The Impact of Islamic Financing and Conventional Financing on Companies' Performance (A Comparative Study of Industrial Companies Listed on the Amman Stock Exchange)

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Abstract

This study aimed to demonstrate the impact of Islamic financing and conventional financing on the performance of Jordanian industrial companies during the period (2001-2010) in comparison between them. The study used a set of financial ratios to measure the impact of Islamic and conventional financing on the companies' performance included in the study sample. The study used (T-test) and (F-test) to check whether there were statistically significant differences among the financing types used by industrial companies and its impact on their performance. The study concluded that companies which use the Islamic financing system achieve obvious advantages in most financial ratio used to measure the performance of these companies. The study showed that there are no statistically significant differences between companies that follow Islamic financing system and companies that follow conventional financing system for all financial ratios except (the rate of income to expenses, the rate of profit to expenses.) In addition, the study showed that there are statistically significant differences at the level of α (0.05), and statistically significant differences at the level of α (0.10) for (borrowing rate to equity, asset utilization rate, and efficiency of operations index).

Keywords: Finance, Islamic financing, Conventional financing, Investment, Industrial sector, Jordan economy

1. Introduction

In the world today that is full of rapid changes in various fields, money has become one of the basic and necessary resources in the formation and growth of institutions like the other resources, where money is considered the lifeblood of any firm as it is the primary engine for tasks inside the firm; therefore, it should be available on time and in appropriate amount as any firm should determine the funds that it needs and pursue to get this fund after determining its source; since the sources of funds for any firm must be internal sources such as retained earnings, or external sources such as the issuance of new shares or borrowing from abroad or from financial institutions that operate in the finance field. There are different forms of these institutions, perhaps the most important are banks in all its types, whether Islamic banks which provide funding in accordance with the Islamic provisions or conventional banks which provide funding on the basis of interest, or other types of banks. In one hand, Banks play a vital role in the national economy through the dual role in the compilation for national savings and accepting them in the form of deposits and saving accounts; on the other hand, the banks use a large portion of these deposits and savings in the form of credit facilities and loans to allow all sectors of national economy get benefit to fund their multiple operations.

Therefore, any firm, whether industrial, commercial or others, should make decisions related to the provision of funds required for the firm; thus, the decision-makers in the firm must make financial decisions, particularly the financing, taking into account the cost of funds so that they should select appropriate funding sources that would reduce the cost of capital.

The economic sectors in general and the industrial sector in particular need funding in order to grow and prosper; as the industrial sector is a key base in the long-term strategies in national economies, either as it is one of the most important sectors in diversifying the sources of national income and the reduction of over-reliance on a single source to create wealth, or for its ability to contribute to fill a large part of the growing needs of the community and achieve greater value-added for the national resources.

Arab developing countries have witnessed a remarkable development in the industrial sector as a result of increased investment flows towards these countries; Jordan is not apart from these countries, at which Jordan has a distinct strategic location and political stability in the region, making it a center to attract foreign and local investment in various sectors, especially the industrial sector. Despite the fact that Jordan is relatively a poor country in natural resources, but it is rich in human resources.

2. The Problem of the Study

Many industrial companies rely on non-self micro-financing, either Islamic or conventional financing, therefore there must be studies to address the subject of bank financing provided by these banks to industrial companies to illustrate the impact of this funding on the performance of these companies, so the problem of the study lies in the Islamic and conventional financing impact on the performance of these companies; the problem of the study can be summarized by the following questions:

- Do companies that adopt the Islamic financing system achieve higher returns than companies adopt conventional financing system?
- Is there a relationship between adopting the Islamic financing system and the liquidity ratio?
- What is the impact of both Islamic and conventional financing on the increase of risk in the companies?
- What is the impact of both Islamic and conventional financing on companies' efficiency?

3. Purpose of the Study

The study aims to measure the impact of the Islamic and conventional financing on the performance of the Jordanian industrial companies through several phases, which can be summarized as follows:

- To know if the companies that rely on Islamic financing system gain higher returns than companies rely on conventional financing system.
- To find out if there is a relationship between the type of financing used by companies and the liquidity ratio.
- To identify the impact of the Islamic and conventional financing on the increase of risk in the Jordanian industrial companies.
- To identify the impact of the Islamic and conventional financing on companies' efficiency.

