

Do Liquidity and Firm Size Affect Profitability and Does Capital Structure Play a Moderator Role: Study Based on Jordanian Data

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Abstract

The purpose of the current study is to investigate the role of the moderator variable in directing or changing the relations between independent and dependent variables. This study tries to explore the role of the capital structure as a moderator variable to draw the shape of the relation between liquidity, firm size and profitability. So in order to achieve the previous objective, the researchers reviewed the literature studies to display the relation between liquidity, firm size and profitability without the existence of the interventional role of capital structure, and then enter a moderator variable among the analysis to monitor the effect.

The current study applied on all listed manufacturing companies in Amman Stock Exchange (ASE), and financial reports for 30 industrial companies were selected based on a stratified sample and include 90 observations using StataMP 13 software, for the period from 2014 to 2016. The results showed the following results: liquidity is a significant independent variable to influence the listed Jordanian manufacturing firms' profitability; firm size is a significant independent variable to influence the listed Jordanian manufacturing firms' profitability; liquidity and firm size are jointly significant independent variables to influence the listed Jordanian manufacturing firms' profitability. On the other hand, liquidity is a significant independent variable to influence the listed Jordanian manufacturing firms' profitability through the role played by the capital structure in the relationship between liquidity and capital structure; firm size is a significant independent variable to influence the listed Jordanian manufacturing firms' profitability through the role played by the capital structure in the relationship between firm size and capital structure, this is what made a difference and value added. Finally, liquidity and firm size jointly are significant independent variables to influence the listed Jordanian manufacturing firms' profitability through the role played by the capital structure in the relationship between liquidity, firm size and capital structure; this is what made a difference and value added.

Keywords: Liquidity, Firm size, Capital structure, Profitability, ASE.

1. Theoretical Framework

It is recognized, higher profitability in addition to permit firms to stay and doing well in a chancy business surrounding, is moreover vital for perpetual economic evolution (Işık, 2017). Company profitability is affected by many factors and can be expressed in many ways. When analyze the profitability it have to take in consideration the firm's results that are stated into the company's financial position, income statements and cash flows statements. while, most significant profitability ratios are belong to the financial position because there are presents company's assets, debt and equity (Mihaela, Claudia, 2017).

A very important factor in the influence on the companies' profitability, which will be tested as a moderator variable in this study is the capital structure, where it is known that Companies differ in the manner of composition of the capital structure due to the different managements and activities, and how to use the sources of financing available, which affects their investment decisions (Alqudah, 2008). As indicated by (MM, 1958) and (Myers, 1984) that when capital structure being separated from profits, the bankruptcy-tax trade-off theory and the alternative trade-offs are very obvious about the ideal leverage. However, many studies (Graham 2000; Jung, Kim and Stulz 1996) showed that managers do not always work to sustainable shareholder wealth (Elmar, 2010). While (Chavali and Rosario, 2018) indicate that capital structure can make substantive contributions on the firm's profitability and value. On the other hand, profitability is one of the determinants of capital structure as mentioned by (TITMA, and Wessells, 1988).

On the other hand, as for the impact of liquidity on the capital structure, there is a dual effect of liquidity on the capital structure as mentioned by (Oskan, 2001) that is, the relationship between them may be positive or negative, as the companies that have high liquidity can easily repay their obligations, which means that they can always borrow, while in the case of asymmetric information for stockholders compared to what is available in the companies, capacity of borrowing will decrease (Almahgan, 2012). Furthermore, about other factors affect profitability by (SINHA & SINGHVI, 2017), they discussed that firms in strive for achieving great profitability in big competitive business environment, the dilemma of liquidity is a little ignored by industries. There is always a swap between liquidity and profitability. Whenever, the firm concentrates on maintaining a certain level of profitability, its liquidity level gets negatively influenced and vice-versa.

The objective of this study is also to check jointly with liquidity and separately the effect of company size on profitability through capital structure, as (Raheman & Nasr, 2007) indicated that size of the firm is a substantive variable that influence a firm profitability. It also has effect on firm's capital structure decisions. Other Literature indicated some different associations of firm size with its profitability and leverage. Where size of firm and its profitability are positively related (Iqbal, et al., 2014).

This paper will try to give an idea about the interventional function of capital structure to organize all the above relations through investigate the effect of liquidity and firm size on the Jordanian listed companies' profitability during the period from 2014 to 2016.

2. Industry in Jordan

The industry in Jordan is an important resource that has a direct impact on the Jordanian economy and contributes to the increase of local production, based on the revenues of industrial products, which are sold in the local market and exported to most of the world. The industrial sector in Jordan is concerned with all types of industries, Food, plastic industry, and others.

