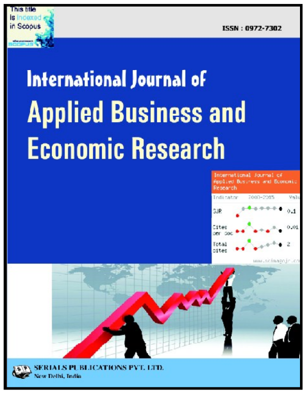

International Journal of Applied Business and Economic Research

ISSN : 0972-7302

available at http: www.serialsjournals.com

Volume 15 • Number 25 • 2017

The Impact of Financial Information Systems on the Quality of Financial Statements: The Case of Jordanian Commercial Banks

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Abstract: Among the economic sectors where the use of information systems has expanded dramatically, the banking sector, where it has contributed in the completion of banking operations, reduced the cost and time and improved the quality of the services provided to customers. This study aimed to identify the impact of financial information systems on the quality of financial statements in the Jordanian Commercial Banks, and we used the descriptive and analytical approach by designing a questionnaire was distributed to a sample of workers in Jordanian commercial banks within the various administrative levels and was completed by 80 respondents. This study found a range of results includingthe most important: that the Jordanian commercial banks use financial information systems with a high degree, believing in the importance and benefits of using this system and the positive effects it. Results of the study also showed that the use of financial information systems by the commercial banks will increase the quality of financial statements, and that there is a range of difficulties faced by banks in the process of using financial information systems including: the lack of workers' efficiency in the commercial banks in using financial information systems.

Keywords: Financial information systems, commercial banks, financial statements

INTRODUCTION

As a result of the technological and economic developments, information systems have significantlyoccupied animportant position in all fields, as the data produced by thesesystems is an essential resourcefor a variety of organizations resources'. It is considered the base of financial decisions, and whether they are operational, financial, or investment-related, those decisions contribute in raising the performance of the organization and achieving a competitive positive market value, thus increasing shareholder's wealth and the continuity in the sector in which it operates.

The banking sector is one of the most important sectors at national and global economy levels. It contributes effectively in boosting the economy by providing funds for entrepreneurs, which accounted for 35.8% of the total market value of shares listed on the Amman Stock Exchange's companies by the end of 2015, and the market value of the shares of banks were 6 billion JOD, while the market value of the total shares traded where16.8 billion JOD. Due to the important role played by the banking sector in the provision of liquidity for investment projects and attract depositors' money and because of the importance of this sector, it must have a high qualityannual financial report of banks in their content.To achieve this, it is necessary to providefinancial information systems (FIS) to control and regulate the financial statements, and bring it to a high level of quality that raises the confidence of both investors and depositors in banks alike (Al Attar, 2016).

Among the economic sectors where the use of information systems has expanded dramatically, the banking sector, where it has contributed in the completion of banking operations, reduced the cost and time and improved the quality of the services provided to customers. Banks are consideredimportant foundations in the economies of the countries, and they havecompetitions among each other in attracting and creating customers, therefore they considerFISan important factor for the competitive strategy.

From the foregoing to the importance of financial statements for its users in the commercial banks, these banks have focused on the quality of such financial statements in order to achieve its goals and the objectives of its users (Al Attar, 2016). This research sheds light on the impact of the FIS on the quality of financial statements in the Jordanian Commercial Banks. Therefore,the research problem lies in an attempt to answer the following question: What is the impact of FIS on the quality of financial statements in the Jordanian commercial banks?

Financial statementsquality

It can be defined as "a tool of accounting used by accountants to show the result of an enterprise activity, or its financial position through a summary view of an actual economic processes that took place during the previous financial period, or an expectation ofresult and financial position for the subsequent fiscal period" (Radwan, 2003).

Following are the most important commercial banks' financial statements:

Income Statement as a list that reflects the level of successthe Bank's operations are in a given period of time, and it issued for determining the profitability of the bank, and the reliance on income statement considered theoretical, because the extracted income is relatively estimate in its best. Therefore, the income statement is a tool to achieve the principle of an contrasting revenues against expenditures for the determination of net income or loss in simple and clear manner, and the accuracy of the figures and data in this list reflects the quality and raise the level of confidence in them for depositors, investors and dealers with the bank (Jaafar, 2010).

