2015-17

COMQUEST

-JDBI Journal of Commerce

A Compilation of
Post-Graduate Research Studies
(Book of Papers)

J.D. BIRLA INSTITUTE
Affiliated to Jadavpur University • Accrediated with 'A' Grade by NAAC (in 2010)

Department of Commerce

11, LOWER RAWDON STREET, KOLKATA - 700020

J.D. BIRLA INSTITUTE

COMQUEST

-JDBI Journal of Commerce, 2015-17

A Compilation of M.Com Student's Research Work

Department of Commerce

Office: 11, Lower Rawdon Street, Kolkata-700020

www.jdbikolkata.in

CONTENT

Page No.

1) Analysis of Liquidity and Profitability of Dabur 1 – 5
2) Impact of Foreign Direct Investment on Indian Economy and Growth 6 – 11
3) The Study of Working Capital Management in Automobile Industry 12 – 18
4) A Project on Growth in Indian Banking Sectorin the Post-Liberalization Period 19 – 24
5) Determinants of Capital Structure in Aviation Sector of India 25 – 28
6) A Comparative Study on the Financial Analysis of its Companieswith Special Reference To TCS and Wipro 29 – 32
7) Success of Fake Brands in Rural Market of India 33 – 37
8) A Study on the Impact of Social Media towards Consumer's Buying Behavior 38 – 40
9) Consumer's Preference and Satisfaction towardsVarious Cell Phone Service Providers 41 – 45
10) Consumer's Perception and Attitude towards Online Shopping 46 – 50
11) Comparative Study on Beverage Companies in India – A Case Study on Coca-Cola & Pepsico 51 – 56
12) A Study on Steel Industry in India 57 – 63
13) Effectiveness of Working Capital Management in Paint Industry – Comparative Analysis Between Berger Paint India Ltd. & Asian Paint 64 – 75
14) Analysis of the Investment and Funding Pattern of Public Sector Banks vs. Private Sector Banks in India- Based on Case Study 76 – 79
15) Mergers and Acquisitions in India: A Comparative Financial Evaluation of Two Acquisitions in Telecommunication Sector 80 – 83
16) A Project on Indian Stock Market - A Trend Analysis 84 – 87
17) The Impact of Trade Balance on the Economic Growth of India 88 – 91
18) Analysis of Profitability Ratios of Indian Overseas Bank 92 – 95
19) A Study on the Impact of Visual Merchandising on Consumer Behaviour in the City of Kolkata 96 -101
20) Life Insurance - A Comparative Analysis of the Public and Private Life Insurance Companies 102 – 112
21) Financial Reporting - A Comparative Analysis of Pharmaceutical Companies 113 – 118
22) Financial Performance of Blue Chip Companies in India - A Case Study of Axis Bank & HDFC Bank 119 – 125
23) The Indian FMCG Sector and its Growth Opportunities 126 – 130
24) A Comparative Analysis of the Two Top Most Companies having Highest Market Capitalization 131 – 135
25) A Study on Industrial Report on Food Processing Industry in India 136 – 141

Analysis of Liquidity and Profitability of Dabur

Disha Attlani[1] *and Pritha Sen*[2]
[1]*M.Com. Scholar (Accounting and Finance)*
[2]*Assistant Professor, Department of Commerce, J D Birla Institute, Kolkata*

Abstract
The study was undertaken with an aim to understand the liquidity and profitability of Dabur. Various profitability ratios like net profit ratio, return on net worth, return on capital employed were looked into. Along with this the liquidity ratios like current ratio and quick ratio was analyzed. It was seen that profitability and solvency position of Dabur is sound but the company still need to focus to increase the net profit of the company by reducing cost of sales or increasing the selling price and should also look after the short-term solvency of the company to earn profits.

Keywords: Liquidity, Net Profit, Profitability

Introduction

Profitability is the ability of a business to earn a profit. A profit is what is left of the revenue a business generates after it pays all expenses directly related to the generation of the revenue, such as producing a product, and other expenses related to the conduct of the business activities. Making a profit is essential for a business that desires to expand its operations. Earning a profit allows a business to open other business locations, acquire another business, target other markets and expand operations into foreign territory.

Profitability provides a measure of success of a business which is important for new businesses. It is the best source of finance/capital to invest in expanding the business. It acts as a magnet to attract further funds from investors enticed by the possibility of high returns on their investment. Liquidity is the ability of a company to meet the short term obligations. It is the ability of the company to convert its assets into cash. Short term, generally, signifies obligations which mature within one accounting year. Short term also reflects the operating cycle: buying, manufacturing, selling, and collecting.

A company that cannot pay its creditors on time and continue not to honour its obligations to the suppliers of credit, services, and goods can be declared a sick company or bankrupt company. Inability to meet the short term liabilities may affect the company's operations and in many cases it may affect its reputation too. Lack of cash or liquid assets on hand may force a company to miss the incentives given by the suppliers of credit, services, and goods. Loss of such incentives may result in higher cost of goods which in turn affect the profitability of the business. So there is always a need for the company to maintain certain degree of liquidity. However, there is no standard norm for liquidity. It depends on the nature of the business, scale of operations, location of the business and many other factors. Every stakeholder has interest in the liquidity position of a company.

A company can finance its investment by different combination of current and long term sources. In other words, a company can invest the money, raised through short term source or long term sources, in the current assets or non-current assts. Some of the relevant business strategies are as follows: financing the current assets by current sources, financing the current assets by the long term sources, financing non-current assets by the short term sources, financing non-current assets by long term sources. One can get an idea about the above mentioned decisions by seeing the balance sheet or determining the working capital of the company. Analysis and interpretation of liquidity ratios helps in determining the liquidity position, long-term solvency, financial viability and profitability of a firm. Ratio analysis shows whether the company is improving or deteriorating in past years. Moreover, comparison of different aspects of all the firms can be done effectively with this. It helps the clients to decide in which firm the risk is less or in which one they should invest so that maximum benefit can be earned. So before investing in such companies one has to carefully study its financial position and worthiness.

However, the importance of liquidity Analysis can be stated as below:

1. It assists us in knowing and understanding the liquidity position of the business and on the basis of which its short term debt paying capacity can be evaluated.

2. It assists us in forming an opinion about the financial health of the firm, i.e. the strength and weakness of the firm.
3. It also assists us to evaluate the financial as well as the operating risk associated with the firm.
4. It assists us in forming an opinion about the solvency position of the firm and by that means form an opinion about the long term debt paying capacity of the firm.
5. It provides us the scope of comparison of the financial result of the firm with that of similar other firms or of the same firm for different years.
6. It also helps us in highlighting the operating efficiency of the firm with which the various resources of the firm are being employed.
7. It assists us in knowing and understanding the overall financial position of the business.
8. It assists us in presenting the financial position in a simplified form, so that the common people of average intelligence can easily draw conclusions.

Dabur: Company Profile

Dabur India Ltd. is one of India's leading FMCG Companies with Revenues of over Rs 8,436 Crores & Market Capitalization of Rs.44,000Crores. Building on a legacy of quality and experience of over 131 years, Dabur is today India's most trusted name and the world's largest Ayurvedic and Natural Health Care Company.

Dabur India is also a world leader in Ayurveda with a portfolio of over 250 Herbal/Ayurvedic products. Dabur's FMCG portfolio today includes five flagship brands with distinct brand identities -- Dabur as the master brand for natural healthcare products, Vatika for premium personal care, Hajmola for digestives, Réal for fruit juices and beverages and Fem for fairness bleaches and skin care products.Dabur today operates in key consumer product categories like Hair Care, Oral Care, Health Care, Skin Care, Home Care and Foods.

The company has a wide distribution network, covering over 5.3 million retail outlets with a high penetration in both urban and rural markets. Dabur's products also have huge presence in the overseas markets and are today available in over 120 countries across the globe. Its brands are highly popular in the Middle East, SAARC countries, Africa, US, Europe and Russia. Dabur's overseas revenue today accounts for over 30% of the total turnover.

The 132-year-old company, promoted by the Burman family, started operating in 1884 as an Ayurvedic medicines company. From its humble beginnings in the bylanes of Calcutta, Dabur India Ltd has come a long way today become one of the biggest Indian-owned consumer goods companies with the largest herbal and natural product portfolio in the world.

Methodology

The data used for the analysis and comparison is secondary in nature collected through various reports. For the proposed topic a company is selected from FMCG industry i.e. Dabur Secondary sources of data used to complete this project mainly include annual reports, balance sheet, and profit and loss statement, of both the company mentioned above. Primary data has not been taken into consideration.

Graphs and Correlation analysis have been used for statistical analysis of data. Time horizon used for the analysis is 5 years i.e. from March 2012-2016. Analytical/Financial Analysis (Ratio Analysis) & Correlation Analysis.

Results and Discussion

Profitability Ratio: A profitability ratio is a measure of profitability which is a way to measure a company's performance.

Profit Before Interest And Tax Margin Ratio (PBIT): PBIT margin is a measure of a company's profitability, calculated as EBIT (earnings before interest and tax) divided by net revenue. The value of EBIT margin helps evaluate how a company has grown from year to year.

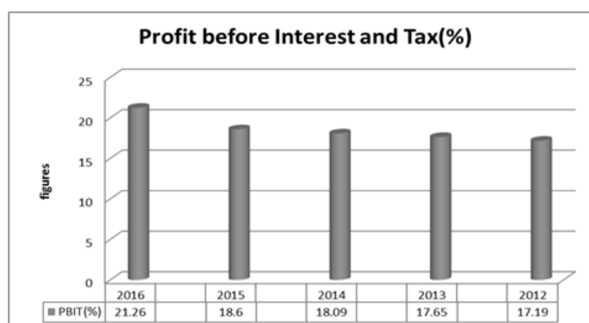


*Figure 1: Profit before interest and tax: (EBIT/Net Revenue)*100*

Analysis: The PBIT of the company is seen increasing over the year that is from 17.19% in 2012 to 21.26% in 2016. Increase in profit before interest and tax is mainly due to growth of net revenue, good cost control and strong productivity. The higher PBIT

margin reflects the more efficient cost management or a more profitable business

Net Profit Ratio: The net profit percentage is the ratio of after-tax profits to net sales. It reveals the remaining profit after all costs of production, administration, and financing have been deducted from sales, and income taxes recognized. As such, it is one of the best measures of the overall results of a firm, especially when combined with an evaluation of how well it is using its working capital. The measure is commonly reported on a trend line, to judge performance over time. It is also used to compare the results of a business with its competitors.

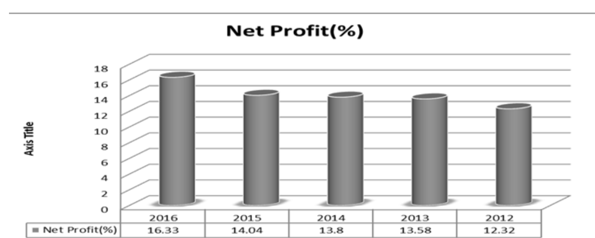


*Figure 2: Net Profit Ratio: (Net Profit/Sales)*100*

Analysis: A higher net profit margin means that a company is more efficient at converting sales into actual profit. We can see that the net profit of the company is increasing. It is a good sign.

Return on Capital Employed (ROCE): It is a financial ratio that measures a company's profitability and the efficiency with which its capital is employed.

Figure 3: ROCE: Earnings before interest and tax (EBIT) / Capital Employed

Analysis: If a company's ROCE ratio is relatively high, that is an indication that the company is making more efficient use of its capital. The return on capital employed of the company is seen increasing from 2012 to 2013. But then we notice a fall in the return on capital employed from 35.39% to 33.85% in 2014. It further decreases from 33.85% to 31.51% in 2016. The decreasing return on capital employed is due to increase in total expenses over the years. This is unfavorable for the company.

Return on Net Worth: The net worth ratio states the return that shareholders could receive on their investment in a company, if all of the profit earned were to be passed through directly to them. Thus, the ratio is developed from the perspective of the shareholder, not the company, and is used to analyze investor returns.

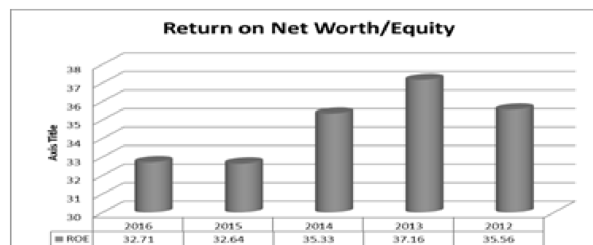


Figure 4: Return on net worth: PAT / Net Worth

Analysis: Return on net worth or return on equity is decreasing from 35.56% in 2012 to 32.71% in 2016. This means the financial leverage is low.

Liquidity Ratios: Managers and creditors must closely monitor the firm's ability to meet short-term obligations. The liquidity ratios are measures that indicate a firm's ability to repay short-term debt. Current liabilities represent obligations that are typically due in one year or less. The current and quick ratios are used to gauge a firm's liquidity.

Current Ratio: The current ratio is liquidity ratio that measures a company's ability to pay short term and long term obligations. To gauge this ability, the current ratio considers the total assets of a company relative to that company's total liabilities.

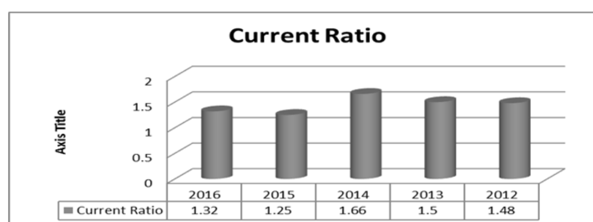


Figure 5: Current Ratio: Current Asset / Current Liability

Analysis: Current ratio has always been less than the stable ratio of 2:1.The current ratio of the company can be made stable by lowering the current liabilities of the company.

Quick Ratio: The quick ratio or acid test ratio is a liquidity ratio that measures the ability of a company to pay its current liabilities when they come due with only quick assets. Quick assets are current assets that can be converted to cash within 90 days or in the short-term. Cash, cash equivalents, short-term

investments or marketable securities, and current accounts receivable are considered quick assets.

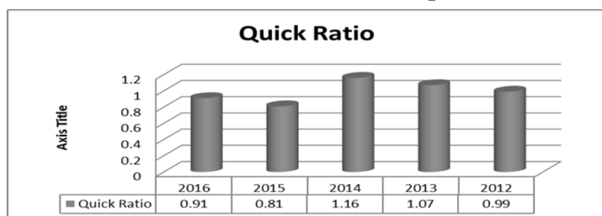


Figure 6: Quick Ratio: Quick Assets / Quick Liabilities

Analysis: The ideal quick ratio should be 1:1. Higher the ratio more is the liquidity. The company has been able to maintain quick ratio in 2013 and 2014. The quick Ratio of the company can be increased by lowering the quick liabilities of the company

Debt Equity Ratio: Debt/Equity Ratio is a debt ratio used to measure a company's financial leverage, calculated by dividing a company's total liabilities by its stockholders' equity The D/E ratio indicates how much debt a company is using to finance its assets relative to the amount of value represented in shareholders' equity.

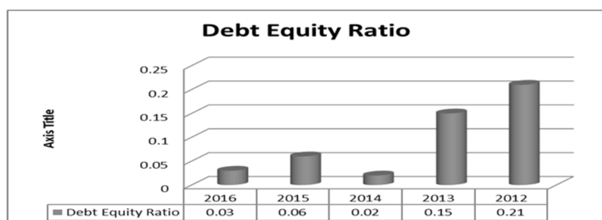


Figure 7: Deb Equity ratio: Long Term Debt/ Shareholder's Fund

Analysis: A debt to equity ratio of 1 would mean that investors and creditors have an equal stake in the business assets. A lower debt to equity ratio usually implies a more financially stable business. Year with a higher debt to equity ratio are considered more risky to creditors and investors than year with a lower ratio.

Asset Utilization Ratio

Asset utilization ratios provide measures of management effectiveness. These ratios serve as a guide to critical factors concerning the use of the firm's assets, inventory, and accounts receivable collections in day-to-day operations. Asset utilization ratios are especially important for internal monitoring concerning performance over multiple periods, serving as warning signals or benchmarks from which meaningful conclusions may be reached on operational issues.

Debtors Turnover Ratio: Receivables turnover ratio (also known as debtor turnover ratio) is computed by dividing the net credit sales during a period by average receivables. Accounts receivable turnover ratio simply measures how many times the receivables are collected during a particular period. It is a helpful tool to evaluate the liquidity of receivables.

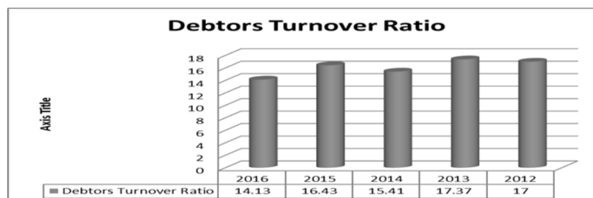


Figure 8: Debtors Turnover Ratio: Net Sales/Average Debtors

Analysis: Higher efficiency is favorable from a cash flow standpoint as well. If a year can collect cash from customers sooner, it will be able to use that cash to pay bills and other obligations sooner. Accounts receivable turnover also is an indication of the quality of credit sales and receivables. A year with a higher ratio shows that credit sales are more likely to be collected than a year with a lower ratio. The debtors turnover ratio can be increased by increasing the sales of the company. Debtors management appears to be quite satisfactory as more the number of times debtors turnover, better the liquidity position of the company.

Creditors Turnover Ratio: Accounts payable turnover is a ratio that measures the speed with which a company pays its suppliers. If the turnover ratio declines from one period to the next, this indicates that the company is paying its suppliers more slowly, and may be an indicator of worsening financial condition.

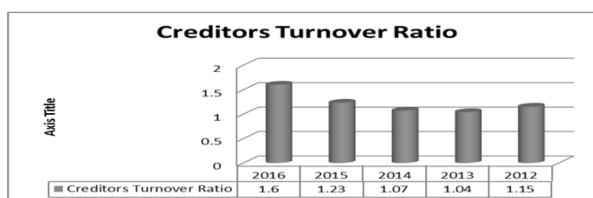


Figure 9: Creditors turnover ratio = Credit purchase/ Average creditors

Analysis: It has increased from 1.23 in 2015 to 1.60 in 2016. Here we can see that the company is paying off its creditors more slowly. The company should improve its creditor's turnover ratio.

Inventory Turnover Ratio: Inventory turnover is a ratio showing how many times a company's inventory is sold and replaced over a period. The days in the period can then be divided by the inventory turnover formula to calculate the days it takes to sell the inventory on hand or "inventory turnover days."

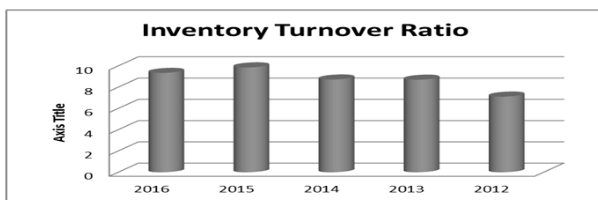


Figure 10: Inventory Turnover Ratio = COGS/Average Inventory

Analysis: Low inventory turnover ratio is a signal of inefficiency, since inventory usually has a rate of return of zero. It also implies either poor sales or excess inventory. A low turnover rate can indicate poor liquidity, possible overstocking, and obsolescence, but it may also reflect a planned inventory build-up in the case of material shortages or in anticipation of rapidly rising prices. The company has a high inventory turnover of 9.34%. This indicates strong sales or ineffective buying. A high turnover ratio can also indicate a shortage or inadequate inventory levels, which may lead to a loss in business.

Conclusion

Keeping costs lower than their competitors and keeping the cost advantages helps Dabur India pass on some benefits to consumers. The services offered by Dabur India are original, meaning many people will return to Dabur India to obtain them. A strong brand is an essential strength of Dabur India as it is recognized and respected. From the above findings, we can conclude that the overall profitability and solvency position of Dabur is sound but the company still need to focus to increase the net profit of the company by reducing cost of sales or increasing the selling price and should also look after the short-term solvency of the company by taking steps as suggested above. The return on capital employed can be increased by increasing the profit margin of the company or by increasing the sales of the company. It has to take necessary steps the increase the level of sales of the company by using various sales promotion measures. The company will have to decrease the current liabilities of the company as soon as possible to have a better profitability condition. The company can also raise its share capital its increase its net worth.

References

1. Chakraborty N, Working capital performance: A case study on Dabur India Ltd, International Journal of Research in Commerce and Management, 4(10), 2013.
2. Garg A, Profitability analysis of FMCG Sector, International Journal of Business Management and Scientific Research, 12, 2015.
3. Hostiuc F et al The liquidity ratios and their significance in financial equilibrium of the firms, Faculty of Economics and Public Administration, 9(1), 2009.
4. Mehrotra S. Working capital trends and liquidity analysis of FMCG sector in India, IOSR Journal of Business and Management, 9(4), 2013, pp. 45-52.
5. Nitesh A et al, The relationship between capital structure and profitability, Global Journal of Management and Business Research, 12(13),2012.
6. Paswan R. Analysis of solvency of select FMCG companies in India, Global Journal of Management and Business Studies, 3(4), 2013, pp. 401-406.
7. Patil P, An overview of the Indian FMCG sector, Indian Journal of Research, 5(2), 2016, pp. 171-173.
8. Sharma A, A comparative study of profitability and liquidity between HUL and DABUR INDIA, International Journal of Social Science and Interdisciplinary Research, 5(1). 2016, pp. 57-63.

Impact of Foreign Direct Investment on Indian Economy and Growth

Shruti Joshi[1] and Papia Mitra[2]
[1]M.Com. Scholar (Accounting and Finance) and [2]Assistant Professor, Department of Commerce
J D Birla Institute, Kolkata

Abstract
Foreign direct investment (FDI) is widely believed as a catalyst for the economic development in developing countries. It is preferred over all foreign capital flows. It is considered as an important source of growth since it is a non-debt capital inflow. This paper is an attempt to throw some light on the bumpy beginnings of FDI in Indian economy. After economic reforms of 1991, many changes were introduced in the India's foreign policy. Against this backdrop, this paper highlights the vital determinants of FDI in India as propagated by many scholars. It presents a historical perspective over the evolution of FDI in India and also envisages discussing the advantages and disadvantages of FDI inflow with reference to the Indian economy. Finally, it offers an outline of the current FDI policy in Indian Economy and the paves way to the future prospects.

