Evaluation of the performance of the Financial and Accounting Computerized Information Systems in the Jordanian Banking Sector in 2011: an Empirical Study

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الملخّـــص:

تهدف هذه الدراسة إلى تقييم أداء نظم المعلومات المالية والمحاسبية المعتمدة على الحاسوب في قطاع المصارف الأردنية والتي بلغ عددها 15بنكا تجاريا، وذلك من خلال التركيز على الفاعلية في أداء المهام من عدة جوانب وقد اعتمدت الدراسة على أسلوبين لجمع البيانات: الأولية والثانوية، أما البيانات الأولية فقد تم جمعها من خلال الدراسة الميدانية التي تمت بواسطة استبانه وزّعت على مُستخدمي النُظم المالية والمحاسبية . وقد أظهرت نتائج هذه الدراسة بأن هذه النظم تتمتع بدرجة كبيرة من الفاعلية في تحقيق أهدافها، حيث أنها تتميز بسهولة استخدامها والتعامل معها والسرعة والدقة في إدخال ومعالجة البيانات. وتتمتع بالمرونة بحيث يمكن إدخال التعديلات والتحسينات عليها لتتلاءم مع البيئة المحيطة واحتياجات المُستخدمين وهذا يجعلها قادرة على أداء الوظائف المطلوبة والمحافظة على مستوى أدائها في الظروف المختلفة. وكذلك تتمتع هذه النظم بالتكامل داخلياً (بين وظائفها المختلفة) ومع النُظم الأخرى بما يكفل توفير متطلبات الوظائف والنُظم المختلفة داخل البنك وخارجه بالمواصفات المطلوبة لكل منها، وأخيراً فإنها تتميز بوجود مجموعة من القواعد والإجراءات الرقابية التي تدعم دقتها وتزيد من إمكانية الاعتماد عليها.

Abstract :

This study aims at evaluating the financial and accounting computerized information systems in the Jordanian banking sector, from different aspects .

To achieve these objectives, two techniques for gathering data are used: the questionnaire which represent the primary sources. Books, periodicals and various published studies, represent the secondary sources.

The results showed that the high quality of the financial and accounting computerized system's Characteristics in the Jordanian commercial banks have contributed to providing accurate and reliable information and reports presenting in a consistent and useful way to meeting the needs of users (managers and accountants) in doing their duties in the proper time.

.1 Introduction

An information system (IS) is the application of computing and communication technology to face business in the emerging and strengthening global economy. Ultimately an IS exists to help an organization accomplish its objectives (Street and Meister, 2004). An IS takes raw facts, known as data, manipulates, compiles and integrates that data into something that has meaning for a manager or operator (planisamy, 2003). Information Systems should provide guidance to the organizations employees to better assist them in the accomplishment of their objectives. IS has great impact on all levels of organization (i.e. Operational, tactical, and strategic). They also impact on all functional areas: finance and accounting, Manufacturing and production, sales and marketing, and human resource.

.The Content of the Research

:Testing The hypothesis : The financial and accounting computerized systems enjoy high quality.

It Should be noted that the line to accept or reject hypotheses is (3). If the average of the sample's answers is (3) or more, the hypothesis would be accepted; if it was less than (3) it would be rejected.

And the results have been explained in terms of percentages according to the following criteria:

1. Extremely high : 81% - 100%
2. high : 61% -80%
3. fair (moderate) : 41% - 60%
4. low : 21% - 40%
5. Extremely low : 0 – 20%

The researcher has distributed (164) questionnaires to the users (Accountants and Managers) of the Jordanian commercial banks listed in Amman stock exchange (ASE), (140) were received back and analyzed which represent (85.36%) from the Total population.

The SPSS package was used for statistical analysis through using frequencies, percentages, means and standard deviations, correlations.

The international standards organization (ISO) has identified a set of quality characteristics that must be available by information systems (O'Brien, 2008) for example: functionality, usability, reliability, flexibility, controllability, and integration…..).

Results :

1. The variable number one: The functionality

It refers to the system's ability to perform functions that were prepared for, in different circumstances

Table (1)

Functionality of the financial and accounting computerized systems

No.	Questions	The Mean		The standard deviation
		Number	Percentage %	
1	Computer- based financial and accounting system can: - perform the required functions.	4.01	80.2%	0.77
The Result: High			(61%-80%)	

From the table (1)we note that the financial and accounting computerized systems enjoy functionality as the arithmetic mean of the answers to this paragraph (4.01) with percentage of (80.2%), This high percent ascertains that such systems conduct the basic functions they were established for. Respondents agree with that by a deviation of (0.77) away from the arithmetic mean.