In 1985, the number of industrial companies in Jordan surpassed 9,000, and in 1996 more than 300 new industrial companies were registered in the Jordanian market. This participates in the growth of the Jordanian economy, especially in 1999, where the industrial production reached about 16% of the GDP in Jordan, and currently the number of industrial companies in Jordan 20 thousand companies working in various industrial sectors.

Investment in the industrial sector in Jordan was able to achieve a profit of JD450 million in 2014. The Investment Promotion Law contributed to increasing the investment share in the Jordanian market, and the industrial sector is one of the sectors that contribute to the creation of jobs due to its ability to attract permanent employment (<https://mawdoo3.com>).

3. Literature Review

Theories which discuss capital structure were at first created in a group of papers by (Modigliani and Miller, 1958, 1963). Beneath circumstances specified by a large table of extending presumptions, they constructed the basis for realizing the distinctions between unlevered and levered firm values. In spite of the fact that many of the hypotheses were illogical, the first pattern gave a mark of variation as presumptions were comforts. Most of the presumptions included either tax body or risk construction facilitation.

Capital structure relies on various influential factors such as liquidity as (Lipson & Mortal, 2009) found that 38% is the average debt-to-asset ratio for the maximum liquid quintiles, and 55% for the minimum liquid quintiles. While (SibilkovI, 2009) revealed a positively relationship between leverage and asset liquidity. Moreover, showed a positive association between asset liquidity and secured debt, and found a curvilinear association between asset liquidity and unsecured debt. On the other hand, (Udomsirikul, et al., 2011) confirmed that leverage inversely related to liquidity, and concluded that most liquid equity firms are substantively less leveraged.

Also capital structure relies on firm size as (Kurshev & Strebulaev, 2007) demonstrated that firm-size have influence on leverage. Small firms select bigger leverage at the time of refinancing to repay for less recurrent restoring the balance. The longer times between refinancing drive to lower leverage at the end of restructuring periods. As well found a negative association between leverage and firm size within one refinancing cycle. Finally, concluded a positive association between leverage and size in cross-section, and indicated that the relationship changes appear when the presence of unlevered firms is control the relation. Also (Karadeniz, et al., 2011) revealed that capital structure decisions influenced a significantly by firm, whereas firm size show signs of being impact lodging companies in using incentives.

This study try to find the role that capital structure could play as a moderator factor in the relation between liquidity, firm size and profitability, and so if this role will make a difference in this relation as it proved in previous studies, for this reason it is useful to investigate some literatures to state the direct relation between capital structure and profitability, and a direct relation between the other two independent variables with profitability to investigate the study aim. First, (Abor, 2005) concluded that there is a significant positive association between the short-term debt to total assets ratio and return on equity. Even so, some studies found a negative relation between the long-term debt to total assets ratio and return on equity such (Ebaid, 2009) who revealed that the relation between capital structure choice decision and firm's performance is weak or tend to be not exist, and (Velnampy & Aloy, 2012) study which indicated a negative correlation between capital structure and profitability other than the relation between debt to equity and return on equity. Moreover, (Shubita and Alsawalhah, 2012) showed that there is a significant negative association between debt and profitability, which suggested that profit-making firms relied largely on equity as major financing choice.

Furthermore, (Nimalathan, 2010) displayed a strong positive correlation between debt to equity ratio and all profitability ratios such as gross profit ratio; operating profit ratio; and net profit ratio except return on capital employed and return on investment. Also, a strong positive correlation between debt to assets ratio, operating profit ratio, net profit ratio, and return on capital employed. The results also found a positive correlation between capital gearing ratio and gross profit ratio; and net profit ratio. Moreover, interest coverage ratio has a significant effect on return on capital employed and net profit ratio. So capital structure has a strong effect on all profitability ratios except return on capital employed and return on investment.

It had been argued theoretically and proved practically that profitability is the primary support for any firm to stay in the long time. Also profitability is the main objective of all business adventure. Whereas the association between liquidity and profitability had been discussed in a lot of previous studies, the prime target of the this study is investigate this relation which had been indicated that are varies such as in (Wallace, et al., 1991) who revealed that large firms have less debt ratios than smaller firms, and the differentiation of the liquidity ratio and profitability ratio between large and small firms introduce mixed results, which is differing from past research.

While, (Saleem & Rehman, 2011) found a material effect of liquidity ratio on return on asset, and insignificant effect on return on equity and return on investment; moreover the results indicated that current ratio, quick ratio and liquid ratio have no material effect on return on equity, while the three ratios have a greatly impact on return on investment. The study demonstrated that each ratio has a material influence on the financial positions of firms with various values with the liquidity ratios mainly. Profitability ratios also take an important place in the financial positions of firms.

Also, (Lartey, et al., 2013) showed a weakened positive associaion between liquidity and profitability in their investigation, while, (Zygmunt, 2013) provided the foundation to determine about the existence of liquidity impact on profitability.

