



MEASURING LIQUIDITY OF FOOD INDUSTRIES IN INDIA

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ABSTRACT

Food Processing Industry sector in India is one of the largest in terms of production, consumption, export and growth prospects. The government has accorded it a high priority, with a number of fiscal reliefs and incentives, to encourage commercialization and value addition to agricultural produce, for minimizing pre/Post harvest wastage, generating employment and export growth. India's food processing sector covers a wide range of products fruit and vegetables; meat and poultry; milk and milk products, alcoholic beverages, fisheries, plantation, grain processing and other consumer product groups like confectionery, chocolates and cocoa products, Soya-based products, mineral water, high protein foods etc. The study has aimed at measures the Liquidity analysis of the selected food processing companies in India. The study has used stratified sampling techniques and five companies were selected. The data were collected from the respective companies annual financial statement during from 2011-2012 to 2015-2016. Several tools were developed to diagnose the financial strength of a Company based on the Financial Statements.

Key words: Financial statement, Food processing companies, Liquidity, Stratified sampling.

Introduction

Holding liquidity position in a firm is indispensable for a firm. Liquidity ratio endeavour's to explicate the short term financial position of the company. It helps to assess whether the company is competent to meet its current debt out of current assets. are also known as short term solvency ratios. But no indication of effectiveness of management of cash resources can be revealed from these ratios. The liquidity ratios are a result of dividing cash and other liquid assets by the short term borrowings and current liabilities. Liquidity ratios include two ratios one is current ratio and second is quick ratio or acid test ratio. Short term creditors of the firm are primarily interested in the liquidity ratio of the firm as they want to know how promptly the firm can meet its current liabilities. Different analysts consider different assets to be relevant in calculating liquidity. A study of liquidity is of major importance to both the internal and the external analysts because of its close relationship with day-to-day operations of a business. Liquidity requirement depends on the nature of the firm.

Objective and Methodology

The objectives of this paper are

1. To examine the liquidity position of selected food processing companies in India
2. To offer valid suggestions and recommendations to betterment of the food processing industry.

The data used for the study are secondary in nature. The required data for sample companies were collected from the compilation made by the centre for monitoring Indian economy (CMIE) for the period from 2010-2011 to 2015- 2016. It contains a highly normalized data base built on a second understanding of disclosure on well companies in India.



Sample Design

The food processing industry is purposely selected for the study considering its importance in health care sector of the economy. The companies which data were not available for more than one year of the study period have been dropped. The data base of CMIE has been complication for more companies of which only have some companies financial data available for a continuous full of period from 2010-2011 to 2015- 2016. Among these companies have selected for five companies of the population constitute the sample. The sample companies were selected on the basis of total assets has maximum as per the last annual report published.

The sample companies were undertaken this study:

Brittania industries India Limited, ITC industries Limited, Nestle industries Limited, Hatsun industries Limited and Rei agro industries Limited.

Statistical Tools used

Mean, Standard Deviation and Coefficient of Variation are used to find out the average position of accounting ratios. Correlation analysis and t- Test is used to identify the relationship between liquidity analysis of the companies.

Review of Literature

Vijay S patel et al., (2012) inferred that the Financial Statements are generally prepared for the measurement of financial position of a particular company for a particular period of time. The financial statements i.e. (i) Profit and loss account and (ii) Balance sheet provide useful information regarding financial situation of company. The information has its own value, but if some one wants to have better judgment of the concern, he has to analyse them. This paper provides the guidelines about analysis of profitability ratio of Krishak Bharati Co-operative Ltd. located at Kawas-Hazira in Surat District. **Mala (2013)** examined that the India made impressive gains in the field of agricultural production and harvested a record in food grains production of 230 million tonnes during 2007-2008. Introduction of HYV" s and hybrid varieties brought optimism about fertilizer response superiority of modern varieties. The total nutrient consumption (N+P₂O₅ +K₂O) touched level of 264lakh million tonnes during 2009-10, the highest so far. **Nadia Zedek (2016)** investigated the controlling shareholders affects product diversification performance of 710 European commercial banks, it was found that when banks have no controlling shareholder or have only family and state shareholders diversification yields diseconomies, while the involvement of banking institutions, institutional investors, industrial companies or any other combination of these shareholder categories, produce diversification economies: they display higher profitability, lower earnings volatility and lower default risk. **Saigeetha and Surulivel (2017)** suggested that to increase the margin of safety the borrowed fund must maintained at a low level. To increase the gross profit margin, the cost of production must be decreased by purchasing good quality materials at less price, worker's efficiency can be improved and scraps can be decreased. The current ratio is nearer to the ideal current ratio of 2:1 is to be maintained. To increase the debtor's turnover ratio the deferred dues must be collected well in time to satisfy the customers. It is observed that the profitability and capital employees is not satisfactory. **Venugopala Rao and Farha Ibrahim (2017)** found that the solvency position of IDBI Bank and the employment of assets are in tune with the industry averages. The employment of shareholders' funds and the CASA which is relatively lower than the bellwether suggests that attention has to be paid in these areas. Net profit margin of IDBI Bank indicates that the profits of the bank is declining and is well below the industry averages suggesting that the operations of the bank has to improve.