The income statement is the most important among the financial statements of income, for it measures the success of commercial Bank operations for a specific period of time. Therefore, the importance of this statement stems from how wellit helps predict accurately the income of a bank in the future, and in doing so, makes sure that economic resources have been used for the best option.

Financial Position Statement is a list that provides information concerning the nature and amount of investments in the banks' assets, and obligations of the bank to its creditors.The right of the owners on the net assets, where the financial position of the bank depends on its assets and what it has of litigants or commitments to others in the end of the period (Jaafar, 2010). Which, include all accounts that were still open in the final accounts that are not have been closed yet. The importance of financial position statement due to its contribution in the process of financial reporting by providing a basis for calculating rates of income, and assessing the capital structure of the bank, as well as in assessing the degree of liquidity and financial flexibility of a bank. This list considered the main source of information about the bank's liquidity, and on its financial flexibility, which in turn enables users of financial statements to judge the degree of risk facing the bank and estimatingfuture cash flows (Kieso, Weygandt, & Warfield, 2010).

Change in return on equity statement is the link between the income statement and the financial position statement, but with multiple sources of changes in equity, there is a need to customize an individual statement in order to clarify the causes of this change and its sources. The aim of preparing this list of change in equity is to provide useful information about the sources of change in the financial position of the elements. The importance of the change in return on equity statement is that it connects the income statement with the financial position statement. Clarifying the change resulting from the income statement represented in a form of profits or financial cycle losses and whatchange happened in retained earnings.Additionally, monitors factors affecting equity items in the first of the financial cycle reaching theequity in the end of the cycle; therefore, the change in return on equity statement is a kind of flows lists (Radwan, 2003).

Cash Flow Position Statement is a statement that provides appropriate information on cash receipts and payments of the bank during the period, to help investors and creditors, and others in their analysis of cash flows (Douglas, 2012). This statement shows the monetary impact of the bank's operations and its financial and investment characteristics during the period, in addition to the net increase or decrease in cash. The importance of this statement is that it clarifies the sources and uses of funds information, offered bythe income statement, budget statement and retained earnings briefly.

We have numerous quality definitions in the field of financial statements from the standpoint of professional organizations, researchers and specialists. The Financial Analysts Federation define it asclarity, transparency and availability of information in a timely manner. While the Special Committee believes the financial reports emanating from the American Institute of Certified Public Accountants (American Institute of Certified Public Accountants) AICPA)) that the quality of financial statements means the extent of the ability to use information in the field of forecasting, appropriate information and the extent of the target to get them (Yahya, 2009).

The usefulness of financial information isenhanced if that information comparable, verifiable, timely and understandable (Cuong, 2017). Hammad, (2004) presented the qualitative characteristics of financial statement in a group of basic qualitative characteristics of useful financial information:

(a) Compatibility: the information that is in the financial statements of commercial banks if appropriate hasled to the difference in the decision-maker'sability to predict events or to confirm or correct expectations, and decrease appropriate information from the degree of uncertainty.

(b) Credibility (reliability): Investors look for credibility, transparency, and clarity in externally available corporate financial statements, such as the annually filed Form 10-K, as they investigate current and potential investments. Financial statements cannot reflect the information on the representation sincerely if tendentious or biased and does not use the method of measurement properly or because the measurement method does not represent what the financial statementintend to express.

(c) Verifiability: verifiability is a key mechanism for inducing truthful information revelation.managers with unfavorable information might be remain silent or lie because investors are unable to distinguish honest managerswith uncertain information from dishonest managers with precise information

(d) Honesty in the presentation: this concept means that there should be matching or agreement between the numbers and descriptions to display on the other hand. In other words, do the figures represent what actually happened?

(e) Neutrality: This concept means that you cannot pick information that includes a preference for one of the beneficiary groups over theother, as real and sincere information should represent the primary concern.

(f) Comparability: The information that has been measured and reportedin an identical in comparable commercial banks, even thougha measure of financial statement comparability is not specified. Comparability is one of three qualitative characteristics of accounting information included in the accounting conceptual framework (along with relevance and reliability).

(g) Persistence (Parity): An intended analogy that the comparison between the periods require the use of the same accounting principles from one period to another, and even though the change principle of accounting for better ways consequent asymmetry, this change should be acceptable if the disclosure of the impact of this changedoes not confirm the comparison, or if the scales used cannot givean honest representation of the ability to compare.

