The Effect of Non-traditional Financial Instruments Using on the Profitability of Jordanian Commercial Banks

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Abstract

The study aimed to demonstrate the impact of the use of non-traditional financial tools on the profitability of Jordanian commercial banks, regarding of developments and the emergence of new financial tools and services in the banking sector, Although the great openness of the free movement of capital between countries, and the technical computer and technical developments in the banking business. There for competition between banks intensified, where commercial banks began It seeks to unconventional use of its sources of funds in order to face this competition, enhance its profitability, preserve its market share and current and potential customers, as well as to enhance the share price and thus the total value of the bank. The study variables vary according to their hypotheses, so the researcher will determine the variety of each hypothesis separately. The profits of the banks are considered as a dependent variable, the independent variables are the following determinants, the values of the following: the re- discount rate of the commercial papers, the balance of certificated of deposit, cash issued during the years, and the price of checks issued for clearing. The study came through a statement of the independent variables of discounting commercial papers, certificates of deposit, checks clearing operations and the volume of cash issued in the market, Where is the dependent variable is the profitability of Jordanian commercial banks. The study sample was all traditional Jordanian banks without Islamic. Where the study used the multiple analytical regression method and the most important results were. There is an impact of the rediscount rate for commercial papers on the profitability, also there is an effect of the CD_S balance on profitability of banks, there is an effect of size of issuing cash on the profitability, and there is an effect for checks issued for clearing on the profitability of banks, where the main recommendation was achieving greater returns as well as enhance its position and influence in the investment market.

Key Words: commercial papers, cash, certificated of deposit, checks

Introduction:

Commercial banks have an effective influence in several aspects related to development trends and paths, through the effect of directing different savings from their sources in the national economy and its efficient distribution in different economic activities, in addition to its potential to create a credit that takes its monetary multiplier and its impact on economic activity, which making these banks occupy an important and effective position in the economic and financial systems. Commercial banks are one of the pillars of the economic structure and one of the tools adopted in the development and development of various economic sectors at the national level and important investments. In addition to its main function of accepting cash deposits from customers of all types for trading (savings and fixed), it offers many services such as: Collecting checks and bills of exchange and deducting them, opening documentary credits, issuing bank guarantees, selling and buying foreign currencies and tourist checks, and providing financial advice, advice and guidance to its customers in all their difficulties and problems and contributing to the development of appropriate solutions for the commercial banks to achieve a prominent and exceptional role in contributing to development and development of the national economy. This importance necessitated from the interested to make continuous monitoring in the performance of these banks and analysis the factors that affect the achievement of their objectives. Financial ratios are an important and reliable analytical tool for knowing the economic trends of any economic unit, which led the researcher to use these ratios in analyzing and determining the factors that affect the profitability of these banks.

Problem of the study:

Problem of the study lies in knowing how affected the future market values of the commercial papers for Jordanian banks listed in the Central Bank's lists on the profitability. Since the Central Bank of Jordan is characterized by full transparency of financial information, data and to make it available to the investor free of charge, the investor must use this information, data and harnessed to serve its investment decisions. A number of questions can be formulated to clarify the problem of the study:

1. Is there an impact of the volume of discount operations for commercial paper on the profitability of banks?
2. Is there an impact of the volume for cash on the profitability of commercial banks?
3. Is there an effect of the volume for certificated of deposit on the profitability of commercial banks?
4. Is there an impact of the volume for checks issued for clearing on the profitability of banks?

The importance of the study:

The importance of the study appears on who is doing it, the results of the financial analysis are the most important foundations upon which decision-making is based, judging the efficiency of the management and its ability to make a better investment of resources. The main objectives of the research are:

1.   Evaluate the financial and monetary status of the facility.
2.   Evaluate the results of investment and financing decisions.
3.   Determine the deviations of the performance achieved from the planned performance and diagnose the causes of those deviations.
4.   Evaluate the bank's suitability in the short and long term.
5.   Predict the probability of failure that may face the facility.

Objectives of the study:

The main objective of this research is to identify the factors that have a significant effect on the satisfaction and loyalty of commercial bank customers in Jordan. This includes several sub-objectives:

(1)   To identify the impact of the discount rate of commercial papers on profitability of banks in Jordan.
(2)   Study the effect of certificated of deposit on the profitability of banks in Jordan.
(3)   Study the impact of issued cash on the profitability of banks in Jordan.
(4)   Study the impact of clearing checks on the profitability of banks in Jordan.

