

The Causal Relationship between Financial Decisions and Their Impact on Financial Performance

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Abstract This study aimed to find a causal relationship between financial decisions (investment decision, Financing decision, and the dividend decision) and the causal relationship between those decisions and the financial performance of the Jordan commercial banking sector as measured by return on assets and return on equity for the period from 2002 to 2011. Where the study sample consisted of all commercial banks operating in the Jordanian's banking sector reached to thirteen banks. Among the most important findings of the study have a causal relationship in one direction between investment decision and financing decision, and the absence of a causal relationship between the distribution of profits and resolutions investment and financing. And the rate of return on assets is causing in both investment and financing decision, and there is no causal relationship between the decision of the distribution of profits and the entire rate of return on assets and return on equity.

Key words Causality, Financial Decisions, Investment Decision, Financing Decision, Dividend Decision

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1. Introduction

The financial decisions consider of the topics which occupies an important place in the contemporary financial thought because of their importance in achieving the goals of financial management in the business and finance companies in profits maximization and maximization of shareholder wealth, on the other hand, maintaining the goal of the companies to stay growth, survival, and continuity, which is reflected in the performance.

Despite the agreement of researchers in the area of financial management that maximization of shareholder is the ultimate goal and the goal takes into consideration many points that maximize profitability including, the timing of revenues, and that shareholders are taking into consideration the cash flows available, however to maximize profitability hasn't been ignored because it is one of the basic objectives for all companies and is essential for their survival and continuity (Haddad, 2009).

The companies must make decisions that will work to achieve its goals of increasing the wealth of the owners, increase profitability, and formulate financial decisions based on policies established value added market. The resolution is bad it investment decision, financing or profit distribution resolution is important for any institution to grow and continue.

Financial decisions are divided into both: Investment decisions and financing decisions.

It investment decisions that are determined by the mixture of the investment projects, through short-term projects and long-term, and any investment proposed in front of directors will be investment based on specific methods in the evaluation of investment projects, which take into account the main objective of the facility is to increase the wealth of the owners, for example, any project is evaluated and acceptance by the directors set for its implementation through the identification of NPV Net present value (NPV), or the modified internal rate of return Modified Internal Rate of Return (MIRR)(Altahtamouni, 2005).

The investment is the commitment of money for a certain period for future payments that would compensate individuals, since the investment may be an individual, company or government pension funds or investment (Reilly and Brown, 2006).

Here it shows us the importance of investment decision as it pertains to the future as it seeks to compensate individuals, whether owners or shareholders or even the customer, so the investment decision depends on three basic elements: (Matar, 2009) they are: an appropriate investment strategy and guided by scientific bases and principles for investment decision.

So the investment decisions seek to determine the optimal structure for investment within the company in terms of quantity and quality it makes them important financial decisions in addition to the financing decision for the error which cannot threaten companies avoided

And the financing decision in general supply funds when you need them (Atallah, 2011) so the financing decision of the most important decisions made by financial and non-financial institutions, which determine the optimal mix of where companies are seeking through the financing decision to maximize the wealth of the owners financing sources of financing whether religion or property (Al-Noaimi, Al-Tamimi, 2009), where companies through financing decision to maximization of shareholder, as in Modigliani & Miller (M&M) study, 1963.) Is one of the early studies that indicated that funding decision based on debt financing has a positive effect on the market value of companies, he also (Altahtamouni, 2005) indicates that funding decisions must take into account the risks of choosing the combination or mixture of funding sources as the funding is part of the financial decisions that affect profits and risks to take such decisions, and ultimately influence the market value of any owners Fortune. "the focus is financing decision on the optimal mix of financing as capital formation and the degree of leverage, and thus the resolution which is interested in knowing the theoretical part and practical decision to choose the optimal financing structure for the Bank, which may differ from one bank to another and from time to time (Ahmad, 2007).

The (Modigliani & Miller, 1958) study one of the earlier studies that worked on linking between resolutions of finance and investment decisions, the researchers concluded that in the presence of efficient markets is that there is no relationship between the financing decision and the decision to invest.

Patra (2008) Added decision of dividend distribution to financial decisions, it was known that how much the company will pay distributions of profits. The dividend decision process Division of profits dividends and retained earnings, retained earnings are one of the sources of financing property as dividend signifies the cash flow received by the shareholders as a return on their investment in the shares of the company, has a direct impact on the share price in the market (Almedani, 2004).