2. The Variable Number Two: The Usability

The financial and accounting system to be usable, we should make the learning and understanding of how it works an easy process so as we turn the data entry and its processing into an easy mechanism.

Table (2)

Usability of the financial and accounting computerized systems

No.	Questions	The Mean		The standard deviation
		Number	Percentage	
2-a	Computer- based financial and accounting system, you deal with, is characterized with: - Ease of learning and understanding.	3.98	79.6%	0.81
2-b	- Ease of Data entry and access for information.	4.02	80.4%	0.78
	The Total	4.00	80%	0.69
The Result: High			(61%- 80%)	

We can notice from the table (2)that the financial and accounting computerized systems in the Jordanian commercial banks enjoy employment (usability) to a large and high extent, as this variable had (4.00) as an arithmetic mean with (80%) and (0.69) as standard deviation. This indicates that respondents consider the systems as being able to be used.

3. The Variable Number Three: The Reliability

we count on the financial and accounting system if it is able to maintain its performance at high levels in ordinary circumstances; cases of emergency and peak periods, and this will be reflected on the accuracy and validity of the outputs (information and reports) of the system.

Table (3)

Reliability of the financial and accounting computerized systems

No.	Questions	The Mean		The standard deviation
		Number	Percentage %	
3	**Computer- based financial and accounting system can:** - Maintain its performance level when used under certain circumstances like emergency situations.	3.96	79.2%	0.72
The Result: High			**(61%-80%)**	

We also notice from table (3)that the financial and accounting computerized systems also enjoy credibility (Reliability) so we can depend on them; the arithmetic mean was (3.96) with (79.2%) and the standard deviation was (0.72). This indicates that we can depend on such the financial and accounting computerized systems in the Jordanian commercial banks to a large and high extent, especially with the help of the development of the materialistic elements of the system and its programs (the hardware and software); and the competence of those working on such systems.

4. The Variable Number Four: The Speed

we use computers in financial and accounting systems to take advantage of their speed in the processing of data and in conducting arithmetic calculations, because of the nature of finance and accounting which requires speed to provide appropriate information.

with all the developments in the area of computers, their speed is increasing because of their depending on constantly evolving systems and languages, this makes the designers of financial and accounting systems work on developing financial and accounting programs by using such systems and languages. Therefore, the pace of financial and accounting computerized systems differs with the differing system and the language used in their programming, as well as the extent of development of devices used and the skills of accountants.

Table (4)

Speed of the financial and accounting computerized systems

No.	Questions	The Mean		The standard deviation
		Number	Percentage %	
4	**Computer- based financial and accounting system, you deal with is characterized with:** - Quick response for receiving data, processing data, and producing outputs (information).	4.06	81.2%	0.74
The Result: Extremely high			**(81%-100%)**	

From the table (4) we notice that the arithmetic mean is (4.06) which equals (81.2%) and that the standard deviation is (0.74) indicating that the current financial and accounting computerized systems in the Jordanian commercial banks are fast (Quick) to a very high extent.

The researcher says that in light of the huge and fast development in computers, it is supposed that such percent should be greater than that. What strengths this point is that through the meetings done during the distribution of questionnaires, some banks still use systems dependent an ancient languages or once that have very old computers.

5. The Variable Number Five: The Accuracy

The financial and accounting system avoiding errors in various stages, as well as the perfection in performance and the achievement of objectives, will reflect the accuracy of the system.

From the next table, we noticed that the accuracy of the current financial and accounting computerized systems used in the Jordanian commercial banks is great, that the arithmetic mean of answers was

(4.00) with (80%), and the standard deviation is low (0.78). This indicates that systems save both time and efforts for users (in the conventional methods; the accountants lose time in correcting mistakes). Furthermore, such systems guarantee very reliable (credible) information that can be relied on.

Table (5)
Accuracy of financial and accounting computerized systems

No.	Questions	The Mean		The standard deviation
		Number	Percentage %	
5-a	**Computer- based financial and accounting system you deal with, is characterized with:** - Precision and perfection in performance and achievement of objectives.	4.14	82.8%	0.74
5-b	- Free from mistakes.	3.84	76.8%	0.78
	The Total	4.00	80%	0.78
The Result: High			**(61%- 80%)**	

6. The Variable Number Six: The Flexibility

The financial and accounting systems must have the feature of flexibility so they can be able to survive and preserve their other characteristics such as speed and accuracy…… . Because the flexibility means the ability of these systems for development and entering improvement created by modern technology, and this will make the financial and accounting systems fit with the surrounding circumstances and the needs of beneficiaries.