Variables of the Study:

The study variables vary according to their hypotheses, so the researcher will determine the variables of each hypothesis separately. The profits of the banks are considered as a dependent variable, the independent variables are the following determinants, the values of the following: the re- discount rate of the commercial papers, the balance of certificated of deposit, cash issued during the years, and the price of checks issued for clearing.

Figure (1): The proposed model for the relationships between research variables.
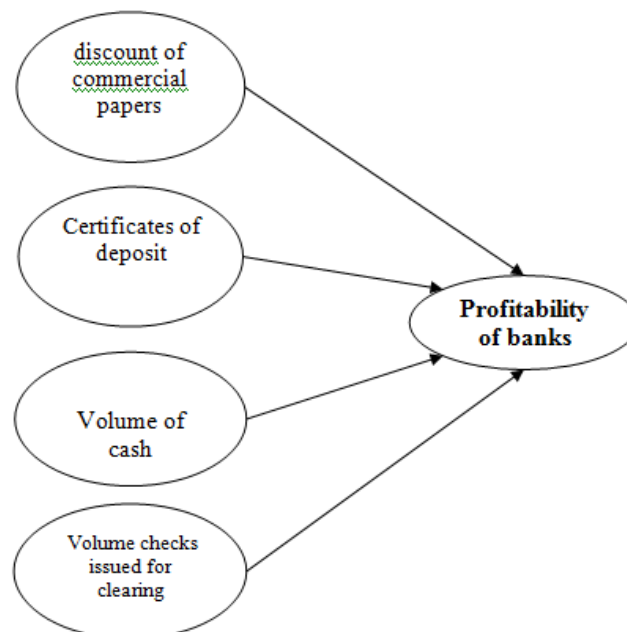
The researcher proposes the model shown in Figure (1) to depict the hypothetical relationships. Therefore, the last objective is to test the reliability of these variables in predicting the impact on the profitability of banking profit in Jordan.

Limitations of the study:

(1)   Spatial limits: Banking sector of Jordan.
(2)   time limits: from the year (2010 - 2018).

Theoretical framework- Previous studies:

Many Arab and foreign researchers conducted studies on the impact of many financial, economic or information variables on the market values of money, but the researcher could not reach to one study that combines the variables considered by the researcher in this study, where the previous studies dealt with the various variables mentioned above individually and independently for each variable or more in a study independent of the other. Here are some of these studies: A study by Mahmoud Al-Khalayleh and Ghadeer Istanbul (2006) entitled "The impact of the change in capital expenditures on the prices and movements of shares of Jordanian public shareholding companies". The study aimed to test the effect of the announcement of the change in the capital expenditure of the Jordanian public shareholding companies on the prices and movement of shares of these companies , The study included thirty-nine Jordanian public shareholding companies in the industrial and banking sectors, with (125) events that led to a change in the capital expenditures of these companies for the period (1995-2000), the results showed a statistically negative impact of the change in capital expenditures on stock price for that sample . A study by Bashir Al-Zu'bi (2001) entitled "The Impact of Macroeconomic Factors on the General Index of Securities Prices in the Amman Stock Exchange during the Period (1978-1998)", the study aimed to investigate the impact of macroeconomic variables on the Amman Stock Exchange Index. The researcher used a model containing (5) independent variables affecting the Amman Stock Exchange index represented by the General Index as a dependent variable, namely: Growth in money supply, Growth in, Interest rate, Exchange rate. The study found that Amman Stock Exchange responds to the macroeconomic variables combined, but when examining each variable separately, it was found that the value of (t) is not significant for the previous variables except the index for the previous period. A study by Ghassan Omet and Jamal Khasawneh (2002) entitled "Stability of the dividend policy and the impact of dividends on the volume of commercial paper profits": a study of non-financial companies, this study examined the policies of dividend distribution by non-financial companies listed on the Amman Stock Exchange (Jordan Stock Exchange) using financial data covering the period (1991-1998), the results showed a strong correlation between dividends and stock prices by studying a sample of (26) Jordanian non-financial companies and calculating the simple and multiple regression coefficients between dividends and share prices that were meaningful and explanatory power of stock prices . A study by Khalil Abu Hashish (2003) entitled "The Role of Accounting Information Published in Forecasting Stock Prices on the Stock Exchange in the Hashemite Kingdom of Jordan": An Empirical Study, this study aimed to identify the most important variables that affect the prices of stocks in the stock market in the Hashemite Kingdom of Jordan and the role of financial statements in it, the researcher selected twenty independent variables believed to affect the market value of securities.