(Paramasivan, Subramanian, 2009) have pointed out that dividend policy the trade-off between profit distribution as cash dividend or bonus shares and capitalization, assuming that investment policy fixed, either the company held profits to finance capital spending on growth and expansion, repay debt, or putting out the bonds, if any, and the remaining cash dividend distribution, or to increase the proportion of cash dividends and capital expenditure deficit financing by issuing new shares or foreign borrowing. The company has bought back a portion of its shares and distribute remaining cash dividend (Al-Tarawneh, 2009).

General companies including banks depend on one or more of the following policies for the distribution of profits, these policies (Gitman and Zutter, 2012):

1. Distribution policy of a fixed percentage of the profits;
2. Regular dividend policy;
3. Reduced with bonus distribution policy;
4. The policy of the remaining profit (Naimi and others, 2007).

It was appeared in a range of financial theories thought that examined the cash dividend policies and reflected on the profit distribution decision, these theories: (Paramasivan, Subramanian, 2009)

- A. Lack of relevant theory.
- B. Theory of a bird in the hand.
- C. Tax preference theory.

Based on the foregoing the study seeks to examine the causal relationship between financial decisions and to indicate whether those decisions affect each other interactively in the short term, and the importance of examining the interrelationship of Jordan commercial banking sector, especially under the circumstances in most economies of the world including the Jordanian economy.

Granger (1969)-which is one of the most important studies in the concept of causality between the variables, explained that the causal relationship is a short-term relationship between variables.

Altahtamouni,(2012), explained that there is an important question to ask when measuring the causal relationship between the variables: it is changes in the variable (s) caused by the change in the variable (y)? Do the changes in the variable (y) cause changing the variable (s)? If the variable (s) caused variable (y), the values of the variable (s) contain information that will help us predict the values of the variable (y) in addition to the information in the previous values of the variable (y). If both variables (s) and (y) cause each other it is called causality relationship in both direction (bidirectional) and if found to be (s) affects (y) without affecting (y) (s), this is called unidirectional.

Atia (2005) indicated to test causal relationships differs from test link and regression, regression testing presupposes the existence of a causal relationship between the variables in question, which shows the dependent variable, which is independent. And then you can predict the values of the dependent variable independent variable connotation by using the relationship. Either the link is to determine the degree of coupling changes in variables in question the existence of any causal relationship between them, which does not specify any changes he and dear. Since the correlation coefficient is determined in one value, it does not help us to predict the value of any variable in terms of another.

To avoid a spurious relationship between variables we test the stationary of the time series the by application of the Unit Root Test, which must be the time series of the variables stationary, but if the time series is not stationary state that there is a unit root in those chains, and the most important tests of stationary of the time series Augmented Dickey-Fuller expanded (Engle & Granger, 1987).

It still means that the average and variance of the time series static over time and the covariance between the two time periods depends on the difference of time Lags between those periods and not on the real value of time, if the time series is station in its original level, it is said to have integrated zero level $I(0)$, if it is still non stationary must take differences have even become static (Gujarati, 1995).

2. The objectives of the study

This study seeks to achieve the following objectives:

1. Identify the basic concepts for financial decisions.
2. Knowledge of the causal relationship between financial decisions.
3. Knowledge of the causal relationship between financial decisions and the performance of the commercial banking in Jordan.

3. Importance of the study

The significance of the study lies of the financial decisions of the funding decision and the decision to invest and profit distribution resolution is important in the operation of enterprises and its impact on companies' performance through the achievement of profit.

The importance of the study stems from previous studies that focused largely on the impact of those decisions on corporate profits and the factors that affect these decisions.

Finally, the importance of the study of being the first (according to science researchers) which are based on the study of the correlation between financial decisions and the correlation between financial decisions and the performance of commercial banks in Jordan.

4. The problem of the study

The problem lies in that many researchers have failed to find the possibility of a reciprocal relationship between financial decisions and also the reciprocal relations between financial decisions, financial performance, and this had the effect of incorrect results and reflection effect to decisions makers from the owners of companies who condoned the existence of reciprocal relationships between financial decisions when making any decision on financial independence.

The problem can be summarized in answering the following questions:

1. Is there a causal relationship among financial decisions (investment decision, financing decision, and dividend decision) to commercial banks in Jordan?

2. Is there a causal relationship among financial decisions (investment decision, financing decision, and dividend decision) and Jordan commercial banking sector performance?