4. Importance of the Study

The importance of the study can be highlighted in the following points:

- The study focuses in content on the Islamic financing and its impact on the performance of the Jordanian industrial companies through comparison with conventional financing to determine its impact on the companies; as researchers stated that there are no studies addressed this topic.
- This study is considered an addition to the literature related to the subject of credit in general.
- The importance of this study is also obvious through various financial institutions; as they play a key role in the economic development of any country in the provision of adequate funding for the economy, especially in sectors that are in the beginning stages, so as to achieve high growth rates and obtain self-propelled economics able to progress and develop by providing the necessary funding, which is the cornerstone of change and development.
- This study is distinguished from previous studies as it is considered-by researchers- the first study in Jordan addressed the issue of Islamic financing and its impact on the performance of Jordanian industrial companies compared with conventional financing.

Most of the previous studies focused on bank credit in general and its impact on the economic growth; the other focused on bank credit and its impact on economic fluctuations, ignoring whether there are different types of credit, and what is the impact of these types on a particular sector or even on the economy in general.

5. Hypotheses

This study addresses the following hypotheses:

The first hypothesis: companies which adopt the Islamic financing system achieve higher returns than companies adopt conventional financing system. This hypothesis leads to the following minor hypothesis:

There are statistically significant differences in companies' profitability that can be attributed to the adapted type of financing.

The second hypothesis: There is a positive relationship between the adoption of Islamic financing system by companies and liquidity ratio. This hypothesis leads to the following minor hypothesis:

There are statistically significant differences between the financing type and the companies' liquidity.

The third hypothesis: There is a negative relationship between adopting the Islamic financing system and the increase of risk in companies. This hypothesis leads to the following minor hypothesis:

There are statistically significant differences between the financing type and the possibility to be exposed to financial risks.

The fourth hypothesis: Adopting the Islamic financing system affects the companies' efficiency positively. This hypothesis leads to the following minor hypothesis:

There are statistically significant differences between the financing type and the company's efficiency.

6. Methodology

To achieve the objectives of the study and test its hypotheses, secondary sources of data have been used; at which the study relied on two groups of secondary sources. The first group is for books, scientific journals, and the international information network to get access to the previous studies which are related to the subject, especially with regard to Islamic and conventional financing. The second group is the data and annual financial reports issued by the industrial companies for the period 2001-2010 to get the required information to calculate financial ratios used in the study to compare the performance of companies which adopt the Islamic financing system with the companies use conventional financing system. For the purposes of answering the questions of the study and comparing between the types of financing used by companies, a set of financial ratios has been used consists of (profitability ratios, liquidity ratios, debt ratios and efficiency ratios) which will answer the questions of the study. Aqel Mefleh (1995) stated that the financial ratios are considered the most important methods of evaluating performance; and to find out if there are significant differences between the ratio groups for companies in the sample of the study, (T-test , F-test) have been used.

The Study Sample includes all Jordanian industrial companies listed on the Amman Stock Exchange (ASE). It was selected from a sample represents the Jordanian industrial companies listed on the ASE in order to accomplish the purposes of the study. The sample consisted of (4) companies use the Islamic financing, namely:

- Industrial, Commercial, Agricultural Company / production.
- Arab Company for manufacturing pesticides and veterinary drugs.
- National Company for manufacturing cables and electrical wires.
- Arab Company for manufacturing steel pipes.

Other (4) companies use the conventional financing were selected, namely:

- Arab Factories Co. for Chemical Detergents.
- Petrochemical Industries Company.
- Arab Company for Electrical Industries.
- Jordanian Company for pipes' manufacturing.

It was taken into account that the study sample was made up of companies similar in (size, industry) for the purposes of comparing between them.

7. Literature Review

Mahmoud and Abla (2008) focused in their study on one of the Islamic financing forms; at which she showed the extent of applying the method of participating in the Islamic banks in the Arab region, and the Algerian experience represented in Al Baraka Algerian Bank was taken into account as it is the only banking institution in Algeria, which operates under the provisions of Islamic law. The study found out that the latter depends on the banking participation in its relationship with stockholders (depositors and underwriters in the bond fund) as a speculator; in return, Al Baraka Bank does not apply funding in participation in the capital starting from the year 2001, and does not apply funding in participation in money and work. The study also focused on Sudan experience, where it has a special importance, as Sudanese banks apply participating in rates exceed the other conducted Islamic banks, approaching a lot of rates of cost. The reason for this is that the Sudanese banks operate under Islamic banking system supported by the Central Sudanese Bank, which encourages them to apply participation with stockholders on one hand, and with the entrepreneurs on the other hand.

Dawoudi, Oqbah, (2009) made a comparative study between conventional lease financing mechanism and Islamic tooling formula (Istesna'a), which was conducted on the industrial sector. This study showed the actual role of the Islamic formulas in financing industry sectors in its various branches with an indication to the difference between them and the adopted formulas in the conventional financing system. It primarily focused on the tooling formula in the Islamic banks as a model for financing formulas which match the Islamic law and the lease financing mechanism used in conventional banks, as a model used in the traditional economy. This study also showed the impact of the two formulas on the benefits and privileges for both, the bank and the beneficiary from adaptation.

