

## LIQUIDITY ANALYSIS OF SELECTED FOOD PROCESSING COMPANIES IN INDIA

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### ABSTRACT

The 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 annul financial statement during from 2004 - 05 to 2013 - 14. Several tools were developed to diagnose the financial strength of a Company based on the Financial Statements.

**Keywords:** Food processing Industry, Liquidity, Financial Statement, Employment and Export.

### *Introduction*

Holding liquidity position in a firm is indispensable for a firm. Liquidity ratio endeavors 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. Therefore, liquidity ratios

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.

### ***Need for the study***

The study has academic and practical significance. The study focuses on the performance of liquidity of food processing industry in India. It helps the academicians and researchers to develop new ideas for future study. This study will be useful to the management to take investment decisions and anticipate future conditions, identify areas strength and intrinsic value. This study may also be useful to creditors and financial institutions in their effective credit policy formulation. The study will act as a guide to investors in their investment decisions.

### ***Statement of the Problem***

During 1999 the industrial sector has been through the periods of robust growth and serves slowdown. Efficiently of enterprises has assumed greater importance now a day since it's the only tool to face the ongoing competition in the market. The challenge to food processing industry lies in providing adequate thing at affordable cost s to the Indian population. The industry has to complete globally, cost wise and quality wise for exports. The profitability and liquidity of food processing industry and its share in the national and international market demand depend on how effectively its change can be met. The performance of food processing industry provides a fruitful ground to investigate into the factors that determine its operation.

### ***Objective of the Study***

1. To examine the liquidity analysis of selected food processing companies in India

2. To offer valid suggestions and recommendations to betterment of the food processing industry.

### ***Methodology***

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 2004-2005 to 2013- 2014. 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 the companies has been complication for more companies of which only have some companies financial data available for a continuous full of period from 2004-2005 to 2013- 2014. 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:

1. Britannia industries india limited
2. ITC industries limited
3. Nestle industries limited
4. Hatsun industries limited
5. Rei agro industries limited

### ***Period of Study***

The period of study confirmed to 10 years from 2004-2005 to 2013- 2014.

### ***Tools for Analysis***

- Mean
- Standard Deviation

- Coefficient of Variation
- Range
- Correlation and
- Regression

### ***Limitations of the Study***

1. The analysis is based on annual reports of the company. So it is subjected to the limitations of secondary data.
2. Ratio analysis is the important tool used in this project. So it is subjected to the limitations of ratio analysis.
3. The study is only for five particular companies, so general conclusions about the food processing as a whole cannot be made.
4. The study is restricted for a period of 10 years, from 2004-2005 to 2013- 2014.

### ***Review of Literature***

**Anuradharajendran (2009)** undertook a study on “performance appraisal of private sector sugar companies in Tamilnadu”, for the period from 1997-98 to 2006-07. The main objectives of the study are to assess the production and sales performance, to analyze the financial performance and profitability analysis of select sugar mills. Financial analysis techniques like ratio analysis and trend analysis are used to analyze the financial data. The correlation analysis revealed a positive correlation between return on total assets and inventory turnover ratio during the study period. The analysis of the operational efficiency using Altman’s model reveals that the financial health of the selected sugar industry falls in the healthy zone.

**AmalenduBhunia (2010)** has undertaken an analysis of financial performance of pharmaceutical companies to understand how management of finance plays a crucial role in the growth. The present study covers two public selected drug and pharmaceutical enterprises listed on BSE. The study has been undertaken for the 12 years from 1997-98 to 2008-09. In order to analyze financial performance in terms of liquidity, solvency, profitability and financial

efficiency, various accounting ratios have been used. Statistical measures namely linear multiple regression and test of hypothesis – T test has been used.