5. Literature Review

Gharaibeh, (2004), this study aimed to test the interplay between finance and investment decision for industrial and service companies listed on Amman Stock Exchange period (1997-2002), where the sample of the study consisted of 26 companies from the service sector and 54 companies from industrial sector, using the least-squares method for analysis of the relationship between variables of the study findings that liquidity, profitability, profit and tax change is one of the most important determinants of the percentage distributions, as well as the lack of overlap between the distributions decisions, leverage, and the volume of investment for the study period.

Pindado and Torre (2006), the aim of this study is to analyses the determinants of capital structure through the role played by investment decisions and the financing and the distribution of profits, on a sample of companies listed in the Spanish database and have reached 135 companies for the period 1990-1999, the researchers adopted on the financial reports of all companies and focus on the topic of corporate governance because of its influence on aspects of the problem under examination and analysis of the results of its researchers to monitor external staffing is an important means of adjusting the debt and equity in the process of buying back Shares as well as the promotion of internal and external staffing to increase their shares in the company in light of the high profits.

Ghadome (2008), this study aimed to test the impact of the financing decision on the performance of a sample of companies listed on Amman Stock Exchange Securities has reached 53 companies for the period (1999-2008) and the researcher has focused on to examine the relationship between the company's debts and its impact on return on assets and return on equity, the study found no statistically significant relationship between the ratio of indebtedness and long-term loans and short-term loans and study variables except for a statistically significant relationship between The debt ratio and return on investment.

Patra, (2008), this study examines the relationship between finance and investment decision and the distribution of cash dividends and returns of the stock market in Taiwan and China, using the list of industrial companies in Taiwan and China, according to the method of Granger causality to investigated the dynamic relationship between these companies, and the study found a President that there is a relationship between profits (returns) and between each of the investment decision and the decision of the cash dividend distribution in both Taiwan and China, and therefore the study recommends that the required decision makers seek the cooperation and harmony These decisions together to achieve desired goals.

Lzgm (2012), the aim of this study is to know the effect of financial structure on financial decisions in small and medium-sized enterprises and try to build a demo model measures the relationship between the various financial decisions and financial structure in small and medium-sized enterprises. To achieve the objective of the study was conducted on a sample of small and medium-sized enterprises in Ouargla to period 2008 to 2010. Among the most important results of the study that there is a direct correlation between religion and the investment decision and that the decision meant losing distribution in small and medium-sized enterprises.

Salazar etc.al, (2012), this study aimed to test the financial decisions made by companies and strategies pursued by these organizations to reach a competitive level, I have been analyzing data 202 in Celaya, the study has adopted the questionnaire on data collection and analysis using SPSS, the study found that most small and medium-sized enterprises take the financing decision by way of intensive strategy applied in addition to the age of the companies in the market and sales level and this means that Mexican companies lack the ability to compete and this reduces Development and expansion, and some companies take an inappropriate financial decisions for the strategy, and that companies that manage assets and liabilities are competent are the most competitive.

6. Research Methodology

6.1 Sample and data

The population of the study includes all Jordanian banks. The sample data are all banks sector, without exception, and they were subject to the availability of data throughout the study period. The sample data are ten years of panel data ranging from 2002 to 2011.

6.2 Hypotheses

Through previous questions and to achieve the objectives of the study was drafted the following hypotheses:

- (H01): Investment decision does not Granger Cause Financing decision.
- (H02): Investment decision does not Granger Cause Dividend decision.
- (H03): Investment decision does not Granger Cause Return on assets.
- (H04): Investment decision does not Granger Cause Return on equity.
- (H05): Financing decision does not Granger Cause Investment decision.
- (H06): Financing decision does not Granger Cause Dividend decision.
- (H07): Financing decision does not Granger Cause Return on assets.
- (H08): Financing decision does not Granger Cause Return on equity.
- (H09): Dividend decision does not Granger Cause Investment decision.
- (H010): Dividend decision does not Granger Cause Financing decision.
- (H011): Dividend decision does not Granger Cause Return on assets.
- (H012): Dividend decision does not Granger Cause Return on equity.
- (H013): Return on assets does not Granger Cause Investment decision.
- (H014): Return on assets does not Granger Cause Financing decision.
- (H015): Return on assets does not Granger Cause Dividend decision.
- (H016): Return on equity does not Granger Cause Investment decision.
- (H017): Return on equity does not Granger Cause Financing decision.
- (H018): Return on equity does not Granger Cause Dividend decision.

