	11	Through examining (GFMIS), we can make sure of the extent of mistakes availability and finding them if they occur.	3.37	0.88	Medium
10	12	All procedures carried out through (GFMIS) can be examined in the different departments of the organization	3.33	1.04	Medium
11	15	Through (GFMIS), we can have evidences for stabilizing the rise of operations efficiency	3.31	0.79	Medium
12	16	Through (GFMIS), we can make sure if the financial reports reflect the actual reality of the organization	3.29	0.91	Medium
13	5	(GFMIS) provides the procedures required for carrying out regular and periodic reviews for the different activities.	3.24	1.14	Medium
14	9	(GFMIS) provides the possibility of tracing operations in which more than one department is involved.	3.16	1.14	Medium
15	10	(GFMIS) provides the procedures which determined the relative importance in applying control.	3.12	0.90	Medium
16	8	Through examining (GFMIS), we can make sure of the extent of fraud or deception existence, and discovering them when they occur.	2.98	1.08	Medium
		Field of "Risk Assessment" as a whole	**3.36**	**0.67**	**Medium**

Throughout table 5, it is shown that the Mean s for the responses of sample individuals to all paragraphs of "Risk assessment" range between (2.98 – 3.65) with a medium assessment degree for all paragraphs. Paragraph No (3) "(GFMIS) provides reports determining the extent of the organization compliance with the government requirements for controlling the public funds." comes in the first grade; while paragraph No (8) "Through examining (GFMIS), we can make sure of the extent of fraud or deception existence, and discovering them when they occur." comes in the last grade. The Mean of the field "Risk assessment" as a whole reaches (3.36) with a medium assessment degree.

Table 6. Results of applying One Sample T-test on the responses of sample individuals to the field of "Risk assessment" as a whole

Hypothesis	Mean	Standard deviation	Assessment degree	T	Freedom marks	Statistical significance
H0$_b$: (GFMIS) is not compatible with risk assessment.	3.36	0.67	Medium	6.50	146	0.00

Throughout table 6, it is revealed that there is a middle level of (GFMIS) compatibility with the process of risk assessment in government organizations, where (T) value of the risk assessment field has

reached (6.50), and it is a value of statistical function at the significance level of (0.05 ≥ α) and the standards mark of quintet grading (3); since the Mean for the responses of sample individuals to the field of "control environment" were higher than the standard mark and with a medium degree; which indicates that (GFMIS) system is moderately compatible with the risk environment in government organizations from the opinions of the study sample individuals. consequently, the hypothesis with the consistent formula would be accepted.

Results related to the $H0_c$: (GFMIS) is not compatible with Control Activities.

In order to ensure the veracity of such hypothesis, the Mean s as well as standard deviations for the responses of sample individuals to all paragraphs of "control activities" has been extracted, as well as applying the One Sample T-test on the field as a whole. Tables 7 and 8 show this.

Table 7. The Means as well as standard deviations for the responses of sample individuals to all paragraphs of "Control Activities" in a descending order