Table (6)
Flexibility of financial and accounting computerized systems

No.	Questions	The Mean		The standard deviation
		Number	Percentage %	
6-a	Computer- based financial and accounting system, you deal with, is characterized with: - The response to changes in your needs and surrounding circumstances.	3.86	77.2%	0.77
6-b	- The possibility of developing and improving it.	3.95	79%	0.80
	The Total	3.90	78%	0.64
The Result: High			(61%-80%)	

From the previous table (6) we notice that the financial and accounting computerized systems enjoy flexibility to a high and large extent; the arithmetic mean of the flexibility of such systems was (3.90) with (78%) and dispersion of (0.64). This indicates that the systems are characterized with their ability to development and various adjustments as needed.

7. The Variable Number Seven: The Controllability

The internal control of financial and accounting systems is considered one of the important and delicate issues, especially in the computer environment because of the lack of concrete evidence and proof in cases of fraud or manipulation, which require regulatory procedures and methods to tighten controls on such systems; we mean either the general or detailed control.

Table (7)
The internal control in the financial and accounting computerized systems

No.	Questions	The Mean		The standard deviation
		Number	Percentage %	
7-a	Computer- based financial and accounting system, you deal with: - Incorporates sufficient control rules and methods in various stages of its performance.	4.03	80.6%	0.78
7-b	- Ensures the separation of functions, powers and responsibilities.	4.13	82.6%	0.75
7-c	- Maintains the correct and accurate authentication of documents and files.	4.08	81.6%	0.75
7-d	- Has different methods of Surveillance for protecting data, files, programs. and the system enjoys a full complement of safety.	4.16	83.2%	0.69
7-e	- provides regularly submits control reports and continuously.	4.07	81.4%	.75
7-f	- Shows the results of dealing with inputs step by step to ensure control and follows the treatment process.	4.15	83%	0.68
7-g	- possesses regulatory rules and procedures for dealing with the new circumstances.	3.95	79%	0.82
	The Total	4.08	81.6%	0.71
The Result: Extremely high			(81%- 100%)	

From the table number (7)we note that the financial and accounting computerized systems fulfill the needs of the internal control supervision that the arithmetic mean of the sample's answers is (4.08) with (81.6%) and the standard deviation is (0.71). The highest mean is (4.16) for the following two paragraphs (7-d ; 7-f) which are related with the fact that such system (has different methods of surveillance for protecting data and files; shows the results of dealing with inputs to ensure control and follows the treatment process). However, the least arithmetic mean is (3.95) for the paragraph (7-g) which is concerned with the regulatory rules and procedures that the systems possess for dealing with the new circumstances. These results indicate that the financial and accounting computerized systems:

1. fulfill the needs of the general internal control in terms of the separation of functions, powers and responsibilities.
2. fulfill the needs and requirements of the detailed control on inputs, outputs and the treatment processes.
3. include control rules (laws) to deal with changes.

8. The Variable Number Eight: The Relevancy

The financial and accounting system's achieving their goals depends on their suitability with the nature of bank's activity; and its organizational objectives.

Table (8)

The Relevancy of the financial and accounting computerized systems

No.	Questions	The Mean		The standard deviation
		Number	Percentage %	
8	The characteristics of the current financial and accounting system are suitable with the organizational objectives and the nature of the work.	4.11	82.2%	0.68
The Result: Extremely high			(81%-100%)	

We note from the above table that the arithmetic mean of the answers to this paragraph is (4.11) and the standard deviation is (0.68). This indicates that the financial and accounting computerized systems are consistent to a very high degree (82.2%) with the nature of the bank's job, because the financial and accounting computerized systems are designed by companies specialized in programming which present them to their customers after doing some additions or adjustments as customer's desire.

According to the researcher's opinion, the financial and accounting programs which are internally developed by internal programmers and with the help of accountants; are the most ones able to adjust with the nature of the Jordanian commercial banks activities.

9-Conclusion:

the above mentioned characteristics of financial and accounting systems in the Jordanian commercial banks have contributed to providing accurate and reliable information and reports. Further more, presenting such information and reports in a consistent

and useful way has led to meeting the needs of users (accountants and managers) in doing their duties in the proper time.

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