Keywords: Foreign Direct Investment, India Economy

Introduction

Foreign Direct Investment (FDI) is a type of investment in to an enterprises in a country by another enterprises located in another country by buying a company in the target country or by expanding operations of an existing business in that country. In the era of globalization FDI takes vital part in the development of both developing and developed countries. FDI has been associated with improved economic growth and in the host countries which has led to the emergence of global competition to attract FDI.

Foreign direct investment is one of the measures of growing economic globalization. Investment has always been an issue for the developing economies such as India. The world has been globalizing and all the countries are liberalizing their policies for welcoming investment from countries which are abundant in capital resources. The countries which are developed are focusing on new markets where there is availability of abundant labors, scope for products, and high profits are achieved. Therefore Foreign Direct Investment (FDI) has become a battle ground in the emerging markets.

The Foreign Investment Promotion Board (FIPB) is a national agency of Government of India, with the remit to consider and recommend foreign direct investment (FDI which does not come under the automatic route. It provides a single window clearance for proposals on FDI India. The Foreign Investment Promotion Board (FIPB) offers a single window clearance for applications on Foreign Direct Investment (FDI) in India that are under the approval route. The sectors under automatic route do not require any prior approval from FIPB and are subject to only sectoral laws. This e-filing facility is an important initiative of the FIPB Secretariat to further enhance its efficiency and transparency of decision making. The present portal is an upgraded and more secure version. Once the e-filing of the application is completed, the application needs to file/courier only SINGLE copy of the printed version of the online application, along with the duly authenticated copy of the documents attached with the application. This portal offers the additional features such as: e-communication, quicker processing, reduced paperwork, SMS/email alert and many more.

Foreign direct investment (FDI) has played an important role in the process of globalization during the past two decades. The rapid expansion in FDI by multinational enterprises since the mid-eighties may be attributed to significant changes in technologies, greater liberalization of trade and investment regimes, and deregulation and privatization of markets in many countries including developing countries like India.

Capital formation is an important determinant of economic growth. While domestic investments add to the capital stock in an economy, FDI plays a complementary role in overall capital formation and in filling the gap between domestic savings and investment. At the macro-level, FDI is a non-non-debt-creating source of additional external finances. At the micro-level, FDI is expected to boost output, technology, skill levels, employment and linkages with other sectors and regions of the host economy.

In India FDI inflow made its entry during the year 1991-92 with the aim to bring together the intended investment and the actual savings of the country. To pursue a growth of around 7 percent in the Gross Domestic Product of India, the net capital flows should increase by at least 28 to 30 percent on the whole. But the savings of the country stood only at 24 percent. The gap formed between intended investment and the actual savings of the country was lifted up by portfolio investments by Foreign Institutional Investors, loans by foreign banks and other places, and foreign direct investments. Among these three forms of financial assistance, India prefers as well as possesses the maximum amount of Foreign Direct Investments. Hence FDI is considered as a developmental tool for growth and development of the country Policy regime is one of the key factors driving investment flows to a country. There has been a sea change in India's approach to foreign investment from the early 1990s when it began structural economic reforms about almost all the sectors of the economy.

Pre-Liberalisation Period

Historically, India had followed an extremely careful and selective approach while formulating FDI policy in view of the governance of, import-substitution strategy of industrialisation. The regulatory framework was consolidated through the enactment of Foreign Exchange Regulation Act (FERA), 1973 wherein foreign equity holding in a joint venture was allowed only up to 40 per cent. Subsequently, various exemptions were extended to foreign companies engaged in export oriented businesses and high technology and high priority areas including allowing equity holdings of over 40 per cent. Moreover, drawing from successes of other country experiences in Asia, Government not only established special economic zones (SEZs) but also designed liberal policy and provided incentives for promoting FDI in these zones with a view to promote exports.

The announcements of Industrial Policy (1980 and 1982) and Technology Policy (1983) provided for a liberal attitude towards foreign investments in terms of changes in policy directions The policy was characterised by de-licensing of some of the industrial rules and promotion of Indian manufacturing exports as well as emphasising on modernisation of industries through liberalised imports of capital goods and technology. This was supported by trade liberalisation measures in the form of tariff reduction and shifting of large number of items from import licensing to Open General Licensing (OGL).

Post-Liberalisation Period

A major shift occurred when India embarked upon economic liberalisation and reforms program in 1991 aiming to raise its growth potential and integrating with the world economy. Industrial policy reforms slowly but surely removed restrictions on investment projects and business expansion on the one hand and allowed increased access to foreign technology and funding on the other. A series of measures that were directed towards liberalizing foreign investment included:

1. Introduction of dual route of approval of FDI–RBI"s automatic route and Government's approval (SIA/FIPB) route.
2. Automatic permission for technology agreements in high priority industries and removal of restriction of FDI in low technology areas as well as liberalisation of technology imports.
3. Permission to Non-resident Indians (NRIs) and Overseas Corporate Bodies (OCBs) to invest up to 100 per cent in high priorities sectors.
4. Hike in the foreign equity participation limits to 51 per cent for existing companies and liberalisation of the use of foreign "brands name".
5. Signing the Convention of Multilateral Investment Guarantee Agency (MIGA) for protection of foreign Investments.

These efforts were boosted by the enactment of Foreign Exchange Management Act (FEMA), 1999 [that replaced the Foreign Exchange Regulation Act (FERA), 1973] which was less stringent. In 1997, Indian Government allowed 100% FDI in cash and carry wholesale and FDI in single brand retailing was allowed 51% in June, 2006. After a long debate, further amendment was made in December, 2012 which led FDI to 100% in single brand retailing and 51% in multiple brand retailing.

FDI Inflow Routes

An Indian Company may receive Foreign Direct Investment under the two routes as given under:

1. Automatic Route: FDI in sectors /activities to the extent permitted under the automatic route does not require any prior approval either of the Government or the Reserve Bank of India.
2. Government Route: FDI in activities not covered under the automatic route requires prior approval of the Government which are considered by the Foreign Investment Promotion Board

(FIPB), Department of Economic Affairs, and Ministry of Finance.

The topic of foreign direct is one of the massively studied topics by the researchers and marketers in the past and is still being studied. The analysis provides the major policy implications and also draws attention on the difficulties in inferring FDI data in India. This paper aims to check the determinants of FDI inflows to assess the impact of FDI on the Indian economy, to understand the flow of FDI investment in India. FDI in India goes way back with the establishment of East India Company of Britain. British capital entered India during the colonial era of Britishers in India. Japanese companies entered Indian market after World War II and boosted their trade with India, but Britain was the most dominant investor in India. Also the policy makers in India after independence gave importance to foreign capital and MNCs. FDI policy was then designed keeping in view the National interest. FDI policy has been changing since then keeping in mind the changing economic and political conditions. In 1965, industrial policy permitted MNCs to venture through technical collaboration in India. This led the government to allow more liberal policy towards frequent equity inflows.

Methodology

Data source: The present study is of analytical nature and makes use of secondary data. The relevant secondary data is collected from "Centre for monitoring Indian Economy", "World investment Report", rbi.org.in, handbook of statistics in Indian economy.

Data methodology: The methodology used in the project is descriptive statistics and regression. Regression is a statistical measure used to determine the strength of the relationship between one variable and other dependent variables. Here I have used regression to determine the impact of FDI inflows on GDP of India. The study is based on time series data.

Results and Discussion

Table 1: Regression Analysis

Adjusted R Square	F	Significance F
0.128883641977508	5.8824248862836	0.021112000700115

Table 2: Country-Wise Contribution of FDI Inflows

Ranks	Country	2013-14				
(April- March)	2014-15					
(April- March)	2015-16 (April- March)	Cumulative Inflows				
(April '00 - March '16) (in terms of US $)	% age to Total Inflows					
1st	Mauritius	29,360	55,172	54,706	480,363	33 %
		(4,859)	(9,030)	(8,355)	(95,910)	
2nd	Singapore	35,625	41,350	89,510	256,667	16 %
		(5,985)	(6,742)	(13,692)	(45,880)	
3rd	U.K.	20,426	8,769	5,938	115,592	8 %
		(3,215)	(1,447)	(898)	(23,108)	
4th	Japan	10,550	12,752	17,275	110,671	7 %
		(1,718)	(2,084)	(2,614)	(20,966)	
5th	U.S.A.	4,807	11,150	27,695	94,575	6 %
		(806)	(1,824)	(4,192)	(17,943)	
6th	Netherlands	13,920	20,960	17,275	94,533	6 %
		(2,270)	(3,436)	(2,643)	(17,314)	
7th	Germany	6,093	6,904	6,361	44,870	3 %
		(1,038)	(1,125)	(986)	(8,629)	
8th	Cyprus	3,401	3,634	3,317	42,681	3 %
		(557)	(598)	(508)	(8,552)	
9th	France	1,842	3,881	3,937	26,525	2 %
		(305)	(635)	(598)	(5,111)	
10th	UAE	1,562	2,251	6,528	21,648	1 %
		(255)	(367)	(985)	(4,030)	
Total FDI Inflows from all Countries*	147,518	189,107	262,322	1,495,859		
	(24,299)	(30,931)	(40,001)	(288,634)		
Source: Department of Policy and Promotion						

The overall model is significantly insignificant because the values are low. However the estimated

F-statistics is greater than its critical value. Hence we reject the null hypothesis of insignificance of the overall model at 5% level of significance. Moreover the explanatory variable (FDI as a % of GDP) is statistically significant in explaining the variation in the explained variable (growth rate of GDP) as the absolute value of the estimated T-statistics turned out to be greater than 2.

The country-wise inflows in FDI in India have been shown in the above table covering three financial years from 2013-14 to 2015-16. However, for most of the countries, the FDI inflows had increased over the period. In 2014-15, Mauritius contributed maximum FDI inflows in India followed by Singapore whereas the minimum FDI inflows in India were from Luxemburg. However, throughout the period of analysis, the main contributors of FDI inflows were Mauritius, Singapore, USA, Japan, Netherlands & UK. However, the inflows fell in percentage for Mauritius over the period. Mauritius and Germany accounted a negative percentage change in FDI inflows in India. 2015-16 is the year of maximum FDI inflows in India. Again Mauritius is the biggest contributor of it followed by Singapore. The total FDI inflows also increased at a rate of 20% throughout the period. India experienced the highest percentage change in FDI inflows from Spain. Inflows from USA experienced the lowest percentage change among all the countries.

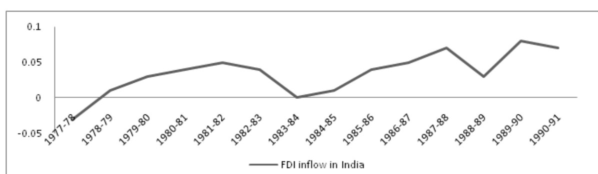


Figure 1: FDI Inflow in India

Source: rbi.org

The FDI inflow as percentage of GDP has been plotted in the diagram. FDI inflow throughout the pre-reform period experienced several ups and downs. This percentage remained negative between the period 1975-76 and 1978-79. After that it gradually moved upwards at an increasing rate. During this period, foreign investments into India were restricted and allowed moderately in few sectors. This is mainly because of the kind of policies which the government of India has adopted over the years which includes, inward looking strategy and dependence of external borrowings. In turn, the borrowings resulted in foreign debts which were preferred to the foreign investments to bridge the gap between domestic savings and the amount of investments required.

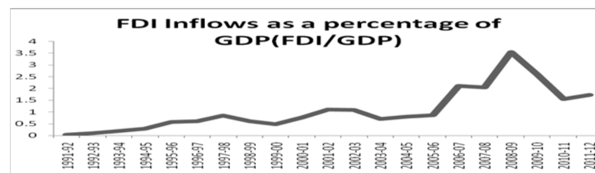


Figure 2: FDI Inflows as a Percentage of GDP

Source: rbi.org

The FDI inflows as percentage of GDP have been plotted in the diagram. Initially the inflow increased at an increasing rate. However, it has increased steeply from 2005-06 to 2008-09 reached maximum in 2008-09 and fell steeply, thereafter and in 2011-12 it again experienced a rise. In 1991, when the government of India started the economic reforms program, FDI had suddenly become important for India which was looked upon as a key component of economic reforms package. The New Industrial Policy of 1991 gave utmost priority in attracting FDI inflows. In this process, the government started opening up of domestic sectors to the private and foreign participation which was earlier reserved only for the public sector. This was followed by slow but with significant relaxation of regulatory and entry restrictions on FDI inflows. Later substantial increase in the volume of FDI inflows into India was observed during the Post Liberalization period.

During the initial phase of post liberalization period i.e., from 1991 to 1998, there was continuous increase in the FDI inflows. The total amount of the FDI inflows during the period 1991-92 to 1997-98 had amounted to US$10,868 million. The increase was largely due to the expanded list of industries or sectors which were opened up for foreign equity participation. This was followed by relaxation of various rules, regulations and introduction of various policies by the government to promote the FDI inflows. FDI inflows declined to the level of US$2,462 million in the year 1998-99 and further to US$2,155 million in 1999-2000. The reasons for the declining trend of FDI inflows were due to various set of factors.

Firstly, the most important factor was the several restrictions imposed on India by the USA on account of the nuclear test carried out by India at Pokhran. The second factor was the slowdown of the Indian economy due to the mild recession in US and global economy. The third one was about

unfavorable external economic factors such as the financial crisis of South-East Asia. Fourthly, the decline was due to the political instability and the poor domestic industrial environment. In 2002-03, FDI inflows were declined to US$ 5035. They were also reduced to US$ 4322 during 2003-04. This fall in flow of FDI into the country was due to the Global economic recession. Then, from 2004-05 onwards, there has been steady increase in the flow of FDI into the country with highest annual growth rate which has reached 154.72 percent during 2006-07. Further, the table shows that the compounded annual growth rate (CAGR) which was 25.46 percent during Pre liberalization has increased to 34.73 percent during the Post liberalization period. This shows the openness of the Government in liberalizing and globalizing the economy to the outside world through relaxation of regulatory and entry restrictions on FDI inflows.

Thus, on analyzing FDI inflows into the country over a period of 30 years it is observed that the compounded annual growth rate (CAGR) is 25.46 percent during 1980-81 to 1990-91 i.e., during the pre-liberalization period. On comparison with the post liberalization period, it is found that the annual compounded growth rate has excavated to 34.73 percent showing the relaxation of regulatory and entry restrictions on FDI inflows in the economy. This shows that the importance of FDI into the country is realized by the Government during the Post liberalization period. In this period of 19 years, steady increase of FDI inflow was observed from 1991-92 to 2009-10 except the period from 1998-99 to 1999-00 and again the period from 2002-03.

Conclusion

Foreign Direct Investment (FDI) plays a very important role in the development of the nation. It is very much vital in the case of underdeveloped and developing countries. A typical characteristic of these developing and underdeveloped economies is the fact that these economies do not have the needed level of savings and income in order to meet the required level of investment needed to sustain the growth of the economy. In such cases, foreign direct investment plays an important role of bridging the gap between the available resources or funds and the required resources or funds. It plays an important role in the long-term development of a country not only as a source of capital but also for enhancing competitiveness of the domestic economy through transfer of technology, strengthening infrastructure, raising productivity and generating new employment opportunities.

In India, FDI is considered as a developmental tool, which helps in achieving self-reliance in various sectors and in overall development of the economy. India after liberalizing and globalizing the economy to the outside world in 1991, there was a massive increase in the flow of foreign direct investment. This project has analysed FDI inflow into the country during the Post Liberalization period. India's Foreign Direct Investment (FDI) policy has been gradually liberalised to make the market more investor friendly. The results have been encouraging.

These days, the country is consistently ranked among the top three global investment destinations by all international bodies, including the World Bank, according to a United Nations (UN) report. For Indian economy which has tremendous potential, FDI has had a positive impact. FDI inflow supplements domestic capital, as well as technology and skills of existing companies. It also helps to establish new companies. All of these contribute to economic growth of the Indian Economy. FDI in India has a significant role in the economic growth and development of India. FDI in India to various sectors can attain sustained economic growth and development through creation of jobs, expansion of existing manufacturing industries. The inflow of FDI in service sectors and construction and development sector, from April, 2000 to June, 2015 attained substantial sustained economic growth and development through creation of jobs in India. Computer, Software & Hardware and Drugs & Pharmaceuticals sector were the other sectors to which attention was shown by Foreign Direct Investors (FDI).

FDI has helped to raise the output, productivity and employment in some sectors especially in service sector. Indian service sector is generating the proper employment options for skilled worker with high perks. On the other side banking and insurance sector help in providing the strength to the Indian economic condition and develop the foreign exchange system in country.FDI in retail is expected to bring the investment and expertise necessary to modernize and develop the farm and manufacturing sector. Analysts estimate that the retail market in India, currently worth $500 billion, will grow to $1.3 trillion by 2020. Organized retail is expected to reach 20-25% of total retail by 2020 from a current 5-6%. The prospect of

higher growth in the food and grocery category is particularly attractive because of the fact that, over 50 percent of India's workforce is employed in the farm sector.

Therefore, there is a significant role of FDI for the economic development of the country as a whole. FDI in retail has a positive and a necessary role to play if she is to truly modernize her food and retail sectors and meet the growing demand of the huge population.So, we can conclude that FDI is always helps to create employment in the country and also support the small scale industries also and helps country to put an impression on the world wide level through liberalization and globalization.

References

1. Arya. S, Influence of foreign direct investment on Indian financial systems, International Journal of Management and Commerce Innovations, 3(2), 2015-16, pp: 9-14.
2. Kaushal. P, Study of FDI in India, International Journal of Business Administration and Management Research, 2(1), 2016,pp. 43-50.
3. Malhotra. B Foreign Direct Investment- Impact on Indian Economy, Global Journal of Business Management and Information Technology, 4(1), 2014, pp. 17-23.
4. Mitra. P et.al, Foreign Direct Investment Inflows in Pre & Post Liberalization Period: An Empirical Analysis in the Context of India, United States of America Research Journal, 4(4), 2014, pp 26-33.

The Study of Working Capital Management in Automobile Industry

Monika Madhogaria[1] and Dr. Shrabanti Pal[2]
[1]M.Com. Scholar (Accounting and Finance) and [2]Assistant Professor, Department of Commerce, J D Birla Institute, Kolkata

Abstract
Working capital indicates the money required for daily operations of a business. A corporate pays a lot of importance on planning its long term capital needs. The sources and their cost are identified and then an optimum capital structure is designed. Not only long term funds and their cost affect the profitability of a firm but even working capital has an impact on profitability because effective working capital management is about striking a tradeoff between profitability and liquidity. With this background this paper attempts to study the impact of working capital management at Mahindra and Mahindra ltd and Tata Motors, which are capital intensive firm with significant investments in working capital i.e. inventory, receivables and cash. Working Capital Management has its impact on liquidity as well profitability. The impact on effectiveness and profitability of working capital is tried to find out by measuring the fluctuation in fixed assets, current assets and sales. It is also tried to find out correlation among working capital to find along with their liquidity, efficiency and profitability.

Keywords: Automobile Industry, Working Capital Management

Introduction

Working capital management refers to efficient management of short term assets. There is a direct relationship between a firm's growth and its working capital needs. The firm needs to invest more in components of working capital with increase in sales. So, the finance manager should be aware of such needs and finance them quickly. Financial manager should pay special attention to the management of current assets on a continuing basis to curtail unnecessary investment in current assets, and in turn, to manage working capital in the best possible way to get the maximum benefit.

Working capital indicates the liquidity position of the firm and suggests the extent to which the working capital maintained. It should be sufficient to meet with its current obligation. Working capital has multiple connotations for different users. From accountants' perspective it refers to the current assets minus current liabilities differentials; from the finance manager point of view it is understood as a total investment made in current assets; for production managers' it implies to the total funds that requires for day to day operations.

However, irrespective of its undertone, the efficient working capital management is one of the most important determinants for financial viability and maximization of shareholders wealth of a firm. Sufficient working capital is necessary to sustain sales activity as it deals with the problem arising out of lack of immediate realization of cash against goods sold. The underlying issue with working capital management is to balance between liquidity and profitability. The working capital is said to be managed efficiently when a tradeoff between liquidity and profitability is made. To make a tradeoff between liquidity and profitability, a manager relentlessly tries to optimize the cash balance that allows him to meet day-to-day expenses but minimizes the cost of holding cash. He also optimizes the level of inventory that allows for continuous production but lessens the investment in raw materials and reduces reordering costs. He carefully follows the ageing schedule to collect funds from debtors without any delay, leading to zero default cost. About two third time of a finance manager is spent on managing working capital which leads to efficient utilization of current assets converting to higher profitability.

Working Capital may have positive or negative balance. A positive working capital balance means that a company is able to support its day-to-day operations i.e. to serve both maturing short-term debt and upcoming operational expenses. High positive balance leads to higher liquidity and very good image among creditors but at the same time it lowers the profitability and vice-a-verse. High working capital ratios often indicate that high amount is tied up in receivables and inventories. The extra working capital is not utilized in business operations and earns no profit for the firm. It results in unnecessary accumulation of inventories, leading to inventory mishandling, waste, theft etc. Working capital management is considered to be a vital issue in a

firm's overall financial management. Working capital management has both liquidity and profitability insinuations.

Automobile Industry

The automotive industry is a wide range of companies and organizations involved in the design, development, manufacturing, marketing, and selling of motor vehicles. It is one of the world's most important economic sectors by revenue. The automotive industry does not include industries dedicated to the maintenance of automobiles following delivery to the end-user, such as automobile repair shops and motor fuel filling stations.

The term automotive was created from Greek autos (self), and Latin motive (of motion) to represent any form of self-powered vehicle. This term was proposed by SAE member Elmer Sperry.