The researcher measured the correlation coefficients between (15) variables of these variables and the stock price on the stock exchange as a dependent variable and excluded the remaining variables for lack of data, the researcher concluded from this study that the share price in the Jordanian Stock Exchange is directly correlated with earnings per share, net profit / equity, net profit / total assets, net profit / income from ordinary activity, net cash flows / total assets, and net dividend /net profit realized, with productivity of one JD, equity / total sources of funds, circulation ratio, interest rate / total expenses, market value / book value. Inversely related to fixed assets / total assets, total creditors / total sources of funds, Wages ratio / Total Expenses. The researcher also found that there is a significant correlation between five independent variables and the share price in the Jordanian stock exchange with a correlation rate of (0.986) namely: Earnings per share, market value of shares / book value and equity / total sources of funds and dividends / realized profit and net profit / total assets .A study by A.A. Lonie and G. Abeyratna(2007), entitled "The reactions of the financial market to the announcement of dividends" British study of companies from different sectors listed on the London Stock Exchange for the period (1 January to 30 June 1991), the study aimed to find out the effect of both realized profits and dividends on stock prices.

The researchers concluded that the announcement of dividends, whether monetary or non-monetary, increases the market value of shares. A study by   Dimitrios Tsoukalas and Shomir Sil (2002), entitled "Stock Price Determinants: A Certificate from the UK Financial Market", the study aimed to determine the extent of the dividend / share price and the dividend growth rate to predict the market prices of shares traded in the British financial market,   a sample of companies listed in that market were studied for the period (December 1996- January 1995), the researchers have formulated two main hypotheses: first, there is no meaningful effect of stock price determinants on real stock prices, and second, there is no effect on cash dividend information, through statistical analysis, researchers concluded that dividends are a major determinant of market share prices and that the announcement of dividends also increases the market value of shares .A study by   Keji Chen (2005), entitled "Returns and Stock Valuation" ,the study aimed to investigate the relationship between "returns and book values of shares" and market values of stocks,

A sample of companies listed in the US financial markets was studied for a period of 5 years in terms of the ability of these variables to predict the market values of stocks, the researcher concluded from his study that the relationship between returns and book values and market share prices is a strong and direct relationship and that there is a large predictive capacity for returns and book values at market share prices . A study by Peter Chen and Guochang Zhang (2004), entitled " Profitability, Returns and Book Value of Shares and their Impact on Market Share Prices " : Practical certificate from Hong Kong Stock Exchange, this study aimed to develop a perception of the market prices of shares to indicate their impact on profits, returns and book value of shares, the researchers studied the rate of return on equity (ROE) and the book value of shares of a sample of companies listed on the Hong Kong Stock Exchange, the researchers concluded that the relationship between profits and book value on the one hand and the market value of shares on the other hand is a direct, strong and linear relationship . A study by Qing Cao and Leggio, Karyl B. (2005), entitled "Comparison between the (Fama and French) model and artificial neural networks to predict stock prices traded in the Chinese financial market", the study showed that capital stock returns in emerging financial markets are influenced by a variety of factors that affect stock market returns in developed countries, this study used artificial neural networks to predict stock price movements and hence the extent to which they achieve capital gains resulting from changes in stock prices , the researcher used the stock dividend factor for a group of companies traded on the Shanghai Stock Exchange and the researchers concluded that capital stock returns can predict the market prices of stocks with great accuracy. A study by Ahmad Riahi-Belkaoui and Ronald D. Picture (2009), entitled "Identifying Investment Opportunities Based on Dividends and Share Price Multiplier", the study aimed to know the importance of dividends and share price multiplier in choosing the appropriate financial investment whose market value is continuously rising.