Whilst (Alshatti, 2015) presented a positive impact on the investment ratio of the available funds on the profitability by the increase in the quick ratio, but showed a negative impact of the capital ratio and the liquid assets ratio on the profitability.

Other determinants of profitability can discussed to consolidate the main object of this study through the following literatures such as (NIMALATHASAN and Velnampy, 2010) which found a positive correlation between firm size and profitability in Ceylon Ltd Commercial Banks, but there is no association between firm size and profitability in Bank of Ceylon. Moreover (Babalola & Abiodun, 2013), concluded a positive influence of firm size, both in terms of total assets total sales on the profitability, also, (Doğan, 2013) results showed a positive association between size indicators and profitability of firms, while through the existence of control variables like the age of the firms and leverage rate, a negative correlation with return on asset was found, but appositve association between liquidity and return on asset have been found.

On the other hand, (Niresh and Thirunavukkarasu, 2014) indicated that is no indicative association between firm size and profitability. As well, the results found that there is no heavy effect of firm size on profitability.

4. Methodology

4.1. Study Population, Study Sample and Period

The population of this study will consist of 62 manufacturing companies listed at Amman Stock Exchange (ASE) covering the period from 2014 to 2016. The study will explore 30 annual reports for Jordanian manufacturing companies which selected based on a stratified sample and include 90 observations, which represent from the researchers' standpoint sufficient number to realize the possibility of generalizing the results. Descriptive Analysis will apply for explanation of data. Correlation Analysis will used to define the association between liquidity, firm size and Profitability. Simple and multiple linear regressions will apply using StataMP 13.

4.2. Study Variables

The following variables are considered relevant in the formation of the model inspect the effect of liquidity and firm size on profitability through the existence of capital structure as a moderator variable.

4.2.1.1. Independent Variables

Current Ratio: It is most popular one of the liquidity ratios; it is described through current assets and current liabilities. The idealistic current ratio is 2:1. If the real current ratio is lower than the standard current ratio of 2:1, it means firm cannot exercise the sufficient liquidity position, furthermore, if the current ratio is 2:1 or more then 2:1, it means firm have adequate Liquidity (MURTHY, et al., 2017)

Firm size: In relate to the previous literatures, it seems to be assent that profitability of firm is positively correlated with firm size expressed as the natural logarithm of total assets. Accordingly, larger firms are more preference to reduce their costs, have motivation strength and double profitability of their assets. In this case the coefficient estimate for firm size is expected to be positive. On the other hand, a negative relation between size and profitability may expect that assets are not used efficiently (Işık, 2017).

4.2.1.2. Dependent Variable

Return on Equity ROE: This ratio also known net worth ratio. The return on equity calculates profitability regarding to ownership. It is an efficiency indicator of how much profits generate from each unit of the shareholders equity. It is contend a necessary role in the equity holders' investment decision (MURTHY, et al., 2017).

4.2.1.3. Moderator Variable

Debt Ratio

4.2.1.4. Control Variables

Earning before Interest and tax EBIT: It is a measure of the company's profitability and is computed by subtracting revenue from expenses and eliminating taxes and interest. It is also mention to as operating profit, operating profit or profit before taxes and interest (PBIT) (<https://trading-secrets.gurue>).

Earning Per Share EPS: Earnings per share is the best measure of the real price per share and the most widely used standard because it shows the share of each shareholder in the company's profit after tax.

EPS per share is calculated by subtracting dividends on preferred shares from its net income. This figure is then divided by the average number of shares traded during a year or quarter (<https://learn.tradimo.com>).

4.3. Study Hypotheses

H1: There is no significant effect of liquidity on profitability.

H2: There is no significant effect of firm size on profitability.

H3: There is no significant effect of liquidity and firm size on profitability.

H4: There is no significant effect of capital structure as a moderator variable on the relationship between liquidity and profitability.

H5: There is no significant effect of capital structure as a moderator variable on the relationship between firm size and profitability.

H6: There is no significant effect of capital structure as a moderator variable on the relationship between liquidity, firm size and profitability.