Data Analysis and Interpretation

The following tables will show the Liquidity Ratios

Table No: 1

Mean, SD,CV of Current Ratio for Selected Food Processing Industries in India					
Company/year	BRITANIA	ITC AGRO	NESTLE	HATSUN	REI AGRO
2012	0.88	1.59	1.31	0.58	1.48
2013	0.82	1.70	1.71	0.69	1.31
2014	0.90	1.82	1.45	0.45	1.02
2015	1.19	2.05	1.68	0.68	0.18
2016	1.06	1.65	2.01	0.70	0.05
TOTAL	4.85	8.81	8.16	3.10	4.04
MEAN	0.97	1.76	1.63	0.62	0.81
SD	0.14	0.16	0.24	0.10	0.58
CV	13.98	9.23	14.71	15.32	71.78

Source: Secondary Data

Interpretation:

The above table shows that the mean, SD, & CV Values to current Ratio of selected steel companies, the highest mean value is 1.76 for ITC AGRO & the lowest mean value of current Ratio is 0.62 for HATSUN, & other companies are maintaining Average level BRITANIA 0.97, NESTLE 1.63 & REI AGRO 0.81 respectively. The highest variability of 0.58 was observed in Current Ratio of REI AGRO, Which means a higher degree of variability and lowest variability of 0.10 was observed in Current ratio of HATSUN. The CV of Current ratio REI AGRO was highest with 71.78 and the lowest variability of 9.23 ITC AGRO

Table No: 2

Mean, SD,CV of Quick Ratio for Selected Food Processing Industries in India					
Company/year	BRITANIA	ITC AGRO	NESTLE	HATSUN	REI AGRO
2012	0.49	0.97	0.65	0.14	0.59
2013	0.44	1.06	1.16	0.35	0.43
2014	0.51	1.18	0.83	0.22	0.50
2015	0.90	1.38	1.12	0.18	0.14
2016	0.77	1.07	1.43	0.18	0.05
TOTAL	3.11	5.66	5.19	1.07	1.71
MEAN	0.62	1.13	1.04	0.21	0.34
SD	0.18	0.14	0.27	0.07	0.21
CV	28.94	12.37	26.17	33.64	61.37

Source: Secondary Data

Interpretation:

The above table shows that the mean, SD, & CV Values to Quick Ratio of selected Food industries, the highest mean value is 1.13 for ITC AGRO & the lowest mean value of quick Ratio is 0.62 for BRITANIA, & other companies are maintaining Average level HATSUN 0.21, NESTLE 1.04 & REI AGRO 0.34 respectively. The highest variability of 0.27 was observed in quick Ratio of NESTLE, Which means a higher degree of variability and lowest variability of 0.07 was observed in Current ratio of HATSUN. The CV of quick ratio REI AGRO was highest with 61.37 and the lowest variability of 12.37 ITC AGRO



Table No: 3

MEAN, SD,CV of CER Ratio for Selected Food Processing Industries in India					
Company/year	BRITANIA	ITC AGRO	NESTLE	HATSUN	REI AGRO
2012	56.63	48.72	65.24	85.32	81.33
2013	65.06	49.50	67.38	80.73	82.01
2014	66.79	50.73	59.92	81.65	100.00
2015	74.06	52.61	66.87	85.32	0.00
2016	71.30	37.13	54.75	74.06	0.00
TOTAL	333.84	238.69	314.16	407.08	263.34
MEAN	66.77	47.74	62.83	81.42	52.67
SD	5.99	5.46	4.83	4.12	43.52
CV	8.97	11.44	7.69	5.06	82.63

Interpretation:

