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A Study on Liquidity and Risk Analysis of RRK Alloys at Coimbatore

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ABSTRACT

In today's business, liquidity risk and its management are some of the most critical elements that underlie the stability and security of the company operations, profit-making and client's confidence as well as many of the decisions that the company makes. Managing liquidity risk in a industry is not something new, yet scientific literature has not focused enough on different approaches to liquidity risk management and assessment. Furthermore, models, methodologies or policies of managing liquidity risk in an industry have never been examined in detail either. The goal of this article is to analyse the liquidity risk of company as well as the possibilities of managing it and to build a liquidity risk management model for a industry. The development, assessment and application of the company liquidity risk management was based on an analysis of scientific resources, a comparative analysis and mathematical calculations.

KEY WORDS: Asset pricing, Financial market stability, Risk management

I. INTRODUCTION OF THE STUDY

Liquidity is a term used to refer to how easily an asset or security can be bought or sold in the market. It basically describes how quickly something can be converted to cash. There are two different types of liquidity risk. The first is funding liquidity or cash flow risk, while the second is market liquidity risk, also referred to as asset/product risk.

Funding or cash flow liquidity risk is the chief concern of a corporate treasurer who asks whether the firm can fund its liabilities. A classic indicator of funding liquidity risk is the current ratio (current assets/current liabilities) or, for that matter, the quick ratio. A line of credit would be a classic mitigant.

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Market Liquidity Risk

Market or asset liquidity risk is asset illiquidity. This is the inability to easily exit a position. For example, we may own real estate but, owing to bad market conditions, it can only be sold imminently at a fire sale price. The asset surely has value, but as buyers have temporarily evaporated, the value cannot be realized.

Measures of Liquidity Risk

Liquidity Gap

Culp defines the liquidity gap as the net liquid assets of a firm. The excess value of the firm's liquid assets over its volatile liabilities. A company with a negative liquidity gap should focus on their cash balances and possible unexpected changes in their values.As a static measure of liquidity risk it gives no indication of how the gap would change with an increase in the firm's marginal funding cost.

Liquidity Risk Elasticity

Culp denotes the change of net of assets over funded liabilities that occurs when the liquidity premium on the bank's marginal funding cost rises by a small amount as the liquidity risk elasticity. For banks this would be measured as a spread over libor, for nonfinancial the LRE would be measured as a spread over commercial paper rates. Problems with the use of liquidity risk elasticity are that it assumes parallel changes in funding spread across all maturities and that it is only accurate for small changes in funding spreads.

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Managing Liquidity Risk

Liquidity-adjusted Value At Risk

Liquidity-adjusted VAR incorporates exogenous liquidity risk into Value at Risk. It can be defined at VAR + ELC (Exogenous Liquidity Cost). The ELC is the worst expected half-spread at a particular confidence level

Another adjustment is to consider VAR over the period of time needed to liquidate the portfolio. VAR can be calculated over this time period. The BIS mentions "... a number of institutions are exploring the use of liquidity adjusted-VAR, in which the holding periods in the risk assessment are adjusted by the length of time required to unwind positions."

Liquidity at Risk

Greenspan (1999) discusses management of foreign exchange reserves. The Liquidity at risk measure is suggested. A country's liquidity position under a range of possible outcomes for relevant financial variables (exchange rates, commodity prices, credit spreads, etc.) is considered. It might be possible to express a standard in terms of the probabilities of different outcomes. For example, an acceptable debt structure could have an average maturity--averaged over estimated distributions for relevant financial variables--in excess of a certain limit. In addition, countries could be expected to hold sufficient liquid reserves to ensure that they could avoid new borrowing for one year with a certain ex ante probability, such as 95 percent of the time.

STATEMENT OF THE PROBLEM

When a corporation can no longer finance its present liabilities with its cash on hand, a liquidity crisis happens. Even if the firm may have sufficient overall assets to cover all of these obligations in the long run, if it lacks the cash to make payments when they are due, it will go into default and may eventually file for bankruptcy as creditors seek payment. Since the companies are highly leveraged institutions with a ratio of assets to core capital in the region, the importance of liquidity transcends the individual institutions, which implies that a liquidity shortfall at a single institution can have severe system-wide repercussions, the article discusses how liquidity risk management lies at the core of confidence in the industry.