5. Analysis

5.1 Descriptive Statistics

Table 1: Descriptive Analysis

Variable	Obs	Mean	Std. Dev.	Min	Max
CURRENTRATIO	90	2.376222	2.332273	.03	12.83
LOGTOTALAS~S	90	7.366117	.7644265	5.596372	9.083311
EBIT	90	-49.031	185.0359	-1209.86	70.77
EPS	90	.0884444	.4222942	-1.08	1.57
DEBTRATIO	90	-7.963506	109.4321	-707.5308	327.3693
+	-----				
ROE	90	-11.75967	72.51961	-412.37	145.48

The analysis were split into six sub strips which are current ratio, total assets logarithm, earning before interest and tax, earning per share, debt ratio, return on equity. Table 1 display that there is a material range of difference among the dependable sample of this study. The range of current ratio CURRENTRATIO is from .03 to 12.83 with a mean of 2.376222 and a standard deviation of 2.332273. The range of the natural logarithm of total assets LOGTOTALASSET is from 5.596372 to 9.083311 with a mean of 7.366117 and standard deviation of .7644265. Also, for the return on equity ROE is from -412.37 to 145.48, with a mean of -11.75967, and standard deviation of 72.51961, 4321. With reference to the control variables, earning before interest and tax ranges from -1209.86 to 70.77, with a mean of -49.031 and standard deviation of 185.0359, the range of earning per share EPS is from -1.08 to 1.57, with mean of .0884444 and standard deviation of .4222942. Finally for the moderator variable the debt ratio DEBTRATIO, it ranges from -707.5308 to 327.3693, with a mean of -7.963506 and standard deviation of 109.

5.2. Correlations

Table 2: Correlation Coefficients between Study Variables

CURREN~O	LOGTOT~S	EBIT	EPS	ROE	
CURRENTRATIO	1.0000				
LOGTOTALAS~S	0.1933	1.0000			
EBIT	0.2353	0.2889	1.0000		
EPS	0.2857	0.3560	0.2369	1.0000	
ROE	0.1584	0.2707	-0.0727	0.3548	1.0000

Table 3: Correlation Coefficients between Study Variables with the Moderator Variable

CURREN~O	LOGTOT~S	EBIT	EPS	DEBTRA~O	ROE	
CURRENTRATIO	1.0000					
LOGTOTALAS~S	0.1933	1.0000				
EBIT	0.2353	0.2889	1.0000			
EPS	0.2857	0.3560	0.2369	1.0000		
DEBTRATIO	0.2621	0.2905	-0.2088	0.3024	1.0000	
ROE	0.1584	0.2707	-0.0727	0.3548	0.7299	1.0000

Correlation analysis was adopted in order to find out the degree of correlation between the variables of the study. In terms of tables 2 and 3 above, it is possible to observe that there is a strong correlation between some variables with a value of +1, which means that the positive relationship between these variables is increased, while there is a weak correlation between some variables, whether positive or negative.

5.3. Hypotheses

H1: There is no significant effect of liquidity on profitability.