The companies taken for the purpose of this study are Tata Motors India ltd and Mahindra & Mahindra ltd which are the leading giants of Indian automobile industry.

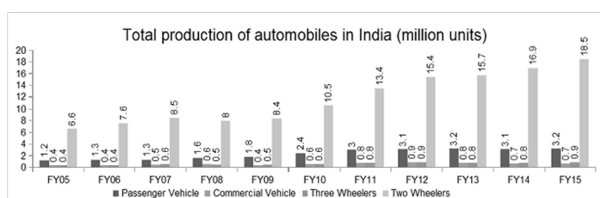


Figure 1: Total Production of Automobiles in India

Source: SIAM, TechSci Research

Growth of Indian Automobiles Industries

The automobile industry in India is expected to be the world's third largest by 2016, with the country currently being the world's second largest two-wheeler manufacturer. Two-wheeler production is projected to rise from 18.5 million in FY15 to 34 million by FY20. Furthermore, passenger vehicle production is expected to increase to 10 million in FY20 from 3.2 million in FY15.Automobile exports grew at a CAGR of 14.65 per cent during 2010-15. Passenger Vehicles, Commercial Vehicles, Three Wheelers and Two Wheelers grew by 6.89 per cent, 13.77 per cent, 18.69 per cent and 16.60 per cent CAGR during 2010-15. Two wheelers accounted for the largest share of exports at 69.4 per cent in FY15. Passenger vehicles comprised a sizeable 16.7 per cent of overall exports. Exports of three wheeler vehicles registered around 11.1 per cent share in exports in FY15.Alternative fuel has the potential to provide for the country's energy demand in the auto sector as the CNG distribution network in India is expected to rise to 250 cities in 2018 from 125 cities in 2014. Also, the luxury car market could register high growth and is expected to reach 150,000 units by 2020.

Tata Motors Limited

Tata Motors Limited is a multinational automotive manufacturing company headquartered in Mumbai, Maharashtra, India, and a subsidiary of the Tata Group. Its products include passenger cars, trucks, vans, coaches, buses, construction equipment and military vehicles. It is the world's 5th-largest motor vehicle manufacturing company, fourth-largest truck manufacturer, and second-largest bus manufacturer by volume. Founded in 1945 as a manufacturer of locomotives, the company manufactured its first commercial vehicle in 1954 in collaboration with Daimler-Benz AG, which ended in 1969.

Tata Motors entered the passenger vehicle market in 1991 with the launch of the Tata Sierra, becoming the first Indian manufacturer to achieve the capability of developing a competitive indigenous automobile. In 1998, Tata launched the first fully indigenous Indian passenger car, the Indica, and in 2008 launched the Tata Nano, the world's cheapest car. Tata Motors acquired the South Korean truck manufacturer Daewoo Commercial Vehicles Company in 2004 and purchased Jaguar Land Rover from Ford in 2008.

Mahindra and Mahindra Limited (M&M)

It is an Indian multinational automobile manufacturing corporation headquartered in Mumbai, Maharashtra, India. It is one of the largest vehicle manufacturers by production in India and the largest manufacturer of tractors across the world. It is a part of Mahindra Group, an Indian conglomerate. It was ranked 21st in the list of top companies of India in Fortune India 500 in 2011.

Its major competitors in the Indian market include Maruti Suzuki, Tata Motors, Ashok Leyland and others. Mahindra & Mahindra was set up as a steel trading company in 1945 in Ludhiana as Mahindra & Mohammed by brothers K.C. Mahindra and J.C. Mahindra and Malik Ghulam Mohammed. After India gained independence and Pakistan was formed, Mohammed immigrated to Pakistan. The company changed its name to Mahindra & Mahindra in 1948. Soon established as the Jeep manufacturers of India, the company later commenced manufacturing light commercial vehicles (LCVs) and agricultural tractors. Today, Mahindra & Mahindra is a key player in the

utility vehicle manufacturing and branding sectors in the Indian automobile industry with its flagship Mahindra XUV500 and uses India's growing global market presence in both the automotive and farming industries to push its products in other countries.

Methodology

The study is tentatively based on secondary data. The data required for the study is extracted from various organizational databases, journals, websites, newspapers, other necessary official records, books, magazines and the annual reports of Mahindra & Mahindra Ltd and Tata Motors India Ltd.

The study will be based on the quantitative and qualitative approach of the working capital management model at Tata motors and Mahindra & Mahindra. The study is based on various aspects of working capital and mainly focuses on the components of working capital, financing of working capital, components of current assets; relationship of current asset and current liabilities, turnover of current assets and impact of working capital on profitability. The analysis is done on the basis of various ratios such as current ratio (CR), liquid Ratio (LR), Working capital turnover Ratio (WTR), inventory turnover ratio (ITR), Receivables Turnover Ratio (RTR), Debt/Equity Ratio, Asset turnover Ratio (ATR) & other current asset turnover ratio. The purpose of the research is to study the relationship between various ratios to know the impact of working capital on profit and sales.

With the help of ratio analysis & trend analysis the result of the control mechanism can be summarized which will help in identifying the effectiveness of the system under the preview. Microsoft excel has been used as a tool for different calculation purposes and developing the charts.

The study used correlation coefficient to check the linear relationship between proxy variable of working capital and proxy variables of profitability. The independent proxy variable for working capital are taken as current ratio (CR), quick ratio(QR), inventory turnover ratio (ITR), debt equity ratio(D/ER), asset turnover ratio(ATR) and debtor's turnover ratio (DTR). Whereas ratio of ROCE (return on capital employed) were taken as dependent proxy variable for checking the profitability as well as working capital of companies.

Results and Discussions

Relationship between Working Capital and Profitability

This figure shows the percentage of various components of working capital of Mahindra for a period of 7 years from financial year 2007-2008 to 2014-15 to its Gross Working Capital. It can be seen that the working capital components except current assets which occupy a miniscule average 3% only, carry almost equal weight age around 24%. If a year to year comparison of the components of current assets is done than it can be observed that in the financial year 2010-11 the component of cash and bank balance fell down drastically whereas loans and advances rose. Moreover if we look at the deviation in the percentage of the components of gross working capital then maximum deviation is observed in cash and bank balance and loans and advances. Working capital for the company kept on increasing which is a good sign for the company. The data shows when the gross profit increases, profit for the company also increases and vice versa.

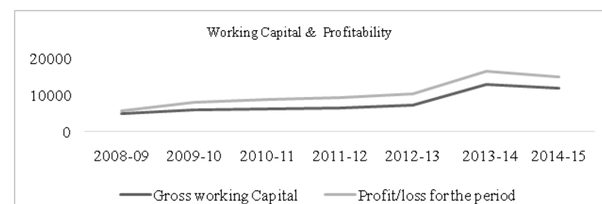


Figure 2: Line graph showing working capital and profitability of Mahindra & Mahindra Limited

The data shows the percentage of various components of working capital of Tata Motors for a period of 7 years from financial year 2007-2008 to 2014-15 to its Gross Working Capital. The stock kept on increasing over the first four years but for the next two year it felt and it again increased in 2014-15. The debtors were also increasing but it fell in the year 2012-13 and further more in the next two years. Cash and bank balance increased to almost four times in 2010-11 and it experienced a drastic fall in 2012-13 and further in 2013-14 but it increase in its next year.. Gross working capital and profitability for the company is not consistent which is not a good sign for the company.

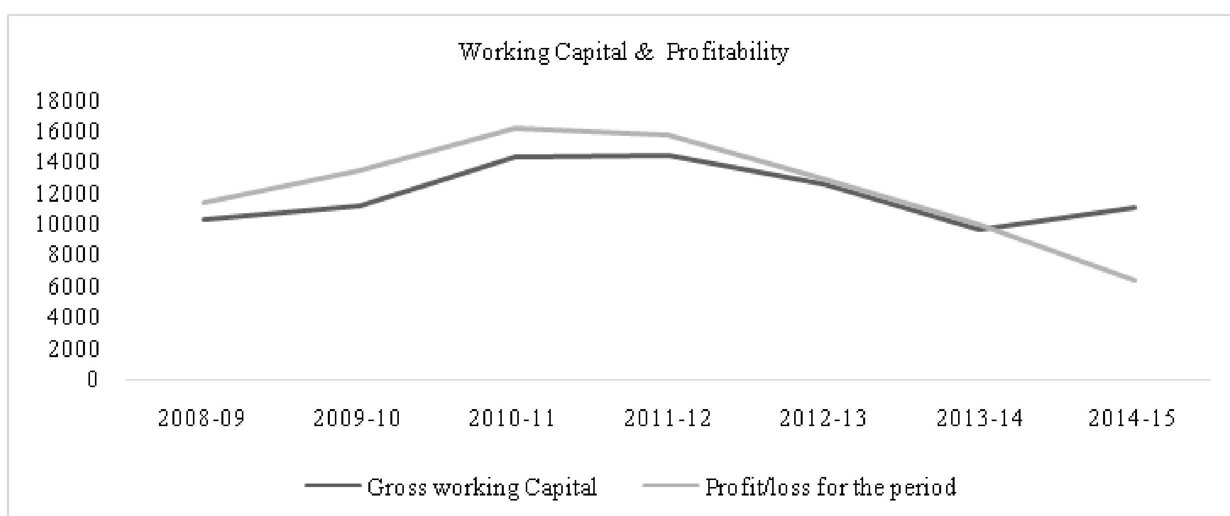


Figure 3: Line graph showing working capital and profitability of Tata Motors Limited

Key Ratios

The dividend payout of the Mahindra and Mahindra ltd has been consistent as compared to the other firms and has been moving around the 25% to 35% figures. This is very encouraging for the investors. The recent trend though is of decreasing payout ratio. This is a little negative but could be due to the fact that the company is planning for an expansion. And the investors would get a capital gain with some sacrificing of the dividend. A positive trend can be seen in the increase of the earning per share. Investors love the companies who can display such a sight in the graphs of an important element. Thus a positive trend and the company should take steps to keep this going. Another great sight for an investor is to see the debt equity go down as the years pass. This says that the company has less and less fixed interest payment obligations and the profits will be available for the shareholders. It could also mean that the company can retain more of the revenues leading to a better position in the future to expand. The current ratio can be seen taking a dip in the year 2010-2011. This could be due to some inefficiency in the management of the working capital. But still it is on a steady rise and this is good for the company. Recently it has crossed the mark of 1.00 and increasing. Anything above 1.00 is good but the company can still work on improving it.

Table 1: Ratios of Mahindra & Mahindra Ltd.

Years	ROCE	CR	QR	D/ER	ITR	DTR	ATR
2008-09	9.38	0.99	0.78	0.77	12.33	12.77	0.92
2009-10	18.75	1.16	0.93	0.37	15.58	16.09	1.13
2010-11	19.59	0.91	0.63	0.23	13.85	17.97	1.2
2011-12	24.19	0.99	0.72	0.27	13.51	19.61	2.28
2012-13	25.44	1.02	0.77	0.22	17.94	19.27	2.43
2013-14	22.29	1.19	0.93	0.22	15.38	17.17	2.11
2014-15	18.51	1.05	0.84	0.14	16.87	15.37	1.84

The Dividend Payout ratio to the adjusted EPS has been increasing annually with an increasing rate. This is a very encouraging site for the potential investors and also for the current investors. A good Payout ratio would mean that the investors will be benefited in the short term as well. The EPS has fallen in the last two years and thus is due to the fact that there was a stock split in the year 2011. The debt to equity ratio has come down after the first two years and this means more debt was employed. This is good in the terms that more of the cheaper source of finance has been used by the company and this will in turn help the shareholders as their earnings will increase in the years to come.

Table 2: Ratios of Tata Motors Ltd.

Years	ROCE	CR	QR	D/ER	ITR	DTR	ATR
2008-09	4.96	0.54	0.42	1.06	11.51	19.11	0.67
2009-10	1.75	0.52	0.39	1.12	12.05	17.92	0.69
2010-11	5.14	0.58	0.37	0.73	12.1	19.2	0.87
2011-12	10.27	0.5	0.43	0.56	12.91	20.45	1.66
2012-13	5.92	0.42	0.4	0.75	11.07	19.78	1.4
2013-14	2.52	0.43	0.36	0.76	9.78	22.6	1.02
2014-15	-5.61	0.42	0.42	1.35	8.23	31.14	1.06

The current ratio graph of Tata Motors is been stable in all these years but the concern is that it is fairly below the comfort level which is 1.33. Each year the company is not succeeding in lifting this figure above the threshold of 1.00. Investors would be concerned due to these figures as the current liabilities of the company are being handled by the long term assets of the company. This is never favorable for any company even if it has deep pockets. This could also be positive as the company may not be keeping their stocks for long periods and thus the current assets are low.

Correlation

Correlation is a statistical measure that indicates the extent to which two or more variables fluctuate together. A positive correlation indicates the extent to which those variables increase or decrease in parallel; a negative correlation indicates the extent to which one variable increases as the other decreases.

When the fluctuation of one variable reliably predicts a similar fluctuation in another variable, there's often a tendency to think that means that the change in one causes the change in the other.

Table 3: Correlation Coefficient of Mahindra & Mahindra Ltd.

	ROCE	CR	QR	D/ER	ITR	DTR	ATR
ROCE	1						
CR	0.143255	1					
QR	-0.04038	0.968266	1				
D/ER	-0.8218	-0.13513	-0.00288	1			
ITR	0.575693	0.376761	0.370505	0.66562	1		
DTR	0.941919	-0.13159	-0.33033	0.69985	0.336701	1	
ATR	0.840425	0.15067	0.042577	-0.6488	0.557683	0.724718	1

There is a perfect correlation between current ratio and return on capital employed. There is a negative correlation between Quick ratio and return on capital employed. There is a negative correlation between Debt Equity ratio and return on capital employed. There is a perfect correlation between Inventory turnover ratio and return on capital employed. There is a perfect correlation between Debtors turnover ratio and return on capital employed. There is a perfect correlation between Asset ratio and return on capital employed (Table 3).

There is a perfect correlation between current ratio and return on capital employed. There is a perfect correlation between Quick ratio and return on capital employed (Table 4). There is a negative correlation between Debt Equity ratio and return on capital employed. There is a perfect correlation between Inventory turnover ratio and return on capital employed. There is a negative correlation between Debtors turnover ratio and return on capital employed. There is a perfect correlation between Asset ratio and return on capital employed.

Table 4: Correlation Coefficient of Tata Motors Ltd.

	ROCE	CR	QR	DER	ITR	DTR	ATR
ROCE	1						
CR	0.403929	1					
QR	0.074269	-0.07047	1				
D/ER	-0.86608	-0.15461	0.236684	1			
ITR	0.857196	0.710272	0.071515	-0.60545	1		
DTR	-0.76443	-0.61088	0.240451	0.535053	-0.87068	1	
ATR	0.437546	-0.44716	0.360402	-0.59194	0.121751	0.144847	1

ANOVA

Hypothesis

H0: There is no significant relationship between working capital ratios among the two companies.
H1: There is significant relationship between working capital ratios among the two companies.

P-value ranges from 0(no chance) to 1(absolute certainty). So 0.5 means a 50 percent chance and 0.05 means a 5 percent chance. Results yielding a p-value of .05 are considered on the borderline of statistical significance. If the p-value is below .05, results are considered statistically significant and if the p-value is above .05, results are considered statistically insignificant.

Conclusion

The automotive industry in India is one of the larger markets in the world. It had previously been one of the fastest growing globally, but is currently experiencing flat or negative growth rates. India's passenger car and commercial vehicle manufacturing industry is the sixth largest in the world, with an annual production of more than 3.9 million units in 2011. In 2009 year featured the lows in terms of GDP growth rate and unemployment. In 2010 the GDP was in a recovering stage. This has been the period of extra ordinary returns to the shareholders of the three companies as the stock have gone up significantly and lead to abnormal price movement. In 2011 GDP was at the peak of its performance.

The unemployment rate has also been at its best in years and the FDI inflow has also been great and the returns have been growing and gaining consistency. In 2012 Economic analysis tells that decline in GDP started and also the unemployment rate. The company stocks have also taken a slight dip. In 2013 the growth in GDP is very low but there are signs of recovery. The returns have been consistent asever and this is a positive sign for the times to come. Another finding is that the FDI inflow into India for the automobile sector is mainly for the Passenger cars. Passenger cars have the majority of investment of the foreign companies and this is expected to be so in the future as well. The sales volumes are also on the rise for the Indian auto producers. Company analysis for Tata motors is saying that they will attract investors with the help of their dividend pay-out percentages .Their EPS is showing a negative rend but the dividend pay-out is on the rise. Company analysis tells that Mahindra and Mahindra ltd are on the right track. Their debt equity is decreasing every year, EPS is not constant but they have a dividend pay-out that would attract any investor. It can be concluded from the study that Tata Motors has grown significantly from having a turnover of 8918.06 Crores in 2001-02 to 48040.46 Crores of Turnover in 2010-11. Company has created significant wealth for its stakeholders and provided handsome return on investment. Company's net worth has grown from 2465.06 Crores in 2002 to 20013.3 Crores in 2011 which implies more than 700% growth in net worth of the company. Company's operating margins have always been in double digit after first year of study. Return on net worth is much higher than the reasonable expected return which is a promising factor for the investors. Company's profit margins have shown fluctuations which is a worrying factor. Return on net worth has been below 10% in two years namely FY 08-09 & FY 10-11. This may be due to various reasons such as:

The major objective and analysis made here was the relation between working capital management and turnover ratios. Tata Motors is overstocked which may lead to a risk of obsolescence and increased inventory holding cost, therefore company has to reduce the inventory. Mahindra & Mahindra too is overstocked hence sales must be increased and the inventory has to be re-evaluated. Mahindra & Mahindra and Tata Motors are required to re-assess their credit policy and follow proper time limit in the collection of the credit. Tata Motors has over- invested in fixed assets, therefore it needs to sell its excess fixed assets. Mahindra & Mahindra made large investments in fixed assets which do not increase the capacity of bottleneck operation, thus the company has to upgrade its fixed assets.

The investment in debtors and inventory are considerably high in case of almost all Indian automobile firms. So the results go in the line with theory which suggests negative relationship between liquidity and profitability. It can therefore be expected that working capital management has a significant impact on profitability. The conclusion is in line with the findings of who also found a strong negative relationship between the measures of working capital management including the average collection period, inventory turnover in days, average payment period and cash conversion cycle with corporate profitability. The researcher further suggests that, in Indian automobile sector there is

a considerable scope for better and more efficient working capital management. However, the current scenario is not dismal.

References

1. Arabahmadi A. The Role of Working Capital Management in Automobile Industry in Iran, International Research Journal of Applied and Basic Sciences, 4(9), 2013, pp. 2491-2493.
2. Dharmaraj A. Analyzing the performance of selected Indian Automobile Companies. Global Research Analysis, 2(4), 2013, pp. 2277-8160.
3. Hotwani R. Profitability analysis of Tata motors, National monthly refereed journal of research in commerce & management, 2(12), 2013, pp. 2277-1166.
4. Mayank G. Impact of Working Capital Management Practices of Automobile Firms on their Profitability: An Example of Mahindra & Mahindra Ltd. Pacific Business Review International, 6(8), 2014. pp. 01-06.
5. Pandya H. P., Fundamental Analysis of Indian Automobile Industry, International Journal of Current Research, 5(5), 2013, pp. 1273 - 1286.
6. Raja A. A Study on the Relationship between Management of Working Capital and Profitability with Reference to Automobile Sector, International journal of Management and Social Sciences Research (IJMSSR), 5(10), 2010, pp. 2041-2110.
7. Rajavathana R. & Ganesamoorthy L., Effects of Working Capital Management on Profitability of Select Automobile Companies in India, International Journal of scientific research, 2(2), 2013, pp. 01-06.
8. Sharma A. A Comparative Analysis of Working Capital Management between Public & Private Sector Steel Companies in India, International journal of Management and Social Sciences Research (IJMSSR), 2(4), 2013, pp. 2319-4421.

A Project on Growth in Indian Banking Sector in the Post-Liberalization Period

Simran Agarwal[1] *and Papia Mitra*[2]
[1]*M.Com. Scholar (Accounting and Finance) and* [2]*Assistant Professor, Department of Commerce, J D Birla Institute, Kolkata*

Abstract
The study attempts to explore the efficiency levels and the performance of the Indian banking sector in the context of financial liberalization. The changes affecting the banking sector in the wake of globalization and opening up of the economy in the early nineties has provoked much reflection on the ways and means to strengthen the banking sector. The study finds, there have been significant changes in the performance of the banking sector in India. The deposits and investments of scheduled commercial banks was analyzed for a period from 1990-1991 to 2015-2016. It was seen that both savings and investments have grown tremendously. Thus, the liberalization and deregulation of banks have raised efficiency scores over time of all banks in India regardless of their ownership.

Keywords: Deposits, Indian Banking Sector, Investment, Liberalization

Introduction

A bank is a financial institution that provides banking and other financial services to their customers. A bank is generally understood as an institution which provides fundamental banking services such as accepting deposits and providing loans. A banking system is also referred as a system provided by the bank which offers cash management services for customers and reporting the transactions of their accounts and portfolios, throughout the day. The Banks are the main participants of the financial system in India. The Banking sector offers several facilities and opportunities to their customers. All the banks safeguard the money and provide basic facilities such as loans, credit, and other payment services including checking accounts, money orders, and cashier's cheques. In addition, banks also offer investment and insurance products.

India cannot have a healthy economy without a sound and effective banking system. Now with the overgrowing rise of economy in India, the banking system should be hassle free and able to meet the new challenges posed by technology and other factors, both internal and external. In the past three decades, India's banking system has earned several outstanding achievements to its credit.

The Banking Structure In India

The commercial banking structure in India consists of scheduled and unscheduled commercial banks. Scheduled banks contain a list of those banks that are included in the second schedule of Reserve Bank of India (RBI) Act, 1935.