6.3 Variables of the study

Will be using the following variables in order to serve the purposes of the study:

1. Investment Decision (X1)

Has been measured by the percentage change in total assets =

$$\text{Total assets on the day (t) - Total assets on the day (t-1)/Total assets on the day (t-1)} \quad (1)$$

2. Financing decision (X2)

$$\text{Measured by the debt ratio: Total liabilities/Total assets} \quad (2)$$

3. Dividend Decision (X3)

$$\text{Calculated through the following equation: Dividends per share/Earnings per share} \quad (3)$$

$$4. \text{Return on Assets} = \text{Net Income/Total Assets} \quad (4)$$

$$5. \text{Return on Equity} = \text{Net Income/Equity} \quad (5)$$

6.4 Statistical methods used

Will be used the following tests in this study in order to test hypotheses relations according to the study are:

1. Augmented Dickey-Fuller test in order to test stationary of the time-series for variables of the study during the following equation:

$$\Delta Y_t = a + \delta Y_{t-1} + U_t \quad (6)$$

2- Granger-Causality test in order to test causality hypotheses between financial decisions and financial performance, according to the following equations:

$$Y_t = \sum \alpha_i Y_{t-i} + \sum \beta_j X_{t-j} + U_t \quad (7)$$

$$X_t = \sum \alpha_i X_{t-1} + \sum \beta_j Y_{t-j} + U_t \quad (8)$$

6.5 Models of the study

The following models reflect perceptions of the problem of the study on the relationship of reciprocity between financial decisions and financial performance of commercial banks of Jordan and for the period under examination and analysis.

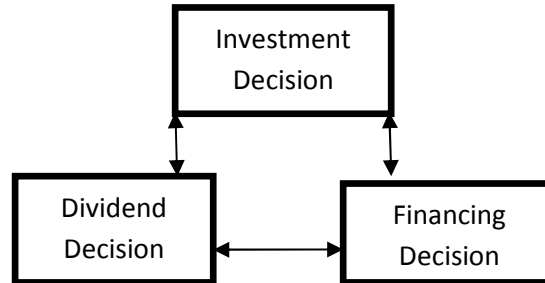


Figure 1. Model the causal relationship between financial decisions

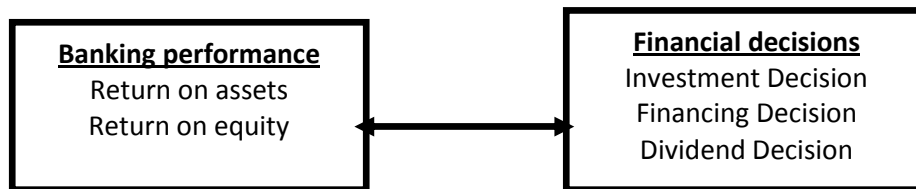


Figure 2. Model the causality relationship between financial decisions and performance

7. Statistical analysis and hypothesis testing

7.1 Descriptive statistics

For a description of the variables were calculated the arithmetic mean and standard deviation for each variable. Through the table (1), which shows us the financial decisions and the financial performance of the commercial banking sector, we note that the median investment decision reached during the years (0.0967) study under examination and analysis and a standard deviation of (0.16) and this means that there is little variation between sample survey regarding their investment decisions. We note that the median financing decision reached (0.8764) standard deviation (0.05) indicating the lack of contrast between the sample banks regarding its financing, while the profit distribution resolution shows the contrast between the sample banks with arithmetic (0.2514) and standard deviation (0.29).

With regard to performance variables and of the rate of return on assets, and return on equity amounted respectively, arithmetic averages (0.0137) (0.0999), (11300733) and standard deviations (0.01) (0.07). By this note that the study sample banks where there is no inequality in terms of rates of return on assets as well as seeing that the net profit of positive value and this shows that the departments of the banks working on maximizing the wealth of the owners, thus increasing profits for shareholders, and this was noted in the introduction, as evidenced by the rate of return on the property There is no contrast between the banks during the study period.

Table 1. Descriptive statistics for the sample of the study period

	X1	X2	X3	Y1	Y2
Median	0.0967	0.8764	0.2546	0.0139	0.1006
Std. Dev.	0.16	0.05	0.29	0.01	0.07
Skewness	1.00135	3.10825	0.59951	-1.77401	0.54582
Kurtosis	8.8931	24.28469	2.34407	16.82745	5.82126
Jarque-Bera	230.82863	2929.61240	11.12973	1214.23124	54.52622

X1: investment decision, X2: financing decision, X3: dividend decision, Y1: the rate of return on assets, Y2: the rate of return on equity

7.2 The results of Augmented Dickey-Fuller Test

Through the table (2), all time-series variables of the study have the status of stationary in its original level, so we can say that chains integrated at zero-level I(0), and there is no spurious relations between variables.