**Ravichandra Reddy B and Waghmare Shivaji (2010)** made a study examined “performance of fixed assets management in small scale paper mills” for the period off 10 years from 1998-2007. Plants and machinery occupies the major share of fixed assets in the industry as well as the individual mills. The sizable quantum of funds invested in capital, work in progress portrayed the expansion and modernization programmers undertaken in the paper industry. Owner’s funds were found to be sufficient to finance fixed assets requirements in the industry. The extent of shareholders’ funds was also declining in financing fixed assets.

**Roy Tirthankar (2010)** surveys the technological changes in the industry during the period since 2005, the onset of reforms in the country. Although the industry is generally termed as a low technology one, it does employ high technology processes and machinery. This study concluded that liberalization has resulted in the importation of second hand machinery and technological changes in the domestic textile machinery sector.

**Mine Aysen Doyran and Juan Dalacruz (2011)** suggested that Latin America, should take the presence from the Asian textile industry experience. This paper examines recent statistics in US textile and clothing trade with selected Latin American and Asian economics, comparing data on textile exports from the top 10 suppliers between 1995 and 2003. It evaluates the initial effects of the agreement on the textiles and clothing (ATC) of 1995, which provided for a 10 years quota phase-out process for WTO member countries. Since its accession into WTO, china has replaced Mexico as the top supplier of goods to the US. In addition a brief comparison with other international experience of emerging economics is provided in order to elucidate the relevance of the textile industry in the region and world economy. This empirical work can be the starting point for policy makers to design long-term policies that are needed for Latin America to complete successful in the US market and promote the restructuring of clothing and textile production at the country level.

**Kirca Ahmet (2011)** focuses study on firm- specific assets, multi-nationality and financial performance is a Meta-Analytic review and the critical-integration. The Meta analysis were used at 120 independent samples and examined the predictions of internalization theory in

the context of multi-nationality provides an efficient organizational form that enables firms to transfer their firm- specific assets to generate higher return in international markets. In addition, the results delineate the condition under which firm- specific assets have the strongest impact on the multi-nationality performance relationship. The Meta-Analytic evidence also suggests that multi-nationality has its own intrinsic value above and beyond the intangible assets that firms possess; it has also given analysis controlling for firms international experience, age, size and product diversification.

**Sheela Christina (2011)** carried out the study of financial performance of Wheels India Limited Chennai. The study had an analytical type of research design supplemented by secondary data collection method. For this purpose the researcher took the past 5 years data and also checked out for the validity and reliability before conducting the study. The researcher used the financial tools namely ratio analysis, comparative balance sheet and DuPont analysis and also statistical tools such as trend analysis and correlation. Profitability ratio indicated that there was a decrease in the profit level, utilization of fixed assets and working capital in last financial year. Thus the company would take necessary steps to improve sales and profit. Finally the study revealed that the financial performance was satisfactory.

***DATA ANALYSIS AND INTERPRETATION***

**TABLE 1.1**

**CURRENT RATIO**

**(Ratio in Times)**

<b>YEAR</b>	<b>BRITANNIA</b>	<b>ITC</b>	<b>NESTLE</b>	<b>HATSUN</b>	<b>REI AGRO</b>
2004-05	0.87	1.03	0.75	0.53	3.64
2005-06	0.95	1.19	0.77	0.50	9.37
2006-07	1.23	1.32	0.89	0.49	12.30
2007-08	1.45	1.36	0.85	1.02	13.37
2008-09	1.19	1.29	0.88	0.71	11.39
2009-10	0.94	1.20	0.78	1.08	25.79
2010-11	0.97	1.59	0.79	0.86	11.19