At present, there are 27 Public Sector Banks in India including SBI (plus its 5 associates) and 19 nationalized banks. Further, there are two banks which have been categorized by RBI as "Other Public Sector Banks" which are IDBI and BhartiyaMahila Bank. There are 19 nationalized banks, 22 old private sector banks, 8 new private sector banks, 43 foreign banks from 26 countries operating as branches in India and 46 banks from 22 countries operating as representative offices in India and 196 Regional Rural Banks owned by three entities with their respective shares as follows: Central Government-50%, State Government-15% and Sponsor bank-35% and 68 co-operative banks as against 300 scheduled banks on 1999.Liberalization In Banking Sector: The recommendations made by the high level committees on the financial sector reforms, chaired by Mr. M. Narasimham Rao, laid the foundation for the banking sector reforms. In the early 1990s, the-then Narasimham Rao government embarked on a policy of liberalization, licensing a small number of private banks.

The policy came to known as New Generation tech-savvy banks, and included Global Trust Bank (the first of such new generation banks to be set up), which later on merged with Oriental Bank of Commerce, Axis Bank (earlier as UTI Bank), ICICI Bank and HDFC Bank. This was a great initiative and along with the rapid growth in the economy of India, it revolutionized the banking sector which witnessed rapid growth with strong contribution from all the three sectors of banks, namely, government banks, private banks and foreign banks.

The principal recommendations of the steps to be taken to liberalize and reform the system includes:

1. Reduction in SLR and CRR: SLR was recommended to reduce from 38.5% to 25% and CRR from 15% to 3-5%.
2. Interest Rate Deregulation: The committee recommended eliminating government controls on interest rate and phasing out the concessional interest rates for the priority sector.
3. Structural Reorganizations of the Banking sector: The committee recommended that the actual numbers of public sector banks need to be reduced. They recommended that the government should assure that henceforth there won't be any nationalization and private and foreign banks should be allowed liberal entry in India.
4. Establishment of the ARF Tribunal: Asset Reconstruction Fund (ARF) will take over the proportion of the bad and doubtful debts from the banks and financial institutes. It would help banks to get rid of bad debts.
5. Banking Autonomy: The committee recommended that the public sector banks be free and autonomous.
6. Strengthening banks in India: The Committee recommended for merger of large Indian banks to make them strong enough for supporting international trade. It recommended a three tier banking structure in India through establishment of three large banks with international presence, eight to ten national banks and a large number of regional and local banks.
7. Capital Adequacy Ratio: To improve the inherent strength of the Indian banking system the committee recommended that the Government should raise the prescribed capital adequacy norms.
8. Reform in the role of RBI; It observed that "The Reserve Bank as a regulator of the monetary system should not be the owner of a bank in view of a possible conflict of interest".

Growth of Indian Banking Sector

The Indian economy's liberalization in the early 1990s has resulted in the conception of various private sector banks. This has sparked a boom in the country's banking sector in the past two decades. The revenue of Indian banks grew four-fold from US$ 11.8 billion to US$ 46.9 billion, whereas the profit after tax rose nearly nine-fold from US$ 1.4 billion to US$ 12 billion over 2001-2010.

The Indian banking sector's assets reached US$ 1.8 trillion in FY14 from US$ 1.3 trillion in FY10, with 70 per cent of it being accounted by the public sector.

Total lending and deposits increased at a compound annual growth rate (CAGR) of 20.7 per cent and 19.7 per cent, respectively, during FY07-14 and are further poised for growth, backed by demand for housing and personal finance. Total asset size of banking sector assets is expected to increase to US$ 28.5 trillion by FY25. Deposits have grown at a CAGR of 13.6 per cent during FY05–15 to an estimated US$ 1.48 trillion in FY15. Deposit growth has been mainly driven by strong growth in savings amid rising disposable income levels.

Methodology

The study aims to provide an insight into the parameters and basis on which the growth of the Indian banking sector can be measured and understood. So the data related to the scheduled commercial banks were taken into consideration. The deposits and investments of it was analyzed to find out the growth of the Indian banking sector.

The main sources of secondary data are published annual reports, manuals, books, journals, articles, and other research papers. In order to achieve the objectives of the study, a time-series data on the relevant indicators of the overall industry (scheduled commercial banks) have been collected from the year 1990-1991 to 2015-2016.

The data analysis is based on Descriptive Statistic and Regression Analysis. To achieve the objectives of the study, the collected data has been analyzed in tabular form as well as by using statistical tools like percentage and growth rates.

The data collected have also been analyzed in the form of line graphs to indicate the growth over the years. Regression method has been used to indicate the investment patterns and growth of the overall industry.

Results and Discussions

The findings of the study are all based on the fact that they can be used in order to show a growth of the banking industry.

Growth in Terms of Deposits of Scheduled Commercial Banks in Post-Liberalization Period

The deposits of the Scheduled Commercial Banks are the main source of credit mobilization of the banks. It is highly required by the banks to maintain the adequate level of deposits in the bank. The aggregate deposits comprises of the demand deposits and time deposits.

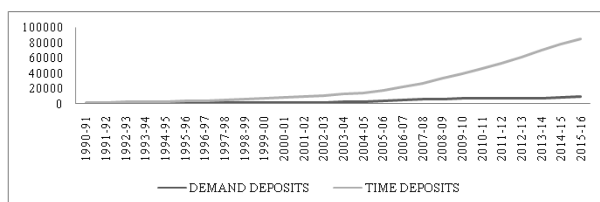


Figure 1: Line graph showing the trend and rise of demand deposits and time deposits

Interpretation

It shows that the demand deposits of scheduled commercial banks (SCBs) had increased from Rs. 331.92 billion in 1990 to Rs. 8,889.96 billion as on March 2016. However, time deposits of banks increased to Rs. 84,382.94 billion from Rs. 1,593.49 billion during the same period. The growth of time deposits in absolute terms has been more than demand deposits. The high growth of time deposits over demand deposits is mainly due to higher interest rates being offered by the banks on such deposits as well as availability of tax benefits to certain deposit schemes

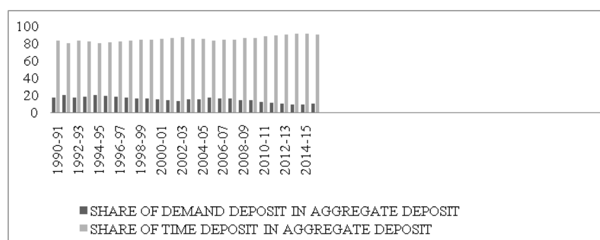


Figure 2: Bar graph showing share of Deposits in Aggregate Deposit

The above table reflects two stages in the percentage share of scheduled commercial banks in India. Starting period during 1990-91 to 2000-01 and second period 2001-02 and 2015-16. The trend of the annual share of percentage in scheduled commercial banks in the Indian economy in the first stage offers the mixed result. The annual percentage share of the demand deposit during 1990-91 and 2000-01 reveals average fluctuation for almost every alternative year. The share of percentage of demand deposit was 17.24 percent during 1990-91 which declined to 14.81 percent during 2000-01 but there is small fluctuation in the percentage for every year. Relating to time deposits the annual percentage for the same period indicates that it was 82.76 percent in 1990-91 and 85.19 percent during 2000-01.

The contribution of time deposit is growing when compared to other deposit of scheduled commercial banks in India. In the second stage, the trend of the annual percentage share of scheduled commercial banks in the Indian economy provides the mixed result. The annual percentage share for the demand deposit for the period between 2001-02 and 2015-16 is decreasing with fluctuations for every alternative year. The share of percentage of demand deposit was 13.87 percent during 2001-2002 which declined to 9.53 percent during 2015-16 indicating continuous decrease of its contribution to Indian bank year by year. Relating to time deposit the annual percentage share for the same period indicate that it was 86.13 percent in 2001-02 and 90.47 percent during 2015-16.

The time deposit contribution to Indian scheduled commercial banks has increased in this period. In the overall the time deposit share is increasing in the Indian scheduled commercial banks and the reason found out was that there was a reform of deregulation of interest rates after liberalization which means banks were gradually accorded freedom in fixing the interest rates on their domestic time deposit for specific maturities even the growth of time deposits is due to the sensitivities of interest rate, while other deposits such as demand deposits show no sensitivities to interest rate movement. The interest rate offered by the Scheduled Commercial Banks (SCBs) on time deposits on an average was 6 to 9 per cent which is having a maturity period of three to five years looking at the trend of interest rate of last four to five years. The private sector banks are also offering more or less the same rate of interest as offered by public sector banks (PSBs). Even the Government in the Union Budget 2006-07 also extended the tax benefits under Section 80C for fixed deposits in scheduled banks with maturity of five years and above. Apart from tax benefits on long term deposits, the introduction of bank deposit schemes for senior citizens at higher interest rates also led to improved mobilization of time deposits by banks.

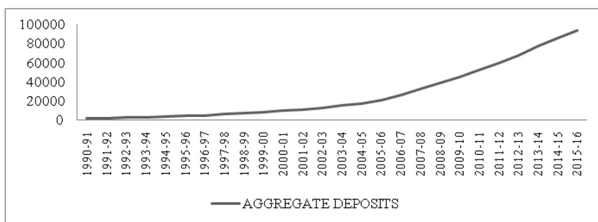


Figure 3: Line Graph showing Overall Growth of Aggregate Deposits

As a result of this, there is a growth in aggregate deposits of scheduled commercial banks from Rs. 1,925.41 billion in 1990 to Rs. 12,808.53 billion in 2003, and increased to Rs. 93,272.90 billion in March 2016 which can be seen in the above figure.

RBI, in its annual policy statement for the year 2005-06, urged the banks to review their existing practices to align them with the objective of financial inclusion. In this direction, in November 2005, RBI advised the banks to open "no-frills account" with low or minimum balance to give access to the poor to the formal financial institutions. This is another major event in the history of banking because the government understood that mere targets for priority sector lending are of no use to develop the nation and financial inclusion is the solution for poverty combined with indebtedness of the vast sections of the society. As a part of the financial inclusion programme, the account opening procedure for small accounts was simplified. As per the new guidelines, banks need to take only a photograph and self-declaration of address by the customer for opening small accounts and this led to more deposits in banks as people of poor sections and even the illiterates could open the bank accounts and deposit money quite easily.

A significant development during 2006-07 was the legislative amendments in the RBI Act 1934 and the Banking Regulation Act, 1949. These amendments increased the flexibility of RBI to control the banking activities. RBI advised the banks to achieve 100 per cent financial inclusion by providing "no-frills" accounts and issue General purpose credit cards.

Growth of Investment Operations of Scheduled Commercial Banks in Post-Liberalization Period

One of the important functions of the commercial banks is credit creation. The investments made by the commercial banks are the window of deployment of funds. The credit creations of the scheduled commercial banks are done from its deposits. Scheduled Commercial banks' investments are of three types, i.e., Government securities, other approved securities, and non-approved securities.

These three are broadly categorized as SLR investments (Government and other approved securities) and non-SLR investments (comprising commercial papers, shares, bonds and debentures issued by the corporate sector). Banks are required to invest a prescribed minimum of their net demand and time liabilities in Government and other approved securities under the Banking Regulation Act, 1949.

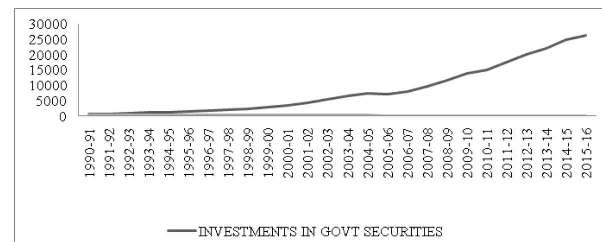


Figure 4: Line Graph showing trend and rise in the investments made by Scheduled Commercial Banks

Interpretation: The figure above shows that the investments in government securities by scheduled commercial banks (SCBs) had increased from Rs. 499.98 billion in 1990 to Rs. 26,239.33 billion as on March 2016. However, investments in other approved securities by banks has declined tremendously to Rs. 15.76 billion from Rs. 250.67 billion during the same period almost reaching to a nil share in total investments.

The data represents the annual percentage share of investment in government security and investment in other approved security of scheduled commercial banks in India. The table reflects two stages in the percentage share of scheduled commercial banks in India. Starting period of during 1990-91 to 2000-01 and second period of 2001-02 and 2015-16. The trend of the annual share of percentage in scheduled commercial banks in the Indian economy in the first stage offers the mixed result. The investment in government security share of percentage was 66.61 percent during 1990-91 which increased to 91.86 percent during 2000-01. Relating to investment in other approved security the annual percentage for the same period indicates that it was 33.39 percent in 1990-91 and 8.14 percent during 2000-01.

The contribution of investment in government security is growing when compared to other approved investments of scheduled commercial banks in India. In the second stage, the trend of the annual

percentage share of scheduled commercial banks in the Indian economy provides the fluctuations result. The annual percentage share for the investment in government security for the period between 2001-02 and 2015-16 is decreasing with fluctuations for every alternative year.

The share of percentage was 93.82 percent during 2001-2002 which increased to 99.94 percent during 2015-16 indicating continuous increasing of its contribution to Indian bank year by year. Relating to investment in other approved security the annual percentage share for the same period indicate that it varying fluctuations was 6.18 percent in 2001-02 and 0.06 percent during 2015-16. The investment in government security contribution to Indian scheduled commercial banks has increased in this period. In the overall the investment in government security share is increasing in the Indian scheduled commercial banks and includes highest percentage in total investments.

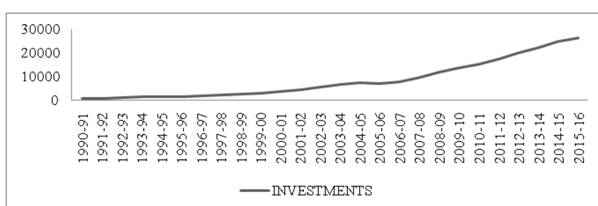


Figure 5: Line graph showing Overall Growth of Investments

Interpretation: In the above figure we can see that the total investments by Scheduled Commercial Banks in SLR investments grew from Rs. 750.65 billion in 1990 to Rs. 26,255.09 billion in 2016. However, the average annual growth rate has been 17.10 percent during 1990s and growth slowed to 16.49 percent during 2000s and further down to 11.31 percent during the period 2011-2016.

The statutory liquidity ratio was brought down in phases from 38.5 per cent in February 1992 to 25 per cent by October 1997 and the reason being that banks continued to invest in Government securities because of their risk averse behavior and slowdown of the industrial sector and tax exemption benefit. And investments in Government and other approved securities, which attracted zero-risk weights, became the preferred form of investments by banks.

It is also possible that, in a declining interest rate scenario in the presence of a developing debt market, this was a rational profit maximizing strategy. And as the deposits of scheduled commercial banks had increased rapidly from year 2004-2005, the banking sector utilized this deposits in investing in government securities and other approved securities as a result the amount invested by banking sectors has increased tremendously from year 2006-2007. More investments would mean that the banking sector is making profits out of the public deposits to earn high returns.

To sum up, banks have been provided with greater flexibility in their deposit and investment portfolio since the mid-1990s. Banks used this flexibility to maximise returns. Banks continued to remain invested in Government securities even when the SLR was brought down significantly in the mid-1990s. This was mainly because credit demand had slowed down and also because banks found risk-adjusted return on Government securities more attractive. This shows that the banks are growing at an efficient rate.

Statistical Analysis

Regression Test on Investment Made By Scheduled Commercial Banks

Classical Linear Regression Model (CLRM):

Log (investment) = Constant + β (time) + error

where, log (investment) is dependent variable and time is independent variable.

$\alpha = 8488.64$

$\beta = 917.08$

$t = 12.48$

H_0 : there is no statistically significant impact of time on investment.

H_1 : there is statistically significant impact of time on investment.

R square means the statistical significance of the overall model. Here, R square is 0.867 which is more than 0.8 therefore the overall model is highly significant. Even the adjusted R square is 0.861 which is also greater than 0.8 therefore it is again proved that the overall model is highly significant.

Since the absolute value of estimated F-statistics is greater than the critical value therefore we reject the Ho (null hypothesis) of statistical insignificance of the overall model at 5% level of significance. Moreover the concerned explanatory variable (i.e. time) is statistically significant in explaining the variation in the explained variable (growth of investment) as the absolute value of t-statistics is greater than 2 i.e. it is 12.48 so we reject Ho (null hypothesis) which means time is not statistically significant affecting log

(investment) and accept H1 (alternative hypothesis) which means time is statistically significant affecting log(investment). This shows that there is overall growth in investments.

Conclusion

The study attempts to explore the efficiency levels and the performance of the Indian banking sector in the context of financial liberalization. Being a bank based financial system; the banking performance has an obvious impact on the economy. A well developed banking system is a pre-condition for economic development in a modern economy. Besides providing financial resources for the growth of the industrialization, banks can also influence the direction in which these resources are to be utilized.

The changes affecting the banking sector in the wake of globalization and opening up of the economy in the early nineties has provoked much reflection on the ways and means to strengthen the banking sector. The study finds, there have been significant changes in the performance of the banking sector in India.

The deposits and investments of scheduled commercial banks was analyzed for a period from 1990-1991 to 2015-2016. It was seen that in 1990 the deposits were about Rs. 1925.41 billion which has increased to Rs. 93272.9 billion. This increment means that there was increase in the savings of the people and increased savings means that there is more liquid available with the banks as a result of which the deposits have increased. Further the banking sector can also utilize these increased amount of deposits in investing in government securities and other approved securities. As a result of which the investments by the banking sector has risen.

Finally, the statistically significant impact of time on investment shows the growth of investment. This shows that the banking sector is growing at an efficient rate.
Thus, the liberalization and deregulation of banks have raised efficiency scores over time of all banks in India regardless of their ownership.

References

1. Das S. & Drine I. Financial Liberalization and Banking Sector Efficiency in India: A Fourier Flexible functional form and Stochastic Frontier Approach, International Business and Management, 2(4), 2011, pp. 42-58.
2. Dwivedi A. & Charyulu K. Efficiency of Indian Banking Industry in the Post-Reform Era, International Journal of Business Continuity and Risk Management, 3(3), 2011, pp. 1-15.
3. Ketkar K. & Ketkar S. Performance and Profitability of Indian Banks in the Post Liberalization Period, 2008, pp. 1-26.
4. Kumar M. Banking Sector Reforms in India, International Research Journal of Commerce Arts and Science, 2014, pp. 272-285.
5. Rao D. Reforms In Indian Banking Sector - An Evaluative Study of the Performance of Commercial Banks, Journal of Contemporary Research in Management, 1(1), 2007, pp. 115-121.

Determinants of Capital Structure in Aviation Sector of India

Ayushi Jaiswal[1] and Dr. Rachana Kejriwal[2]
[1]M.Com. Scholar (Accounting and Finance) and [2]Assistant Professor, Department of Commerce,
J D Birla Institute, Kolkata

Abstract

Airline service decisions are increasingly influenced by the new drivers of profitability. The fluctuating profitability must be better understood by the firm to make a better strategy. The Primary objective of a business undertaking is to earn profits. Profit earning is considered essential for the survival of the business. Profitability analysis measures how will a firm is performing in terms of its ability to generate profits. Profitability of the firm is highly influenced by internal and external variables, i.e., size of organizations, liquidity management, growth of organizations, component of costs and inflation rate. In this paper an attempt has made to measure the profitability performance and to analyze the impact of selected profitability ratios on ROCE of the company, for fulfilment of the objectives the data collected from the annual report from 2010 to 2014. The collected data is analyzed and computed to fit for drawing inferences. In this investigation correlation and two ways ANOVA were used to find out the impact of selected profitability ratios (Gross Profit, Operating Profit, Net Profit,) on ROCE and to determine its significance over the years. The Indian aviation industry is one of the fastest growing aviation industries in the world. The finding of this study shows that there is no improvement in surviving Company's return on equity, net profit margin, interest coverage, earning per share and dividend per share post merger & Acquisition. To conduct a uniform research and arrive at an accurate conclusion, it is restricted research to only Indian companies.

Keywords: Profitability, Profit Earning Capacity, Return on Equity, Survival of the Firm

Introduction

The aviation industry is the business sector dedicated to manufacturing and operating all types of aircraft. The aviation industry involves all aspects of aviation, including airlines and training centres, vendors and regulatory authorities. Indian aviation industry is among the top 10 aviation industries of the world. It has shown high growth rate. Currently Indian civil aviation industry has size of 16 Billion US dollars. It is contributing to the 0.5 % of the GDP. Nowadays daily 150 million passengers are transported by air. It is forecasted that by 2020 this number will raise to traffic of 450 million passengers daily.

There are few factors such as entry of Low costs carriers (LLC), modern airports, vision of the new government regarding tourism and transportation, foreign direct investments, cutting edge technology, and vision of regional connectivity are driving the industry towards transformation. In 11th five year plan (2007-12), four new airports are built in "Public Private Partnership (PPP)" mode.

Airport Authority of India manages 125 airports of which 11 airports are international airports, 8 custom airports, 81 domestic airports and 25 civil Enclaves at defence airfields. Government of India is planning to construct more 15 airports under the Greenfield Airport Policy by identifying low cost viable model for construction of small airports. Along with this AAI is also planning to invest 150 million in development of non-metro airport in 12th five year plan. Recently new airports are built in PPP mode. These airports are highly modern. This infrastructure change is also an area of high concern for aviation industries. Investment cost for these airports is very high. To recover this amount airport holding company charges very high this directly results into high costs. For example recently Airports Economic Regulatory Authority of India (AERA) approved to raise tax of Delhi and Mumbai airport to 346 percent and 154 percent respectively in 2012. Chennai and Kolkata also proposed to increase in airport tax to 118 percent and 242 percent respectively. This increased tax will eventually lead to higher price paid by the aviation companies for landing and parking their flights. This increases the cost of operation. The main players in the industry:

Public Players
- Air India

Private Players
- Jet airways
- Indigo
- Spicejet
- Go Air

Many factors are responsible for the high operational costs in India.

1. Higher cost of fuel in India
2. High taxation
   - Excise duty
   - Customs duty
   - Sales tax
3. High airport fare

The data for the study is taken from selected operating parameters and financial performances of certain airline companies and for the Evaluation of Empirical analysis, Data has been collected from the official website of NSE and selected Aviation company's financial reports tentatively

Methodology

Data is mainly based on secondary data and is collected from various Published & unpublished Journals, Articles available in various websites, popular Journals, Text Books etc. Research is a process of systematically obtaining accurate answers to significant and pertinent questions by the use of scientific method of gathering and interpreting information.