OBJECTIVES OF THE STUDY

1. To analyse the company's ability to meet current obligations and their liquidity positions.
2. To analyse the proportions of debt equity utilised in financing the company's assets.
3. To measure the degree of cover for the liquidity requirement of the textile.
4. To assess the short-term and long-term solvency of the company and also to provide some valuable suggestions for improving the financial position of the company.

SCOPE OF THE STUDY

It includes the financial performance for the period of five years starting from 2018-2022. This study reveals the present financial position of the industry. The Ratio Analysis will help us to revalue the assets which provide data for inter-firm comparison. The study can enable to plan for its future and will act as basis for further research work that all financial performance to be made in future.

LIMITATIONS OF THE STUDY

- This study was limited to five years.
- Ratio analysis and its interpretation may be inadequate because of window dressing technique adopted by most of the organisation
- The data of this study has been primarily taken from published annual reports only and this is based in values the data was analysed by using few tools.
- Since this index is built up with the largest industry, which implies it cannot be well represented with liquidity risk management methods with large amount of company, but it should be a concrete evidence for impacts on performance from whole listed company, since impacts from liquidity risk of those largest company are much more significant than smaller company

II. REVIEW OF LITERATURE

(Abuzar M.A. Eljelly, 2017)[1] The main purpose of the research was to identify the relationship between liquidity values and profitability. The time period of study was based on seven years. The area of the capital and quick ratio was selected for the study. ROE and ROA were the proxies used for measuring the profitability of the sample company. The study applies an ADF test model to correlate with the measured parameters. The study also showed that investment is

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required for banks in order to increase the liquidity and reduce the losses with cash flows

Yixue Li (2018)[2] took sources of risk as a basis, divided the complex risks of supply chain finance into two main categories, system risk and non-systematic risk. System risks could be divided into macroeconomic system risks, systemic risks in the steel industry and systemic risks of the supply chain itself. Non-system risks could be divided into credit risks, inventory realization risks and operational risks

(James et al 2018)[3] Risk analysis refers to managerial tools that provide technical and vital information in which management take sound actions for treating the risks. There are many goals and objectives of risk analysis within the organization the main goal is to strike and economic balance between the impacts of the risks on the enterprise and cost of implementing prevention and protective countermeasure.

Yanzhong Yang (2019)[4] put forward risk control measures for steel industry from the macro level, emphasizing that strengthening internal control is an important means to prevent financial risks in steel industry. It used data mining techniques to obtain characteristics of the dealer with low repayment capacity for repayment risks caused by dealer. Thus steel can identify dealers with different repayment capacity and developed different financial policies to control and avoid financial risks correspondingly.

Heckmann et al. (2020)[5] review common perspectives on risk in supply chain management and outline ideas for how to best conceptualise risk, and clearly this type of research is foundational for the supply chain area, but not for the risk field in general. The work by is in line with current generic trends on risk conceptualisation as for example summarised with respect to some issues, but not others. This is a challenge for all types of applications: transfer of knowledge and experience are difficult to obtain across areas, and we often see that the different fields develop tailor-made concepts, which are not up-to-date relative to the developments of the generic risk field

(Tan, 2021)[6]Tan also carried out research for the profitability and associated risk with the steel industry. The author stated that the competitive condition of the market and business and affected market and companies are more active towards the profitability. One of the main areas in the present sector is how profitability is measured for the industry. The study analyzed the different sector of the bank in regard to the return of assets and quick ratio. A period of eight years was used for the sample study. The variables included in the study were productivity as well as inflation for the country and the relevant industry.

(Tahir & M.B.A.Anuar, 2022)[7] A research carried out and showed that some of the determination for capital can be used for the steel industry. The main purpose of the research was to compare profitability with the capital structure. The study selected 127 steel companies and used a dynamic panel approach for data analysis. It was found from the study that current assets of the company have an impact on the profitability ration. Current liabilities tend to decrease the profit for the company, and it is required that the collection period should be increased for the business.

III. RESEARCH METHODOLOGY

METHOD OF DATA COLLECTION

PRIMARY DATA

The primary data was those data which are collected as fresh and for the first time and this happen to be in original in character. The Primary data was collected through discussions with the management and staff of the Organisation.

SECONDARY DATA

The secondary data are those which have already collected by someone else and which have already been passed through the statistical process. These were sources collected from published Annual Reports and other related files were also referred and collected. Pictorial representation through graphs has been used for better and clear perception.

TOOLS USED

The following tools have been adopted by the researcher.

- Ratio analysis,
- Standard Deviation
- Trend analysis

PERIOD OF STUDY

The study covers a period of 5 years from 2018-2022.