2011-12	0.53	1.66	0.85	0.87	6.20
2012-13	0.82	1.78	1.16	0.84	3.95
2013-14	0.74	1.85	1.02	0.46	2.84
<b>Mean</b>	<b>0.968</b>	<b>1.427</b>	<b>0.874</b>	<b>0.735</b>	<b>10.003</b>
<b>SD</b>	<b>0.264</b>	<b>0.275</b>	<b>0.129</b>	<b>0.232</b>	<b>6.769</b>
<b>CV</b>	<b>27.275</b>	<b>19.289</b>	<b>14.744</b>	<b>31.587</b>	<b>67.670</b>
<b>Range</b>	<b>0.924</b>	<b>0.818</b>	<b>0.411</b>	<b>0.628</b>	<b>22.950</b>
<b>Minimum</b>	<b>0.527</b>	<b>1.034</b>	<b>0.753</b>	<b>0.457</b>	<b>2.836</b>
<b>Maximum</b>	<b>1.451</b>	<b>1.851</b>	<b>1.164</b>	<b>1.084</b>	<b>25.786</b>

Source: Compiled from Annual Report of Respective Companies

An increase in the current ratio represents improvement in the liquidity position of a firm while a decrease in the current ratio indicates there has been deterioration in the liquidity position of the firm. The Current ratio of selected food processing companies over the period of ten years from 2004-05 to 2013-14 is presented. It shows the statistics summary of current ratio of selected companies. The maximum value of mean CR ratio was 10.003 in REI AGRO and minimum value of mean CR ratio was 0.735 in case of HATSUN. The maximum SD was 6.769 of REI AGRO and minimum SD value of 0.129 in NESTLE. The CV of current ratio shows that 67.670 of REI AGRO indicates the highest variability of Current Ratio and CV of current ratio of NESTLE shows 14.744% which indicates that there is the least variability or consistency.

**TABLE 1.2**  
**QUICK RATIO**

(Ratio in Times)

YEAR	BRITANNIA	ITC	NESTLE	HATSUN	REI AGRO
2004-05	0.27	0.23	0.09	0.87	0.35
2005-06	0.18	0.22	0.14	2.69	0.69
2006-07	0.32	0.24	0.13	4.08	0.99
2007-08	0.33	0.25	0.10	2.62	0.74
2008-09	0.31	0.18	0.14	2.35	0.64
2009-10	0.17	0.21	0.10	5.51	1.27

2010-11	0.21	0.59	0.13	2.69	0.76
2011-12	0.09	0.67	0.26	1.86	0.60
2012-13	0.25	0.75	0.62	0.95	0.58
2013-14	0.18	0.79	0.40	1.34	0.57
<b>Mean</b>	<b>0.231</b>	<b>0.413</b>	<b>0.210</b>	<b>0.239</b>	<b>2.495</b>
<b>SD</b>	<b>0.079</b>	<b>0.252</b>	<b>0.172</b>	<b>0.097</b>	<b>1.433</b>
<b>CV</b>	<b>34.257</b>	<b>61.026</b>	<b>82.177</b>	<b>40.788</b>	<b>57.415</b>
<b>Range</b>	<b>0.239</b>	<b>0.609</b>	<b>0.529</b>	<b>0.283</b>	<b>4.636</b>
<b>Minimum</b>	<b>0.094</b>	<b>0.179</b>	<b>0.089</b>	<b>0.102</b>	<b>0.872</b>
<b>Maximum</b>	<b>0.333</b>	<b>0.788</b>	<b>0.618</b>	<b>0.385</b>	<b>5.508</b>

Source: Compiled from Annual Report of Respective Companies

The Quick Ratio of selected food processing companies over the period of ten years from 2004-05 to 2013-14 is presented. The maximum value of mean Quick Ratio was 2.495 in case of REI AGRO and minimum value of mean QR of 0.210 in case of NESTLE. THE maximum SD Quick Ratio value was 1.433 in case of REI AGRO and the minimum SD QR value of 0.079 in case of BRITANNIA. The CV of Quick Ratio shows the maximum value of 82.177 in case of NESTLE which indicates highest variability of Quick Ratio and BRITANNIA shows the minimum value of 34.257 which indicates the least variability or consistency.