This study is descriptive in nature. Similarly, it includes the determination of various challenges faced by the aviation sector and various future opportunities on the way of its growth and development.

With the help of ratio analysis and correlation the result of the control mechanism can be summarized which will help in identifying the effectiveness of the system under the preview. The data for the companies under analysis has been taken from their respective websites of the companies. `Microsoft Excel has been used as a tool for different calculation purposes and developing the charts.

Results & Discussion

Ratio Analysis

It is very important to have a financial analysis for to frame various policies in the organization. Various ratios are used by managers and investors to analyze and forecast the profitability and efficiency of a company. Listed in this section are the ratios used for the comparative financial analysis of the selected domestic airlines In this study following ratios are used to analyze the financial strengths and weakness of the selected Domestic Airline Companies in India

1. Profitability Ratios
2. Long term and Short term Liquidity
3. Solvency Ratios
4. Debt Coverage Ratios

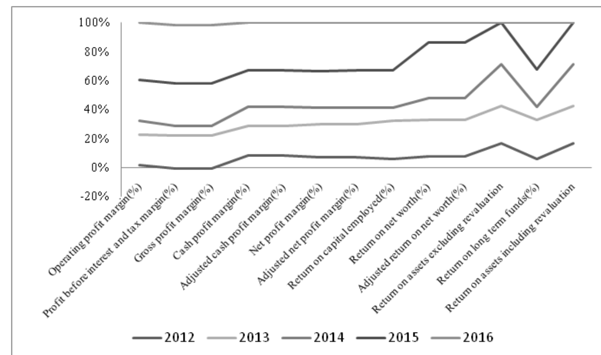


Figure 1: Line chart of profitability ratios of Indigo

This figure shows the percentage of various components of profitability ratios of Indigo Airlines for a period of 5 years from financial year 2012 to 2016. Profit margin measures the relationship between profit and sales. As the profit may be gross or net, there are types of profit margin- Gross Profit Margin= (Gross Profit /Sales)*100.

The average gross profit margin of Indigo airlines is highest in 2016 i.e. 15.50%. The gross profit margin is gradually increasing. Net Profit Margin= (Net Profit /Sales)*100. The average net profit is 12.32% in the year 2016 which has also increased from 2012 to 2016. Operating Margin= EBIT/Net Sales. The average operating profit margin is 18.62% in the year 2016. It can be seen that it has increased from 0.87% in the year 2012 to 18.62% in the year 2016. ROCE is the type of Return on Investment (ROI) and measures the overall effectiveness of the management in generating profit with its available resources. ROCE= (EBIT/Average Capital Employed)*100. The average ROCE is 61.95% in the year 2016 (Figure 1).

The Figure 2 shows the percentage of various components of profitability ratios of jet airways for a period of 5 years from financial year 2012 to 2016. Profit margin measures the relationship between profit and sales. As the profit may be gross or net, there are types of profit margin- Gross Profit Margin= (Gross Profit /Sales)*100.

The average gross profit margin of jet airways is lowest in 2016 i.e. 5.35%. The gross profit margin is gradually decreasing. Net Profit Margin= (Net Profit /Sales)*100. The average net profit is -10.00% in

the year 2016 which is also decreasing. Operating Margin= EBIT/Net Sales. The average operating profit margin is -1.70% in the year 2016. ROCE is the type of Return on Investment (ROI) and measures the overall effectiveness of the management in generating profit with its available Resources. ROCE = (EBIT/Average Capital Employed)*100. The average ROCE is -11.84% in the year 2016.

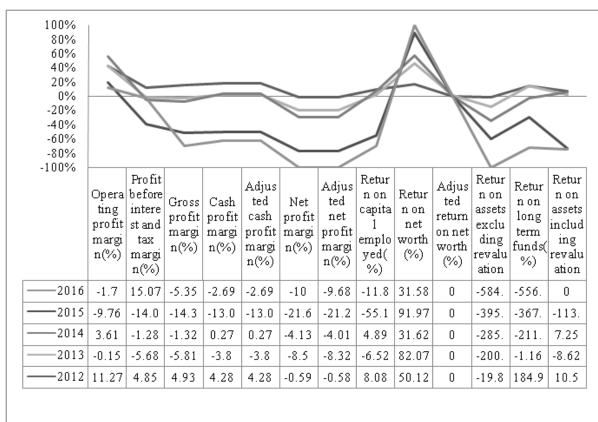


Figure 2: Line chart of profitability ratios of Jet Airways

Table 1: Liquidity Ratios of Indigo Airlines

	2012	2013	2014	2015	2016
Current ratio	0.88	0.75	0.69	0.80	0.89
Quick ratio	0.86	0.77	0.68	0.78	0.87
Debt equity ratio	3.92	4.42	7.38	8.50	1.61
Long term debt equity ratio	3.79	4.21	7.38	8.50	1.61

From the correlation analysis, it is seen that Inter Globe Aviation posted a record Rs.640.43 crore in quarterly profit for the three months ended 30 June. The airline notched up the profit on revenue of Rs.4, 317.19 crore for the quarter, according to the company's share sale prospectus, which didn't disclose profit and revenue for the year-ago period. The airline has reported (earnings before interest, tax, depreciation, amortization and rentals) of Rs.1, 577 crore, with an Ebidtar margin of 37%.In September, IndiGo reported a record net profit of Rs.1,304 crore for the year ended 31 March—a fourfold jump over the previous year—as it benefited from higher passenger traffic and lower jet fuel costs ahead of the initial share sale. The company saw a 25% rise in revenue to Rs.14, 320 crore in 2014-15 from Rs.11, 447 crore in the previous year. The liquidity position of Indigo airlines is stable and improving every year.

Table 2: Liquidity Ratios of Jet Airways

	2012	2013	2014	2015	2016
Current ratio	0.41	0.35	0.37	0.33	0.38
Quick ratio	0.56	0.42	0.43	0.38	0.47
Debt equity ratio	7.33	84.26	-	-	-
Long term debt equity ratio	5.67	84.26	-	-	-

Table 3: Correlation calculation of liquidity ratios for Jet airways

Current ratio	1			
Quick ratio	0.96730186	1		
Debt equity ratio	-1	-1	1	
Long term debt equity ratio	-1	-1	1	1

The liquidity position of jet airways is very unsatisfactory, reflected in its negative working capital during the last five years. As a result the current ratio which had been satisfactory in 2012 with 0.41 dipped much below one during subsequent years reaching 0.38 in 2016 implying that jet airways does not have adequate current assets to pay its current liabilities. Similarly the quick ratio has declined from comfortable level of 0.56 in 2012 to an alarming level of 0.47 in 2016. This can be attributed to a sharp surge in sundry creditors and other current liabilities, perhaps due to high fuel bill resulting from expanded operations (reflected in fixed assets). Thus the liquidity position is a matter of serious concern

Table 4: Net sales and reported net profit of Indigo

	2012	2013	2014	2015	2016
Net Sales	5,564.66	9,203.13	11,116.58	13,925.34	16,139.91
Reported Net Profit	140.59	783.36	474.44	1295.59	1989.72

Table 5: Correlation between net sales and net profit of Indigo

	Net Sales [X]	Reported Net Profit [Y]
Net Sales [X]	1	
Reported Net Profit [Y]	0.922388459	1

The above table shows that as the net sales of Indigo airlines are increasing, the net profits are also increasing every year. It said net profit rose to Rs. 657.28 crore for the three months ended 31 December from Rs. 531.56 crore in the year-earlier period, beating analysts' estimates. IndiGo also reported the highest quarterly profit before tax since its inception. The airline, which raised over Rs. 3,000 crore last year in an initial public offering, registered an 11.4% increase in third-quarter total income from operations to Rs. 4,297.75 crore from Rs. 3,857.35 crore in the year-earlier period. The company had been expected to post a profit of Rs. 642.80 crore on net sales of Rs. 4, 176.30 crore.

Table 6: Net sales and reported net profit of Jet airways

	2012	2013	2014	2015	2016
Net Sales	12,736.76	14,815.91	16,852.59	16,301.89	19,573.43
Reported Net Profit	9.60	-1,236.10	-485.5	-3,667.85	-1813.71

Table 7: Correlation between net sales and net profit of Jet Airways

	Net Sales [X]	Reported Net Profit [Y]
Net Sales [X]	1	
Reported Net Profit [Y]	-0.5666292	1

The above table shows a negative relation between net sales and net profit. It means that the financial performance of the company is not stable.

Conclusion

After the analysis of various data, related to selected aviation firms in India, it is found that the profitability more or less depends upon the better utilization of resources, cut-off expenses and quality of management function in the products, customer services and to manpower and goodwill and market share. It is worthwhile to increase production capacity and use advance technology to cut down cost of production and wage cost in order to increase profitability, not only against the investment, but also for investor's return point of view. Aviation industry being the largest GDP growth contributor to the economy now faces stiff competition.

It is prime enough to make the best use of the capital and to attract more investors to sustain in the market. Thus these firms have to frame effective strategy to make the best use of the capital. The airlines sector is one of the most challenging sectors of the economy. The government must take progressive stand, rationalize the tax structure, and play supportive role to strengthen the competitiveness of the private players. The monopoly of public sector oil companies should be curtailed and private players should be allowed to supply fuel to airlines. Attracting foreign investment and alternative ways to infuse equity should be explored. The management efficiency and talent is one of the most important aspects of the airline sector.

Indigo has shown that financial discipline and a dedicated team can turn out profits in challenging operating environment. Aviation Industry cannot always blame government for all the problems, the management should introspect and set its house in order.

Finance of the organization should be always appropriate. It is considered to be the blood of Organization. There is unsustainable growth in this Airline Companies. Indigo Airlines a huge Brand of Interglobe enterprises group, Shows huge up and down trends. Nearly all the companies have seasonal growth. The present business world is more competitive because world is like a global village. So to be stable, not only financially but Service quality should had to be improved.

References

1. Bevan. A and Danbolt, Capital Structure and Its Determinants in India. A Decomposition Analysis, Applied Financial Economics, 12(2), 2002, pp. 159-170.
2. Chen. L. and Zhao. X.S. Profitability Means Reversion of Leverage Ratios, and Capital
3. Structure Choice (working paper), 2004, pp.1-42.
4. Khartik. S.K. Profitability Analysis of Public Sector Undertaking. A Case Study of Hindustan Newsprint Limited (HNL). The Management Accountant, 46(11),2011, pp.1067-1073.
5. Shine and Soemen Efficiency of Working Capital and Corporate Profitability. Journal of Finance India, 8(2),1998, pp.37-45.

A Comparative Study on the Financial Analysis of its Companies with Special Reference To TCS and Wipro

Ankita Kheria[1] and Dr. Shrabanti Pal[2]

[1]M.Com. Scholar (Accounting and Finance) and [2]Assistant Professor, Department of Commerce, J D Birla Institute, Kolkata

Abstract

The present study remained as an effort to analyze financial strengths, weaknesses, opportunities and threats of TCS and Wipro for study period of 5 years from 2012 to 2016. Assessment of the long-term financial health is an important task to formulate business strategy for investors and lenders. Financial performance is an important step in financial planning and financial decision making. In this article, we would concentrate on Wipro and TCS try to find out the basic differences in areas of functioning and objectives of the two companies. Objectives of study were to analyze Financial performance, profitability, liquidity, solvency and asset management situation of the company .The study set certain indicators such as return on capital employed, profitability, assets management and dividend decision, related to the four facets i.e. strength, weakness, opportunity and threat in terms of financial aspects of TCS and Wipro. The major findings revealed that the overall financial position of TCS and Wipro.

Keywords: Asset Management, Capital Structure, Profitability, SWOT

Introduction

India has emerged as the fastest growing information technology hub in the world, its growth dominated by information technology software and services. The present study focuses on the financial performance of information technology companies. The new economic policy of the government of India generated industrial growth. It led to unprecedented development of industries. Information Technology industry became one of the most flourishing industries in India. Wipro and TCS are two of the leading IT service providers in India. When it comes to information technology in India, three names stand out among others, Infosys, Wipro, and TCS, and not necessarily in that order. For those aspiring to have a career in IT sector, these three are the companies that provide excellent opportunities in terms of perks, job satisfaction and career growth. Wipro Limited (Wipro) is a global information technology (IT) services company. Wipro provides outsourced research and development, infrastructure outsourcing, business process outsourcing (BPO) and business consulting services. The Company operates in three segments: IT Services, IT Products, Consumer Care and Lighting. The IT Services segment provides IT and IT enabled services to customers. The IT Products segment sells a range of Wipro personal desktop computers, Wipro servers and Wipro notebooks. The Company is also a value added reseller of desktops, servers, notebooks, storage products, networking solutions and packaged software. The Consumer Care and Lighting segment manufactures, distributes and sells personal care products, baby care products, lighting products and hydrogenated cooking oils in the Indian and Asian markets Wipro Limited is a global company provider of comprehensive IT solutions and services, including Systems Integration, Consulting, Information Systems outsourcing, IT-enabled services, R&D services. Wipro entered into the technology business in 1981 and has over 140,000 employees and clients across 54 countries. Wipro helps customers do business better by leveraging our industry-wide experience, deep technology expertise, comprehensive portfolio of services and vertically aligned business model. Our 55+ dedicated emerging technologies 'Centers of Excellence' enable us to harness the latest technology for delivering business capability to our clients. Wipro is globally recognized for its innovative approach towards delivering business value and its commitment to sustainability. Wipro champions optimized utilization of natural resources, capital and talent. Today we are a trusted partner of choice for global businesses looking to 'differentiate at the front' and 'standardize at the core' through technology interventions. In today's world, organizations will have to rapidly reengineer themselves and be more responsive to changing customer needs. Information technology (IT) is concerned with the development, management, and use of computer based information systems. Tata Consultancy Services Ltd is an information technology (IT) company. The company offers a range of IT services outsourcing and business solutions. They also offer IT infrastructure services business process outsourcing services engineering

and industrial services global consulting and asset leveraged solutions. Their segments include banking financial services and insurance; manufacturing; retail and distribution and telecom. The company is a part of Tata Group one of India's most respected business conglomerates and most respected brands. They are headquartered in Mumbai. They are having 142 offices in 42 countries as well as 105 delivery centers in 20 countries. The company shares are listed on the National Stock Exchange and Bombay Stock Exchange of India. In keeping with the rich Tata tradition of giving back to Society, CSR lies at the heart of TCS' corporate culture. TCS has managed to make a difference in the lives of a lot of people around the world.

Methodology

Secondary data will be used for the present study. The required data will be collected from different financial websites, concerned companies' website. Accounting and statistical tools will be used for analyzing the data. Financial ratio analysis will be used to show the comparative financial position of the selected companies. The derived result will be tested through statistical analysis.

Result and Discussions

Table-1: Model Summary Anova

<table>
<tr><td>Model</td><td>R</td><td>R Square</td><td>Adjusted R Square</td><td>Std. Error of the Estimate</td></tr>
<tr><td>1</td><td>.892a</td><td>.796</td><td>.728</td><td>1.576</td></tr>
<tr><td colspan="5">Predictors: (Constant), INTR</td></tr>
</table>

<table>
<tr><td rowspan="2">Model</td><td colspan="2">Unstandardized Coefficients</td><td>Standardized Coefficients</td><td rowspan="2">t</td><td rowspan="2">Sig.</td><td colspan="3">95.0% Confidence Interval for B</td></tr>
<tr><td>B</td><td>Std. Error</td><td>Beta</td><td colspan="2">Lower Bound</td><td>Upper Bound</td></tr>
<tr><td>(Constant)</td><td colspan="2">20.076</td><td>1.771</td><td rowspan="2">.892</td><td>11.338</td><td>.001</td><td>14.441</td><td>25.712</td></tr>
<tr><td>INTR</td><td colspan="2">.057</td><td>.017</td><td>3.425</td><td>.042</td><td>.004</td><td>.111</td></tr>
</table>

Table-2: Excluded Variables[b]

Model	Beta In	t	Sig.	Partial Correlation	Collinearity Statistics Tolerance
CR	-.066a	-.209	.854	-.146	.991
QR	-.111a	-.354	.757	-.243	.973
ICR	.367a	1.112	.382	.618	.576
DER	.079a	.141	.901	.099	.325
DTR	-.191a	-.640	.588	-.412	.948
ASTR	.233a	.630	.593	.407	.621
FATR	.040a	.108	.924	.076	.717

a. Predictors in the Model: (Constant), INTR

b. Dependent Variable: ROCE

Interpretation

Multiple regression analysis is conducted on individual variables to determine the linear relationship between selected predictor variables (CR,QR, ICR, DER, DTR, ASTR, FATR and INTR) and dependent variable (ROCE) of the selected company. Table-3 shows R-square 0.796 implies that 79.6% variation in ROCE can be explained by individual variable INTR. The robustness of the model is proved by the ANOVA table (Table-2) with F-value 11.731 and corresponding p-value 0.042. The model shows that the variable INTR has high t-value (3.425) and low p-value-0.042. Other predictor variables are excluded due to low t-value< |2| and high p-value >0.05. The beta coefficient of INTR shows 0.892 indicates strong positive relation between dependent and independent variables.

TCS

Table-3: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.987a	.974	.897	.81879
a. Predictors: (Constant), FATR, ITR, QR				

ANOVA[b]

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	25.464	3	8.488	12.661	.203a
Residual	.670	1	.670		
Total	26.134	4			

Table-4: Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Intervall for B	
	B	Std. Error	Beta			Lower Bound	Upper Bound
(Constant)	14.823	8.770		1.690	.340	-96.606	126.252
QR	-21.023	4.128	-2.960	-5.092	.123	-73.476	31.431
ITR	-.003	.001	-1.543	-4.496	.139	-.010	.005
FATR	21.531	3.602	2.560	5.977	.106	-24.241	67.303
a. Dependent Variable: ROCE							

Interpretation

Multiple regression analysis is conducted on individual variables to determine the linear relationship between selected predictor variables (QR, ITR and FATR) and dependent variable (ROCE) of the selected company. Table-5 shows R-square 0.974 implies that 97.4% variation in ROCE can be explained by individual variable FATR, QR, ITR. The robustness of the model is proved by the ANOVA table Table-6 with F-value 12.661 and corresponding p-value 0.042. The model shows that the variable QR, ITR and FATR has high t-value -5.092,-4.496 and 5.977 and low p-value .123, .139 and .106. Other predictor variables are excluded due to low t-value< |2| and high p-value >0.05. The beta coefficient of QR, ITR and FATR shows -2.960,-1.543 and 2.560 indicates low and strong positive/negative relation between dependent and independent variables.

Conclusion

A Study based on fundamental analysis of two companies in the IT sector in India has brought in deep knowledge about the performance of the company moreover this study helped to acquire more knowledge and conception of financial aspects of the companies. As growth of IT industries gets attention from every corner - investors, job-seekers, government, competitors etc., everyone would want the financial analysis of the companies for various purposes. From the above financial analysis of TCS and Wipro with respect to ratio analysis, the vision is clear about the current and future financial health of TCS and Wipro. The current and future financial health of TCS is better than that of Wipro. Employees and job-seekers have a good future and opportunities of growth and development with TCS. Investors can have good long run returns with TCS , investors in both TCS and Wipro were benefitted. Despite a bundle of limitations, ratio analysis is a useful tool for users of financial statements. It highlights important information in simple form quickly. A user can judge a company by just looking at few numbers instead of reading the whole financial statements. This makes the analysis of financial statements easy for all i.e. Investors, job-seekers, government, competitors etc. Financial analysis is based on published capital market data as opposed to fundamental data, such as earning, sales, growth rates, or government regulation. Market data include the price of a share or the level of a market index, volume (number of share traded). Financial analysis of stock prices of different companies gives an idea that after the analysis the market position of share of selected companies can be known and investor get a perfect knowledge of investment decision. The investment decision can be taken by proper financial analysis. By using the financial indicators the future market of securities would be known in which we

invest. Financial analysis helps to predict future share prices of a selected company and also predict a trend of a selected company by which we make a perfect decision of investment in the stock market.

References

1. Bansal S.C.; "Financial Measures of Performance in Public Enterprises", Indian Journal of Commerce, Lucknow, Vol. 141, No. 4, December, 1984, pp. 107-130.
2. Beltran, Eamon, "Wipro Launches Operations in Germany," Business Wire, posted May 17, 2001.
3. C.K. Madhusoodhanan, a study on performance of major IT companies of India. 4.P D Jose., A study of India's most valuable companies, December 2012: Pp. 34-36.
4. Jeffery S. Abarbanell and Brian J. Bushee, "Fundamental Analysis, Future Earnings and Stock Prices" Journal of Accounting Research Vol. 35, No. 1, 1997.
5. Khan M.Y. and Jain P.K.; "Theory and Problems in Financial Management", Tata McGraw-Hill Publishing Company Ltd., New Delhi, 2000, p 9.1.
6. Mukerjee, D.N. and Dubey, R., "India's most respected companies", business World. January 27. 2003, Pp.8.
7. P D Jose., A study of India's most valuable companies, December 2012: Pp. 34-36.
8. Seng Dyna, Hancock Jason R., "Fundamental Analysis and Prediction of Earnings" International Journal of Business and Management. Vol. 7, No. 3, February 2012: 33.
9. Venkates C.K., Madhu Tyagi, Ganesh L., an Indian evidence" Global Advanced Research Journal of Accounting and Finance Vol. 1(2).

Success of Fake Brands in Rural Market of India

Aaheli Chakraborty[1] and Dr. Namrata Maheshwari[2]
[1]M.Com. Scholar (Marketing) and [2]Assistant Professor, Department of Commerce, J D Birla Institute, Kolkata

Abstract

The study was undertaken with an aim to understand the various factors which influence consumer buying behavior of fake brands in rural India. Rural consumers are aware of the fakes but did not mind using such products as they show inclination towards monetary value and thus the retailers stocking the fakes. Sometimes retailers are unaware of the fake products and they buy by rarely seeing the colour, logos and pictures, thus they are cheated by the retailers.

