Determinants of liquidity of the Select Indian Tractor Companies

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ABSTRACT

India is mainly an agricultural country. Agriculture accounts for approximately 25 percent of India's GDP. The auto industry plays a significant role in shaping a country's economy development.The reputation of any industry depends on its liquid position, which assists a company in settling their dues in time. Liquidity refers to the firm's ability to meet the claims of suppliers of goods, services and capital. The article considers liquidity position of tractor industry by employing Correlation and Multiple Regression test. The data required for the study is secondary in nature. The required data are collected from Capital Line databaseforthe period ranging between 2002 and 2012.The collected data is analyzed by making use of correlation and Multiple Regression. The results reveals that liquidity position of a company depends on Size, Return on Investment, Inventory Turnover Ratio, Growth in Sales, Leverage and Assets Turnover Ratio.

KEYWORDS : Automobile Industry, Tractors Companies, Current Ratio, Inventory Turnover Ratio, Size of the Firm and Leverage

Introduction

Automobile industry plays a very vital role in the Indian Economy. India is the second largest Tractor manufacturer in the world. In 1961, tractor manufacturing in India was started; the industry has grown at a phenomenal pace in the last five decades to achieve a recordproduction of over three lakh units per year. Indian tractor industry is very young when compared with world development. Consequently it now becomes a pride in India's automobile industry. Liquidity means availability of cash, which a company mobilized from current operations and previous year'saccumulations, to take care of the claims of both short-term and long-term. The purpose of the short-term analysis is to derive a picture of the capacity of the firm to meet its short-term obligations out of its short-term resources, that is, to estimate the risk of supplying short-term capital to the firm. On the one hand, the firm having higher current ratio is considered to be having better liquidity position while on the other it also indicatespoor credit management and thus indicates loose or liberal management practices. The firm having lower current ratio is considered to be having inadequate margin of safety and thus poor liquidity.

Review of Literature

Smith Beaumont and Begemann (1997) in their study observe that liquidity is associated with return on investment. **Sathish Chandra Varshney (2001)** in her study found that net trade credit and maintenance of stock at optimum levels significantly influence the financial liquidity.**Khatik and Pradeep Kumar Singh (2003)**in their study observe that proper management of current assets and debtors directly affect liquidity position of the company. **Eljelly (2004)** in his study elucidated that cash conversion cycle was a more importantfactor that affects liquidity.**Amit K. Chakraborty (2005)** observes that acid test ratio indicates the short term liquidity position of the company. **Dr.A.Vijayakumar (2011)**in his study finds that optimal cash conversion cycle affects liquidity position of a company. **Velmathi.N and R. Ganesan (2011)** in their study found that proper cash management directly affects liquidity position of the company.

Statement of Problem

Liquidity management isa very important issue in the growth and survival of business and the ability to handle the trade between the two is a source of concern for financial managers. Therefore, liquidity should be managed in order to obtain an optimal level, that is, a level that avoids excess liquidity which may translate to poverty of ideas by management. Also liquidity level should not fall below minimum requirement as it will lead to the inability of the organization to meet short term obligations that are due. One of the major reasons that may affectliquidation is illiquidity and inability to make adequate profit. These are some of the basic ingredients of measuring the "going concern" of an establishment. For these reasons companies are developing various strategies to improve their liquidity position. Since the Tractor Companies face threats to their viability, this study bears a relevance to the present problems. Therefore, the present study is undertaken to know the impact of Short-term Solvency on financial performance of selected Tractor companies in India.Since the Tractor-Companies face threats to their viability, this study bears a relevance to the present problems. This study is made to know the Current Ratio position against the background above situation.

Objective of the study

To ascertain the factors that determine the liquidityposition of select tractor companies in India.

Research Methodology
Data

The Present Study is analytical in nature. Secondary data is required for the study. The secondary data have been collected from Capital Line database for the period rangingbetween 2002 and 2012.

Framework of Analysis

The collected data have been analysed by making use of Correlation and Multiple Regression. Levels of Significance chosen are one and five percent level.

Selection of Sample Companies

In India ten tractor companies are in operation. But, owing to non-availability of financial statements for a continuous period of 2002 to 2012, the sample size has been restricted to six companies. The selected company'sare (1) HMT, (2) Mahindra & Mahindra, (3) VST Till Tractors, (4) Tractors & Farms, (5) Intl. Tractors and (6) Escorts.

Limitation

Considering the continuity of data, only six companies have been selected for the study. Hence, utmost care is exercised while generalizing the result.

Analysis and Interpretation

The following paragraphs discuss the nature and quantum of association and factors that are associated with liquidity (short-term solvency). For measuring liquidity (short-term solvency), Current Ratio is introduced as dependent Variable.

Variables associated with level of Liquidity

To find the variables associated with liquidity correlation analysis is employed. Current ratio is introduced as dependent variable and Size, Age, Return on Investment, Inventory Turnover Ratio, Dividend Payout Ratio, Growth, Leverage and Asset Turnover Ratios are introduced as independent variables. In order to examine the nature of association between dependent and independent variables correlation analysis is

employed. Out of eight independent variables introduced, only three variables are found to be significant namely, Age, Inventory Turnover Ratio and Leverage are found to be significant at one per cent level.

