Profitability and Liquidity. Do they move together?

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ABSTRACT

While studying the basics of financial management students are often taught that liquidity and profitability both very important for business in terms of Survival and growth don't often go hand in hand with each other. In almost all theories there exist an inverse relationship between liquidity and profitability primarily due to the Limited nature of financial resources. Most often firms have to decide on using the available funds for short term purposes to meet the liquidity needs or to finance the long term necessities of making profit and growing in the long term. The main objective of the study is to analyse what kind of relationship exist between profitability and liquidity with specific concentration on the Pharmaceutical sectoral index of the NSE. We have used selective ratios to represent profitability and liquidity and used correlation analysis to identify what kind of relationship exist between them.

Keywords: Profitability, liquidity, Pharmaceutical sector, NSE, correlation

INTRODUCTION

While managing finance the firm must always have in mind two key aspects of Management. Where one is about surviving in the short run the other is about growing in the long run. Liquidating refers to the ability of the firm to meet its short term liabilities and it involves using a limited resource called funds for its day-to-day survival. Profitability refers to the firm’s ability to generate profit and keep growing so as to sustain itself in the long run and making it worthwhile to run the Enterprise. The basic theory suggests that owing to the Limited nature of financial resources we often face a dilemma in terms of using the funds either for liquidity or for profitability. Many a times satisfying both necessities of the firm is it possible. So in theory liquidity and profitability have an inverse relationship. The main objective of the study is to analyze if the stands true with reference to pharmaceutical companies in the Indian market.

LITERATURE REVIEW

Profitability helps the firm in taking decisions making policies according to Osiegbu and Nwakanma (2008) whereas Liquidity tells about the firm’s ability to meet short-term need of funds says Ibenta (2005). Performance of any business entity is judged by its liquidity management (Bardia 2007). Efficient liquidity management has a great significance for a business to run smoothly (Valrshney, 2008). Decisions related to liquidity have no impact on profitability but the use of forecasting of liquidity and short-term financing during crisis effects profitability positively Lambery and Valming (2009). According to Amit et al (2005) there is no any relation between profitability and liquidity. Narware (2004) in his study on NFL concluded that; there is both negative and positive relationship between profitability and liquidity. According to Sur et al (2001), Bardia (2007), Bardia (2004) and Sur and Ganguly (2001) the relationship between profitability and liquidity is positive. As liquidity has a close relation with day to day activities so the study of liquidity is important for the internal analysts as well as external analysis in their study (Bhunia, 2010). By taking Current ratio as tool to find the relation between
profitability and liquidity found that there is negative relation between the business’s liquidity and its profitability Abuzarand Eljelly (2004). Working capital management is important due to its direct relation with the firm’s profitability and liquidity Singh and Pandey (2008). According to Walt (2009) Profitability can be turned into liquid asset that’s why it is more important but this never means that company is profitable if its liquidity is high. Liquidity is more important than profitability because it has impact on the survival of the company Don (2009). According to Dong (2010) Working capital management affects the liquidity and profitability of any firm. Fixed and current assets are important for the successful running of any business and these both have direct impact on liquidity and profitability Saswata Chatterjee (2010). According to Deloof (2003) and Wang (2002) the working capital management increases profitability by reducing average collection period and inventories. According to Afza and Nazir (2007) there is a negative relation between the profitability and business’s working capital investment and the financing policies. Mahmood and Qayyum, (2010) argue that the liquidity and profitability are important to achieve two main objectives profitability is related to the wealth maximization goal of the shareholders and liquidity is important for the continuity of business. Correlation and regression study of Eljelly (2004) founded that Current ratio is more important to measure profitability and cash conversion cycle is more important to measure liquidity. According to Shim and Siegel (2000) Liquidity is business capacity to pay short- term debts means their maturity is less than one year. Economic success achieved by any business in investing capital in it is said to be its profitability and it is determined by the net profit margin (Pimentel et al, 2005). High financial cost and business’s inability to pay its obligations are the results of low liquidity (Maness & Zietlow 2005). Liquidity tells about the firm’s degree of independence against the creditors and it also tells about the difficulties and crises face by the company Matarazzo (2003). Financial strength of a business is measure of its liquidity Chandra (2001). Profitability will be lower the more funds are invested in current assets Assaf Neto (2003). The relation of profitability to liquidity is inverse according to Marques and Braga (1995) and Renato Schwambach Vieira (2010). Liquidity is commonly measured by current ratio and profitability is commonly measured by ROI Vishnani and Shah (2007).

**OBJECTIVE OF THE STUDY**

1. Evaluate the liquidity position of selected pharma companies in the Indian market using financial ratios
2. Evaluate the profitability position of selected pharma companies in the Indian market using financial ratios
3. Analysing the relationship between liquidity and profitability amongst the selected pharma companies in India.

**RESEARCH METHODOLOGY**

The study covers 5 pharma companies that are listed in the NIFTY pharma Index for the duration of 5 years. The study mainly uses secondary data for the analysis. The study compares the relationship between profitability and liquidity, where profitability is expressed using Gross profit ratio, Net profit ratio & Operating profit ratio, whereas Liquidity is expressed using Current ratio and quick ratio. The data for computing the ratios were obtained from the Annual reports of the respective companies. The following hypothesis was set for the study:

H0: There is a significant relationship between profitability and Liquidity.
H1: There is no significant relationship between profitability and Liquidity.