Table 2. Stationary test of the series

Name of the Series	Test Statistic
X1	-8.655870*
X2	-6.663366*
X3	-4.442385*
Y1	-6.392202*
Y2	-6.833012*

*Means that it is significant at 1%

7.3 The results of the analysis of the causal relationship

When examine the causal relationships between variables of the study by applying Granger Test. Through the table (3) causal relationship in one way between investment and financing decisions where financing decision cause investment decision, and also indicate the absence of a causal relationship between the dividend decision and investment and financing decisions.

Also note that the return on assets causes each of the investment decision and financing decision and that relationship was a one-way relationship, and didn't notice any causal relationship between dividend decision and return on assets and return on equity. Table (4) shows us trends of causal relationships between variables.

Table 3. The causal relationships between variables test

Null Hypothesis	F-Statistics	P-Value	Hypothesis testing
X1 does not Granger Cause X2	0.54835	0.5794	H01: Accepted
X1 does not Granger Cause X3	1.92424	0.1508	H02: Accepted
X1 does not Granger Cause Y1	2.59311	0.11012	H03: Accepted
X1 does not Granger Cause Y2	3.85009	0.05220	H04: Accepted
X2 does not Granger Cause X1	4.48648	0.0134**	H05: Rejected
X2 does not Granger Cause X3	1.07091	0.3462	H06: Accepted
X2 does not Granger CauseY1	1.32393	0.25232	H07: Accepted
X2 does not Granger Cause Y2	0.11944	0.73029	H08: Accepted
X3 does not Granger Cause X1	1.13179	0.3261	H09: Accepted
X3 does not Granger Cause X2	0.29965	0.7417	H010: Accepted
X3 does not Granger Cause Y1	0.02305	0.87959	H011: Accepted
X3 does not Granger Cause Y2	0.49441	0.48341	H012: Accepted
Y1 does not Granger Cause X1	8.94512	0.00342*	H013: Rejected
Y1 does not Granger Cause X2	26.0847	0.00000*	H014: Rejected
Y1 does not Granger Cause X3	1.10548	0.29531	H015: Accepted
Y2 does not Granger Cause X1	0.18157	0.67083	H016: Accepted
Y2 does not Granger Cause X2	0.26785	0.60579	H017: Accepted
Y2 does not Granger Cause X3	0.00017	0.98964	H018: Accepted

*Means that it is significant at 1%, ** means it is significant at 5%

Table 4. Trends in relations

Causality direction

Causality direction
$X3 \leftarrow // \rightarrow X1$
$X1 \leftarrow X2$
$X3 \leftarrow // \rightarrow X2$
$X1 \leftarrow Y1$
$X2 \leftarrow Y1$
$X3 \leftarrow // \rightarrow Y1$
$X1 \leftarrow // \rightarrow Y2$
$X2 \leftarrow // \rightarrow Y2$
$X3 \leftarrow // \rightarrow Y2$
$X3 \leftarrow // \rightarrow Y2$

Where :

\leftarrow Influence in one direction .

$\leftarrow // \rightarrow$ No effect in both directions.

8. Conclusions

After reviewing the results of the tests, the study concluded that:

1. All time-series variables of the study have the status of dormancy (stability), this opens the possibility of a joint integration of any long term relationships between these variables.
2. The existence of a causal relationship in one direction between investment and financing decision shows that Jordanian banks take into account the funding decision and the resulting benefits and risks when making investment decision.
3. The absence of any causal relationship between the distribution of profits and investment and financing decisions shows that the Jordanian banks do not take into account the action taken on the distribution of profit in making every decision of the investment and financing decision, and do not take into account the decisions on investment operations or funding when deciding the distribution of profits, this indicates that the dividend decision taken in isolation from any circumstances of Jordanian banks in the short term at least.
4. The investment and financing decisions are influenced by the return on assets achieved in the short term, meaning that Jordanian banks are keen to taken into account the return on investment when making a decision to invest and also financing decision, the greater the return on assets increased funding from external sources so as to increase the share of owners of banks from the earnings, the greater the return on assets increased demand banks to increase their investments that generate those returns.
5. The return on equity is not affected and not affected by all the financial decisions of the Jordanian banks.

9. Recommendations

This study came out with two main recommends. First, Jordanian banks must work on the link between financial decisions and do not neglect any of the financial decisions when working on making a decision any influence on the outcome of that decision.