Al-Majali, (2003) conducted a study aimed to demonstrate the impact of bank credit provided by commercial banks operating in Jordan on the Jordanian economic activity as a whole, and at the level of each economic sector by itself during the period (1970-2000). The study used a Vector Auto regression sample on annual data through several tests, such as testing the stability variables with time, causality, and a test to choose the optimum number for the number of slowdown periods through the analysis tool of variance components, and Impluse response function. The study results showed that all the study variables, including bank credit provided by commercial banks operating in Jordan for the Jordanian economy as a whole, are unstable in their levels with time; while the causality results showed that there is a causal relationship between GDP and bank credit at the economy level as a whole, which is reciprocal relationship. The results of the variance components analysis of GDP indicated that the explanatory power of bank credit is very strong in the interpretation of wrong prediction in GDP variance; while the Impluse response function test result was that the impact of credit facilities on GDP is positive.

Al-Jaloudi, (1997) presented in his study the impact of credit on investment. The study aimed to demonstrate the impact of bank credit on investment and the role of the banking sector in financing public and private investments. The study tried to identify the most important sectors which attracted these funds and the most important sectors that contributed highly in investment, the contribution of the sectors in supporting the development process as well. The study also aimed to demonstrate the influence of the other most important sources of financing on investment along with bank credit; it showed that the investment is influenced positively by the levels of bank credit at the national economy level; so that if the levels of bank credit increased by one dinar, the gross capital formation will increase by (0.896) dinars. The study also indicated that the impact of bank credit on investment varies depending on the economic sector, which is more positive in industry and services sector, and less in the agriculture sector.

Al-Ameri, (2003) conducted a study aimed to measure the impact of bank credit presented by Yemeni commercial banks on the economic growth (represented in the growth rate of GDP) during the period 1990-2001. The study used the descriptive analytical method for the bank credit data; it also applied a standard statistical sample which consisted of two equations. The first measures the factors affect bank credit; and the other measures and analyze production. The results showed that there is a limited positive impact for bank credit on the economic growth, which indicated the modest contribution of the banking sector in economic growth as a whole, and even at the different sectors level in the Yemeni economy, that is because most of the credit goes to the consumer spending.

Alawin, (1998) accomplished a study aimed mainly to shed light on the impact of bank credit provided by licensed banks on economic fluctuations in Jordan. It also aimed to study the nature of the relationship between these two variables through discussing the relationship between bank credit and monetary policy.

It used a number of standard methods to identify the relationship between GDP and credit facilities, including (Unit Root) test, (Co integration) test, (Vector Auto regression) sample, (Impluse Response Function), and (Granger Causality). The results showed that there is a positive effect of credit on GDP ranges between 0.6% and 1.1% for each unit of credit. Causality test result showed that there is a correlation between the two variables and that when dividing the entire period into two parts, which showed that the relationship between them is one-way and flows from credit to GDP in the first period (1985-1989); while in the second period (1990-1997), the relationship is one-way too, but from GDP to credit.

The study conducted by Mohammad, (1996) aimed to show the role of the banking system in Jordan in supporting and financing the Jordanian industrial sector; it has only focused on the economic sector without other sectors. This study used the descriptive method and the standard approach in the analysis trying to gauge the role that could be played by the banking sector in financing the industrial sector, at which it used a standard form contains a formula consisting of three variables, namely: the GDP, credit facilities provided by commercial banks on one hand, and the Industrial Development Bank on the other hand.

The following are the most important results of the study:

-One of the most important sources of industrial financing is self-financing, which refers to the decline in the contribution of the Jordanian banking sector in financing the industrial sector.
- Meeting the requirements of large industries and their funding needs is relatively easier than small industries.
- The marginal product for the credit facilities provided by the licensed banks to the industrial sector was less than the marginal product for the Industrial Development Bank loans.

Wood Ruff and Douglas, (2000) made a study aimed to highlight the role of financial institutions in the redevelopment and building of societies, through the role played by the Bank (AOF USA) as a sample for the study; the most important results are the following:

-(AOF USA) bank was a source in the process of change in order to make development in the communities semi-permanent, at which the bank contributed in building 40 houses in Weston city, as well as provide the necessary funding for some individuals and establishments; this bank was ranked No. (1) in 1999 bank for financing small enterprises, as the volume of its loans reached double the loans provided by the best bank in the region.
- (AOF USA) bank had a role in the innovation that has emerged through the development of new banking services, most notably is the Internet; this bank had also the ability to utilize investment opportunities better than the other financial institutions.
- (AOF USA) bank had a leadership role in providing vision and new ways to serve the community in the non-banking services fields, which stimulated other financial institutions to support the development process, and led to the development of at least 15,000 housing units for low-income individuals.
-(AOF USA) bank contributed in the development of some legislations that would make the impact of the development process more inclusive, where the contribution of this bank was estimated in the development processes in America with U.S. $ 350 billion during the last decade.