The above table shows that the mean, SD, & CV Values to Cash earnings Ratio of selected Food industries, the highest mean value is 81.42 for HATSUN & the lowest mean value of Cash earnings Ratio is 47.74 for ITC AGRO, & other companies are maintaining Average level BRITANIA 66.77, NESTLE 62.83 & REI AGRO 52.67 respectively. The highest variability of 43.52 was observed in Cash earnings Ratio of REI AGRO, Which means a higher degree of variability and lowest variability of 4.12 was observed in Cash earnings ratio of HATSUN. The CV of Current ratio REI AGRO was highest with 82.63 and the lowest variability of 5.06 HATSUN

Table No: 4

MEAN, SD,CV of Dividend Pay Out Ratio for Selected Food Processing Industries in India					
Company/year	BRITANIA	ITC AGRO	NESTLE	HATSUN	REI AGRO
2012	54.36	57.09	43.78	37.78	21.88
2013	43.46	55.92	41.85	40.98	23.45
2014	38.91	54.31	51.27	32.95	0.00
2015	30.82	52.14	83.01	49.96	0.00
2016	32.03	69.48	65.55	71.86	0.00
TOTAL	199.58	288.94	285.46	233.53	45.33
MEAN	39.92	57.79	57.09	46.71	9.07
SD	8.57	6.08	43.65	13.75	11.11
CV	21.47	10.52	76.46	29.43	122.55

Interpretation:

The above table shows that the mean, SD, & CV Values to Divided payout Ratio of selected Food industries, the highest mean value is 57.79 for ITC AGRO & the lowest mean value of Ratio Divided payout Ratio is 9.07 for REO AGRO, & other companies are maintaining Average level BRITANIA 39.92, NESTLE 57.09 & HATSUN 46.71 respectively. The highest variability of 43.65 was observed in Divided payout Ratio of NESTLE, which means a higher degree of variability and lowest variability of 6.08 was observed in ratio of BRITANIA The CV of Current ratio REI AGRO was highest with 122.5 and the lowest variability of 10.52 ITC AGRO



Table No: 5

MEAN, SD, CV of Inventory Turnover Ratio for Selected Food Processing Industries in India					
Company/year	BRITANIA	ITC AGRO	NESTLE	HATSUN	REI AGRO
2012	13.01	4.47	11.18	11.35	1.13
2013	16.94	4.53	12.37	19.56	1.09
2014	17.19	4.52	11.67	28.16	1.38
2015	20.76	4.66	9.96	11.35	7.09
2016	20.70	4.32	9.78	9.93	73.27
TOTAL	88.60	22.50	54.96	80.35	83.96
MEAN	17.72	4.50	10.99	16.07	16.79
SD	2.87	0.11	0.99	6.93	28.33
CV	16.20	2.44	9.01	43.12	168.71

Interpretation:

The above table shows that the mean, SD, & CV Values to Inventory Turnover Ratio of selected Food industries, the highest mean value is 17.72 for BRITANIA & the lowest mean value of Inventory Turnover Ratio 4.50 ITC AGRO & other companies are maintaining Average level NESTLE 10.99, HATSUN 16.07 & REI AGRO 16.79 respectively. The highest variability of 43.52 was observed in Inventory Turnover Ratio of REI AGRO 28.33, Which means a higher degree of variability and lowest variability of 0.11 was observed in Cash earnings ratio of REI AGRO. The CV of Inventory Turnover Ratio REI AGRO was highest with 168.71 and the lowest variability of 2.44 ITC AGRO

Significance of Coefficient of Correlation and Students T – Test

Coefficient of correlation (r) is a mathematical method of measuring correlation. It gives the degree of relationship between two variables. The values of r lie between +1 and -1. When r=1, means perfect positive correlation, r=-1 means perfect negative correlation, r=0 means no relationship between variables.

T – Distribution is a test used for testing of hypothesis of sample size less than 30. If the calculated value of t is less than the table value, the null hypothesis will be accepted and vice versa; for a given significant level. It can be calculated as:

$$t = \frac{r}{\sqrt{1-r^2}} \times \sqrt{n-2}$$

Where r = coefficient of correlation

n = no of observations

Table No: 6

SIGNIFICANCE OF COEFFICIENT OF CORRELATION AND T TEST				
Particulars	Current Ratio	Current Ratio	Quick Ratio	Quick Ratio
	BRI TO NESTLE	HAT TO REI AGRO	BRI TO NESTLE	HAT TO REI
Correlation	0.4546	-0.4302	0.547	0.1403
Calculated Value of T - test	0.57	-0.53	0.78	0.14
Table Value	3.18	3.18	3.18	3.18
Significant	Yes	Yes	Yes	Yes
Level	5%	5%	5%	5%



Interpretation:

The Above Table indicates The Correlation & Students t-Test Value to Britannia Hatsun & Rei Agro Industries in India. The Highest Positive Correlation of 0.547 Between Britannia to Nestle Least Positive Correlation of 0.1403 is observed between ratio of Hatsun to Rei Agro. When T-Test was applied at 5% of Significant Level. The Calculated Value was less than table value that is Null Hypothesis was accepted.