Key words: Consumers, Fake Products, Rural

Introduction

Rural Marketing involves the process of developing, pricing, promoting rural specific goods and services leading to exchange between rural and urban market which satisfies consumer demand and also achieve organizational objectives. The features of Indian Rural Market are:

1. Large, diverse and scattered market: Rural market in India is large and scattered into a number of regions. There may be less number of shops available to market products.
2. Major income is from agriculture: Rural prosperity is tied with agricultural prosperity. In the event of a crop failure, rural income is directly affected.
3. Standard of living and rising disposable income: It is known that majority of the rural population lives below poverty line and has low literacy level, low per capita income, social backwardness and low savings. But the new tax structure, good monsoon, government regulation on pricing has created disposable incomes. Today the rural customers spend money to get value and are aware of the happening around him.
4. Traditional outlook: Villages develop slowly and have a traditional outlook. Change is a continuous process but most rural people accept change gradually. This is gradually changing due to literacy especially in the youth who have begun to change the outlook in the villages.
5. Infrastructural facilities: Infrastructural facilities like cemented road, warehouses, communication system and financial facilities are inadequate in rural areas. Hence physical distribution is a challenge to marketers who have found innovative ways to market their products.

Fake products are imitations of name-brand products. Fake products can be classified into two categories:

1. Counterfeit products: These are fake products that bear identical name of product or packaging or graphics or color scheme and even same name and address as the genuine manufacturer. They look exactly like the real products other than the legal owner of the real products and trademarks. Few examples are 'Ponds' talcum powder, 'Clinic plus' shampoo.
2. Pass-off products: These are also fake products which have similar sounding names or have a similar spelling with similar looking packaging and design. These products are meant to mislead the consumers who are illiterate or in a hurry to purchase goods. Few examples are 'LUK' for 'LUX' ; ' HEAD & SHOWER' for 'HEAD & SHOULDERS'.

The three major challenges faced in rural market are lack of awareness, low literacy level and low purchasing power. Fake brands exist in rural as well as urban locations. But the problem is concerned with rural people as the most of them are illiterate and have very little knowledge about the original brands. Most people in rural India can recognize alphabets or color or design but not complete words, that is why most of the people are cheated with fake products. The Indian rural landscape being scattered in smaller villages, gaining access in all of them is a tedious task for brands. Also, most of the FMCG brands have not been able to set up an efficient distribution network in such areas. The local entrepreneurs are well aware of this challenges, hence they take the advantage of being local and reach the market before the original products can enter that market. Some of the reasons for rural consumer exploitations are traditional life, low literacy level, poor distribution network and lack of awareness. Consumers are often unaware that they buy products that resemble what they want. This is worrying companies because fake

products often ride on the success of the original products, eating into sales and in some cases harming the consumers health and safety, but there are many which consumers willingly purchases with knowing that they are purchasing fake or duplicate products.

FMCG Companies are facing problems due to the spurious goods entered in the distribution channels. Other than pulling down the profits of the FMCG companies, a counterfeit product of lesser quality gives a "bad name" to the brand. The wholesalers are the people who manufacture the counterfeits and sell it to the retailers. For retailers it's the higher margin on the counterfeit that does the trick. Instead of using the conventional distribution route, they have created a `sachet' sales force that sells only sachet packs to small retailers, including cigarette and pan shops. Emami Ltd. tied up with the Post and Telegraph Department to place its products across 5,000 post offices. Wipro Consumer Care and Lighting (WCCL) have been using the Andhra Pradesh Government's e-seva project, which aims at enhancing the common man's interface with the Government coupled with traditional distribution methods, this approach allows WCCL to reach consumers who otherwise may not come to a retail point. The Brand Protection Committee has put in place a four-fold strategy including a focus on enforcement and application of laws; publicizing the negative economic impact of fake products; taking direct action against illegal manufacturers, traders, wholesalers and retailers; and enhancing communication among the stakeholders.

With the increase in purchasing power and wide variety of product by the rural consumers, the rural markets offer new and greater opportunities to manufacturers of several consumers and industrial products in India. To tap this vast and expanding market, companies are developing effective marketing and advertising strategies. Thus, the objectives are as follows:

1. To analyze the rural consumer's consumption patterns with regard to selected FMCGs in the sample area.
2. To identify the popular fake brands in rural market.
3. To investigate the motives of rural customers and their brand preference.
4. To study the reasons for buying the fake brands with respect to the demographics of respondents.

Methodology

Primary data was collected through structured interviews of the consumers and also by visiting different rural markets. Sample of 100 consumer households are selected from one district, North 24 Parganas in West Bengal. Secondary data was collected through internet, journals, and articles. The data is gathered with the help of judgmental sampling method. The information's are collected from August to September. The responses were represented in the form of pie- charts and bar graphs. Hypothesis testing (t- test) and regression were used.

Results and Discussion

Table 1: List of Fake brands in Rural Area

S.No.	Original Product	Fake Product
1	Dairy Milk	Daily Milk
2	Kit Kat	Kif Kat
3	Sunsilk	Sansilk
4	Mango bite	Mango ripe
5	Kurkure	Kurkare
6	Ponds	Pons
7	Fair & Lovely	Fair & Lonely

Table 2: Demographic Table

Particulars	Categories	Frequency	Percentage
Gender	Male	78	96%
	Female	22	4 %
Age	15- 25	19	19 %
	25-35	22	22 %
	35-45	36	36 %
	45 & above	23	23 %
Income	Less than 5,000	46	46 %
	5,000-10,000	37	37 %
	10,000-15,000	14	14 %
	15,000 & above	3	3 %

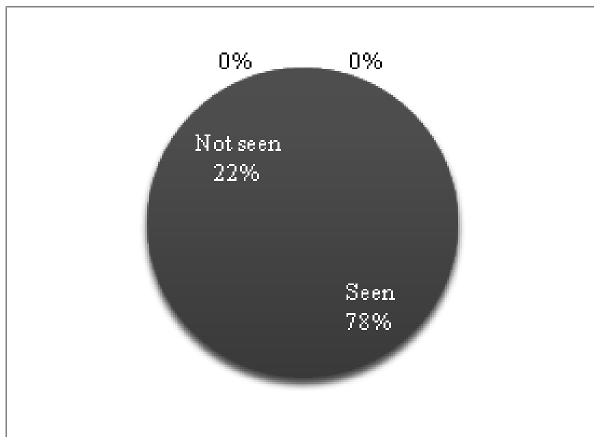


Figure 1: Number of people seen look - alike brands in the market

The respondents were asked that how many of them have seen look- alike products in the market. Among 100 respondents, 78 of them have agreed that they have seen look- alike brands and 22 of them said that they have not seen any look- alike brands.

Among the fake brands, Parla G is most famous in rural areas followed by Sansilk, Clean & Plus, Legs, Kurkare, Lax, etc.

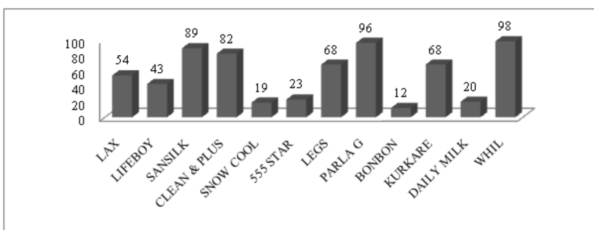


Figure 2:Name of the fake brands purchased by the respondents

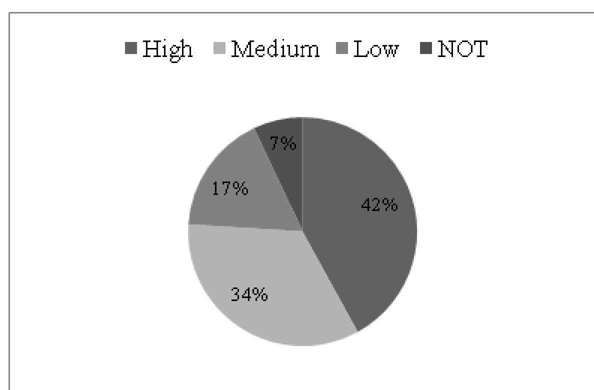


Figure 3: Satisfaction level of consumers after using the fake brands

Among 100 respondents, 42 people are highly satisfied, 34 are medium satisfied, satisfaction level is low for 17 people and 7 people are not satisfied.

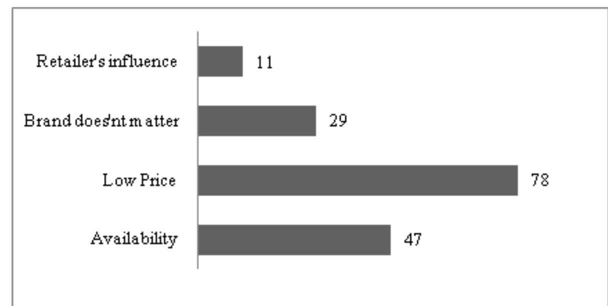


Figure 4: Reasons behind choosing the fake product

Among 100 respondents, 78 people said that low price is the major reason, whereas 47 people mentioned availability, 29 people said brand does not matter to them and 11 people buy fake brands out of retailer's influence.

S No.	Source	Average	Ranking
1	Radio	7.49	3
2	Television	5.34	5
3	Newspaper	4.11	6
4	Retailer	9.17	1
5	Friends	6.28	4
6	Wall paintings	8.29	2
7	Festivals	3.78	7
8	Pamphlets	2.54	8

The respondents have given maximum number to retailer. According to them, retailers are the main source of information for them followed by wall paintings, radio and television.

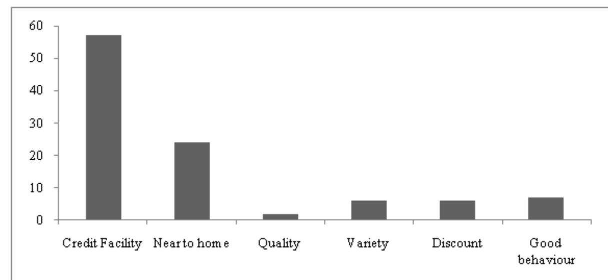


Figure 6: Reasons for going to a particular Retailer

Maximum people said that credit facility and convenient location is the main reason for which they visit a particular store.

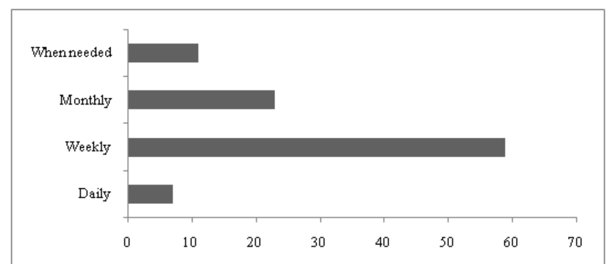


Figure 7: Frequency of Purchase

Maximum people buy products on weekly basis , 23 people buy monthly, 7 people buy on daily basis an rest of them buy when needed.

Regression & Hypothesis

Here, it is shown that how income and education affects consumer buying behavior of fake brands.

Table 4: Regression Analysis on purchase of Fake products with respect to Income

	Coefficient	Standard Error	t- Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	0.076754	0.192796	0.398112	0.691413	-0.30584	0.459351	-0.30584	0.459351
X Variable 1	1.357456	0.147005	9.234053	5.56E-15	1.065729	1.649184	1.065729	1.649184

H_0= Income does not have significant impact on purchase of fake brands.

H_1= Income have significant impact on purchase of fake brands.

From the above table, p value is 0.6 which means that it is more than the cut off 0.05 and hence we accept null hypothesis and the model is statistically insignificant. Thus, H0 is accepted which means that the income does not have impact on consumer purchasing fake brands.

Table 5: Regression Analysis on purchase of Fake products with respect to Education of Rural Consumers

	Coefficient	Standard Error	t- Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	2.903614	0.064479	45.03213	2.73E-67	2.775659	3.03157	2.775659	3.03157
X Variable 1	-0.95181	0.052472	-18.1393	4.34E-33	-1.05594	-0.84768	-1.05594	-0.84768

H_0= Education does not have significant impact on purchase of fake brands.

H_1= Education have significant impact on purchase of fake brands.

From the above table, p value is 2.7 which means that it is more than the cut off 0.05 and hence we accept null hypothesis and the model is statistically insignificant. Thus, H_0 is accepted which means that the education does not have impact on consumer purchasing fake brands.

Conclusion

After conducting the research and interviewing 100 random people, I reached to the following conclusions about my study. As the study is based on majority of consumers buying fakes were either illiterate or belong to lower income groups. Rural consumers are aware of the fakes but did not mind using such products as they show inclination towards monetary value and thus the retailers stocking the fakes. Consumers here are not completely unaware of the genuine products, the products have been seen by them either on television or print advertisements and buying the look-alikes make them feel like they are using genuine products. The retailers are the link between consumers and manufacturers. Thus, retailers stock up the fake products due to their easy availability and high profit margin. The retailers being the prominent link between the products and consumers, they play a vital role in the buying decision of the consumers. The consumers trust the retailers and buy the products suggested by the later. The retailer's stock the fakes for earning the higher margins and easy availability of the stock from the local markets. The local distributors of the Fakes provide the stock to the retailers on monthly credit which is comforting for the retailers. The retailers have to go to the nearest town to buy the genuine products which makes it difficult and expensive for them. So they just rely on the local distributors for the goods. Village shops are most effective outlets. The retailers have the capacity of providing credit sales facilities to villagers. As the flow of income in villages is irregular so credit facility has a great attraction in purchase. In densely populated villages retailers may function as retailers-cum-wholesalers. The majority of people in the rural areas depend on the retailers for their purchase. The people in the sample rural areas are more price conscious and buy the products of low price even if the products are not original. Retailers, distributors and wholesalers have a significant role to play in the distribution process. Their function is not only to store genuine goods but to make them available to consumers at the lowest possible price. The wholesalers and distributors may take up their own vehicles and distribute the

goods among retailers and the consumers so that a sort of competition is created and a large portion of market is entrapped for higher profits. The numbers of middlemen determine the price of a product. Different kind of trade discounts and credit facilities may be made available to the retailers to influence them to stock the genuine products and also persuade the consumers to buy these genuine products.

References

1. Aggarwal, A. K. Indian Journal of Marketing, 18, 1987, pp. 18-21
2. Blogs.tradeindia.com/2014/09/growing market for duplicate products, retrieved on 20.3.2015
3. Habeeb-ur-Rahman, K.S., Rural Marketing in India, Himalaya Publishing House, 2004, Mumbai.
4. Kashyap, P. & Raut, S. The Rural Marketing, Biztantra Publishing, 2006, New Delhi
5. Krishnamacharyulu, C. S. & Ramakrishanan, L. Rural Marketing, Pearson Education, 2006, New Delhi
6. Meghrajani, I. Indian Journal of Research. 1(9), 2012, pp- 123-127.
7. Vrittivaani.wordpress.com/2011/11/06/fake brands in the race to win the rural markets in India
8. www.Ruralindiaresearch.blogspot.in, retrieved on 23.03.2015.

A Study on the Impact of Social Media towards Consumer's Buying Behavior

Aishwariya Roy[1] *and Dr. Namrata Maheshwari*[2]
[1]*M.Com. Scholar (Marketing) and* [2]*Assistant Professor, Department of Commerce,*
J D Birla Institute, Kolkata

Abstract

The study aims to explain how the influence of Social Media is reflected on consumers' purchasing decision-making process and if this influence differs at the various stages of this process. The study finds that the influence of Social Media differs according to the various stages of the consumers' purchasing decision making-process. Thereby, the more the consumer progresses through the stages the more the influence of Social Media is diminished. Other findings explain that cultural background such as nationalities makes Social Media influence more or less strong according to the different stages of the consumers' purchasing decision-making process. The study also highlights implications for Marketers that have the opportunities to seize the power of influence of Social Media. To conclude, these findings indicate directions for futures researches to investigate the impact of characteristics, such as cultural background, demographics features and differences in usage, on the influence of Social Media that might affect consumers' purchasing decision-making process.

Keywords: Behaviour, Consumer's Purchasing, Decision Making Process, Social Media Influence

Introduction

The recent emergence of Social Media has drastically changed the marketing landscape. For Parker, the time of traditional marketing, where marketers were pushing out messages toward consumers using only a one-way communication, is over. Nowadays, as said Brown and Hayes 'ads don't work anymore in the real world because there are too many of them, and because they interrupt us inappropriately'. In contrast with traditional media, Social Media have greatly changed relationships between consumers and companies by allowing a two-way communication. A new marketing function called 'Social Media Marketing' has arisen.

The marketing area has thus evolved from a time where marketers had the power of influence to today where consumers have a greater power of influence on their peers. Indeed, Social Media enable consumers to share contents and ideas together, write recommendations, reviews and opinions about companies' performance and to tell, to a wider audience than before, about their own good or bad experience with them. Consumers have access to a wide range of different Social Media types, platforms and tools, with different characteristics and possibilities that allow them to be connected and communicate together. Sago stated that Social Media have significantly impacted how information is shared among groups of consumer.

Word-of-mouth plays a central role on Social Media. Word-of-mouth is well known in the marketing area and this for decades. But today, word-of-mouth appears even more important than before in the influence of consumers' purchasing decision-making process (Brown, and Hayes, 2008, p139-146). Indeed, Social Media can carry and spread word-of-mouth between millions of users, like none of the other channels have been able to do until now. The CEO of quired.com said that we are witness today of a fundamental shift in communication because of Social Media tools. This shift has been made possible because Social Media usage has highly increased by consumers but also by marketers these last years.

There are many types of Social Media available to people to connect to each others and form communities. These Social Media types allow people to publish, share, play, build network, buy and localize. These Social Media are available on different types of devices, allowing thus people to connect from everywhere. Parker broke down Social Media into eight different categories:

1. Blogging (e.g. TypePad, WordPress, Blogger…)
2. Microblogging (e.g. Twitter, FriendFeed),
3. Social networking (e.g. Facebook, LinkedIn, Orkut, Plaxo, Ning, MySpace…),
4. Social bookmarking (e.g. Digg, StumbleUpon, Delicious…),
5. Multimedia sharing (e.g. YouTube, Flickr),
6. Wikis (e.g. Wikipedia)
7. Forums

Promotional Marketing

Many companies use some specific tools to take attention of people towards their product like price discounts, coupons, contests, etc. Sales promotion is a temporary action that uses to motivate the people for increasing the products and services purchase. To the rapid growth in the product's sales, price discounts are the most popular for the short term promotional marketing. The increase in the stores traffic is measured as a result of price discounts. Price discounts build the good relationship of retailers and manufactures, and it make sure product of that particular brand is good stocked and easily available on stores. As Lu et al. said that due to the product characteristics difference the role of discounts on products may have different effects on consumer.

Door to Door Marketing

Basically direct marketing is that which creates the direct relationship between the organization or company and customers. The main objective of direct marketing is to increase their customers. Many professionals says that direct marketing is more capable way to attain the marketing goals, gathering, examining and using information about actual and potential customers. One of the most current definition of direct marketing is "direct marketing is attractive system that a company use to measurable response and to achieve the deal in any position" (Lee and Johnson, 2005). Direct marketing companies basically focus on communication skills to attain the customer attention (Alturas, 2003).

Consumer Perception

The study of consumer perception is very important in present marketing scenario because consumers are "KINGS OF MARKETS" (Khan and Velayutham, 2013). As compare to consumer preferences for the distribution method or services perceived fit was found to be more important. Perceived fit means for a specific product how appropriate a certain channel of distribution is? (Morrison and Roberts, 1998). The influence on consumer behavior towards purchasing a good also based on trust. Social media sites helps in building a trust by networking with consumers in e-commerce. On social networking sites E-vendors also encourage consumers to come online and build their trust by networking with then (McCole et al., 2010). Members can become familiar with one another on different platforms where consumers socially interact, providing a possible source of trust (Lu et al., 2010). This influences the users' intention to buy (Gefen, 2002). To gain batter consumer perception.

Figure 1: Social Media influence in consumers' purchasing decision-making process

Engage with Customers

The study confirmed the literature review that said that companies should use the opportunity of interaction offered by Social Media to engage with their community of followers. Klaus and stated that the Internet had transformed initial relationship between consumers and marketers into collaborative relationships. The study confirmed this statement by adding that Social Media offered the possibility to marketers to show to their customers that they were really listening to them and thus proved that they cared about their customers' expectations. The study indicated that by proving to their customers that they were listened to, companies made them feel understood and customers would be more likely to go into stores to purchase. Social Media helps enhance relationships with customers, is confirmed by the study. Indeed, the study pointed out that that Social Media can help create very long term relationships that can lead to cross sell. The very long-term relationship aspect is important when it comes to build loyalty for companies. Social Media by its interaction features encourages the conversation with consumers. The study confirmed Parker's argument in the literature reviews that said that 'asking for members input instils a sense of empowerment'. This is this sense of empowerment and the spread of positive word-of-mouth within communities that will make consumers become more loyal to companies.

Do not only focus on Social Media

The study indicated that even if Social Media have changed the marketing landscape, especially thanks to the two-way communication that it provides to customers, marketers should bear in mind that they shouldn't abandon traditional media channels in favour of Social Media. Indeed, Social Media is not well adapted to all kind of products, services and targets. The study pointed out that Social Media was for example not adapted to 'older generations' that are not as Social Media oriented as is the Generation Y. The study revealed thus that marketers should

use Social Media only when it is adapted and to communicate toward a certain kind of targets that are actually using Social Media. Moreover, the study reported that Social Media could be used in combination with traditional media. This can be done for example by adding QR code on promotional leaflets to drive prospects on Facebook pages. Social Media offer new possibilities to marketers that would be more valuable if they are used in combination with other media channels.