RATIO ANALYSIS

A ratio is a simple arithmetic expression of relationship of one number to another. Ratio is an expression of the quantitative relations between two numbers. Ratio analysis is a technique of analysis and

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interpretation of financial statements. It is a process of establishing and interpreting various ratios which help in making certain decisions.

Three steps involved in ratio analysis are:

- Selection of relevant data from the financial statement depending upon the objective of analysis.
- Calculation of appropriate ratios from the above data.
- Comparison of the calculated ratios with the ratios of the same firm or the ratios of some other firm or the comparison with the ratios of the industry to which this firm belongs and interpretation of ratios.

IV. DATA ANALYSIS AND INTERPRETATION

1. CURRENT RATIO:

Current ratio is the most common ratio for measuring liquidity. The current ratio is the ratio of total current assets to total current liabilities. Current ratio of a firm measures its term solvency i.e. ability to meet short term obligations.

$$\text{Current assets} \quad \frac{\text{Current assets}}{\text{Current liabilities}}$$

TABLE NO: 4.1
CURRENT RATIO

YEAR	CURRENT ASSETS	CURRENT LIABILITIES	RATIO
2017-18	367.37	243.23	1.51
2018-19	330.24	331.41	0.99
2019-20	379.06	381.95	0.99
2020-21	386.33	352.66	1.09
2021-22	405.25	423.95	0.96

Source: Secondary data

INTERPRETATION

The current ratio is a measure of firm's short term solvency. During the year 2017-18 the current ratio was 1.51 which is decreased to 0.99 in the next two year. Then the next year was increased to 1.09 in 2020-21. In the year of 2021-22 again decreased to 0.96.

2. LIQUID RATIO:

It is also called as acid test ratio. This ratio primarily studies the relationship between liquid asset and current liabilities. It measures the organization ability to convert its current assets quickly into cash in order to meet its current liabilities.

$$\textbf{LIQUID RATIO} = \frac{\text{Quick Assets}}{\text{Current Liabilities}}$$

TABLE NO: 4.2
LIQUID RATIO

YEARS	QUICK ASSETS	CURRENT LIABILITIES	LIQUIDITY RATIO
2017-18	322.49	243.23	1.33
2018-19	244.04	331.41	0.74
2019-20	291.93	381.95	0.76
2020-21	274.04	352.66	0.78
2021-22	270.83	423.95	0.64

Source- Secondary data

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INTERPRETATION

From the above table it was clear that the liquidity ratio for the year 2017-18 the ratio was 1.33. The next year the liquid ratio was decreased to 0.74 and then next following years to increased 0.76, 0.78 and in the years 2021-22 decrease to 0.64.

3. CASH RATIO

Cash ratio is a relationship between absolute liquid assets to current liabilities. Absolute liquid assets include cash in hand and at bank. Adequate cash ratio provides for liquidation of the firm.

$$\text{CASH RATIO} = \frac{\text{Absolute Liquid Assets}}{\text{Current Liability}}$$

TABLE NO: 4.3
CASH RATIO

YEARS	ABSOLUTE LIQUID ASSETS	CURRENT LIABILITIES	ABSOLUTE RATIO
2017-18	28.84	243.23	0.12
2018-19	6.49	331.41	0.02
2019-20	73.98	381.95	0.19
2020-21	29.59	352.66	0.08
2021-22	10.31	423.95	0.02

Source- Secondary data

INTERPRETATION

The highest ratio was recorded as 0.19 in the year 2019-20. The ratio is much higher than the ideal ratio 0.12 in the year of 2017-18. The current year of cash position is very low. So the company was maintaining more cash that the required amount. It can use its ideal cash for some other purposes. The cash was blocked unnecessarily which will lead to inefficiency of the firm.

4. STANDARD DEVIATION

The standard deviation is less affected than the range by extreme and untypical values. It is a very accurate measurement for showing how closely the values in a list cluster around or diverge from the average. The standard deviation is lower if the values cluster around the mean and becomes higher the more they diverge from it. For the mathematically inclined, the standard Deviation is defined as the square root of the variance, or

$$\text{Standard Deviation} = \Sigma\sqrt{\frac{\sum(x-\bar{x})^2}{n-1}}$$

When standard deviation value of a company is low then it is best to increase that company.
X-value of cash at bank
n-No of years
$\underline{X}$- Ratio between sum of cash on hand to the number of cash

TABLE – 4.4
STANDARD DEVIATION VALUE FOR CASH & BANK BALANCE AND LOANS & ADVANCES

YEARS	CASH & BANK BALANCE	LOANS & ADVANCE
2017-18	28.84	241.37
2018-19	6.49	137.35

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2019-20	73.98	118.85
2020-21	29.59	124.00
2021-22	10.31	137.00
STDEV	**26.81**	**50.77**

INTERPRETATION:

It was clear from the above table that, the SD Value for cash & bank balance and loan and advances. The standard deviation value of cash and bank balance is 26.81 and the loans and advances value is 50.77.