**TABLE 1.3**  
**ABSOLUTE LIQUID RATIO OR CASH RATIO**  
**(Ratio in Times)**

<b>YEAR</b>	<b>BRITANNIA</b>	<b>ITC</b>	<b>NESTLE</b>	<b>HATSUN</b>	<b>REI AGRO</b>
2004-05	1.55	1.57	0.28	0.19	0.08
2005-06	1.59	1.31	0.19	0.06	0.02
2006-07	1.55	1.02	0.21	0.06	0.04
2007-08	1.57	0.85	0.08	0.16	0.71
2008-09	1.60	0.71	0.35	0.08	0.47
2009-10	1.47	1.27	0.20	0.17	0.97



2010-11	1.41	1.48	0.14	0.09	0.35
2011-12	0.52	1.61	0.48	0.06	0.47
2012-13	0.60	1.67	1.19	0.14	0.27
2013-14	0.66	1.75	0.92	0.04	0.26
<b>Mean</b>	<b>1.252</b>	<b>1.322</b>	<b>0.404</b>	<b>0.105</b>	<b>0.365</b>
<b>SD</b>	<b>0.459</b>	<b>0.360</b>	<b>0.366</b>	<b>0.054</b>	<b>0.303</b>
<b>CV</b>	<b>36.677</b>	<b>27.204</b>	<b>90.405</b>	<b>51.394</b>	<b>82.943</b>
<b>Range</b>	<b>1.077</b>	<b>1.045</b>	<b>1.105</b>	<b>0.146</b>	<b>0.945</b>
<b>Minimum</b>	<b>0.521</b>	<b>0.705</b>	<b>0.082</b>	<b>0.043</b>	<b>0.024</b>
<b>Maximum</b>	<b>1.598</b>	<b>1.750</b>	<b>1.187</b>	<b>0.189</b>	<b>0.969</b>

Source: Compiled from Annual Report of Respective Companies

The Absolute Liquid Ratio of selected food processing companies over the period of ten years from 2004-05 to 2013-14 is presented. The maximum of Absolute liquid ratio was 1.322 in case of ITC and the minimum of Absolute liquid ratio was 0.105 in case of HATSUN. The maximum SD absolute liquid ratio was 0.459 in case of BRITANNIA and minimum SD absolute liquid ratio of 0.054 in case of HATSUN. The maximum CV of Absolute liquid ratio of 90.405 was found in case of NESTLE which indicates highest variability of absolute liquid ratio and minimum CV of Absolute liquid ratio of 27.204 was found in case of ITC which indicates the lowest variability or consistency.

**TABLE 1.4**  
**DEBT EQUITY RATIO**

(Ratio in Times)

YEAR	BRITANNIA	ITC	NESTLE	HATSUN	REI AGRO
2004-05	0.01	0.03	0.04	3.99	2.88
2005-06	0.02	0.01	0.04	3.05	2.31
2006-07	0.01	0.02	0.01	2.46	2.79
2007-08	0.14	0.02	0.00	2.87	4.02
2008-09	0.03	0.01	0.00	4.19	4.94

2009-10	1.08	0.01	0.00	6.23	4.97
2010-11	0.96	0.01	0.76	3.19	1.63
2011-12	0.05	0.00	0.58	2.54	1.90
2012-13	0.31	0.00	0.50	2.56	1.97
2013-14	0.01	0.00	0.01	2.21	1.76
<b>SD</b>	<b>0.411</b>	<b>0.009</b>	<b>0.298</b>	<b>1.208</b>	<b>1.283</b>
<b>CV</b>	<b>157.303</b>	<b>77.716</b>	<b>153.062</b>	<b>36.315</b>	<b>44.001</b>
<b>Range</b>	<b>1.079</b>	<b>0.029</b>	<b>0.762</b>	<b>4.025</b>	<b>3.334</b>
<b>Minimum</b>	<b>0.005</b>	<b>0.002</b>	<b>0.000</b>	<b>2.205</b>	<b>1.632</b>
<b>Maximum</b>	<b>1.084</b>	<b>0.031</b>	<b>0.762</b>	<b>6.230</b>	<b>4.966</b>

