International Journal of Commerce and Finance, Vol. 7, Issue 1, 2021, 122-129

IMPACT OF LIQUIDITY ON PROFITABILITY AND PERFORMANCE. A CASE OF TEXTILE SECTOR OF PAKISTAN

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Received: February 24, 2021 Accepted: April 23, 2021 Published: May 01, 2021

Abstract

Liquidity and firm performance has been a contentious concern among the finance scholars.Former researches interprets that asset liquidity increases debt level while in some countries firms having more liquidity were less leveraged and were dependant on internal finance.This study reconnoiters the effect of liquidity ratios on profitability and performance of textile sector of Pakistan from 2005 to 2014.Fixed effect panel regression model is applied to scrutinize the impact of liquidity ratios in presence of control variables like firm size and sales growth.Results interpret that current ratio has positive impact on profitability and performance while acid ratio has insignificant effect on the performance but has significant positive effect on profitability during the study period.

Keywords: *Liquidity, Profitability, Performance, Firm size and Sales growth*

JEL Classification: *G33*

1. Introduction

The debate on the impact of liquidity on firm profitability and performance has been ongoing in the field of corporate finance. Liquidity management is extremely essential for every firm in order to meet payment obligations which include short term operating and financial expenses which could lead to future debt. Bhunia (2013) stated that there are several ratios to measure the liquidity which indicates firms propensity to make payments and delay in payments will lead firm to encounter obstacles in meeting financial obligations(Muhammad, Jan, & Ullah, 2012). Prevalent research has been conducted to examine impact of liquidity ratios and mixed resuts have been observed in literature by analyzing data across different sectors and countries.

Prior studies have explored the association between liquidity and the firms' performance by employing several ratios like ROA and ROE. However, according to Bhunia (2013) return on assets emphasize on the liquidity but return on equity does not. Profitability on the other hand is one of the aspects used to measure the firms' financial position (Barakat, 2014).The association between performance and liquidity was analyzed by Wang (2002); whose findings affirmed that liquidity management enhance firms operational performance and worth of a firm. Literature demonstrates that results vary when small and large firms were studied as stated by Ibhagui and Olokoyo (2018) that leverage has significant negative effect on performance when small firms are considered and this negative impact diminishes as the firms grow. Hubbard and Bromiley (1994) survey's findings shows that sales is the utmost communal objective mentioned by managers. According to R. Kaplan and Norton (1993); R. S. Kaplan and Norton (1996) firm should have diverse goals which should include sales growth to meet their financial obligations. As sales growth and firm size is of significance importance while evaluating firms profitability its effect will also be studied. In a nut shell, this paper aims to examine the impact of liquidity ratios on firms performance and profitability by considering a comprehensive sample of textile firms of Pakistan for a duration of nine years.

2. Literature Review

Literature reviews by Rudin, Nurdin, and Fattah (2016) and Samo and Murad (2019) illustrates that despite the important connection between financial liquidity and profitability, there are limited studies that indicate the significant association between them.Lumpkin and Dess (1996) argued that performance is multidimensional in nature so multiple measures of performance should be taken into account. The association between the different measures of performance can be complex in nature as growing firms will certainly not perform better when financial performance is considered.On the other hand, profitability is a significant measure of firm's performance as it is impossible that a firm growth can be sustained without revenues being available for reinvestment (Fitzsimmons, Steffens, & Douglas, 2005).Profitability indicates firm's ability to withstand any financial crisis so that a firm can smoothly carry on its operations; also it maximizes shareholders value.Impact of liquidity and solvency on profitability was studied by Khidmat and Rehman (2014) by examining chemical sector of Pakistan. Their findings confirmed that liquidity, solvency and profitability are closely related. Another study conducted by Šarlija and Harc (2012) showed that firms try to sustain liquidity in their operations to timely meet their obligations. Excess both liquidity and leverage may have negative influence on the firm (Shaheen & Malik, 2012). Leverage and liquidity proportions have to be appropriate as per the requirements of the firm, since both deficiency or excess of them would lead to have negative impact on the firm(Karaduman, Akbas, Ozsozgun, & Durer, 2010).Hence, management of liquidity is very important for any firm to pay existing obligations i.e. financial and operating expenses on the business (Saleem & Rehman, 2011). The results of Zaitoun and Alqudah ratified that liquidity has significant and positive affect on the profitability while examining impact of liquidity and financial leverage on profitability of Jordanian industrial firms.