A study of the shares of US multinational public shareholding companies (1992-2007) showed that the market value of their shares is more closely related to the share price multiplier than to the dividend because a higher share price multiplier necessarily means higher stock prices. A study of Talluri, Kemel; Gardner, (2004), that conducted in United States on commercial banks during two periods of time, through impact of capital on profitability These banks showed a positive relationship between profitability and capital when the capital is less than the optimum, also inverse relationship when the capital is greater than the optimal. In a study Abu Fakhra, Nadia (2003), that conducted in the Arab Republic of Egypt to identify the relationship between profitability and capital in commercial banks during the period (1985-1995) the results showed that there is a positive relationship between profitability and capital in commercial banks, as well as the results showed that there is a fundamental impact of five components of profitability only in capital varies from bank to bank. A study of Melhem, Mohammed Fadl (2000), that conducted in Jordan pointed out the importance of loans and credit facilities as one of the bank's assets in achieving high profitability for banks. A study conducted by Central banks of Jordan (2002) on licensed banks confirmed that rationality in the selection of funds sources and efficiency in using these funds so as to help banks to achieve high returns and better profitability. Another study for Khalil Abu Hashish (2003), suggested a number of trends that help Jordanian banks to improve their level and contribute to the revitalization of the Jordanian economy, including the integration of banks to form large banks to be able to confront, compete, develop services and reduce costs, which increases the profitability. The study also urged banks that they must play an important role in financial intermediation and their role in the development of capital and expand the scope of other financial services , urged the integration of banks , the formation of large and effective banks be able to compete efficiently in the credit field and investment , provide advanced banking services through Its ability to keep abreast of modern technological developments , methods of investment , advanced financing to achieve greater profitability.

In study for Badri, Sabah and Khoury, Ratab (1999), was conducted in Jordan aimed to determine the factors affecting the performance of commercial banks during the period (1989-1996), the researcher used four different measures to measure the performance of the bank (the dependent variable) and seven independent factors were classified into four groups and concluded that one of the best measures to measure the performance of Commercial banks in Jordan " earnings per share" , share price and market capitalization. The most important factors affecting on performance of commercial banks is the regulatory factors were the leading factors and there was no impact of environmental and administrative factors on the performance of the bank. But in a study of Abu Fakhra, Nadia, (2002) "the profitability of banks between reality and expectations", the researchers pointed out the importance of banks' role in serving the economy, which depends mainly on mobilizing national savings and directing them to investment, he stressed in his study that "the profitability of banks depends primarily on the margin of interest on the sources of funds and the benefits received from usages of these sources." The same study confirmed that the profitability of banks did not reach the required level if they do not achieve a return on the sources of funds from customer deposits and that the profitability of banks is mainly due to the return on equity.

Study hypotheses:

Through the above, hypotheses can be formulated as follows:

The first hypothesis: There is a statistically significant impact of the re-discount price of commercial papers on the

profitability of banks in Jordanian commercial banks.

The second hypothesis: There is a statistically significant effect of the CDs balance on the profitability of banks in the Jordanian commercial banks.

The third hypothesis: There is a statistically significant impact of the issued cash on the profitability of banks in the Jordanian commercial banks.

The fourth hypothesis: There is a statistically significant effect of clearing checks on the profitability of banks in Jordanian commercial banks.

Methodology of the study:

The study used descriptive and analytical methods and statistical measurements in presenting and analyzing the financial statements to reach the most important results. The methodology of the study depends on all specialized secondary data, whether published or unpublished so that it covers the entire period of (2010-2018) as a single time series on which the study relies and follows the important variables in the study. In addition to previous studies messages.