TREND ANALYSIS

Time series or trend analysis of ratios indicates the direction of change this kind of analysis is particularly applicable to the items of profits and loss account. It is advisable that trends of sales and net income may be studied in the light of two factors: the rate of fixed expansion or secular trend in the growth of the business and the general price level.

For trend analysis, the use of index numbers generally advocated. The procedure followed is to assign the number 100 to items of the base year and to calculate percentage changes in each item of other years in relation to the base year. This procedure may be called as "trend-percentage method".

TABLE NO.4.5
TREND ANALYSIS

CURRENT ASSETS			CURRENT LIABILITIES		WORKING CAPITAL	
YEAR	**AMOUNT**	**TREND %**	**AMOUNT**	**TREND %**	**AMOUNT**	**TREND %**
2018	367.37	**100**	243.23	**100**	124.14	**100**
2019	330.24	**89.89**	331.41	**136.25**	-1.17	**-0.94**
2020	379.06	**103.18**	381.95	**157.03**	-2.89	**-2.33**
2021	386.33	**105.16**	352.66	**144.99**	33.67	**27.12**
2022	405.25	**110.31**	423.95	**174.30**	-18.70	**-15.06**

Source: Secondary Data

INTERPRETATION

The inventory percentage was fluctuating for year by year. The current assets consumption percentage was decreased year by year. It's does not good performance to the company. The current liabilities is increased the percentage. Working capital was negative performance in year by year.

V. FINDINGS

1. The current ratio is a measure of firm's short term solvency. During the year 2017-18 the current ratio was 1.51 which is decreased to 0.99 in the next two year. Then the next year was increased to 1.09 in 2020-21. In the year of 2021-22 again decreased to 0.96
2. The liquidity ratio for the year 2017-18 the ratio was 1.33. The next year the liquid ratio was decreased to 0.74 and then next following years to increased 0.76, 0.78 and in the years 2021-22 decrease to 0.64.
3. The highest ratio was recorded as 0.19 in the year 2019-20. The ratio is much higher than the ideal ratio 0.12 in the year of 2017-18. The current year of cash position is very low. So the company was maintaining more cash that the required amount. It can use its ideal cash for some other purposes. The cash was blocked unnecessarily which will lead to inefficiency of the firm.
4. The SD Value for cash & bank balance and loan

and advances. The standard deviation value of cash and bank balance is 26.81 and the loans and advances value is 50.77.

5. The inventory percentage was fluctuating for year by year. The current assets consumption percentage was decreased year by year. It's does not good performance to the company. The current liabilities is increased the percentage. Working capital was negative performance in year by year.

VI. SUGGESTIONS

- The Fixed assets and current assets of the company should be improved.
- Inventory should be managed properly by increasing sales and consuming the materials.
- In order to earn more profit, the company should reduce the expenses.
- The company should maintain adequate retained income
- Better asset utilization program must be made.
- Better working capital should be maintained.
- It is suggested that the company can increase the cash & bank balance and loans and advance were Standard Deviation is less which is less risky.

VII. CONCLUSION

The study entitled "A Study on Liquidity Risk Analysis of RRK Alloys". A Liquidity Risk Analysis represents the snap not of a concern's activities at the end of particular period. Liquidity Risk Analysis reveals how a business has prospered under the leadership of its management personnel. Financial appraisal is a technique to evaluate the past, current and projected performance of the concern.

The present study was undertaken with the objective of evaluating the financial stability. The data for the present study was obtained from the financial statements and accounting records of RRK Alloys.

The firm has to go for diversification and expansion of the product. The firm is maintaining more cash than necessary. It can be used for some other purposes. It has an enough liquidity position because the current ratio and quick ratio are in satisfactory position. This study aims to find out the short-term and long-term solvency position and profitability performance of the firm. The firm can concentrate more in maintaining retained income.

Thus, the company should improve their Liquidity position by utilizing their assets and liabilities in correct time.

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