Secondly, Jordanian banks must not neglect the rate of return on assets as a factor in investment decisions and financing decision.

References

1. Ahmed, Fathi Ibrahim (2007). Memoirs of the principles of finance and financial management, Alnasher house publisher and distribution at the University of Assiut, Egypt .
2. Almedani, Mohammed Ayman (2004). Incorporate finance management, Fourth edition, Dar Al Obeikan Publishers, Amman - Jordan.
3. Altahtamouni, Farouq Rafiq (2005). "The Effect of the Determinants of capital structure on Return and value of the companies, applied study on industrial and service companies listed on the Amman Stock Exchange", Unpublished Ph.D. thesis .

4. Altahtamouni, Farouq Rafiq (2012). "Causality testing & Co-integration between Amman Bursa Indices", Arab Journal of Administration, Vol. 32, No. 1, pp. 141-156.
5. Haddad, Fayz Salem (2009). Financial Management, Second Edition, Dar Al-Hamed for publication, Amman - Jordan .
6. Altarawneh, Hani (2009). "The impact of financial ratios in determining the cash dividend policy in Jordanian banks", Unpublished Ph.D. thesis .
7. Atallah, Majid Ahmed (2011). Investment Management, First Edition, Osama Publishing House, Amman - Jordan.
8. Attia, Abdel Kader Mohamed Abdel-Kader (2005). Modern econometrics, between theory and practice, University House.
9. Engle, R.F. and Granger, C.W.J. (1987). "Cointegration and Error Correction: Representation, Estimation and Testing", Econometrica, Vol. 55, pp: 251-276.
10. Frank k. Reilly and Keith C. Brown (2006). Investment Analysis and Portfolio Management, Eight edition.
11. Ghadome, Thaeer (2008). "The decision to finance and its impact on the company's performance: An Empirical Study on a sample of companies listed on the Amman Stock Exchange Securities", journal Jordanian Applied Sciences, pp: 1-24.
11. Gharaibeh, Dafer Zuhier (2004). "Interrelationships Between financing and investment decisions: A case of Jordanian firms", Unpublished Master Thesis, Yarmouk University, Irbid-Jordan.
12. Gitman, L.J And Zutter C.J. (2012). Principles of Managerial finance, 13th Edition. Prentice Hall.
13. Granger, C.W.J. (1969). "Investigating Causal Relations by Econometric Models and Cross Spectral Methods." Econometrica, Vol. 37, pp: 424-438.
14. Gujarati, Damodar (1995). Basic Econometrics, Third edition, McGraw-Hill.
15. Lzgam, Somaeh (2012). "The impact on the financial structure of the financial decisions in financial institutions, small and medium enterprises", Unpublished Master Thesis, University of Cassidy Merbah, Ouargla, Algeria.
16. Modigliani, F., and Miller, M. (1958). "The Cost of Capital, Corporate Finance, and the Theory of Investment", American Economic Review, Vol. XLVIII, pp. 261-297.
17. Modigliani, F., and Miller, M. (1963). "Corporate Income Taxes and the Cost of Capital: A correction", American Economic Review, Vol. 53, pp: 433-443.
18. Mater, Mohammed (2009). Investment Management: theoretical part and practical applications, Fifth edition, Dar Wael for publication, Amman Jordan.
19. Naimi, Adnan Tayeh and Alsage, Saadoun al-Mahdi and Salam, Osama Azmi and Mosa, Shukairy Nuri (2007). Financial Management-Theory and Practice, Almaserah house for publication and distribution, Amman - Jordan.
20. Naimi, Adnan Tayeh, Tamimi, Arshad Fouad (2009). Advanced Financial Management, Dar Yazouri, Amman–Jordan.
21. Paramasivan, Cand Subramanian T. (2009). Financial Management. New Delhi. New Age international (P) limited, Publishers.
22. Patra, Arpita (2008). "The relationship among Financing decision, investment decisions, cash dividends and earning for aggregate stock market in Taiwan and China", Unpublished Master Thesis, National cheng kung university, Taiwan.
23. Pindado, Julio and Torre Chabela (2006). "The Role of investment, financing and dividend decisions in explaining corporate ownership structure: Empirical evidence from Spain", European financial management, Vol. 12, No. 5, pp: 661-687.
24. Salazar, Alejandra, Soto, Ricardo and Mosqueda, Ratael (2012). The Impact of financial decision and strategy on small business competitiveness, Global Journal of business Research, Vol. 6, No.2, pp. 93-103.