**ANALYSIS OF THE STUDY**

Analysing both table 1 and table 2 we can see that the trend shows in terms of the ratios that is current ratio quick ratio net profit ratio gross profit ratio operating profit ratio all seem to have the fluctuating trend year on year. In terms of current ratio where the standard is 2 is to 1 most of the companies were able to maintain standard except for Sun Pharma. It was seen that Aurobindo Pharma have a huge amount into current assets which raised the level of current ratio maintain by them. In terms of quick ratio all companies maintained slightly above the standard of 1 is to 1 except for Sun Pharma. In terms of gross profit net profit and operating profit ratio the company is generally did well. The only exception to this Sun Pharma which performed miserably from 2014 onwards.
| YEARS | 2012 | 2013 | 2014 | 2015 | 2016 |
|-------|------|------|------|------|------|
| Ratios | CR | QR | CR | QR | CR | QR | CR | QR | CR | QR |
| CIPLA | 3.70 | 1.38 | 3.61 | 1.35 | 3.14 | 1.15 | 2.82 | 0.98 | 3.25 | 1.07 |
| DRREDDY | 2.31 | 1.37 | 3.24 | 1.96 | 3.34 | 2.22 | 3.33 | 2.25 | 3.01 | 1.78 |
| AUROBINDOPHARMA | 4.31 | 2.07 | 3.54 | 1.80 | 3.57 | 2.09 | 4.71 | 2.76 | 5.14 | 3.11 |
| SUNPHARMA | 3.20 | 2.09 | 2.64 | 1.05 | 2.65 | 0.61 | 0.99 | 0.41 | 1.07 | 0.44 |
| LUPIN | 2.85 | 1.42 | 3.07 | 1.56 | 3.63 | 2.24 | 2.94 | 1.58 | 4.60 | 2.90 |

Table 1: Table showing CR(current ratio) & QR(quick ratio)

| YEARS | 2012 | 2013 | 2014 | 2015 | 2016 |
|-------|------|------|------|------|------|
| Ratios | GP | OP | NP | GP | OP | NP | GP | OP | NP | GP | OP | NP |
| CIPLA | 0.2 | 0.4 | 0.1 | 0.2 | 0.8 | 0.1 | 0.2 | 0.4 | 0.1 | 0.2 | 0.4 | 0.1 |
| DRREDDY | 0.2 | 0.3 | 0.2 | 0.2 | 0.5 | 0.2 | 0.2 | 0.4 | 0.1 | 0.2 | 0.3 | 0.1 |
| AUROBINDOPHARMA | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| SUNPHARMA | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| LUPIN | 0.2 | 0.1 | 0.2 | 0.1 | 0.3 | 0.1 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 |

Table 2- Table showing GP(gross profit), NP(Net profit) & OP(operating profit)

Analysis of the correlation between profitability variables and liquidity variables have been shown in table 3 4 and 5. On analyzing table 3 which shows the correlation between gross profit ratio and liquidity ratios we can see that there is significantly high degree positive correlation between gross profit ratio and liquidity ratios. The only exceptions in the sample considered was that of Aurobindo Pharma and Sun Pharma in the correlation of current ratio and gross profit ratio, which was still positive but relatively low compared to other samples.

| COMPANIES | CORREL CR/GPR | CORREL QR/GPR |
|-----------|--------------|--------------|
| CIPLA     | 0.72         | 0.86         |
| DRREDDY   | 0.61         | 0.74         |
| AUROBINDOPHARMA | 0.30   | 0.63         |
| SUNPHARMA | 0.16         | 0.62         |
| LUPIN     | 0.59         | 0.66         |

Table 3- Table showing correlation between Gross profit ratio and Liquidity ratios

Analysing table 4 which shows the correlation between operating profit ratio and liquidity ratios we can see that same relatively high degree of positive correlation exist between the variables. Here also the exceptions are Aurobindo Pharma and Sun Pharma which showed relatively low degree a positive correlation.
Table 4- Table showing correlation between operating profit ratio and Liquidity ratios

| COMPANIES       | CORREL CR/OPR | CORREL QR/OPR |
|-----------------|---------------|---------------|
| CIPLA           | 0.67          | 0.83          |
| DRREDDY         | 0.56          | 0.69          |
| AUROBINDOPHARMA | 0.24          | 0.60          |
| SUNPHARMA       | 0.09          | 0.58          |
| LUPIN           | 0.59          | 0.67          |

Analysing table 5 which shows correlation between net profit and the liquidity ratios we can see that the same relationship as seen in table 3 and table 4 exist in this table as well. Again while most of the sample depict high degree of positive correlation the exceptions was Aurobindo Pharma and Sun Pharma which showed low degree a positive correlation.

Table 5- Table showing correlation between Net profit ratio and Liquidity ratios

| COMPANIES       | CORREL CR/NPR | CORREL QR/NPR |
|-----------------|---------------|---------------|
| CIPLA           | 0.82          | 0.92          |
| DRREDDY         | 0.67          | 0.80          |
| AUROBINDOPHARMA | 0.27          | 0.62          |
| SUNPHARMA       | 0.18          | 0.65          |
| LUPIN           | 0.60          | 0.68          |

CONCLUSION

From the above analysis you can come to a conclusion that there is a high degree of positive correlation between profitability and liquidity. This goes against the traditional theory that profitability and liquidity have a inverse relationship going to the Limited nature of financial resources. Hence the Null Hypothesis has been proved.

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