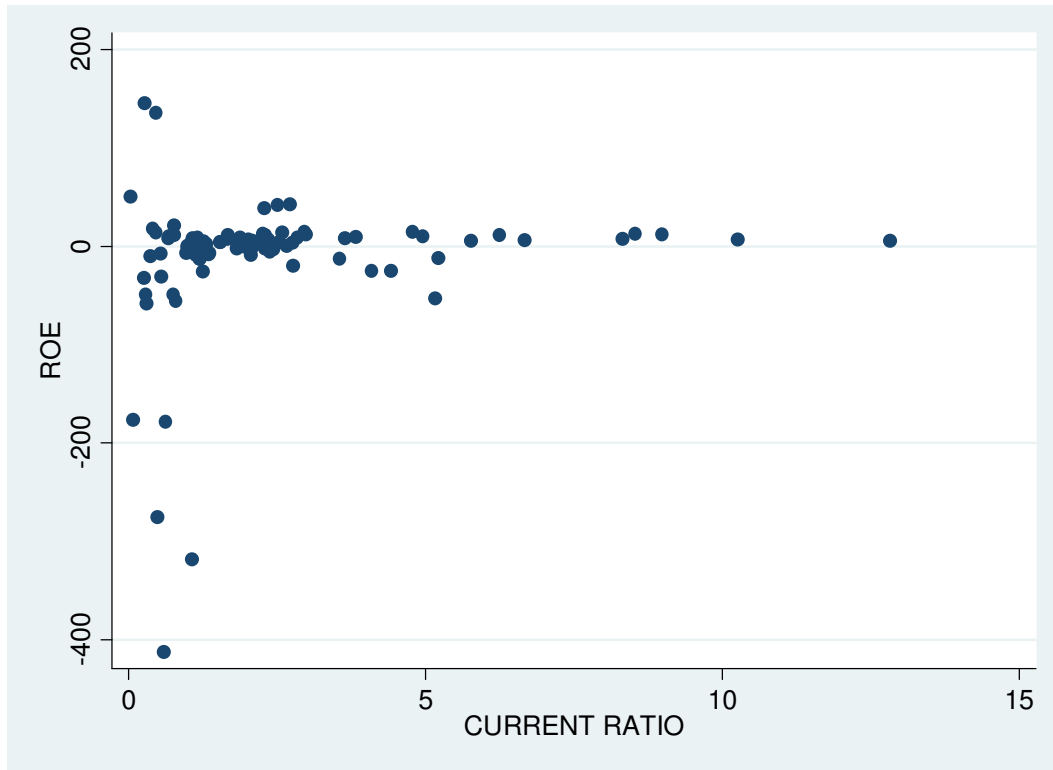


Table 4: Regression Analysis for Hypothesis 1

Source	SS	df	MS	Number of obs	=	90
			F(3,86)		=	5.46
Model	74885.4765	3	24961.8255	Prob>F	=	0.0018
Residual	393173.824	86	4571.78865	R-squared	=	0.1600
			Adj R-squared		=	0.1307
Total	468059.3	89	5259.09326	Root MSE	=	67.615
ROE	Coef.	Std.Err.	t	P> t 	[95% Conf.Interval]	
CURRENT RATIO	2.969689	3.259989	0.91	0.365	-3.510953	9.450332
EBIT	-.0717172	.0405313	-1.77	0.080	-.1522908	.0088564
EPS	63.68423	18.01181	3.54	0.001	27.87794	99.49051
cons	-27.96519	10.86174	-2.57	0.012	-49.55761	-6.372777

By observing the results above, it turns out that R-squared 0.1600 is lower than 0.60, which means that the data of this paradigm is not pertinent highly, it also indicate that 0.1600 percent (74885.4765) dissimilarities in profitability through two control variables: earning before interest and tax (EBIT), and earning per share (EPS) can be explained by liquidity. Therefore, the remaining percent (393173.824) variation in profitability can be explained by residuals or other variables other than liquidity.

H1: There is no significant effect of liquidity on profitability. Although the probability value of liquidity expressed by current ratio is 0.365 more than 0.05, which means that liquidity is not an important variable to explain profitability, but through control variables EBIT and EPS it observed that liquidity is an important variable to explain profitability, so the null hypothesis should be therefore reject, and accept the alternative hypothesis that liquidity is an important independent variable to explain profitability through EBIT and EPS, meaning that liquidity is an important independent variable to determine the listed Jordanian manufacturing firms' profitability.

H2: There is no significant effect of firm size on profitability.