The importance of this study is that it is attempting to identify the impact of the FIS on the quality of financial statements in the Jordanian commercial banks and togive access to the results whichmay help investorsmakeinvestment decisions efficiently forcommercial banks, which is one of the most important institutions in the national economy (Alali *et al.,* 2016). This research is also important for depositors and savers in commercial banks, being the largest sector of the beneficiaries,for they are the largest provider of banks with funds that are reinvested in the economy, and it is known that these savers care about the safety of their money. Therefore, they need a high quality of banks' reports andknowledge of the nature of its economic activities.

Its importance is also due to its focusonan important and huge sector in the Jordanian economy, andits dealings with a significant issue that concerns each investor.In addition to the scarcity of researches concerning this subject in Jordan - according to our expertise- and in light of massive competition in the local, regional, and international markets in the field of adopting new technologies. Therefore,it was necessary to study this subjectscientifically and in detail,and to focus on the pros and cons of using these systems, as well as evaluating the economic feasibility of the use of FIS, so that we can keep up with countries that have an advanceduse of modern systems.

Financial Information Systems

According to Vaassen (2002), information systems are portals that deal with projects as a unit.The system consists of a set of systems that work together to provide accurate information in a timely manner to make administrative decisions, which will eventually organize the entire project's objectives.According toRomney & Steinbart (2012),also known as: "a group of linked components with each other on a regular basis in order to produce useful information and communicate this information to users appropriately and timely manner in order to assist them in performing the functions assigned to them"(Romney & Steinbart, 2012).On the other hand, FISrefers to a system that records an organization's financial data and transactions(Al-Laith, 2012). The financial information consists of the organization's revenues and expenditures, as well as other financial transactions. A business will implement an FIS in order to accumulate data so that those responsible for making decisions have a supply of information over a period of time.

There are limited studiesdiscussingthe issue of accounting information systems and its impact on the quality of financial statements. Therefore, this study has identified the most important FIS components in commercial banks based on Salmi and Sulaiti (2009)as follows:

(i) Subsystem input: This system consists of a subset of systems, as follows:

- Data Processing System: This system takes internal data relating to the performance of the financial position of the bank collection.
- Internal Audit System: This system shall complete the research on the bank's operations and financial studies.
- Financial Intelligence System: This system shall compile data on the environment and financial companies such as banks and government agencies, as well as local and international economic variables that could affect the financial performance of the bank.

(ii) Subsystem outputs: This system consists of a subset of systems, as follows:

- Financial Prediction System: This system shall create the financial information needed to predict and meet the financial needs of the bank in the future.
- Finance Management System: The creation of the information for the management of finance is tomeet the administrative needs of the funds, whether by withholding profits of any internal sources or through external sources such as depositors and investors.
- Financial Control System: This system configures information for the purpose of translating the official objectives of the bank into operational objectives that management seeks to achieve and monitor the implementation and evaluation.

RESEARCH METHODOLOGY

This study has depended on the descriptive analytical methodology that describes a phenomenon in order to identify the reasons for this phenomenon and the factors that control it, as well as theextraction of the results to generalize them.

The descriptive approach depends on gathering facts and information and comparing, analysing, and explaining them in order to arrive at accepted generalizations, or studying, analysing, and explaining the phenomenon in question by defining its dimensions and characteristics and describing the relations between them in order to reach a comprehensive scientific description (Thompson, 2000).

The population of the study consists of Jordanian commercial banks' employeesin various administrative and supervisory positions.To identify the impact of FIS on the quality of financial statements,in this study, 80 questionnaires were randomly distributed to the Jordanian commercial banks employees within the administrative, executive, and supervisory levels.