Findings and Suggestions

Current Ratio

The highest mean value is 1.76 for ITC AGRO & the lowest mean value of current Ratio is 0.62 for HATSUN, & other companies are maintaining Average level BRITANIA 0.97, NESTLE 1.63 & REI AGRO 0.81 respectively. The highest variability of 0.58 was observed in Current Ratio of REI AGRO, Which means a higher degree of variability and lowest variability of 0.10 was observed in Current ratio of HATSUN. The CV of Current ratio REI AGRO was highest with 71.78 and the lowest variability of 9.23 ITC AGRO

Quick Ratio

The above table shows that the mean, SD, & CV Values to Quick Ratio of selected Food industries, the highest mean value is 1.13 for ITC AGRO & the lowest mean value of quick Ratio is 0.62 for BRITANIA, & other companies are maintaining Average level HATSUN 0.21, NESTLE 1.04 & REI AGRO 0.34 respectively. The highest variability of 0.27 was observed in quick Ratio of NESTLE, Which means a higher degree of variability and lowest variability of 0.07 was observed in Current ratio of HATSUN. The CV of quick ratio REI AGRO was highest with 61.37 and the lowest variability of 12.37 ITC AGRO

Cash Earnings Ratio

The highest mean value is 81.42 for HATSUN & the lowest mean value of Cash earnings Ratio is 47.74 for ITC AGRO, & other companies are maintaining Average level BRITANIA 66.77, NESTLE 62.83 & REI AGRO 52.67 respectively. The highest variability of 43.52 was observed in Cash earnings Ratio of REI AGRO, Which means a higher degree of variability and lowest variability of 4.12 was observed in Cash earnings ratio of HATSUN. The CV of Current ratio REI AGRO was highest with 82.63 and the lowest variability of 5.06 HATSUN

Dividend Payout Ratio

The highest mean value is 57.79 for ITC AGRO & the lowest mean value of Ratio Divided payout Ratio is 9.07 for REO AGRO, & other companies are maintaining Average level BRITANIA 39.92, NESTLE 57.09 & HATSUN 46.71 respectively. The highest variability of 43.65 was observed in Divided payout Ratio of NESTLE, Which means a higher degree of variability and lowest variability of 6.08 was observed in ratio of BRITANIA The CV of Current ratio REI AGRO was highest with 122.5 and the lowest variability of 10.52 ITC AGRO

Inventory Turnover Ratio

The highest mean value is 17.72 for BRITANIA & the lowest mean value of Inventory Turnover Ratio 4.50 ITC AGRO & other companies are maintaining Average level NESTLE 10.99, HATSUN 16.07 & REI AGRO 16.79 respectively. The highest variability of 43.52 was observed in Inventory Turnover Ratio of REI AGRO 28.33, Which means a higher degree of variability and lowest



variability of 0.11 was observed in Cash earnings ratio of REI AGRO. The CV of Inventory Turnover Ratio REI AGRO was highest with 168.71 and the lowest variability of 2.44 ITC AGRO

Conclusion

Liquidity ratios, most important to stabilise the financial needs. Hatsun ITC AGRO are good in current financial liquidity needs. ITC agro better than other industries because of the growth percentage. Dividend payout Ratio of ITC agro is good because they are creating goodwill among the share holders investment as well as dividend other food industries to improve their dividend payout. Inventory Turnover Ratio of Britannia are good in inventory turnover which is the financial strength of the food industries among other industries and must concentrate on inventory turnover. To run the business effectively, liquidity of the concern is to be properly maintained. In order to face competition, more credit may be granted by the firm. Thus credit management plays an important role at present in the modern arena. The credit policy is to be fixed by the concern on the basis of the availability of the funds and marketability of the products of the concern. Moreover, the inventories are to be properly maintained by the concerns. The reduction of excessive stock may lead to reduction of carrying and maintenance cost thereby contributing towards profitability of the concerns.

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