Community and sample of study:

The study population in this research represents all banks listed in the Central Bank of Jordan from 2010-2018, the study sample consists of all commercial banks except Islamic Banks where listed during that period based on the financial statements published within the statistics of the Central Bank on each of:

Table (1): statistics of the Central Bank

Year	Bank profits Total Million JD	discount rate	certificates of deposit In Million JD	Issued cash Million	Value of checks submitted for clearance Million JD
2010	7744.3	6.5	2279.5	1783	22732.2
2011	9761.9	7.5	2153	2201.1	26521.6
2012	11295.6	7	1977	2350.2	30233.7
2013	13044.3	6.25	1166	2871.5	40175.8
2014	13317.2	4.75	150	2886.3	34830.6
2015	14451.4	4.25	196.5	3078.5	34305.3
2016	15851.2	4.5	230	3366.9	37448.7
2017	17829.8	5	230.9	3558	39808
2018	18939.7	4.5	230.9	3938.1	42851.1

Table prepared by the researcher based on the Central Bank lists published Reports

Method and Plan of the study:

In order to obtain the systematic risk values for shares (Betas), the rate of return on the securities traded in banks was calculated and considered as an independent variable and the profit in banks is dependent variable, then regression coefficients were calculated for all securities during the period (2010-2018). We obtain more accurate and expressive systemic risk values as the longer measurement period, the more systematic risk is expressed. Then the researcher will establish a relationship between all the independent variables together (as a single group), the average values of shares that have been calculated by (Multiple Regression) in order to know the effect of all variables together on the dependent variable to know their predictive power on the market values of shares. Through this analysis, a linear model will be designed to predict the future values of securities.

Third: Methods and Results of Analysis:

 Statistical Analysis methods used:

1- The simple linear regression analysis method would be used to find beta coefficient of the study sample by calculating the annual Central Bank reports for years (2010-2018), the average financial return of profits during the same period as shown in Table (1).

2- The simple correlation method was used to find the type and strength of the relationship between each of the following four independent variables to prove acceptance or negation of the first hypothesis:(The re-discount rate of the securities, The balance of the CDRs. Cash issued during the period, Price of checks issued for clearing ".

The average profits of banks which were a study sample as a dependent variable for the period (2010-2018) will be symbolized using simple correlation coefficient (R).

3- The ability of each individual variable to predict the dependent variable using the coefficient of determination (R^2) and the hypothesis will be accepted or rejected based on the significance of each relationship for the previous year. Individually, a significant score (5%) will be adopted in this study.

4- The Multi-Linear Regression and analysis of variance (ANOVA) analysis will be used between all six independent variables together as a single predictive power to determine their impact and their ability to predict stock market value as a dependent variable in order to construct a stock market prediction model.

4. The method of simple correlation between the expected stock prices based on the application of the proposed model to the companies (research sample), the actual market values of shares in order to test the model's ability to predict market values and to prove acceptance or denial of the second hypothesis.

(B) The results of the study hypotheses.

Hypothesis 1: There is a statistically significant effect of the rediscount rate of commercial papers on the profitability of banks at the level of (α) ≤ 0.05 in Jordanian commercial banks.

Table (2) Results of Simple Regression Test for the Effect of Independent Variable (rediscount rate of securities) on the Profitability of Banks in Jordan

Statistical decision	t Tabular	T	R^2	R	Sig	Independent variable
We reject nihilism assumption	1.96	6.556	0.603	0.776	0	commercial papers discount

Source: Prepared by the researcher based on statistical analysis of the study sample.

The values in table indicated that there is a statistically significant effect on rediscount rate of commercial papers on bank profitability, the calculated value of t is 6.556 which is higher than the tabular value 1.96 with a significant level less than 0.05. The results also indicate that the variation in rediscount rate of commercial papers explains 0.603 from the variation in profitability of banks in Jordan.

Thus, we reject the assumption and accept the alternative hypothesis that said there is a significant impact of the rediscount rate of commercial papers on the profitability of banks at the level of (α) ≤0.05 in the banking service in Jordan.

Hypothesis 2: there is no significant impact of certificates of deposit on profitability of banks at the level of significance (α) _> 0.05. In Jordanian commercial banks.

Table (3): results of the simple regression test for the effect of the independent variable (for CD_s balance) on the profitability of banks in Jordan

Statistical decision	t Tabular	T	R^2	R	Sig	Independent variable
We reject nihilism assumption	1.96	4.571	0.749	0.865	0.003	CDs

Source: Prepared by the researcher based on statistical analysis of the study sample.

The values in previous table indicated a statistically significant effect for certificates of deposit on bank profitability, where the calculated t value of 4.571, which is higher than the tabular value of 1.96 and a significant level of less than 0.05, and the results indicate, that the difference in the balance for certificates of deposit of financial accounts explains 0.749 from the variation in profitability of banks in Jordan. Thus, we reject the nihilistic assumption and accept the alternative hypothesis that said there is an effect of the CD_S balance on profitability of banks at the level of (α) ≤ 0.05 in Jordanian commercial banks.