Anari et.al, (2002) conducted a study aimed to clarify the role of the funding in the Finnish economy during the period 1980 to 1996, where the study used the method of time series analysis based on monthly time series of GDP, cash availability, prices of consumer goods, and bank credit to verify the goal of the study in the mentioned period. The study confirmed that this period witnessed a rapid development in the economy of Finland, followed by a recession linked to a banking crisis in the country. The results of this study indicated that there is a positive relationship between the available credit and economic growth, where the results show that the availability of credit has an important role in the expansion of Finnish economy in early 1980 and the government's intervention in Finland played a key role in reducing the negative effects of the credit on the economy.

Odedokun, (1998) aimed in his study to measure the role of the financial sector in the economic growth, and that by measuring the impact of the financial sector production on the development or economic growth for the period (1970-1990). The study sample was (90) developing countries, have been divided into two groups: countries with low income and countries with high income, so as to know whether the financial intermediation depends on the circumstances of economic development experienced by that country, assuming that the economy consists of two sectors: the financial sector and the real sector (non-financial). Through the use of the Ordinary Least-squares analysis (OLS), the following results were concluded:

- The real growth in the volume of the financial sector production has had a positive impact on the economic growth of developing countries, regardless of the achieved economic development level.
- The financial depth (the size of the financial sector production/ GDP) stimulates the economic growth in low-income countries, while it does not work that way in high-income countries.
- The combined effect of financial intermediation (the internal between the financial and the real sectors, and the external between the financial sector and the economy as a whole) was positive, and does not depend on the stage and the conditions of economic development achieved by the concerned countries.

8. Data Analysis and Testing Hypothesis

Hypotheses will be tested and the results of the financial ratios that were used as indicators for comparison between companies that follow Islamic financing and companies that follow the conventional financing will be reviewed. It is known that the financial ratios that can be used to measure the performance of companies are various, and performances that considered in this study consist of four groups: liquidity ratios, profitability ratios, efficiency ratios and debt ratios.

Data analysis process will be divided into two phases; the first will analyze this data using ratios and compare their results in order to test the key hypotheses. While in the second phase, data will be analyzed using a statistical program to test minor hypotheses which are resulted from key hypotheses.

8.1. Testing Main Hypotheses

The study will test major hypotheses which include the following:

8.1.1. The First Major Hypothesis

"Companies that follow the Islamic financing system achieve higher returns than companies that follow the conventional financing system."

To test this hypothesis, the study analyzed the profitability ratios for companies that have been studied as follows:

8.1.1.1. Return on Assets. (Net Profit/ Total Assets)

The results indicate that companies which rely on Islamic financing system gain higher return on assets than the returns gained by companies that rely on the conventional financing system; at which the return on assets was positive for companies that follow the Islamic financing system in (7) years, while companies that follow the conventional financing system have gained positive returns on assets in (5) years during the study period, which indicates that companies which used the Islamic financing system are able to manage their assets better than companies that used the conventional financing system.

The results also showed that companies which followed Islamic financing system during the years of crisis, as 2007 and 2010, got high returns, which indicates that following the Islamic financing system limits the companies' losses to some extent during the periods of financial crises faced by the economies of the countries, if they were compared with companies' returns that follow the conventional financing system.

Table (1) shows the positive returns of companies that adopted the Islamic financing system during the financial crisis period, but in 2008 companies that adopted the Islamic financing system did not achieve returns as previous years. While in the following year, companies that follow the Islamic financing system returned to their former performance regarding the return on assets, and achieved positive returns. On the other hand, companies that follow the conventional financing system remained suffering from the low profits.

Table (1): Return on Assets Results

Years	Return on assets %	
Type of financing	Islamic	Conventional
2001	0.06	0.01
2002	-1.03	0.02
2003	0.20	-0.08
2004	1.46	0.03
2005	2.08	-0.03
2006	-0.68	0.02
2007	7.41	-0.002
2008	-1.61	-0.05
2009	2.58	0.01
2010	5.09	-1.02
Mean	1.56	-0.11
SD	2.87	0.32

8.1.1.2 Return on Equity (Net Profit/ Equity)

The results in table (2) showed the continued superiority of the companies that adopted the Islamic financing system on companies that adopted the conventional financing system during 2007 and 2010, despite the decline in average of this return (-.30)for all years; the standard deviation of these returns was (5.92) which is less than the deviation made in companies' returns that follow the conventional financing system (13.99), which refers to the ability of the companies that follow the Islamic financing system to achieve a balanced and disciplined return more than companies that follow the conventional financing system.