It is important to note that this research intended to see whether the increasing influence of Social Media on consumers' purchasing decision-making process differed or not according to the various stages. Few limitations have been encountered when drawing conclusions from this study. The research has been limited in the number of respondents for practical reasons. The sample used cannot be representative of the entire population and the conclusions are thus difficult to draw on a small sample like this one. Indeed, the sample is not representative enough of all categories of age since it is more focused on the 18-34 year old categories, which are not the only ones that can be influenced in their purchasing decision-making process by Social Media. Also, the sample is limited in the number of respondents from different nationalities that have been selected for the analysis. The study highlighted that genders can impact the influence of Social Media.

Methodology

Primary data collection method was used to carry out the study. Questionnaires were designed to address the needs of the study.

Hypothesis Testing

H_0: B1 is equal to 0
H_1: B1 is not equal to 0
[B1= Coefficient Estimate of Social Media Marketing]

- Comparing P-value(0.567) with the significance Level(5%). Since P-value is less than the significance level we reject H0.
- So, we reject H0 and accept HA i.e. Social Media Marketing has a significant impact on Consumer perception.

H_0 : B2 is equal to 0
H_1: B2 is not equal to 0
[B2= Coefficient Estimate of Promotional Marketing]

- On Comparing the p-value(0.345) with the significance level(5%), Since the P-value is less than the significance level we reject H0.
- So, we accept HA i.e. Promotional Marketing has a significant impact on Consumer Perception.

Conclusion

These last years, we have seen the emergence of a new type of media that allows a wide range of interaction possibilities between users.

These media are called Social Media because of the social features that they offer to the communities that they host.

Year over year more people have been using Social Media platforms and tools and every ear new Social Media types are developing, bringing new possibilities for users.

References

1. Fotis, J., Buhalis, D. and Rossides, N., Social media use and impact during the holiday travel planning process. In: Fuchs, M., Ricci, F. and Cantoni, L., eds. Information and Communication Technologies in Tourism, 2012. Vienna: Springer-Verlag, 13-24.
2. Sedra, M., Revolution 2.0: Democracy promotion in the age of social media. The Globe and Mail, 2 February 2011. Available at: http://www.theglobeandmail.com/news/ opinions/opinion/ revolution-20-democracy-promotion-in-the-age-of-social-media/ article1891015/ [Accessed 14 April 2016].
3. Yadav, M. S., De Valck, K., Hennig-Thurau, T., Hoffman, D. L. and Spann, M., Social Commerce: A Contingency Framework for Assessing Marketing Potential. Journal of Interactive Marketing, 2013, 27 (4), 311-323.
4. Zhang, L., Pan, B., Smith, W. and Li, X. R., An exploratory study of travelers' use of online reviews and recommendations. Information Technology & Tourism, 2009, 11 (2), 157- 167.

Consumer's Preference and Satisfaction towards Various Cell Phone Service Providers

Megha Tulsyan[1] and Dr. Namrata Maheshwari[2]
[1]M.Com. Scholar (Marketing) and [2]Assistant Professor, Department of Commerce, J D Birla Institute, Kolkata

Abstract
The present study is undertaken to understand the customer satisfaction in mobile provider players in the market and to know the customer perception towards other mobile service providers, this survey was done in Kolkata. The data was processed using computer aided tools such as MS-Excel for analysis, the study was conducted from September '16 to October '16 i.e., for a period of one month in the city of Kolkata.

Keywords: Customer's Preference, Mobile Service Providers, Satisfaction

Introduction

According to Philip Kotler, "Satisfaction is a person's feelings of pressure or disappointment resulting from product perceived performance in relation to his or her expectations. Customer satisfaction is the level of persons felt state resulting from comparing a products perceived performance in relation to the person's expectations".

Marketers have four main skill sets that they bring to an enterprise:

1. Opportunity Identification: Marketing begins before there is a product to sell. Many people think marketing is just selling whatever comes out of the manufacturing plant. It's the job of marketing to decide WHAT comes out of the manufacturing plant in the first place.
2. Competitive strategy/positioning: Markets consist of groups of competitors competing for a customer's business. The job of marketing is to decide how to create a defensible sustainable competitive advantage against competitors.
3. Demand generation/management: It's the job of marketing to create and sustain demand for a company's products.
4. Sales: The ultimate goal of marketing is to make money for a business. In most company's sales is a different discipline and department from marketing. But in order for salespeople to have any long term success in a company they must be led by marketing.

Method to measure customer satisfaction

Companies use the following methods to measure customer satisfaction.

1. Complaints and Suggestion System: Companies obtaining complaints through their customer service centers and further suggestions were given by customers to satisfy their desires.
2. Lost Customer Analysis: Companies should contact customers who have stopped buying or who have switched to another supplier to learn why this happened.
3. Consumer Behavior Vs Consumption Behavior: Consumer behavior refers to the manner in which an individual reaches decision related to the selection, purchases and use of goods and services. Walters and Paul says that, consumer behavior is the process whereby the individuals decides what, when, whom to purchase goods and services.

Telecom Industry

The Indian Telecommunications network with 110.01 million connections is the fifth largest in the world and the second largest among the emerging economies of Asia. Today, it is the fastest growing market in the world and represents unique opportunities for U.S. companies in the stagnant global scenario. The total subscriber base, which has grown by 40% in 2005,is expected to reach 250 million in 2007 A large population, low telephony penetration levels, and a rise in consumers' income and spending owing to strong economic growth have helped make India the fastest-growing telecom market in the world. The first and largest operator is the state-owned incumbent BSNL, which is also the 7th largest telecom company.

The fixed line and mobile segments serve the basic needs of local calls, long distance calls and the international calls, with the provision of broadband services in the fixed line segment and GPRS in the mobile arena. Traditional telephones have been replaced by the codeless and the wireless instruments. Mobile phone providers have also

come up with GPRS-enabled multimedia messaging, Internet surfing, and mobile-commerce. The much-awaited 3G mobile technology is soon going to enter the Indian telecom market.

The telecom industry is one of the fastest growing industries in India. India has nearly200 million telephone lines making it the third largest network in the world after China and USA. With a growth rate of 45%, Indian telecom industry has the highest growth rate inthe8world. Much of the growth in Asia Pacific Wireless Telecommunication Market is spurred by the growth in demand in countries like India and China. India‘s mobile phone subscriber base is growing at a rate of 82.2%. China is the biggest market in Asia Pacific with a subscriber base of 48% of the total subscribers in Asia Pacific.

This project aims at studying the present market scenario. The major players in the market today are Airtel, Vodafone, BSNL, Tata Indicom , Reliance, Idea. All the companies want to capture the market study concerns with evaluating fast developing area and so all the service providers were taken to measure the satisfaction of customer.

The main objectives of the study are:
1. To study the customer satisfaction towards mobile service providers.
2. To study and identify how the customers are benefited.
3. To evaluate the major service provider satisfied the customer.

Methodology

Sources of Data: The study also contains secondary data i.e. data from authenticated websites and journals for the latest updates just to gain an insight for the views of various experts. The results are shown by tables which helped out in easy and effective presentation and hence results are being obtained.

Research Design: The design for this study is descriptive and Random sampling.

Data Collection: The researcher aimed at getting 150, but the total complete forms received were only 100. The respondents comprised of 52% females, and the remaining 48% males.

Sample Unit: For studying consumer satisfaction towards network service providers, respondents were selected from Kolkata, West Bengal.

Sample Media: The respondents in the samples were approached through mails and other social websites like Whatsapp and Facebook .

Research Place: Kolkata (West Bengal).

Results and Discussions

The objectives of the research were studied with respect to customer satisfactions towards network service provider because they would be the right respondent to give an insight. In the survey, the respondents were asked the following questions, which helped the researcher know more about the customers and their behavior.

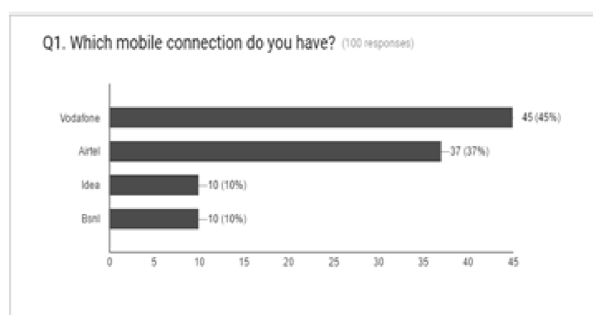


Figure 1: Mobile Connection

Interpretation: Majority of the questionnaire I got filled by Vodafone. Above data analysis shows that majority of the market that is approximately 50% is covered by two market leaders Airtel and Vodafone. Minor is BSNL and Idea.

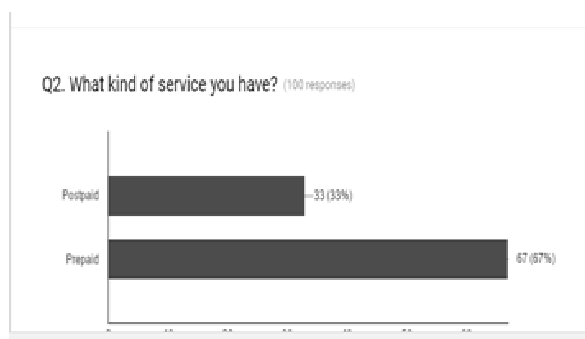
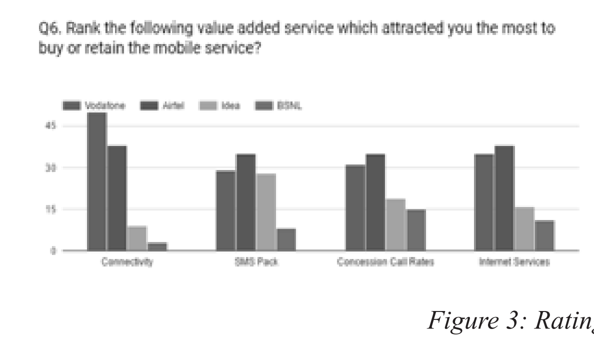


Figure 2: Mobile Usage

Interpretation: Above data shows that most of the respondents in the area have pre-paid connections. And I got 33% questionnaire filled by post-paid users.



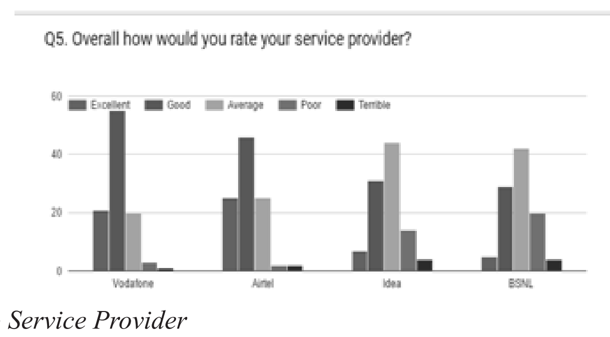


Figure 3: Rating to Service Provider

Interpretation: Above data analysis shows that Vodafone is being preferred because of its connectivity. Airtel because of its Concession calls rates and sms pack. Where Idea the most because of its SMS pack. But BSNL because of its internet service mainly and then concession rates also.

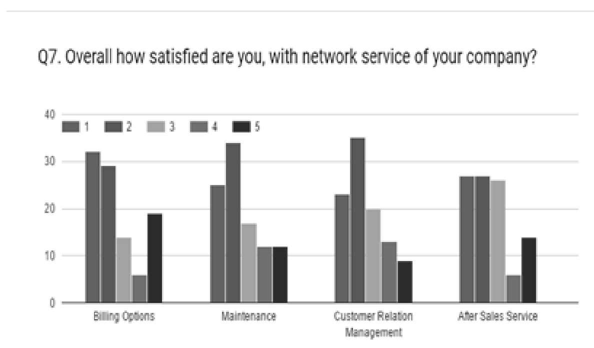


Figure 4: Satisfaction Level

Interpretation: Above table data analysis shows that the satisfaction rate of network service is leaded by vodafone as not a single user of service is neutral or dissatisfy. And airtel network service satisfaction rate is also good. And it can be also found that BSNL network service is not good as compare to others competitors.

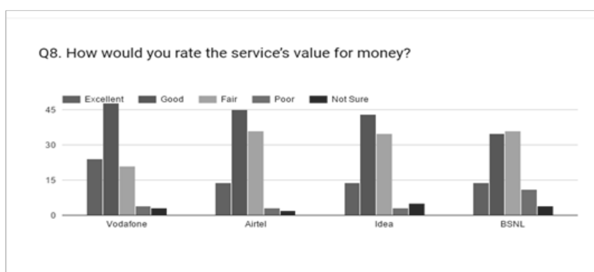


Figure 5: Services Value in Money

Interpretation: Above data and chart analysis depicts that Vodafone has the highest rating of Value for money as it is a excellent and good service provider. Then airtel and idea company are good service provider for value for money. Both has been rated good and excellent, where good has been rated more as compare to other options.

Q9. What kind of problems occurs the most for which you need to contact customer care/service department of your service provider?

Figure 6: Problems Faced

Interpretation: From the above data analysis it has been found that most of the users of telecommunication contact to their customers care for activation and deactivation of various services. Then they also contact for information about various value added services provider by companies like validity, call rates, SMS Pack, caller tones etc. Network service has been found a problem of mainly BSNL users and to some extent of Idea users as well.

Vodafone is the best service provider of customer care service. As it has been also found in some of the article that Vodafone is expending more on its customer care service as compare to other competitors in the market. The Airtel service is also satisfactory as most of the users has rated it as satisfied service provider. But BSNL is to be found as a not satisfactory service provider. Most of the users said that they have not talk to their customer care service provider even for a single time.

Most of the users, who are satisfied with their customer care service, are also satisfied with the process of getting their queries resolved. Vodafone again has been rated as the best service provider for getting queries resolved. Results are similar approximately with the 10-question analysis.

Data analysis shows that most of the users of all companies found their customer service provider courteous. But the result of BSNL is not good as the users say that they have not talk to their customer care service provider even for a single time. Some of

them have talk but after a lot of waiting time. So they are found not satisfied and rated this question also as dissatisfied. So after studying their views with a personal discussion we cannot say that the customer care representatives of BSNL are not courteous.

Data analysis shows that most of the users of all companies found their customer service provider knowledgeable. But the result of BSNL is again not good as the users say that they have not talk to their customer care service provider even for a single time. Some of them have talk but after a lot of waiting time. So they are found not satisfied and rated this question also as dissatisfied. So after studying their views with a personal discussion we cannot say that the customer care representatives of BSNL are not knowledgeable. But one more finding is there in that question that Idea is not perfect in hiring best personnel for customer care representatives.

Data analysis shows that most of the users of all companies are found satisfactory with the waiting time their queries resolved. BSNL is again not good as the users say that they have not talk to their customer care service provider for a single time. Some of them have talk but after a lot of waiting time.

1. 79% of the users will recommend the service to others. Whereas 22% of the users will not recommend.
2. 70% of the service users will buy the SIM of the same company. Whereas 30% of the service users will not buy the SIM of the same company.
3. 52% respondents of the questionnaire are female. Whereas 48% respondents of the questionnaire are male.
4. Majority of the users range from the age group 18-25 years followed by 25-35 years then 35 years and above later on less than 18 years.
5. 46% of the respondents are students 22% of the respondents are business people, 21% respondents are engaged in service sector. 6% of the respondents are housewife and others.
6. Majority of the users have a monthly income ranging less than 20000 followed by 35000-50000. Later on 20000-35000 and then 50000 and above.
7. 45% of the users are graduate, 26% users are student, 23% users are post graduate and 8% others.
8. 71% of the respondents are unmarried and 29% of the respondents are married.

Conclusion

The researcher has studied that the choice of mobile handset and services cannot be separated came out true because when we tried to find out the customer decision .we successfully classified customers in to eight group each with some special requirement service wise and handset's attribute wise.

Telecom majors should think to launch the product according to the needs of customers to satisfy them and make them brand loyal as very soon this blue ocean of Indian telecom scenario will convert into red ocean where the loss of is the gain of other .They should also think for searching new space or we can say either creating a new blue space to sustain their growth in long run.

There is more room for data analysis but the rest of the part is beyond the scope of this project report According to the results, the most important determinant for consumers are price and sacrifice perception (monetary and non-monetary sacrifice), which in perception. These are periodical fixed cost, minute or traffic charge and opening cost when purchasing mobile phone. The results indicate that the minute charge is the most influential factor when a customer assesses to purchase.

Quality of service and the ability to attract and retain customers dictate the success or failure of next-generation communications service providers. In today's competitive environment, customers are quick to abandon services that do not meet expectations. The ease with which customers can switch from their current service to another, demands that providers deliver the highest possible levels of service quality and performance.

References

1. Fernandez, Fronnie,“ Understanding Dynamics in an Evolving Industry: Case of MobileVASinIndia”,2007.
2. Debnath,RomaMitra,“Benchmarkingtelecommunicationservicein India”, 2008(http://www.emeraldinsight.com/Insight/viewContentItem.do;jsessionid=236E2B6B45CF101465D540FD4401AEB9?contentType=Article&hdAction=lnkhtml&contentId=1742535&history=true>) [Viewed 2/3/09]
3. Jallet, Frederic, “Yield management, Dynamic pricing and CRM intelecommunications”,(http://www.emeraldinsight.com/Insight/viewContentItem.do;jsessionid=236E2B6B45CF101465D540FD4401AEB9?contentType=Article&hdAction=lnkhtml&contentId=1747102&history=true>)[Viewed 13/3/09]
4. Kalwani, Banumathy, “Consumer’s Attitude towards Cell phone Services”, 2006
5. Robins,Fread,“Themarketingof3G”, vol21,no6,2008(http://www.emeraldinsight.com/Insight/viewContentItem.do;jsessionid=236E2B6B45CF101465D540FD4401AEB9?contentType=Article&hdAction=lnkhtml&contentId=854647&history=true>)[Viewed 2/4/09]

Consumer's Perception and Attitude towards Online Shopping

Simran Drolia[1] and Dr. Namrata Maheshwari[2]
[1]M.Com. Scholar (Marketing) and [2]Assistant Professor, Department of Commerce,
J D Birla Institute, Kolkata

Abstract
Online shopping is the process of buying goods and services from merchants who sell on the internet. Shoppers can visit web stores from the comfort of their homes and shop as they sit in front of the computer. The main purpose of this study is to determine the factors influencing consumers' attitude towards e-commerce purchases through online shopping. The study also investigate how socio-demographic (age, income and occupation), pattern of online buying (types of goods, e-commerce experience and hours use on internet) and purchase perception (product perception, customers' service and consumers' risk) affect consumers' attitude towards online shopping. Convenience sampling method was conducted in this study and the sample comparison of 100 respondents in Kolkata was collected via self-administered questionnaire which contains 22 questions. The data was processed using computer aided tools such as MS-EXCEL for analysis, the study was conducted from September'16 to October'16 i.e., for a period of one month in the city of Kolkata.

Keywords: Attitude Customer's Perception, Online Shopping

Introduction

Online shopping is a form of E-commerce whereby consumers directly buy goods or services from a seller over the internet. Online shopping is done through an online shop, e-shop, e-store, Internet shop or online store. All the products in online stores are described through text, with photos and with multimedia files. Many online stores will provide links for extra information about their products. They often make available, safety procedures, instructions, manufacture specification and demonstrations (Tech target, 2007-2012).

Benefits of E-commerce have been grown very fast because of many advantages associated with buying on internet as the lower transaction and search cost as compared to other types of shopping. Online shopping allows consumers to buy faster, more alternatives and can order products and services with comparative lowest price. Consumer's attitude towards online shopping refers to their psychological state on terms of making purchases. The main purpose of this study is to understand the factors that may influence consumer's attitude and behaviors towards online shopping. How consumers form such attitudes will be also focused on by researcher and who are true online shoppers. "Internet knowledge, income, and education level are especially powerful predictors of Internet purchases among people.

Online shopping is defined as the process a customer takes to purchase a service or product over the internet. In other words, a consumer may at his or her leisure buy from the comfort of their own home products from an online store. This concept was first demonstrated before the World Wide Web (WWW) was in use with real time transaction processed from a domestic television.

The first World Wide Web server and browser, created by Tim Berners-Lee in 1990, opened for commercial use in 1991. Thereafter, subsequent technological innovations emerged in 1994: online banking, the opening of an online pizza shop by Pizza Hut, Netscapes SS v2 encryption standard for secure data transfer, and Intershop's first online shopping system. The first secure retail transaction over the Web was either by Net Market or Internet Shopping Network in 1994. Immediately after, Amazon.com launched its online shopping site in 1995 and eBay was also introduced in 1995. Alibaba's sites Taobao and Tmall were launched in 2003 and 2008, respectively. Retailers are increasingly selling goods and services prior to availability through "pretail" for testing, building, and managing demand.

Benefits of Online Shopping

From the buyers perspective also e-commerce offers a lot of tangible advantages. For example, reduction in buyers sorting out time, better buyer decisions, less time is spent in resolving invoice and order discrepancies and finally increased opportunities for buying alternative products. Moreover, consumers can enjoy online shopping for 24 hour per day. This is because e-commerce is open for 365 days and never close even for a minute. E-commerce also expanded

geographic reach because consumers can purchase any goods and services anytime at everywhere. Hence, online shopping is more environmental friendly compare to purchase in store because consumers can just fulfill his desires just with a click of mouse without going out from house by taking any transportation. Few factors that boost Online Shopping in India are:

1. Rapid growth of cybercafés across India.
2. Access to information
3. The increase in number of computers users
4. Reach to net services through broadband

Limitations of Online Shopping

Naturally, there are also downsides to shopping on the web too. when you shop online, you don't have an opportunity to touch and feel items you are considering purchasing What looks like a bargain might not be a good deal when the shipping and handling charges are tallied and added to the total. Make sure that you look closely at exactly how much you are likely to need to pay to have your merchandise delivered to your door - or to the person you are purchasing it for - before finalizing your purchase decision. It is essential to be aware of the return policy for any e-commerce retailer you are considering doing business with. The majority of sites do not pay return shipping if you have to send something back, so it often costs you more money than you planned to spend if you need to exchange an item.

The main aim was to know the present online buying behavior and also to know the scope of the same in the future.

Methodology

Data for this study was collected by means of a survey conducted in Kolkata. The sample size was 100. The questionnaire was used by the researcher mainly to test the model proposed for attitude towards online shopping. The type of research is descriptive.