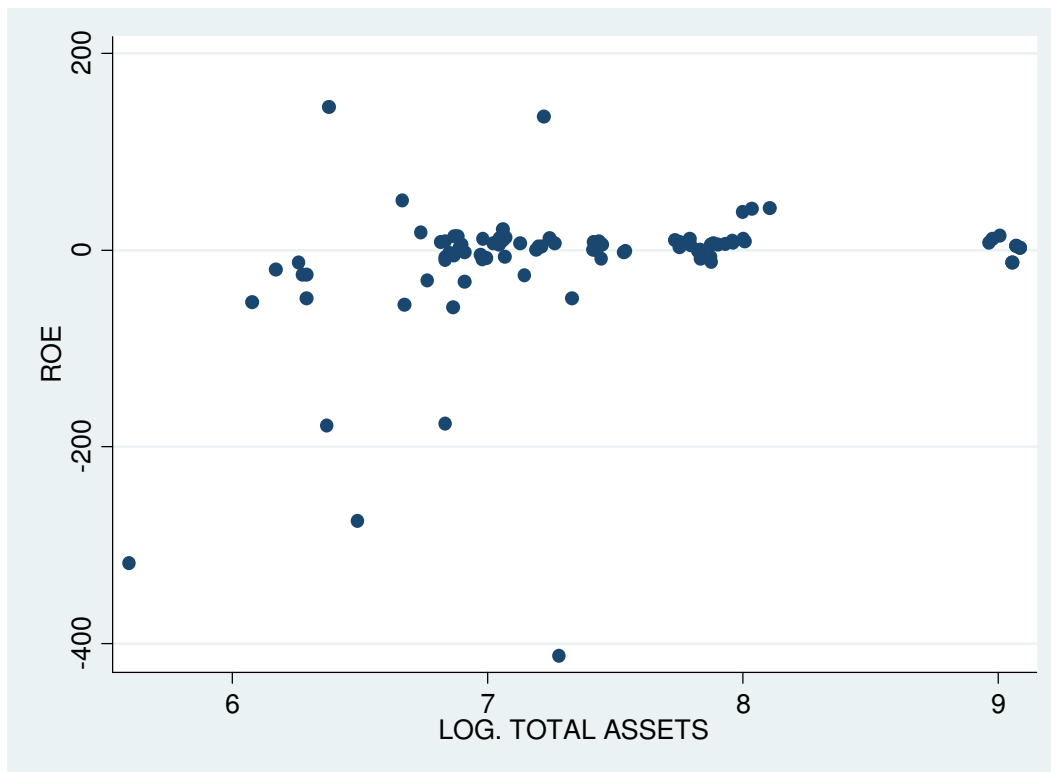


Table 5: Regression Analysis for Hypothesis 2

Source	SS	df	MS	Number of obs	=	90
				F(3,86)	=	6.73
Model	89041.1839	3	29680.3946	Prob>F	=	0.0004
Residual	379018.117	86	4407.1874	R-squared	=	0.1902
			Adj R-squared		=	0.1620
Total	468059.3	89	5259.09326	RootMSE	=	66.387
ROE	Coef.	Std.Err.	t	P> t 	[95% Conf. Interval]	
LOG TOTAL ASSETS	20.40527	10.11106	2.02	0.047	.3051488	40.50538
EBIT	-.0833378	.0401778	-2.07	0.041	-.1632085	-.003467
EPS	56.42554	18.03594	3.13	0.002	20.57128	92.27979
cons	-171.1439	74.80727	-2.29	0.025	-319.8558	-22.43198

By reading the results above, it notes that R-squared 0.1902 is lower than 0.60, which means that the data of this paradigm is not pertinent highly, also it points out those 0.1902 percent dissimilarities in profitability through two control variables: earning before interest and tax (EBIT), and earning per share (EPS) can be explained by firm size. Therefore, the remaining percent differences in profitability can be explained by remaining or other variables other than firm size.

H2: There is no significant effect of firm size on profitability. Given the probability value of firm size expressed by total assets logarithm 0.0004 is lower than 0.05, which means that firm size is a significant variable to explain profitability, as well through the two control variables: EBIT and EPS, it observed that the probability value of firm size 0.0004 is less than 0.05, which shows that a firm size is an important variable to explain profitability, so the null hypothesis should be therefore reject, and accept the alternative hypothesis that firm size is an important independent variable to explain profitability through EBIT and EPS, meaning that firm size is an important independent variable to determine the listed Jordanian manufacturing firms' profitability.

H3: There is no significant effect of liquidity and firm size on profitability.

Table 6: Regression Analysis for Hypothesis 3

Source	SS	df	MS	Number of obs	=	90
				F(4,85)	=	5.19
Model	91858.9384	4	22964.7346	Prob>F	=	0.0009
Residual	376200.362	85	4425.88661	R-squared	=	0.1963
				Adj R-squared	=	0.1584
Total	468059.3	89	5259.09326	Root MSE	=	66.527
ROE	Coef.	Std.Err.	t	P> t 	[95 % Conf.Interval]	
CURRENT RATIO	2.564636	3.21421	0.80	0.427	-3.826075	8.955346
LOG TOTAL ASSETS	19.88392	10.15353	1.96	0.053	-.3040122	40.07186
EBIT	-.0886111	.0408017	-2.17	0.033	-.1697359	-.0074864
EPS	53.26189	18.50395	2.88	0.005	16.47108	90.05269
cons	-173.3765	75.018	-2.31	0.023	-322.5324	-24.22066

Refer to the results above, it notes that R-squared 0.1963 is lower than 0.60, which means that the data of this paradigm is not pertinent highly, it also indicates that 0.1902 percent dissimilarities in profitability through two control variables: earning before interest and tax (EBIT), and earning per share (EPS) can be explained jointly by liquidity and firm size. Therefore, the remaining percent differences in profitability can be explained by remaining or other variables other than liquidity and firm size.

H3: There is no significant effect of liquidity and firm size on profitability. Given the probability value jointly of liquidity expressed by current ratio and firm size expressed by total assets logarithm 0.0009 is lower than 0.05, which means that liquidity and firm size are important variables to explain profitability through the two control variables: EBIT and EPS. So the null hypothesis should be therefore reject, and accept the alternative hypothesis that liquidity and firm size are important independent variables to explain profitability through EBIT and EPS, meaning that liquidity and firm size are significant independent variables to determine the listed Jordanian manufacturing firms' profitability.

H4: There is no significant effect of capital structure as a moderator variable on the relationship between liquidity and profitability.

Table 7: Regression Analysis for Hypothesis 4

Source	SS	df	MS	Number of obs	=	90
				F(4,85)	=	27.09
Model	262311.213	4	65577.8033	Prob>F	=	0.0000
Residual	205748.087	85	2420.56573	R-squared	=	.5604
				Adj R-squared	=	0.5397
Total	468059.3	89	5259.09326	Root MSE	=	49.199
ROE	Coef.	Std.Err.	t	P> t 	[95 % Conf. Interval]	
CURRENT RATIO	-2.728579	2.458895	-1.11	0.270	-7.617521	2.160364
EBIT	.0251381	.0314792	0.80	0.427	-.0374509	.0877271
EPS	25.11859	13.81946	1.82	0.073	-2.358198	52.59538
DEBT RATIO	.4785295	.0543817	8.80	0.000	.3704041	.5866548
cons	-2.454238	8.418371	-0.29	0.771	-19.19222	14.28374

By observing the results above, it notes that R-squared .5604 is somewhat close to 0.60, which means that the data of this paradigm is not quite pertinent highly, it also shows that .5604 percent dissimilarities in profitability through two control variables: earning before interest and tax (EBIT), and earning per share (EPS) can be explained by liquidity. Therefore, the remaining percent variation in profitability can be explained by residuals or other variables other than liquidity.