Table (2): Return on Equity Results

Years	Return on equity %	
Type of financing	Islamic	Conventional
2001	-2.04	36.39
2002	-6.66	18.91
2003	-3.27	17.56
2004	-5.18	2.27
2005	2.97	-4.24
2006	-6.48	1.80
2007	10.48	-0.21
2008	-3.08	-8.60
2009	3.23	1.14
2010	7.08	-2.53
Mean	-0.30	6.25
SD	5.92	13.78

8.1.1.3 Profit to Expenses Ratio (Profit before Taxes/ Operating Expenses)

Using this measure, the analysis results showed the ability of companies which adopt the Islamic financing system to achieve higher profits than expenses; at which the results showed the ability of these companies to gain (5.81) once on average on every dinar spent during the operations; while the results in the table (3) indicated that the companies which follow the conventional financing system, for companies included in the study, have losses worth (-4.23) on average for every dinar spent on banking operations. The results also showed that the deviation of the observations from the arithmetic mean, which follow the Islamic financing system (6.01) which is less than the deviation for companies that use the conventional system (12.19).

Table (3): Profit to Expenses Ratio Results

Years	Return on equity %	
Type of financing	Islamic	Conventional
2001	2.43	-2.72
2002	-1.50	-2.81
2003	3.10	-37.73
2004	5.54	0.12
2005	0.98	-4.78
2006	15.97	3.93
2007	14.84	-0.93
2008	2.68	-3.65
2009	3.06	4.62
2010	11.03	1.64
Mean	5.81	-4.23
SD	6.01	12.19

8.1.1.4 Net Profit Margin (Net profit/ Net sales)

The results for this measure agreed with the previous results for the rate of profit on expenses, as companies which follow Islamic financing continued to achieve profits in spite of deducting the financing costs at a rate of (1.54%) on average, while companies' losses, which follow the conventional financing system, increased after deducting financing costs at a rate of (-6.64%) on average, which may give an indication that the type of funding has a role in determining the amount of profits made by the companies in the study sample. The results in table (4) also indicated the decrease of the standard deviation for client companies which use Islamic financing system (5.05) more than in companies which use the conventional financing system (14.62), which refers to some extent to the stability of returns achieved by companies that follow the Islamic financing system.

Table (4) Net Profit Margin Result

Years	Return on equity %	
Type of financing	Islamic	Conventional
2001	1.66	-4.73
2002	-1.59	-5.73
2003	1.77	-46.83
2004	2.98	-4.32
2005	-2.34	-7.45
2006	-1.22	3.07
2007	12.08	-1.49
2008	-3.09	-4.01
2009	-2.90	3.59
2010	8.04	1.49
Mean	1.54	-6.64
SD	5.05	14.62

8.1.2 The Second Major Hypothesis

"There is a positive relationship between the adoption of Islamic financing system by companies and the proportion of liquidity in these companies."

To test this hypothesis, the study analyzed the financial ratios pertaining to liquidity for companies as follows:

8.1.2.1 Liquidity Ratios

Liquidity Metrics indicate the company's ability to meet short-term obligations and its ability to avoid the temporary financial insolvency, as the increase of liquidity ratios in any company is considered a good and strong indicator for the ability of the company to cope with financial crises.

- Current Ratio (Current assets/ Current liabilities)

The results in table (5) showed that the average liquidity ratio for companies that adopt Islamic financing system was (2.58) on average, which is higher than that in companies which adopt the conventional financing system, which was (1.92) on average, and this indicates that companies that follow Islamic financing system has a greater capacity to cover short-term obligations better than companies that follow the conventional financing system.

Table (5) Current Ratio Results

Years	Return on equity %	
Type of financing	Islamic	Conventional
2001	1.98	2.12
2002	3.72	2.38
2003	2.29	2.11
2004	1.98	2.39
2005	1.99	1.99
2006	3.38	2.07
2007	2.47	1.74
2008	2.32	1.45
2009	2.71	1.38
2010	2.92	1.55
Mean	2.58	1.92
SD	0.61	0.37

- Quick Ratio (Current assets- inventory/ Current liabilities)

This ratio is the strongest and the best indicator for the Company's ability to meet short-term obligations; at which this ratio raised the stock of current assets, which gives more confidence to the company's ability to meet short-term obligations. The results in table (6) showed that the rapid proportion of trading in companies that adopt Islamic financing system is higher than companies that adopt the conventional financing system, where the ratio at companies that use Islamic financing was (1.09) on average, while it was (0.93) in companies that use the conventional financing on average, giving an indication that companies which follow the Islamic financing has the ability to meet short-term obligations better than companies that follow the conventional financing.