Table No.1
Variables associated with level of Liquidity- Correlation Analysis

Variables	r	r^2
Size	0.148	0.022
Age	-0.532**	0.283
Return on Investment	0.112	0.013
Inventory Turnover Ratio	0.714**	0.509
Dividend Payout Ratio	0.230	0.053
Growth in Sales	-0.257	0.066
Leverage	-0.411**	0.169
Asset Turnover Ratio	-0.151	0.023

* Significant at five per cent level **Significant at one per cent level

Age
Age and liquidity are negatively correlated. This shows that liquidity is high with newly promoted companies. The coefficient of determination (r^2) shows that age accounts for 28.30 per cent of the variation in the liquidity.

Inventory Turnover Ratio
Inventory Turnover Ratio and liquidity are positively correlated. This shows that level of liquidity is more with companies, which sell their finished products at an earliest. The coefficient of determination (r^2) shows that Inventory Turnover Ratio accounts for 50.90 per cent of the variation in the liquidity.

Leverage
Leverage and liquidity are negatively correlated. This shows that level of liquidity is more with companies with low leverage. The coefficient of determination (r^2) shows that leverage accounts for 16.90 per cent of the variation in the liquidity.

Determinants of Liquidity
To find the combined influence of select independent variable over dependent variable, Multiple Regression test is employed. Out of eight independent variables introduced six variables are found to be significant. Size, Return on investment, Inventory Turnover Ratio and Leverage are found to be significant at one per cent level whereas Growth and Asset Turnover Ratio are found to be significant at five per cent level.

Table No.2
Determinants of Liquidity- Multiple Regression Analysis

Variables	Regression coefficient	Standard error	t
Size	0.001**	0.000	4.490
Age	0.001	0.003	0.422
Return on Investment	0.020**	0.004	4.766
Inventory Turnover Ratio	0.105**	0.014	-7.733
Dividend Payout Ratio	0.000	0.000	-1.169
Growth in Sales	0.005*	0.002	-2.207
Leverage	-0.056**	0.014	3.966
Asset Turnover Ratio	0.195*	0.094	-2.075

Constant: 2.246, Std. Error of Estimate: 0.199, R^2: 0.817, R^2: 0.845**

Size
The regression coefficient indicates that Size positively influences the liquidity. The value of regression coefficient indicates that a unit of increase in Size shall increase liquidity by 0.001 units. Increase in company assets leads to higher level of liquidity.

Return on Investment
The regression coefficient indicates that Return on Investment positively influences the liquidity. The value of regression coefficient indicates that a unit of increase in Return on Investment shall increase liquidity by 0.020 units. Increase in Return on Investment leads to increase in liquidity.

Inventory Turnover Ratio
The regression coefficient indicates that Inventory Turnover ratio positively influences the liquidity position of the company. The value of regression coefficient indicates that a unit of increase in Inventory Turnover Ratio shall increase liquidity by 0.105 units. Increase in Inventory turn over ratio will raise the liquidity position of the company.

Growth in Sales
The regression coefficient indicates that Growth in sales positively influences the liquidity. The value of regression coefficient indicates that a unit of increase in sales shall increase liquidity by 0.005 units. Increase in Sales leads to increase in liquidity.

Leverage
The regression coefficient indicates that leverage negatively influences the liquidity. The value of regression coefficient indicates that a unit decrease in leverage shall increase liquidity by 0.056 units. Low Leverage Company may have high liquidity.

Assets Turnover Ratio
The regression coefficient indicates that Assets turnover ratio positively influences liquidity. The value of regression coefficient indicates that a unit of increase in asset turnover ratio shall increase liquidity by 0.195 units. Higher the level of utilization of assets towards sales leads to higher level of liquidity.

The value of R^2 is found to be significant at one per cent level. This shows that the regression equation framed is a good fit. Around 84.50 per cent of variation in liquidity is due to the select independent variables.

Findings
Correlation result portrays that, out of eight independent variables introduced three variables namely; Age, Inventory Turnover Ratio and Leverage are found to be significantly related with liquidity. Multiple Regression discloses that Size, Return on investment, Inventory Turnover Ratio, Leverage, Growth in sales and Asset Turnover Ratio collectively influence liquidity.

Suggestions
❖ It is suggested that the firms should have optimum current ratio by balancing the current assets and current liabilities in order to avoid over and under liquidity.

❖ Though, the Current ratio of the industry is satisfactory, the Cash ratio is very poor. It would create short-term liquidity problems. So, the companies in the industry should try to enhance the Cash ratio.

❖ Current Ratio of any business enterprise depends on the effective utilization of Inventory Turnover Ratio. Inventory Turnover Ratio needs to be maintained at a healthy level in the sample Companies.

Conclusion
Maintaining excess liquidity may affect recycling of funds and directly affects profitability of firms. At the same time low level of liquidity distress company in repaying their dues in time, which affects the reputation of the company. Thus, companies are to maintain an optimum level of liquidity which assists them to increase their profitability and their reputation.

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