The reason for the rise of R-squared is due to the intervention of capital structure as a moderator variable. This confirms the theoretical association between liquidity and capital structure as

shown in (SibilkovI, 2009), on the other hand the association between capital structure and profitability as shown in (Abor, 2005); this is what made a difference and value added.

H4: There is no significant effect of capital structure as a moderator variable on the relationship between liquidity and profitability. It turns out that the probability value of capital structure expressed by debt ratio as a moderator variable 0.0000 is lower than 0.05, which means that capital structure has an important effect on the relationship between liquidity and profitability, through the effect of liquidity on capital structure, and the effect of capital structure on profitability what established in previous studies such as (SibilkovI, 2009) and (Abor, 2005) ,and this is what can be seen from the probability value 0.0000 is less than 0.05 through the two control variables: EBIT and EPS, and through the intervention of capital structure expressed by debt ratio as a moderator variable. So the null hypothesis should be therefore reject, and accept the alternative hypothesis that liquidity is a significant independent variables to explain profitability through the intervention of capital structure, meaning that liquidity is an important independent variable to determine the listed Jordanian manufacturing firms' profitability through the role played by the capital structure in the association between liquidity and capital structure; this is what made a difference and value added.

H5: There is no significant effect of capital structure as a moderator variable on the relationship between firm size and profitability.

Table 8: Regression Analysis for Hypothesis 5

Source	SS	df	MS	Number of obs	=	90
			F(4,85)		=	26.41
Model	259372.11	4	64843.0276	Prob>F	=	0.0000
Residual	208687.19	85	2455.14341	R-squared	=	0.5541
			Adj R-squared		=	0.5332
Total	468059.3	89	5259.09326	Root MSE	=	49.549
ROE	Coef.	Std.Err.	t	P> t 	[95% Conf. Interval]	
LOG TOTAL ASSETS	1.027215	7.89712	0.13	0.897	-14.67438	16.72881
EBIT	.014946	.0322257	0.46	0.644	-.0491274	.0790194
EPS	22.62037	14.0601	1.61	0.111	-5.334886	50.57562
DEBT RATIO	.4605182	.055289	8.33	0.000	.3505889	.5704474
cons	-16.92674	58.82415	-0.29	0.774	-133.8849	100.0314

Refer to the results above, it notes that R-squared 0.5541 is somewhat close to 0.60, which means that the data of this paradigm is not quite pertinent highly, it also shows that 0.5541 percent dissimilarities in profitability through two control variables: earning before interest and tax (EBIT), and earning per share (EPS) can be explained by firm size. Therefore, the remaining percent variation in profitability can be explained by remaining or other variables other than firm size.

The reason for the rise of R-squared is due to the intervention of capital structure as a moderator variable. This confirms the theoretical correlation between firm size and capital structure as shown in (Kurshev & Strebulaev, 2007) and (Karadeniz, et al., 2011), on the other hand the relationship between capital structure and profitability such as (SibilkovI, 2009) and (Abor, 2005); this is what made a difference and value added.

H5: There is no significant effect of capital structure as a moderator variable on the relationship between firm size and profitability. It is noticeable that the probability value of capital structure expressed by debt ratio as a moderator variable 0.0000 is lower than 0.05, which means that capital structure has a significant effect on the relationship between firm size and profitability, through the effect of firm size on capital structure, and the effect of capital structure on profitability what have been proven in previous studies such as (SibilkovI, 2009) and (Abor, 2005), and this is what can be seen from the probability value 0.0000 is less than 0.05 through the two control variables: EBIT and EPS, and through the intervention of capital structure expressed by debt ratio as a moderator variable. So the null hypothesis should be therefore reject, and accept the alternative hypothesis that firm size is

a significant independent variables to explain profitability through the intervention of capital structure, meaning that firm size is an important independent variable to influence the listed Jordanian manufacturing firms' profitability through the role played by the capital structure in the relationship between firm size and capital structure, this is what made a difference and value added.

H6: There is no significant effect of capital structure as a moderator variable on the relationship between liquidity, firm size and profitability.