Table (6) Quick Ratio Results

Years	Return on equity %	
Type of financing	Islamic	Conventional
2001	0.77	1.22
2002	1.71	1.25
2003	1.12	1.11
2004	0.86	1.00
2005	0.73	0.84
2006	1.30	0.87
2007	1.11	0.72
2008	1.00	0.69
2009	1.02	0.83
2010	1.24	0.74
Mean	1.09	0.93
SD	0.29	0.21

8.1.3 The Third Major Hypothesis

"There is a negative correlation between the adoption of Islamic financing system and the increase of risk in the companies."

To test this hypothesis, the study analyzed the financial ratios pertaining to the extent of risk for the companies as follows:

8.1.3.1 Financial Leverage Ratios or Debt Ratios

The Financial Leverage Ratios include the following ratios:

- Debt to Equity Ratio (Total Liabilities/ Shareholders' Equity)

This ratio measures the ability of companies to absorb financial shocks that could be exposed, and also indicates the ability of the company to maintain its financial situation in insolvency case, at which this rate refers to the rate of company's debt coverage to equity ratio, which is the book value of the company (Matar, 2006). The results in table (7) showed that companies which follow the conventional financing system got a negative value in some years of the study such as (2001) (-1.93), which means that these companies had consecutive losses, which affect its book value and led to negative shareholders' equity in these companies; while this ratio in companies that follow the Islamic financing system was positive in all years. But, If comparison was by using the average for this rate, companies that adopt the conventional financing showed superiority over companies that adopt the Islamic financing system; the average deviation of this value from the arithmetic mean for companies that follow the conventional financing was very high (0.86), indicating that these companies have less ability to cope with financial crises.

- Debt to Total Assets Ratio (Total loans / Total Assets)

This ratio indicates the extent of the company's use of debt in financing its investments, which are reflected in total assets; it also refers to the ability of the company to get the necessary funding to fund the available investment opportunities; it also shows the extent of the risk in the company. The results show a high percentage

Table (7) Debt to Equity Ratio Results

Years	Return on equity %	
Type of financing	Islamic	Conventional
2001	0.88	-1.93
2002	1.10	-0.88
2003	1.15	-0.34
2004	1.41	0.37
2005	0.54	0.40
2006	0.60	0.64
2007	0.40	0.48
2008	0.39	0.62
2009	0.37	0.72
2010	0.49	0.55
Mean	**0.73**	**0.06**
SD	**0.38**	**0.86**

for companies that follow the conventional system where the average ratio of using debt in these companies was (39.05 %), which gives an indication of how do these companies borrow from conventional. This ratio in companies that follow Islamic financing is (35.24 %), indicating that these companies are more conservative to resort to debt.

Table (8) Total Loans to Total Assets Results

Years	Return on equity %	
Type of financing	Islamic	Conventional
2001	42.93	48.77
2002	39.94	48.64
2003	43.20	62.09
2004	47.98	25.50
2005	33.93	28.14
2006	31.74	34.12
2007	27.91	31.83
2008	27.63	36.98
2009	26.22	41.02
2010	30.90	33.39
Mean	**35.24**	**39.05**
SD	**7.69**	**11.24**

8.1.4 The Fourth Major Hypothesis

"Following the Islamic financing system has a positive impact on the efficiency of companies"

To test this hypothesis, the study analyzed the financial ratios that could measure the efficiency of the companies as follows:

8.1.4.1 Efficiency Ratios

These ratios indicate the efficiency of the company in management and control of the assets; they also refer to the company's ability to generate sales, and the extent to which the company is able to collect the debts and control expenses (Ross, 2005, p179).

- Assets Utilization Index (Total sales / Total assets)

This ratio refers to how efficiency of the company to utilize its assets, and the extent to which the company is able to achieve the revenue from using their assets. The results in table (9) showed the efficiency of companies that follow the Islamic financing system managing their assets, as the average of this indicator reached (62.01 %); while this ratio in companies that follow the conventional financing was (53.60 %), which gives an indication that companies which adopt the Islamic financing has the ability to manage their assets better than companies that adopt the conventional financing. To emphasize this, the standard deviation result showed that the deviation in the ratio for companies that deal with Islamic financing was (6.41), while the companies that deal with conventional financing was (9.06), thus the stability of the change in the ratio confirms this conclusion.