Grade	Number	Paragraph	Mean	Standard deviation	Assessment degree
1	9	(GFMIS) involves systems for application control when processing the individual applications, like examining the arithmetic accuracy of records as well as reviewing the accounts	3.76	1.00	High
2	8	(GFMIS) involves the controlling procedures to examine the accuracy, completion, and authorization of transactions	3.55	0.86	Medium
3	7	(GFMIS) involves systems to analyze the actual performance and comparing it to the planning budgets or the performance of previous period; which helps in identifying the pros and cons of such performance.	3.43	0.88	Medium
4	10	(GFMIS) involves systems to control the mechanism of information, which helps in ensuring that the transactions have been made and that they have been fully and accurately registered and processed, like the examination for modifying the input data as well as the examination of numerical sequence.	3.42	0.99	Medium
5	4	(GFMIS) involves activities of authorization for access to the data of computer	3.35	1.02	Medium
6	5	(GFMIS) involves the activities of imposing control through carrying out the operations of inventories as well as the periodic comparison with the amounts shown in the control records.	3.34	0.94	Medium
7	1	(GFMIS) makes it possible to authorize different persons to assume the responsibility of permitting and registering operations, as well as of keeping the assets in their custody.	3.33	0.80	Medium
8	3	(GFMIS) involves the activities of actual security of assets, including the sufficient means of protection against facilitating the access to assets and records	3.31	0.89	Medium
9	6	(GFMIS) involves systems to evaluate the performance of workers in different activities and operations based on monitoring the actual performance and comparing it to the planned performance.	3.29	1.05	Medium
10	2	(GFMIS) makes it possible to diminish the opportunities of manipulation and fraud during the normal implementation of tasks, like the operations of giving or receiving payments etc., as well as approving the reconciliation and controlling documents.	3.27	0.75	Medium
Field of "Control Activities" as a whole			**3.41**	**0.70**	**Medium**

Throughout table 7, it is shown that the Mean s for the responses of sample individuals to all paragraphs of "Control Activities" range between (3.27 – 3.76). Paragraph No (9) "(GFMIS) involves systems for application control when processing the individual applications, like examining the arithmetic accuracy of records as well as reviewing the accounts" comes in the first grade, with a high assessment degree; while paragraph No (2) "(GFMIS) makes it possible to diminish the opportunities of manipulation and fraud during the normal implementation of tasks, like the operations of giving or receiving payments etc., as well as approving the reconciliation and controlling documents." comes in the last grade, with a medium assessment degree. The Mean of the field "Risk assessment" as a whole reaches (3.41) with a medium assessment degree.

Table 8. Results of applying One Sample T-test on the responses of sample individuals to the field of "Control activities" as a whole

Hypothesis	Mean	Standard deviation	Assessment degree	T	Freedom marks	Statistical significance
H0$_c$: (GFMIS) is not compatible with Control Activities.	3.41	0.70	Medium	6.99	146	0.00

Throughout table 8, it is revealed that there is a middle level of (GFMIS) compatibility with the control activities in government organizations, where (T) value of the control activities field has reached (6.99), and it is a value of statistical function at the significance level of (0.05 ≥ α) and the standards mark of quintet grading (3); since the Mean for the responses of sample individuals to the field of "control environment" were higher than the standard mark and with a medium degree; which indicates that (GFMIS) system is moderately compatible with the risk environment in government organizations from the opinions of the study sample individuals. consequently, the hypothesis with the consistent formula would be accepted.

Results related to the H0$_d$: (GFMIS) is not compatible with Information and Communication.

In order to ensure the veracity of such hypothesis, the Mean s as well as standard deviations for the responses of sample individuals to all paragraphs of "information and communication" has been extracted, as well as applying the One Sample T-test on the field as a whole. Tables 9 and 10 show this.

Table 9. The Means as well as standard deviations for the responses of sample individuals to all paragraphs of "Information and Communication" in a descending order

Grade	Number	Paragraph	Mean	Standard deviation	Assessment degree
1	1	(GFMIS) involves the different kinds of documents, like documents of giving and receiving payments, invoices, and records.	3.57	0.95	Medium
2	4	(GFMIS) involves types of operations that have an important effect on financial statements.	3.53	0.79	Medium
3	5	(GFMIS) involves the financial reports among relevant authorities.	3.49	0.76	Medium
4	2	(GFMIS) involves the organizational structure of the Finance Department as well as the account manual	3.43	0.93	Medium
5	7	(GFMIS) involves the sufficient information and the good access to it when necessary.	3.35	1.02	Medium
6	6	(GFMIS) involves the procedures, their sequence, and their requirements like steps and records, as well as any documents within the integral accounting cycle and the necessary items.	3.27	0.75	Medium
7	8	(GFMIS) involves the methods of proper classification of financial information	3.22	0.84	Medium
8	9	(GFMIS) involves the procedures of confirming that the	3.21	0.84	Medium