Table 1
Demographic profile

Category		*Frequency*	*Percentage*
Gender	Male	49	61.2%
	Female	31	38.8%
Management Level	Executive	26	32.5%
	Mid Management	26	32.5%
	Senior	18	22.5%
	Junior	10	12.5%
Years of Experience	1 to 5 years	12	15.0%
	6 to 10 years	38	47.5%
	11 to 15 years	19	23.8%
	15 years and above	11	13.8%

According to Table 1, it is clear that most of the respondents were male (49 of them, which formed 61.2%), while the femalepercentage was lower (38.8%). As for the job level, it is observed from Table 1 that the majority of the respondents wereExecutiveand Mid Management (each one 32.5%). As for the years of experience, it is observed from the above table that most of the respondents were from middle-experiences (6 to 10 years), forming a percentage of 47.5%, followed by experienced (11 to 15 years)which was 23.8%, followed by (1 to 5 years) with 15%, followed by (15 years and above) with 13.8%.

We used a five-level (Likert) scale in formulating the questions in the questionnaire. The reliability testforthe adopted instrument was conducted by Cronbach – Alpha reliability test.The Cronbach's alpha values ranged between 71.7% and 82.4% for study dimension, and for all dimensions the reliability value reached to 87.4% which exceeds the adequate reliability suggested byHair, Anderson, Babin, & Black in 2010.

THE RESULTS

All analyses were conducted with SPSS-PC. Frequency and percentage were used to describe the sample of the study in terms of demographic and occupational variables. We examined the hypotheses of the study using percentages, averages, and means. One sample t-test wasused to examine the statistical significant ($p \leq 0.05$) in the respondents' attitudes due to the study dimension and testing hypothesis.

Table 2
Sample mean answers on (reality of FIS use)

	Items	*Mean*	*Std. deviation*	*The level*
1	Bank largely depends on the information and financial data provided by the FIS in various financial disclosure lists.	3.99	0.72	High
2	The information provided by FIS is correct and error free.	4.04	0.70	High
3	FIS used in banks provide information and data commensurate with the nature of the activities and operations of the bank.	4.08	0.81	High
4	Information and data extracted from the FIS meet the needs of investors and bank customers.	4.06	0.75	High
5	Financial data extracted from the FIS appears to be the financial position of commercial banks.	4.15	0.78	High
6	The technique used in FIS provides the necessary protection of information and financial accounting data.	4.11	0.73	High
	General Mean	**4.07**		High

According to Table 2, the majority of respondents agreed about the first dimension of the items, referringto the reality of FIS use, where was arithmetic mean of their answers high level.

Item 5 has the highest arithmetic mean at 4.19 with high level degree, which states: Financial data extracted from the FIS, appear the financial position of commercial banks. Item 1 has received the lowest arithmetic mean, reaching only 3.99 with high level degree.

Through the general mean (4.07), we can say that the level of reality of FIS use in commercial banks was high.

To ensure the validity of this result, a (Chi^2) test was conducted, at a confidence level of not less than 95%, at the significance level ($\alpha \leq 0.05$).

Table 3
(Chi^2) test for first dimension

Chi^2 value	*Significance level*
77.89	0.000

Table 3 shows the answers of respondents in a structured, non-random format, reaching the level of significance (0.00) which is less than the statistical error ratio (0.05), so the result that we have obtained from the averages of the respondents' answers are correct. That is, Jordanian commercial banks used FISin high level, because of its importance and benefits to banks and investors.

According to Table 4, most respondents agreed about the second dimension of the items referring to the use of FIS and its effect on the quality of financial statements.The arithmetic mean of their answers were high level, except items 7 and 9 have low mean, which state: the use of FIS leads to rationalize the decision-making processes, which clearly affect the validity of these decisions, and the use of FIS significantly contributes to solving many of the financial problems at the bank.

Table 4
Sample mean answers on (the use of FIS and its effect on the quality of financial statements)

	Items	*Mean*	*Std. deviation*	*The level*
1	The use of FIS leads to increased financial data quality.	4.30	0.58	High
2	The type of FIS used effects on the quality of financial data	4.10	0.66	High
3	Whenever increased reliance on FIS increase the quality of financial statements.	3.98	0.87	High
4	Practical experience in the use of FIS has a strong impact on the quality of financial data.	4.25	0.78	High
5	Using FIS lead to achieve a higher degree of integration and interdependence between the financial data extracted from these systems.	4.23	0.65	High
6	The use of FIS provides a range of regulatory procedures to ensure the safety of the decisions taken and detect errors when they occur.	4.16	0.64	High
7	The use of FIS leads to rationalizing the decision-making processes, which clearly affect the validity of these decisions.	2.75	0.60	Moderate
8	FIS increase the amount and accuracy of the financial statements	4.05	1.09	High
9	The use of FIS significantly contributes to solving many of the financial problems at the bank.	2.85	0.97	Moderate
10	The use of FIS leads to a reduction of financial errors in the figures and data in the financial statements.	3.89	0.87	High
	General Mean	**3.86**		High