Ardishvili, Cardozo, Harmon, and Vadakath (1998) and F Delmar (1997) reported that employment, market share, physical output, assets, profits and sales are possible indicators of performance while Frédéric Delmar, Davidsson, and Gartner (2003) explored several performance measures and declared that if only one indicator has to be chosen to measure firms growth than sales should be chosen as a growth measure. In consistant with the previous research, this study will observe impact of sales growth on firm performance as well to get more evident results. Chandler and Baucus (1996) observed that researchers often assume that rapid growth is desirable when sales growth is used to measure performance but the perception that rapid growth specifies firms better performance may not be universally true. Firms having prompt growth have excessive strains on assets which can lead to instability in firms' performance. Fitzsimmons et al. (2005) results imply that small firms which pursue the growth pathway are expected to attain above average performance while large firms which tends to pursue the profitability pathway are expected to attain high growth and profitability.

Based on past research, it is evident that the firm size is an important variable while scrutinizing firm's performace and profitability. Stanwick and Stanwick (1998) determined the relation between size of the firm, financial performance and corporate social performance by examining the data of US firms from 1987 to 1992. The results showed that corporate performance is influenced by firm size and profitability.Mule, Mukras, and Nzioka (2015) demonstrated the effect of corporate size on profitability by evaluating Kenyan firms. Their findings shows that there exists a positive relation between firm size and profitability. Manufacturing companies listed in Indonesian Stock Exchange were studied by Kartikasari and Merianti (2016) from 2009-2014. Firm size was measured by considering both total assets and total sales. Results of regression analysis showed that firm size (in terms of assets) have significant negative impact on profitability while firm size (in terms of sales) has insignificant effect on the profitability of firms.Similar study conducted by Olawale, Ilo, and Lawal (2017) showed that firm size has negative impact on performance when considered in terms of assets while it has positive impact on firm performance when considered in terms of sales.Budhathoki, Rai, Lamichhane, Bhattarai, and Rai (2020) examined the impact of liquidity, leverage, and total assets size of the bank on profitability. Results revealed that the bank size have positive effects on profitability.

Liquidity, firm performance and profitability have been a topic of concern among financial analysts for many years and conflicting results have been observed in literatrure which amplify the importance of the study. Based on past research analysis, this paper aims to study the effect of liquidity ratios on profitability and performance of the firms.

3. Objective of the Study

The objective of the paper is to study the effect of liquidity ratios on profitability and performance in presence of control vaiables like firm size and sales growth by considering textile sector of Pakistan. A sample of 152 textile firms has been analyzed from 2005-2014 to study this effect.

4. Hypotheses Development

Listed hypotheses have been developed to attain the objectives of the study.
H1: There is a positive and significant relation between firms' liquidity and profitability.
H2: There is a positive and significant relation between firms' liquidity and performance.
H3: There is a positive and significant relation between firms' liquidity and sales growth.
H4: There is a positive and insignificant relation between firms' liquidity and firm size.

5. Data and Sampling

Financial statement analysis of non financial firms have been evaluated to get the empirical results.Data has been collected from the publications of State Bank of Pakistan. Panel study has been conducted which is a type of longitutinal research which observes same group or organizations across multiple time line (Neuman, 2014). The final sample of the study includes an unbalanced panel data of 152 textile firms listed on Karachi Stock Exchange from 2005-2014.