Grade	Number	Paragraph	Mean	Standard deviation	Assessment degree
		suitable information has been identified, controlled, and delivered in the appropriate form and timeframe.			
9	3	(GFMIS) involves the manuals of the procedures and policies related to the organization.	3.14	1.07	Medium
Field of "Information and Communication" as a whole			**3.38**	**0.67**	**Medium**

Throughout table 9, it is shown that the Means for the responses of sample individuals to all paragraphs of "Information and communication" range between (3.14 – 3.57), with a medium assessment degree for all paragraphs. Paragraph No (1) "(GFMIS) involves the different kinds of documents, like documents of giving and receiving payments, invoices, and records." comes in the first grade; while paragraph No (3) "(GFMIS) involves the manuals of the procedures and policies related to the organization." comes in the last grade. The Mean of the field "Information and communication" as a whole reaches (3.38), with a medium assessment degree.

Table 10. Results of applying One Sample T-test on the responses of sample individuals to the field of "Information and Communication" as a whole

Hypothesis	Mean	Standard deviation	Assessment degree	T	Freedom marks	Statistical significance
H0$_d$: (GFMIS) is not compatible with Information and Communication.	3.38	0.67	Medium	6.79	146	0.00

Throughout table 10, it is revealed that there is a middle level of (GFMIS) compatibility with information and communication in government organizations, where (T) value of the information and communication field has reached (3.79), and it is a value of statistical function at the significance level of $(0.05 \geq \alpha)$ and the standards mark of quintet grading (3); since the Mean for the responses of sample individuals to the field of "control environment" were higher than the standard mark and with a medium degree; which indicates that (GFMIS) system is moderately compatible with information and communication in government organizations from the opinions of the study sample individuals. consequently, the hypothesis with the consistent formula would be accepted.

Results related to the H0$_e$: (GFMIS) is not compatible with Monitoring.

In order to ensure the veracity of such hypothesis, the Mean s as well as standard deviations for the responses of sample individuals to all paragraphs of "monitoring field" have been extracted, as well as applying the One Sample T-test on the field as a whole. Tables 11 and 12 show this.

Table 11. Means and standard deviations for the responses of sample individuals to paragraphs of field "Monitoring", in descending order

Grade	Number	Paragraph	Mean	Standard deviation	Assessment degree
1	6	(GFMIS) involves the procedures of assessing quality of internal control continuous.	4.16	0.74	High
2	7	(GFMIS) is compatible when using modern technical control methods to assess performance.	3.92	0.86	High
3	8	(GFMIS) is compatible when performing the financial analysis of the financial statements to compare performances of departments in the organization.	3.45	0.89	Medium
4	2	(GFMIS) is compatible for the statistic methods to assess results in order to correct deviations.	3.37	0.85	Medium
5	9	(GFMIS) is compatible when applying standards of efficient performance to assess the financial performance of organization.	3.36	0.85	Medium

Grade	Number	Paragraph	Mean	Standard deviation	Assessment degree
6	10	(GFMIS) is compatible when applying standards of effectiveness to assess performance.	3.35	0.92	Medium
7	4	(GFMIS) involves the procedures required to follow applying different control aspects to ensure that they work as planned.	3.31	0.71	Medium
8	2	(GFMIS) provides reports comparing between the actual performance (balance) and the aimed performance (balance).	3.29	0.91	Medium
9	5	(GFMIS) involves the procedures of designing and making control elements in time and taking the required corrective actions that modified according to changes in conditions.	3.24	0.87	Medium
10	3	(GFMIS) participates that it can use to support the control performance.	3.06	0.74	Medium
11	11	(GFMIS) is compatible when applying responsibility accounting method.	3.02	0.77	Medium
Field of "Monitoring" as a whole			**3.41**	**0.51**	**Medium**

Throughout the table 11, it is shown that means for responses of the sample individuals to paragraphs relating to field "monitoring" ranging among (3.0—4.16). The paragraph 6 is in the first grade; "(GFMIS) contains procedures of assessing quality of internal control performance continuous". However, the paragraph 11 is in the last grade; "(GFMIS) is compatible when applying the responsibility accounting method". The mean for "Monitoring" ranges as a whole (3.41), with medium degree.