Item 1 has the highest average arithmetic mean at4.30 withhigh level degree, which states: The use of FIS lead to increased financial data quality, where Item7 has received the lowest arithmetic meanreaching 2.75 with moderate level degree. Through the general mean of 3.98, we can say that using FIS by banks leads to increase the quality of financial statements. To ensure the validity of this result, a Chi^2 test is conducted, at a confidence level of not less than 95% and the percentage of error shouldnot exceed 5% at the significance level ($\alpha \leq 0.05$), and Table 10 shows that.

Table 5
(Chi^2) test for second dimension

Chi^2 value	*Significance level*
120.22	0.000

Table 5 shows that the answers of respondents a structured format, a non-random, reaching the level of significance (0.00) which is less than the statistical error ratio (0.05), so the result that we have obtained from the averages of the respondents' answers iscorrect. That is, using FISby banks leads to increase the quality of financial statements.

According to Table 6, the majorityof respondents agreed on what came within the third dimension of the paragraphs, referring to the obstacles and problems that hinder the use of FIS in commercial banks, where the arithmetic mean of their answers was at a high level.

Table 6
Sample mean answers on (obstacles and problems hinder the use of FIS)

	Items	*Mean*	*Std. deviation*	*The level*
1	The lack of employees' efficiency at commercial banks in using FIS.	4.19	0.76	High
2	The high cost of FIS limit the ability to use	3.79	0.85	High
3	High investment cost in FIS compared with the benefit of using the extracted data from these systems.	4.18	0.65	High
4	The lack of absolute confidence in the financial data extracted from the FIS.	3.85	0.73	High
5	Link the development of the financial information used for the development of potential human resources in commercial banks.	3.84	0.92	High
6	Employee resistance in the commercial banks for the use of FIS.	3.93	1.00	High
	General Mean	**3.96**		High

Item 1 has the highest average arithmetic mean (4.19) with a high level degree, which states: The lack of employees' efficiency at commercial banks in using FIS, where Item 2 has received the lowest arithmetic mean (3.79) with a high level degree, which states: The high cost of FIS limit the ability to use.

Through the general mean (3.96), we can say that there isa range of obstacles and problems hindering the use of FIS in commercial banks, for example, lack of FIS knowledge and technical skills in commercial banks. In order toconfirm this result, a Chi^2 testwas conducted, at a confidence level of not less than 95%, and the percentage of error shouldnot exceed 5%, at the significance level ($\alpha \leq 0.05$), and Table 12 shows that.

Table 7
(Chi^2) test for third dimension

Chi^2 value	*Significance level*
118.23	0.000

Table 7 shows the answers of respondents in a structured, non-random format, reaching the level of significance (0.00) which is less than the statistical error ratio (0.05), so the result that we have obtained from the averages of the respondents' answers iscorrect. That is, there are a range of obstacles and problems hindering the use of FIS in commercial banks.

CONCLUSION

This study aimed to investigate the impact of FIS on the quality of financial statements in the Jordanian commercial Banks. The most salient results of the study can be summarized in the following: (i) financial data extracted from the FISreveals the financial position of commercial banks; (ii) the technique used in FIS provides the necessary protection of information and financial accounting data; (iii) the reality of FIS use in commercial Jordanian banks was high level; (iv) the use of FIS leads to increased financial data quality; (v) practical experience in the use of FIS hasa strong impact on the quality of financial data; (vi) using FIS by banks leads to an increase in the quality of financial statements; (vii) there are a range ofobstacles and problems hindering the use of FIS in commercial banks such as: the lack of employees efficiency in using FIS. In addition, there is high investment cost in FIS compared with the benefit of using the extracted data from these systems.This study recommended the need for increased attention to financial information systems by taking advantage of internal expertise to promote and develop the use of FIS.Moreover, to provide the necessary support system so that greater integration between financial information and different administrative levels systems can be achieved to ensure that the effectiveness of the outputs of the system fit the needs of decision makers.

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