Source: Compiled from Annual Report of Respective Companies

The Debt Equity Ratio of selected food processing companies over the period of ten years from 2004-05 to 2013-14 is presented. The maximum of Debt Equity ratio of 3.329 in case of HATSUN and a minimum of 0.011 was found in case of ITC. The maximum SD Debt Equity ratio was 0.411 in case of BRITANNIA and minimum SD absolute liquid ratio of 0.009 in case of ITC. The maximum CV value of Debt Equity ratio of 157.3036 in case of BRITANNIA which indicates that there is highest variability of Debt Equity ratio and HATSUN shows a minimum value of 36.415 which indicates that there is least variability or consistency of Debt Equity ratio.

**TABLE 1.5**  
**PROPRIETARY RATIO**

(Ratio in Times)

<b>YEAR</b>	<b>BRITANNIA</b>	<b>ITC</b>	<b>NESTLE</b>	<b>HATSUN</b>	<b>REI AGRO</b>
2004-05	0.99	0.97	0.96	0.20	0.26
2005-06	0.98	0.99	0.96	0.25	0.30
2006-07	0.99	0.98	0.99	0.29	0.26
2007-08	0.88	0.98	1.00	0.26	0.20
2008-09	0.97	0.99	1.00	0.19	0.17
2009-10	0.48	0.99	1.00	0.14	0.17
2010-11	0.51	0.99	0.57	0.24	0.38

2011-12	0.95	1.00	0.63	0.28	0.34
2012-13	0.76	1.00	0.67	0.28	0.34
2013-14	0.99	1.00	0.99	0.31	0.36
<b>Mean</b>	<b>0.851</b>	<b>0.988</b>	<b>0.877</b>	<b>0.244</b>	<b>0.278</b>
<b>SD</b>	<b>0.200</b>	<b>0.009</b>	<b>0.178</b>	<b>0.053</b>	<b>0.080</b>
<b>CV</b>	<b>23.560</b>	<b>0.920</b>	<b>20.336</b>	<b>21.850</b>	<b>28.638</b>
<b>Range</b>	<b>0.515</b>	<b>0.029</b>	<b>0.432</b>	<b>0.174</b>	<b>0.212</b>
<b>Minimum</b>	<b>0.480</b>	<b>0.969</b>	<b>0.568</b>	<b>0.138</b>	<b>0.168</b>
<b>Maximum</b>	<b>0.995</b>	<b>0.998</b>	<b>1.000</b>	<b>0.312</b>	<b>0.380</b>

*Source: Compiled from Annual Report of Respective Companies*

The Proprietary Ratio of selected food processing companies over the period of ten years from 2004-05 to 2013-14 is presented. The maximum mean value of Proprietary ratio of 0.988 in case of ITC and a minimum mean value of 0.244 was found in case of HATSUN. The maximum SD Proprietary ratio was 0.200 in case of BRITANNIA and minimum SD Proprietary ratio of 0.009 in case of ITC. The maximum CV value of Proprietary ratio of 28.638 in case of REI AGRO which indicates that there is highest variability of Proprietary ratio and ITC shows a minimum value of 0.920 which indicates that there is least variability or consistency of Debt Equity ratio.