Table (9) Assets Utilization Results

Years	Return on equity %	
Type of financing	Islamic	Conventional
2001	55.25	66.75
2002	57.60	67.13
2003	53.97	53.70
2004	64.81	56.40
2005	58.78	54.60
2006	65.48	58.71
2007	66.69	43.50
2008	66.41	47.83
2009	57.06	46.48
2010	74.03	40.90
Mean	**62.01**	**53.60**
SD	**6.41**	**9.06**

- Income Expense Ratio (Total income / Total operating expenses)

This ratio refers to the possibility of the company to achieve operating profit through operating expenses, which gives an indication on the ability of the company to make profits from its normal operations. The results in table (10) also showed the ability of the companies that adopt the Islamic financing to generate profits by (1.15) dinars on average for every one dinar spent on operations; while the results showed that companies which adopt the conventional financing has achieved an average of (1.02) dinars on average returns for every spent dinar. This indicates that companies that follow the Islamic financing system are more efficient to some extent in the utilization of assets from companies that follow the conventional financing system.

Table (10) Income Expense Ratio Results

Years	Return on equity %	
Type of financing	Islamic	Conventional
2001	1.22	1.22
2002	1.16	1.18
2003	1.19	1.12
2004	1.18	1.11
2005	1.05	1.08
2006	1.18	1.15
2007	1.14	0.82
2008	1.07	0.82
2009	1.15	0.86
2010	1.19	0.83
Mean	**1.15**	**1.02**
SD	**0.06**	**0.17**

- Operating Efficiency Index (Total operating expenses/ Total sales)

This ratio refers to the efficiency of the company's management to achieve operational revenues, and the Company's ability to control its operating costs. The results in table (11) showed that companies which follow the conventional financing system has to some extent a better ability to control its operating costs, where this ratio was (80.31 %) on average; but it has been observed that the standard deviation of this ratio is (11.43 %), which refers to its fluctuation and differs from one company to another in the study sample. It has also been noted that this high ratio is for companies which use the Islamic financing system, but the standard deviation for these companies are less compared to companies that use the conventional financing system.

Table (11) Operating Efficiency Index Results

Years	Return on equity %	
Type of financing	Islamic	Conventional
2001	82.35	82.45
2002	86.29	85.55
2003	84.61	91.85
2004	84.73	91.89
2005	97.44	93.63
2006	85.38	87.21
2007	90.45	68.82
2008	98.52	68.62
2009	90.03	65.20
2010	85.13	67.86
Mean	88.49	80.31
SD	5.57	11.43

8.2 Testing Minor Hypotheses

Regarding the minor hypotheses resulted from the major hypotheses; they have been tested through statistical analysis as follows:

8.2.1 The First Minor Hypothesis

"There is a statistically significant difference in the profitability of the companies, where it can be due to the type of financing followed by the companies."

The results of the statistical analysis in table (12) showed a lack of statistically significant differences between companies that follow Islamic financing system, and companies that follow the conventional system for each of the following indicators: (return on assets, return on equity, and net profit margin). Regarding the index of (the rate of profit to expenses), there was a statistically significant difference in the significance level α (0.05).

8.2.2 The Second Minor Hypothesis

"There are statistically significant differences between the type of financing and liquidity of companies."

Statistical analysis results indicated that there are statistically significant differences in the significance level α (0.05) for the rate of trading in the companies mentioned in the study sample. Regarding the rate of quick trading, the results of the statistical analysis showed a lack of statistically significant differences between companies that adopt the Islamic financing and companies adopt the conventional financing.

8.2.3 The Third Minor Hypothesis

"There are statistically significant differences between the type of financing and the possibility of the Company's exposure to financial risks."

Statistical analysis results indicated that there are statistically significant differences in the significance level α(0.10) for the rate of borrowing to equity in the companies mentioned in the study sample. Regarding the debt ratio (the debt ratio to assets), the results of statistical analysis showed a lack of statistically significant differences between companies that follow the Islamic financing and companies follow the conventional financing.

8.2.4 The Fourth Minor Hypothesis

"There are statistically significant differences between the type of financing and the company's efficiency".
The results of the statistical analysis showed the presence of statistically significant differences in the significance level α (0.10) for the utilization rate of assets between companies which adopt the Islamic financing and companies adopt the conventional financing. In addition, the results in table (12) showed the presence of statistically significant differences in the significance level α (0.05) for the rate of income to expenses in the companies mentioned in the study sample. It also indicated the presence of statistically significant differences in the significance level α (0.10) for the index of operations' efficiency in these companies.