Table 9: Regression Analysis for Hypothesis 6

Source	SS	df	MS	Number of obs	=	90
				F(5,84)	=	21.42
Model	262343.271	5	52468.6541	Prob>F	=	0.0000
Residual	205716.03	84	2449.00036	R-squared	=	0.5605
				Adj R-squared	=	0.5343
Total	468059.3	89	5259.09326	Root MSE	=	49.487
ROE	Coef.	Std.Err.	t	P> t 	[95% Conf. Interval]	
CURRENT RATIO	-2.724516	2.47355	-1.10	0.274	-7.643442	2.19441
LOG TOTAL ASSETS	.9024845	7.888047	0.11	0.909	-14.78376	16.58873
EBIT	.0239898	.0332162	0.72	0.472	-.0420642	.0900438
EPS	24.79747	14.18093	1.75	0.084	-3.402861	52.9978
DEBT RATIO	.4766444	.0571277	8.34	0.000	.3630397	.5902491
cons	-9.154613	59.17274	-0.15	0.877	-126.8261	108.5169

Refer to the results above, it turns out that R-squared 0.5605 is less than 0.60, which means that the data of this paradigm is not quite pertinent highly, it also means that 0.5605 percent dissimilarities in profitability through two control variables: earning before interest and tax (EBIT), and earning per share (EPS) can be explained jointly by liquidity and firm size. Therefore, the remaining percent variation in profitability can be explained by remaining or other variables other than liquidity and firm size.

The reason for the rise of R-squared is due to the intervention of capital structure as a moderator variable. This confirms the theoretical relationship between liquidity and capital structure as shown in (SibilkovI, 2009), firm size and capital structure as shown in (Kurshev & Strebulaev, 2007) and (Karadeniz, et al., 2011), on the other hand the relationship between capital structure and profitability as shown in (SibilkovI, 2009) and (Abor, 2005); this is what made a difference and value added.

H6: There is no significant effect of capital structure as a moderator variable on the relationship between liquidity, firm size and profitability. It is noticeable that the probability value of capital structure expressed by debt ratio as a moderator variable 0.0000 is lower than 0.05, which means that capital structure has a significant effect on the relationship between liquidity, firm size and profitability, through the effect of liquidity on capital structure, the effect of firm size on capital structure, and the effect of capital structure on profitability what have been proven in previous studies such as (SibilkovI, 2009) and (Abor, 2005), and this is what can be seen from the probability value 0.0000 is less than 0.05 through the two control variables: EBIT and EPS, and through the intervention of capital structure expressed by debt ratio as a moderator variable. So the null hypothesis should be therefore reject, and accept the alternative hypothesis that liquidity and firm size jointly are significant independent variables to explain profitability through the intervention of capital structure, meaning that liquidity and firm size jointly are important independent variables to determine the listed Jordanian manufacturing firms' profitability through the role played by the capital structure in the relation between liquidity, firm size and capital structure; this is what made a difference and value added.

6. Study Results

By review the analysis results above, can conclude that liquidity is an important independent variable to determine profitability through earning before interest and tax, and earning per share, meaning that liquidity is an important independent variable to determine the listed Jordanian manufacturing firms' profitability, and this result agree with (Alshatti, 2015), also the results reveal that firm size is an important independent variable to determine profitability through earning before interest and tax, and earning per share, meaning that firm size is an important independent variable to determine the listed Jordanian manufacturing firms' profitability, which agree with (NIMALATHASAN and Velnampy, 2010), and (Doğan, 2013). Moreover the results shows that that liquidity and firm size are important independent variables to determine profitability through EBIT and EPS, meaning that liquidity and firm size are important independent variables to determine the listed Jordanian manufacturing firms' profitability.

On the other hand the results adds that that liquidity is an important independent variables to explain profitability through the intervention of capital structure, meaning that liquidity is an important independent variable to determine the listed Jordanian manufacturing firms' profitability through the role played by the capital structure in the association between liquidity and capital structure); this is what made a difference and value added. Also, firm size is important independent variables to explain profitability through the intervention of capital structure, meaning that firm size is an important independent variable to determine the listed Jordanian manufacturing firms' profitability through the role played by the capital structure in the association between firm size and capital structure; this is what made a difference and value added. Finally, liquidity and firm size jointly are important independent variables to explain profitability through the intervention of capital structure, meaning that liquidity and firm size jointly are important independent variables to determine the listed Jordanian manufacturing firms' profitability through the role played by the capital structure in the association between liquidity, firm size and capital structure; this is what made a difference and value added.

Therefore, the results of this study which applied on the financial annual reports for a sample of manufacturing companies during the period from 2014 to 2016 conclude the importance role that capital structure play as moderator variable to ensure the relation between the independent variables: liquidity, firm size, and the profitability as a dependent variable. That means the main goal to this study was achieved.

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