**TABLE 1.6**  
**FIXED ASSETS RATIO**

**(Ratio in Times)**

<b>YEAR</b>	<b>BRITANNIA</b>	<b>ITC</b>	<b>NESTLE</b>	<b>HATSUN</b>	<b>REI AGRO</b>
2004-05	0.29	0.52	0.12	0.13	0.06
2005-06	0.28	0.50	0.16	0.24	0.12
2006-07	0.35	0.56	0.23	0.33	0.19
2007-08	0.33	0.60	0.37	0.52	0.24
2008-09	0.34	0.62	0.68	1.07	0.67
2009-10	0.74	0.65	1.47	0.93	1.50
2010-11	0.70	0.61	2.69	1.93	4.09

2011-12	0.88	0.60	4.30	2.99	5.40
2012-13	0.91	0.57	6.09	4.24	8.02
2013-14	0.75	0.54	8.01	7.80	15.51
<b>Mean</b>	<b>0.557</b>	<b>0.577</b>	<b>2.414</b>	<b>2.017</b>	<b>3.580</b>
<b>SD</b>	<b>0.261</b>	<b>0.047</b>	<b>2.821</b>	<b>2.431</b>	<b>5.004</b>
<b>CV</b>	<b>46.788</b>	<b>8.070</b>	<b>116.857</b>	<b>120.489</b>	<b>139.766</b>
<b>Range</b>	<b>0.632</b>	<b>0.149</b>	<b>7.887</b>	<b>7.668</b>	<b>15.444</b>
<b>Minimum</b>	<b>0.276</b>	<b>0.500</b>	<b>0.125</b>	<b>0.128</b>	<b>0.064</b>
<b>Maximum</b>	<b>0.908</b>	<b>0.649</b>	<b>8.012</b>	<b>7.796</b>	<b>15.508</b>

*Source: Compiled from Annual Report of Respective Companies*

The Fixed Assets Ratio of selected food processing companies over the period of ten years from 2004-05 to 2013-14 is presented. The maximum mean value of fixed assets ratio of 3.580 in case of REI AGRO and a minimum mean value of 0.557 was found in case of BRITANNIA. The maximum SD fixed assets ratio was 5.004 in case of REI AGRO and minimum SD fixed assets Ratio of 0.047 in case of ITC. The maximum CV value of fixed assets ratio of 139.766 in case of REI AGRO which indicates that there is highest variability of fixed assets ratio and ITC shows a minimum value of 8.070 which indicates that there is least variability or consistency of fixed assets ratio.

### **Suggestions**

This is the stage in which several suggestions have to be offered on the basis of the problems notified under the study.

1. The current assets have to be properly maintained by properly making investment in the raw materials and the proper estimate of the requirements of the stocks for the concern which helps to solve the inventory problems of the concerns taken under the study.
2. Liquidity of all the selected companies are negative association that means the higher liquidity, the better is the short term paying capacity. To solve this problem of low liquidity, the expenses are to be kept under the control and also proper maintenance of the

inventory may also leads to the reduction of the expenses and thereby contributing to the increase in liquidity of the concerns taken under the study.

3. The selected food processing companies taken under the study should try to maintain stable current ratio. Moreover, the current assets position of the concerns is weak where its ideal ratio should be 1:2. This shows that the cash management was very poor. The current assets are to be properly financed by the short term loans and the current liabilities are to be properly repaid for which credit policy of the concern is to be properly designed.
4. The selected food processing companies regarding fixed asset management, they should properly invest in long term assets to be financed from long term loans. And they should be properly used for productive purpose and which will give maximum return on the investment.
5. With regard to the debt management, the concerns taken under the study should properly fix the credit policy to be followed effectively. And moreover, the over dues should be taken care of by the concerns by properly follow up with the debtors and required steps are to be taken immediately as per time and reduce the cost of the collection and also bad debts under the control.

### ***Conclusion***

The liquidity performances are not encouraging and fluctuations are high among the sample companies. It indicates that there is no steady performance among the sample companies during the study period. Liquidity performance of samples companies are measured through ideal liquidity ratios. There is no uniformity and a lot of fluctuations in liquidity ratio are found among sample companies during the study period. Financial performance and liquidity measures are not encouraging and a lot of deviations are found among sample companies. The perpetuity of companies depends upon the financial performance. So management should try to enhance the financial performance through adoption of the suggestive measure.

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