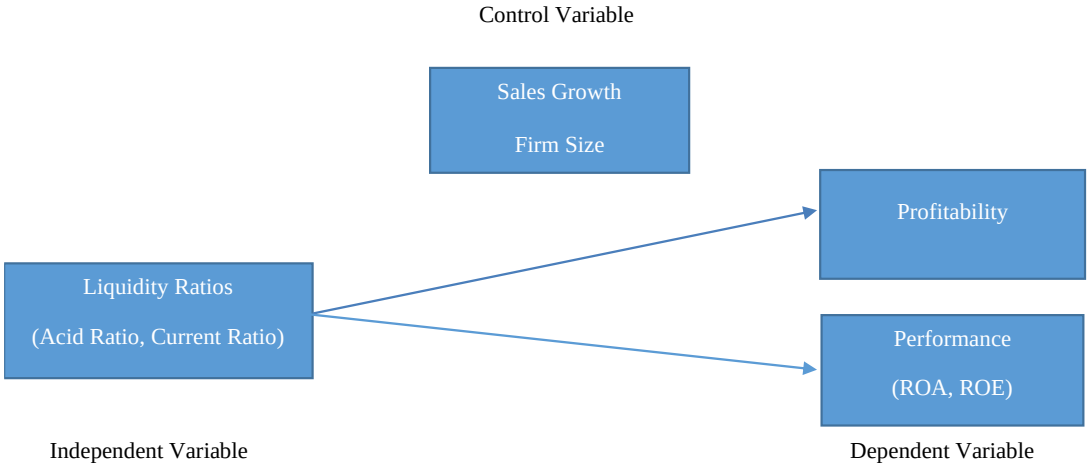
6. Variables and Measures

Liquidity ratios (acid ratio and current ratio) are used as independent variable to determine liquidity of the firms.Current ratio is calculated based on measures used by Odit and Chittoo (2008), Saleem and Rehman (2011) and Sajid, Mahmood, and Sabir (2016). It is a gross measure of liquidity which links liquid assets with current liabilities.

Sr.No.	Variables	Measurements
1	Acid Ratio	Current assets-Inventories/Current Liabilities
2	Current Ratio	Current Assests/Current Liabilities
3	Return on Assets(ROA)	Net Profit Before Tax/Total assets
4	Return on Equity (ROE)	Net Profit Before Tax/Shareholder's equity
5	Profitability	(Net Profit After Tax/Total Fixed Assests)×100
6	Firm Size	Log of Sales
7	Sales Growth	Net Sales/Net Fixed Assets

Quick ratio\Acid Ratio is calculated based on Saleem and Rehman (2011); it indicates whether firm can disburse their current debt without selling any inventory or not. Profitability is used as a dependent variable which is calculated based on Sajid, Tahir, and Sabir (2015) and Saleem and Rehman (2011) paper. It shows operating efficiency of the finances over firm's investment. ROA and ROE are used as performance indicators.Return on asset reflects the effectiveness of all the assets, it is an obvious measure of performance.The same vaiable is used by Kartikasari and Merianti (2016) to estimate performance of Indonesian firms. The other variable used to evaluate performance is return on equity which is used based on Olawale et al. (2017) paper. Return on equity measures the firms' profitability with which the owner's money is managed.Sales growth is measured by dividing net sales by net fixed assets (Odit & Chittoo, 2008; Sajid et al., 2016) while firm size is considered in terms of sales as estimated by Ebel Ezeoha (2008) and Kartikasari and Merianti (2016).

7. Theoritical Model



8. Regression Model

This study will investigate the relation between liquidity and profitability by using following regression equations

$$ROA = \alpha_i + \beta_1 Current\ Ratio + \beta_2 Acid\ Ratio + \beta_3 Sales\ Growth + \beta_4 Firm\ Size + \epsilon_{i,j} \quad \dots (i)$$

$$ROE = \alpha_i + \beta_1 Current\ Ratio + \beta_2 Acid\ Ratio + \beta_3 Sales\ Growth + \beta_4 Firm\ Size + \epsilon_{i,j} \quad \dots (ii)$$

$$Profitability = \alpha_i + \beta_1 Current\ Ratio + \beta_2 Acid\ Ratio + \beta_3 Sales\ Growth + \beta_4 Firm\ Size + \epsilon_{i,j} \quad \dots (iii)$$

Where ROA=Return on assets, ROE = Return on equity, α =constant , β= the regression coefficient , ε= error term.

9. Empirical Results

Table 1 summarizes the descriptive statistics. The mean and standard deviations of liquidity ratios and other variables are estimated by using STATA.The average return on asset is 2.4 while return on equity is 1.7.The mean current ratio is 1.1 and acid ratio is 0.3.Standard deviation shows the deviation of values from its mean.

Table: 1 Summaries of Basic Descriptive Statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
ROA	743	2.442503	17.69018	-164.31	321.6
ROE	743	1.74825	94.67652	-1277.82	791.9
Profitability	743	4.054547	109.5365	-1784.221	1121.298
Current Ratio	743	1.167537	1.079883	.01	11.81
Acid Ratio	743	.3805384	.6485108	0	10.2
Sales Growth	743	2.676916	3.797728	.0087105	92.13251
Firm Size	743	14.52721	1.562278	7.990915	17.81269

Table 2 shows correlation results. Sample data has been tested for mulicolinearity to verify collinearity error among the variables. Estimation results do not show any concern over multicollinearity as there is no value above 1 and less than -1.