Hypothesis 3
H0: There is no effect of the issued cash on profitability of banks at the level of (α) ≤ 0.05 in Jordanian commercial banks.

Table (4): The results of the simple regression test for effect of the independent variable (of issued cash) on profitability of banks in Jordan

Statistical decision	t Tabular	T	R 2	R	Sig	Independent variable
We reject nihilism assumption	1.96	2.624	0.998	0.994	0	Issued cash

Source: Prepared by the researcher based on statistical analysis of the study sample.

The values in Table (4) indicated that there is a statistically significant effect of the issued cash on profitability of the banks, where the calculated value of t is 2.624, which is higher than the tabular value 1.96 and a significant level of less than 0.05, The results also indicated that the variation in issued cash explains 0.998% of the variation in bank profitability in Jordan. Thus, we reject the nihilistic hypothesis and accept the alternative hypothesis that said there is an effect of issued cash on the profitability of banks at the level of $(\alpha) \leq 0.05$ in Jordanian commercial banks.

Hypothesis 4
H0: There is no effect on the price of clearing checks on the profitability of banks at the level of $(\alpha) \leq 0.05$ in the banking service in Jordan.

Table (5): Results of the simple regression test for effect of the independent variable (the price of clearing checks) on profitability of banks in Jordan

Statistical decision	t Tabular	T	R 2	R	Sig	Independent variable
We reject nihilism assumption	1.96	6.070	0.840	0.971	0	clearing checks

Source: Prepared by the researcher based on statistical analysis of the study sample.

The values in table (5) indicated that there is a statistically significant effect on the checks issued for clearing on profitability of banks, the calculated value of t is 6.070, which is higher than the tabular value of 1.96, and the level of significance is less than 0.05. The results indicate that the variation in the price of clearing checks accounts explains 0.840 of the variation in the profitability of banks in Jordan.

Thus, we reject the nihilistic hypothesis and accept the alternative hypothesis that said there is an effect for checks issued for clearing on the profitability of banks at level of $(\alpha) \leq 0.05$ in Jordanian commercial banks.

Conclusions:

1.   There is a significant impact of the rediscount rate for commercial papers on the profitability of banks at the level of $(\alpha) \leq 0.05$ in the banking service in Jordan.

2.   There is an effect of the CD_S balance on profitability of banks at the level of $(\alpha) \leq 0.05$ in Jordanian commercial banks.
3.   There is an effect of issued cash on the profitability of banks at the level of $(\alpha) \leq 0.05$ in Jordanian commercial banks.
4.   There is an effect for checks issued for clearing on the profitability of banks at level of $(\alpha) \leq 0.05$ in Jordanian commercial banks.

Recommendations: Based on the search results, the researcher recommends the following:

1. Banks shall establish its capital in such way as to enable it to achieve profits by increasing its credit capacity, which is the case for achieving greater returns as well as enhancing its position and influence in the investment market, this coincides with the adoption of an effective control system that helps the governance of the credit process to avoid the high risks resulting from the abuse of credit granting.
2. Expansion of investment activities in real estate and industrial projects to achieve greater returns.
3.   The lack of expansion in the acquisition of fixed assets is not necessary, as the study demonstrated, the weak relationship between the size of fixed assets and profitability.
4.   Failure to expand access long-term liabilities due to their negative impact on the confidence of customers and investors in the Bank's ability to make short-term profits, in addition to high benefits of these commitments.
5.   Increase customer satisfaction by improving the general services provided by Bank to its customers through improve reception and hospitality services, completion of transactions, which is positively reflect in the increasing number of customers, thus increase size of deposits to increase profitability.
6. The financial and accounting disclosure should be expanding in more detail to provide customers with opportunity to view the Bank's results in greater detail and thereby increase confidence and dealings.

7. Reducing the percentage of bank deposits in the Central Bank in order to give commercial banks more opportunity to expand their business, increase their credit, and increase their investments to achieve greater returns, banks can recompense this risk by increasing control over the banks' business.

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