Table 12. Results of applying One Sample T-test on the responses of sample individuals to the field of "Information and Communication" as a whole

Hypothesis	Mean	Standard deviation	Assessment degree	T	Freedom degree	Statistical significance
(H0$_e$: (GFMIS) is not compatible with Monitoring.	3.41	0.51	Medium	9.77	146	0.00

Throughout table 12, it is shown that there is a medium level of compatibility of (GFMIS) with Monitoring in governmental organizations. T value for monitoring field is (9.77). This value is statistic significance at significant level of ($0.05 ≥ α$) and the standards mark of quintet grading (3); since the Mean for the responses of sample individuals to the field of "information and communication" were higher than the standard mark and with a medium degree; which indicates that (GFMIS) system is moderately compatible with monitoring from the view of the sample individuals. consequently, the hypothesis with the consistent formula would be accepted.

In order to ensure the validity of key hypothesis, the One Sample T-test on the instrument as a whole is applied. Table 13 show this.

Table 13. Results of applying One Sample T-test on the responses of sample individuals to the instrument" as a whole

Hypothesis	Mean	Standard deviation	Assessment degree	T	Freedom degree	Statistical significance
The key hypothesis: (GFMIS) is not compatible with the internal control system, The sub-hypothesis H0a to H0e have been listed below:	3.38	0.57	Medium	8.21	146	0.00

Throughout table 13, it is shown that there is a medium level of compatibility of (GFMIS) with the internal control system. T value for the instrument as a whole is (8.21). This value is statistic significance at significant level of (0.05 ≥ α) and the standards mark of quintet grading (3); since the Mean for the responses of sample individuals to the instrument as a whole were higher than the standard mark and with a medium degree; which indicates that (GFMIS) system is moderately compatible with the internal control system from the view of the sample individuals. Consequently, the hypothesis with the consistent formula would be accepted.

5. Conclusions

(GFMIS), applied in the Jordanian governmental sector is compatible with the requirements of internal control system (ICS) moderately with its all dimensions (control environment, risk assessment, control activities, information and communication and monitoring). From the other hand, the study reveals that there is a medium degree of compatibility for requirements of control environment as the information and accountability reports are subject to be moderately revised by internal control and audit units. The clarity and understanding accountability information stated in reports are moderate. The study asserts that (GFMIS) includes moderately the components required to achieve independent control of performance, in order to achieve requirements of control activities. In addition, the control concentrates on the routine financial processes (traditional control). It expands to include moderate risk control. The study reveals that the high compatibility is not provided in (GFMIS) as it is required to check and assess the optimal use of available resources. The compatibility is moderate. The ability to get indicators is the same as it asserts the high efficiency of processes and the ability to be tested whether the financial reports express the actual fact of governmental performance. The study reveals that the compatible information to achieve the full control of performance is not highly provided in (GFMIS) but moderately. The same is when applying the responsibility accounting method.

Lastly, the study recommends that it is necessary that the Jordanian governmental sector seeks to adopt administrative and accounting systems under which all information and accounting reports are subject to revision from internal control units. In addition, it is necessary to develop methods of preparing accounting reports according to standards of preparing international reports. From other hand, the organizations in the governmental sector should be encouraged to develop and expand the control field to include risk control. It is necessary also to adopt systems required to check and assess the optimal use of available resources. Indicators and evidences appear regarding efficiency of processes and produce accounting and financial reports that express the actual fact of government to achieve the full control over this important sector.

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