Table: 2 Correlation Results of Estimation Variables

Variables	ROA	ROE	Profitability	Current Ratio	Acid Ratio	Sales Growth	Firm Size
ROA	1.0000						
ROE	0.1150	1.0000					
Profitability	0.5531	0.0197	1.0000				
Current Ratio	0.1328	0.0286	0.3278	1.0000			
Acid Ratio	0.0589	-0.0207	0.3330	0.7139	1.0000		
Sales Growth	0.1206	0.0587	-0.3253	0.1234	0.0486	1.0000	
Firm Size	0.2145	0.0769	0.1181	0.0280	-0.0445	0.1099	1.0000

Hausman's Test is employed to select amongst the two basic approaches for panel estimation i.e. random effect model and fixed effect model which is adequate for our estimation model. Hausman's test results support fixed effect model as the p-value is less than 0.05.Therefore, fixed effect panel regression is adopted for evaluating the impact of liquidity ratios on performance and profitability.The same regression model has been opted by Kartikasari and Merianti (2016) and Saleem and Rehman (2011).

Table: 3 Fixed Effect Regression Results

Variables	ROA	ROE	Profitability
Current Ratio	2.468223 (1.228)**	7.433529 (6.517)	8.924049 (6.709)
Acid Ratio\ Quick Ratio	-1.023877 (1.664)	-5.052025 (8.829)	35.33195 (9.089)***
Sales Growth	1.282459 (0.512)***	1.369427 (2.719)	7.534609 (2.799)***
Firm Size	3.348356 (1.312)***	3.42022 (6.962)	6.07067 (7.166)
R^2	.0624	.0092	.0034
No. of Observations	743	743	743
No. of Groups	134	134	134

Table 3 reports regression results ***Significant at 1%, **Significant at 5%, *Significant at 10%

Table 3 shows the results of fixed effect model.The results of first regression model shows that current ratio has significant positive effect on return on assets; similar findings were reported by Wang (2002). Acid ratio have negative association with firms performance while possitive relation has been observed between firm size and performance, similar results were testified by Olawale et al. (2017) as well. The second regression model

demonstrates that current ratio, acid ratio, sales growth and firm size have insignificant impact on ROE which means ROE is not affected by liquidity ratios.Our findings are in consistant with the findings of Saleem, Q., & Rehman, R. U. (2011).Considering the third equation, regression result proves that liquidity ratios have possitive impact on profitability in case of textile sector of Pakistan. Zaitoun and Alqudah and Samo and Murad (2019) also projected same results in their study. While firm size and profitability report positive association. These findings are similar to the verdicts of Mule et al. (2015) and Budhathoki et al. (2020) and contradicts the findings of Kartikasari and Merianti (2016).

This verdict can be drawn from the study that liquidity ratios illustrates firms capacity to pay off existing debt obligations without raising external capital. Since, the value of liquidity ratio is more than one it proves that the Textile sector of Pakistan is in a stable condition. If the current ratio would have been less than one than firms should be concerned about their financial condition as they might not be able to pay off their short term debts.Possitive relation with profitability denotes that textile sector is generating enough profits to meet their short term financial obligations.

10. Conclusion

This paper empirically address the relationship between liquidity ratios, performance, sales growth, firm size and profitability from 2005-2014 by analyzing textile sector of Pakistan. The results show that liquidity ratios have positive association with profitability while both show insignificant relation with return on equity. The control variables sales growth and firm size are also positively related to firms' performance and profitability.

In a nut shell, liquidity ratio is very helpful in determining the profitability of a firm as these ratios elucidates firm's current assets and current liabilities. This study concludes that if liquidity ratio is high than the firm is in a stable position as the firm would be cash enrich and can easily handle the cash issues.

The implication of the study is that it determines relation between firms' liquidity and profitability that will help investors to analyze firms' financial condition to meet day to day operating expenses. Further, the current study is limited to textile sector of Pakistan considering a period of nine years due to availability of data constraint; in future large sample data can used by evaluating other variables and sectors.

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