Table (12): Statistical Results for These Companies

	Islamic		Conventional			
Performance Measure	Mean	S.D	Mean	S.D	T-test	F- test
PROFITABILITY RATIOS						
Return on assets (ROA)	1.56	2.87	-0.11	0.10	1.75	79.87*
Return on Equity (ROE)	-0.30	5.92	6.25	13.77	-1.23	5.41*
Profit to Expenses Ratio (PER)	5.81	6.01	-4.23	12.19	2.77*	4.11*
Net Profit Margin	1.54	5.05	-6.64	14.62	1.68	8.40*
LIQUIDITY RATIOS						
CR	2.58	0.61	1.92	0.37	3.00*	2.72
QR	1.09	0.29	0.93	0.21	1.58	1.97
RISK AND SOLVENCY RATIOS						
Debt-Equity Ratio (DER)	0.73	0.38	0.06	0.86	1.93**	5.30*
Debt to Total Assets Ratio (DAR)	35.24	7.69	39.05	11.24	-1.16	2.13
EFFICIENCY RATIOS						
Asset Utilization (AU)	62.01	6.41	53.60	9.06	1.77**	1.99
Income Expense Ratio (IER)	1.15	0.06	1.02	0.17	2.77*	8.96*
Operating Efficiency (OE)	88.49	5.57	80.31	11.43	1.87**	4.21*

* Statistically significant differences in the significance level α (0.05)
** Statistically significant differences in the significance level α (0.10)

Table (12) shows that there are significant differences in the significance level α (0.05) and α (0.10) among the companies which adopt Islamic financing and companies adopt the conventional financing for each of the indicators of profit rate to expenses, trading ratio, borrowing rate to equity, utilizing the assets index, income ratio to expenses, and the efficiency of operations index, which confirm the validity of the results that have been obtained using indicators of financial ratios.

9. Results

The most important findings and recommendations will be presented through the available data, the used mathematical and statistical methods as well. The results will be displayed according to the main phases related to the performance of the companies as follows:

9.1 In Terms of Profitability:

- Companies that follow Islamic financing system gained returns on assets higher than the returns realized by companies that follow the conventional financing system, which indicates that these companies are able to manage their assets better than companies that follow the conventional financing system.
- The results indicated the superiority of companies that adopt Islamic financing over companies adopt conventional financing during 2007 and 2010 with respect to the rate of return on equity.
- The results showed the ability of companies that follow the Islamic financing system to achieve a higher return per a cash unit, which has spent during their operations; while this ratio was low in companies that follow the conventional financing system.
- The results showed the ability of companies that follow the Islamic financing system to achieve profits after deducting financing costs, while losses increased in companies that follow the conventional financing system.

9.2 In Terms of Liquidity

- The results indicated that companies which adopt Islamic financing have higher trading ratio than the companies which adopt the conventional financing system.
- The result of the quick trading has totally accorded with the current Ratio, where it was higher in the companies that adopt the Islamic financing than companies that adopt the conventional financing.

9.3 In Terms of Risk

- With respect to borrowing to equity, the results showed that companies which follow the conventional financing had a negative ratio in some years, while this ratio was positive in companies which follow the Islamic financing system in all years.
- The results for the debt ratio to assets indicated the increase of this ratio in the companies that follow the conventional financing, but it is low in companies that follow the Islamic financing.

9.4 In Terms of Efficiency

- The results related to the rate of utilizing assets showed higher efficiency for companies which adopt the Islamic financing system in managing its assets, more than for companies that adopt the conventional financing system, which gives an indication that companies that follow Islamic financing has the ability to manage their assets better than companies that follow the conventional system.
- The results related to the income ratio to expenses indicated that companies which adopt the Islamic financing system are more efficient, to some extent, in utilizing its assets than companies which adopt the conventional financing system.
- The results related to the efficiency of operations ratio indicated that the companies that follow the conventional financing system has somewhat a better ability to control their operating costs, more than those that follow the Islamic financing system; at which this ratio was comparable between companies.

10. Recommendations

Based on previous findings, the following recommendations have been proposed:

- The study recommends the Jordanian industrial companies to follow Islamic financing to fund its operations and activities in full, because of its positive effects on the performance of these companies, depending on the obtained results in this study.
- The study recommends companies that adopt Islamic financing to continue using this type, so that they can keep their existence and their continuity in the market they operate in.
- The study recommends that researchers need to pay attention to the methods of financing used by the Jordanian industrial companies in their research and studies, for the impact of this subject on the performance of these companies.
- The study recommends the audit offices, which audit the accounts of the industrial companies, to disclose about the party that provides them funding, to help researchers in obtaining data and information related to the Islamic financing, the Conventional as well.

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