Likert five point scales ranging from strongly agree to strongly disagree. In this study, the conceptual model was set up which was based on the survey instruction of information search stage, alternatives evaluation stage and purchase decision stage.

The researcher, in order to access a larger amount of raw data, chooses the self-administered questionnaire among various individuals. During the process of doing research, the researcher will hand out the questionnaire to ask the target respondent to help fill out. In the self-administered questionnaire method, no interview is involved, although this can reduces the cost of the interview process, there is no one present to explain things to the respondent and clarify responses to open-ended questions. The researcher created the questionnaires via Google forms and got them filled up via mails, personal messages and other social media vehicles. The target of the researcher was to get 150 forms out of which 104 responses came up. It was filled up by 104 people of Kolkata, West Bengal.

5- point Likert scale was used to ask the respondents to rate the items from “strongly disagree” (1) to “strongly agree” (5).

Data collection method:

Primary Data: It is an original primary data, collected specifically for the purpose of making this project. For this project, the researcher has used the following instrument.

Secondary data: It will be collected to add value to the primary data. This may be used to collect necessary data and records by different websites, magazines annual reports, journals, reference books and newspapers, etc.

Population and sample: The constraints of time restricted data collection. Moreover it was impossible to collect data from an entire population since online buyers are way too much. I have thus decided to use sample of population .The sampling is mainly judgmental in nature. I have thus administrated the survey to my own network of contacts through Social Media (on Facebook, linkedin, Gmail). The research being based on Social Media, it appeared thus as the most adapted to use these media to diffuse the survey.

Sample Unit: For studying counsumer perception on online shopping, respondents were selected from Kolkata, West Bengal.

Sample Media: The respondents in the samples were approached through mails and other social websites like whatsapp and facebook.

Sample Size: 150 out of which 100 responded. 55% of the respondents were females and the remaining 45% were the male respondents.

Research arena: Kolkata (West Bengal).

Results and Discussion

Do you use Internet ?

a) Yes- 98%
b) No-2%

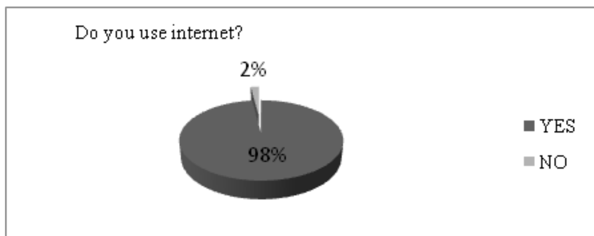


Figure 1: Internet Usage Pattern

Have you ever had Online Shopping ?

a) Yes – 90.1%
b) No – 9.1%

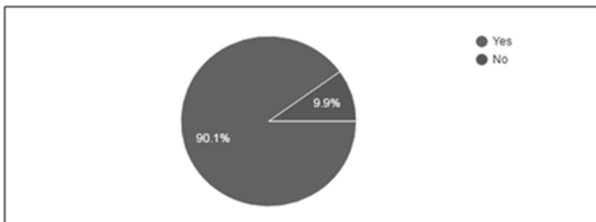


Figure 2: Online Shopping Pattern

How often do you use Internet for shopping?

a) Mostly every time- 6.4%
b) regularly- 4.3%
c) sometimes- 40.4%
d) often- 12.8%
e) rarely- 16%
f) very often- 18.1%
g) never- 2.1%

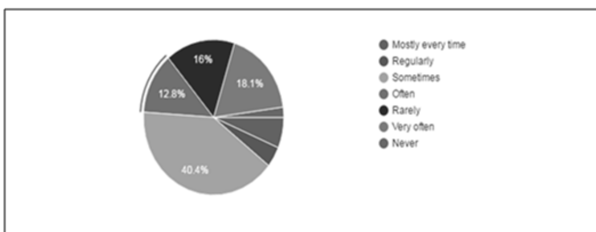


Figure 3: Use of Internet for Shopping

The above figure shows that most of the people are not shopping online regularly, about 40% of the people are shopping that too not on a regular basis. This shows that people are shopping online , but sometimes. However with the rapid growth of the usage of internet , more and more people are making their attempts to shop online.

What is an approximate amount you would spend on a single online purchase?

a) less than 1000- 27.7%
b) 1000-3000- 41.6%
c) 3000-5000 – 14.9%
d) 5000-10000- 6.9%
e) 10000 and above - 8.9%

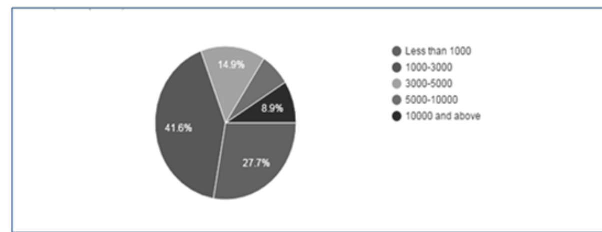


Figure 4 : Amount Spent for Online Shopping

What Type of Commodity Do you generally prefer to Purchase Online ?

a) Groceries – 36.6%
b) Books – 31%
c) Electronics – 41.6%
d) Apparels 38.6%
e) Accessories – 48.5%
f) Medicine- 13.9%
g) Home appliances – 20.8%
h) Others – 9.9%

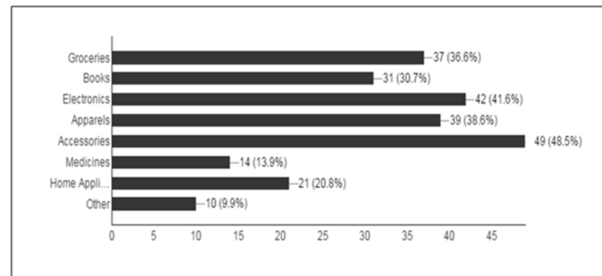


Figure 5: Type of Commodity Purchased Online

The above figure shows that accessories have the highest rank and most preferred to be purchased online . This is because accessories have a huge young target to be penetrated or focused on . The 2nd most purchased product are the electronics.

Please select your level of agreement to the following:

a) Shopping on internet saves time
b) It is a great advantage to be able to shop at any time of the day
c) Online shopping is risky at times
d) Selection of goods available online is very broad
e) Description of goods are very accurate
f) Online shopping is as secured as traditional shopping
g) While shopping online, I fear giving my credit/ debit card details

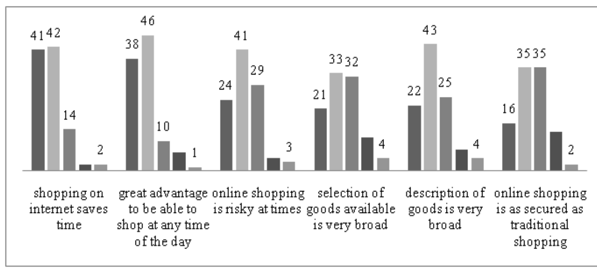


Figure 6: Level of Agreement

Have you felt any problem while conducting online purchase? If yes, what kind of problems did you face? 64% of the people have faced problems during purchasing products online. This shows that people still are not very used to online shopping and are not very used to technologies. Now we will see the kind of problems that people face while conducting online shopping.

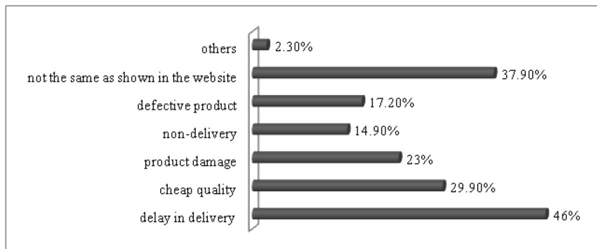


Figure 7: Problems faced during Online Purchase

From above figures, we can see that people have faced problems in conducting online shopping and most of the problems have been felt with regard to delay in deliveries and product quality not being the same as shown on the website.

Various other problems like the product being defective (17.2%), damage of product during its delivery (26%), cheap or poor quality (29.1%) have also been faced. Online shopping portals have to work more to improve upon these factors in order to provide better shopping experiences to people.

How important are each of the following factors in refraining you from shopping on internet?

a) Waiting to receive the product
b) Risk of credit card transaction
c) Risk of identity theft
d) Risk of not getting what you paid for
e) Risk of losing privacy
f) Lack of trustworthiness of the vendor
g) Complex compared to traditional shopping
h) Intangible nature
i) More expensive as compared to what is sold in the retail stores

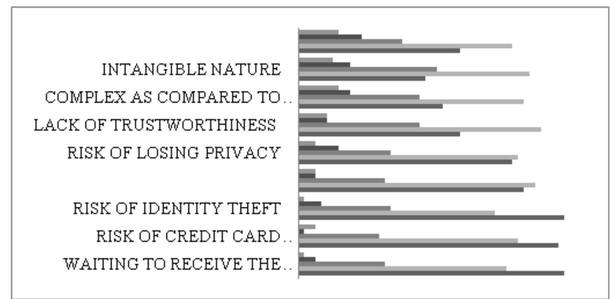


Figure 8: Factors influencing Online Shopping Behaviour

Demographic Factors

Online shopping behavior is greatly affected by demographics i.e , by gender , education and income.

a) It is seen that more female internet users are frequent online buyers than male internet users
b) Regular online buyers are better educated than occasional online buyers
c) Income is higher in case of a regular online buyer than an occasional online buyer.

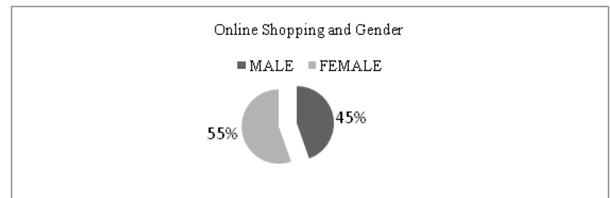


Figure 9: Online Shopping and Gender

The above chart shows that 55% of females are engaged in online shopping as compared to 45% of the males. This shows that women are more interested and dependent on online shopping . This is mainly because women who are engaged in household work, jobs etc feel online shopping saves on more time and is more convenient.

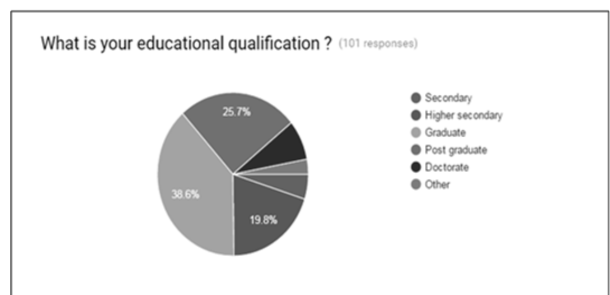


Figure 10: Online Shopping and Educational Qualification

Educational difference is a significant demographic variable, which shows that regular shoppers who were better educated made more purchases online. Most of the shopping has been done by the regular shoppers who are educated with a graduate or post-graduate degree.

The findings show that internet usage has increased over the years and it is lead to an increase in online shopping and also shows the consumers attitude and perception towards online shopping.

Online shopping is affected by demographics as it has been seen that more females are shopping online as compared to male shoppers and there is a positive relationship between education and income levels with respect to the increased online shopping behavior.

The most important motivating factor, which influenced the online shopping, was convenience followed by time saving and price. Regular online shoppers considered convenience as the main motivating factor while buying and were less price sensitive. But the online marketers should attempt to differentiate their products or services making the comparison easier. The marketers should bring out innovative ways so that the consumers can do more online shopping while taking full advantage of rich information easy access and convenience of the internet.

Conclusion

Along with high rapid growth of online shopping, this rapid growth is impressed to many retailers for selling products or services online which is the important channel to expand their market.

The findings of this study indicated that the nine critical factors on B2C e-commerce can lead internet users to accept online shopping. The researcher suggests that e-retailers practice these nine factors on their online business in order to have more Internet user become online shoppers.

In this study, the multiple regression analysis was employed to measure the relationship between nine independent variables and receptivity to online shopping. The score of Beta weight presented that all nine independent variables had positive statistical significant effect to Internet users to accept online shopping. Among the nine factors, the strongest predictors from highest to lowest were Price, Refund, Convenience, Auction websites, Promotion, Brand, Search engines, Security and Online shopping malls.

Finally, the researcher hopes the results and outcomes of this study might be significant helpful to e-retailers, online consumers and other researcher in B2C e-commerce. May r-retailers should be benefited greatly by understanding the most important factors to online consumer purchasing decisions and develop strategies to serve as the online consumers' needs. May online consumer should benefit greatly by receiving better products and services as their expressing on their opinions in the survey to influence e-retailers' strategies, and may other researchers should be benefited by understanding or duplicating this research study as the information base in related to further study in identifying other critical factors. This study might contribute not only to a better understanding on what and how strongly the factors are involved in online consumer purchasing decisions but also this study provides e-retailer's standpoint such the effectively manage and recommendations. However, e-retailers should keep in mind that consumer behavior might change in time to time especially in online market so the e-retailer should investigate the consumer behavior in time to time and adapt the products and services to serve as the customer requirements.

References

1. Frendo, M., Legal aspects of e-commerce. Law technology, 1999.
2. Kesh S et.al "A framework for analyzing ecommerce security", Information Management & Computer Security, 10(4), 2002, pp. 149-458
3. Kotler, P. et.al ,Principles of marketing1997, (9th ED)
4. Sinha G et.al "Operational Drivers of Customer Loyalty in Electronic Retailing: An Empirical Analysis of Electronic Food Retailers," Manufacturing and Service Operations Management, 3(3), 2001, pp. 264-271.
5. Spiller P. et. al , A Classification of Internet Retail Stores. International Journal of Electronic Commerce, 2(2),1997-98, pp. 29-56
6. Swaminathan, V et.al "Browsers or Buyers in Cyberspace? An Investigation of Factors Influencing Electronic Exchange," Journal of Computer Mediated Communication, 5(2), 1999.

Comparative Study on Beverage Companies in India – A Case Study on Coca-Cola & Pepsico

Nitika Agarwal[1] *and Dr. Shrabanti Pal*[2]

[1]*M.Com. Scholar (Accounting and Finance) and* [2]*Assistant Professor, Department of Commerce, J D Birla Institute, Kolkata*

Abstract

The study is concerned with the comparative analysis of the top two soft drink giants namely PepsiCo and Coca-Cola on the basis of their ratio analysis and determine which company among them is at a better position. To measure this performance of the selected companies the study is focused on profitability, liquidity, solvency and efficiency ratios which enable evaluation of the sources and magnitude of the firm's profit. There are many ratios for measuring performance of firms, but the present study has zeroed in on the most popular accounting ratios used for the purpose to make the comparative analysis more meaningful and manageable. This study covering a period of 5 years can only give a brief insight of the performance and working of the selected companies.

Keywords: Coca-Cola, PepsiCo., Ratio-Analysis, Soft-Drink Industry

Introduction

The soft drink industry is a global industry dominated by two familiar companies, Coca-Cola and PepsiCo. There are two distinct segments of the market, cola and non-cola drinks. The cola segment claims a share of 62%, while the non-cola segment includes soda, clear lime, cloudy lime and drinks with orange and mango flavours. Soft and aerated drinks were considered products for the middle class and the affluent. That segregation is no more valid. Soft and aerated drinks are consumed by all except those who cannot afford to buy any drink.

The soft drink industry has been urging the government to categorize aerated waters (soft drinks) equitably with other consumer products of mass consumption and remove special excise duty. The industry estimates that the beverage market should grow at twice the rate of GDP growth. The Indian market should have, therefore, grown by at least 12%. However, it has been growing at a rate of about 6%. It may be recalled that Coca-Cola, the world's number one player, was present in India for a long time in collaboration with an Indian producer but was thrown out in the late 1970s. It reappeared in India following the economic liberalization era - but after its rival, world's number two, had already entered in a big way following a long and tough fight against the opposition from the domestic producers. When Coca-Cola re-entered, it installed a new milestone. It acquired the well flourishing India's top player, Parle. Since then it is basically a fight between the two American giants. Others are playing a peripheral role, as adjuncts to the two MNCs.The Coca-Cola Company, incorporated on September 5, 1919, is a beverage company. The Company owns or licenses and markets over 500 non-alcoholic beverage brands, primarily sparkling beverages but also a range of still beverages, such as waters, enhanced waters, juices and juice drinks, ready-to-drink teas and coffees, and energy and sports drinks. The Company's segments include Eurasia and Africa, Europe, Latin America, North America, Asia Pacific, Bottling Investments and Corporate. The Company owns and markets a range of non-alcoholic sparkling beverage brands, including Coca-Cola, Diet Coke, Fanta and Sprite. The Company markets, manufactures and sells beverage concentrates, which are referred to as beverage bases, and syrups, including fountain syrups (concentrate business or concentrate operations), and finished sparkling and still beverages (finished product business or finished product operations). The Company makes its beverage products available to consumers across the world through its network of Company-owned or -controlled bottling and distribution operations, as well as independent bottling partners, distributors, wholesalers and retailers. PepsiCo was formed in 1965 with the merger of the Pepsi-Cola Company and Frito-Lay, Inc. PepsiCo has since expanded from its namesake product Pepsi to a broader range of food and beverage brands, the largest of which have included an acquisition of Tropicana Products in 1998 and the Quaker Oats Company in 2001, which added the Gatorade brand to its portfolio.PepsiCo, Inc. is one of the world's top consumer product companies with many of the world's most important and valuable trademarks. Its Pepsi-Cola Company division is the second largest soft drink business in the world, with a 21 percent share of the carbonated soft drink market worldwide and 29 percent in the United States.

Methodology

This research is mostly analytical in nature. The present study is confined to the two leading soft drink giants namely Coca-Cola and PepsiCo. The study covers a period of five years from 2011 to 2015. This period is enough to cover both the short and medium terms fluctuations and to set reliability. The present study is mainly based on the secondary data. The data are mainly collected from annual reports of the concerned company, various books and published material in standard books and newspapers, Journals and financial websites like NSE, BSE and moneycontrol.com. Accounting ratios including profitability Ratios, liquidity Ratios, Solvency Ratios and Efficiency Ratios are used for analyzing and comparing the two selected companies. To measure this performance the study is focused on profitability, liquidity, solvency and efficiency ratios which enable evaluation of the sources and magnitude of the firm's profit. There are a number of ratios for measuring performance of firms, but the present study has zeroed in on the most popular accounting ratios used for the purpose to make the analysis more meaningful and manageable. The interpretation of data is extremely important financial tool for each of the activities performed within the organization. The Correlation Method in used in the study to show the relationship between different variables (ratios) considered under the study.

Results and Discussions

In Figure 1 we can see that the net profit Margin of Coca-Cola (KO) is much higher than that of PepsiCo. Although the percentages have been fluctuating over the year but in case of Coca-Cola, we can see that after maintaining an average of 18% from 2011-2013. It fell greatly to a percentage of 15.43 in 2014 after which it seems to be recovering in 2015. The year 2013 showed an increase of the Net Profit Margin from 9.42 to 10.14 which was the maximum percentage witnessed by PepsiCo in the years taken into consideration. Post 2013 PepsiCo has witnessed a fall in the Net Margin Profit.

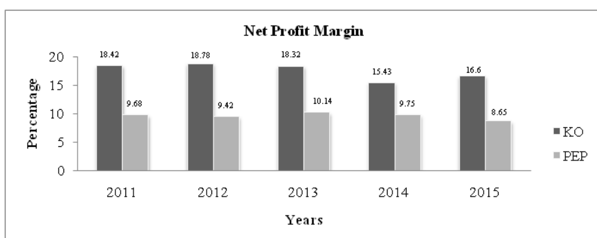


Figure 1: Profitability Ratios

In the figure 2 we see that that the ratios are constantly fluctuating each year. In case of Coca-Cola (KO) we notice that the Return on Assets has been continuously falling over the years but it has again started rising in 2015. In case of PepsiCo (PEP) we see that there is an alternative rise and fall in the ratio from 2011-2014. In 2015, it has further fallen to 7.78 from the previous ratio of 8.79 in 2014. We can also notice that the Return on Asset ratio of Coca-Cola (KO) is higher than that of PepsiCo (PEP) in all the years except in 2014.

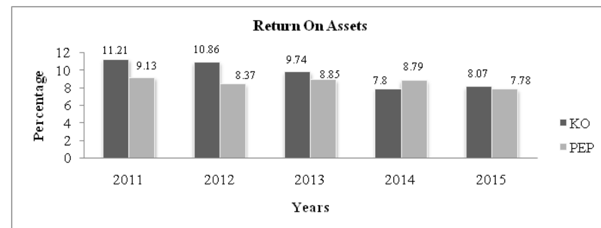


Figure 2: Return on Assets

Here we see that in case of Coca-cola (KO), the ROE rose initially in 2012 from 27.37 to 28 but it has been falling in the next two consecutive years after which it again rose from 22.36 in 2014 to 26.31. On the other hand, the ROE of PepsiCo (PEP) initially dipped in 2012 30.89 to 28.84 but later recovered in 2013 when it rose to 28.96 and has been rising since then (Figure 3).

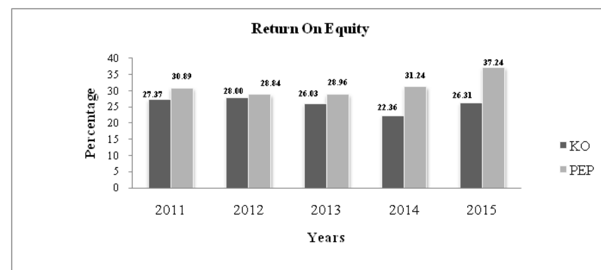


Figure 3: Return on Equity

It can be seen in the figure 4 that the ROCE of both the companies have fallen in 2012. The ROCE of Coca-Cola (KO) fell to 14.27 from 14.87 while that of PepsiCo fell to 13.84 from 15.04. Although the ratio of PepsiCo recovered in 2013 and 2014 and kept increasing, the performance of Coca-Cola declined as the ratio kept falling. But in 2015, while the ROCE of Coca-Cola recovered the ratio of PepsiCo dipped. But with an exception to 2012, the ROCE of PepsiCo has always been higher as compared to that of Coca-Cola.

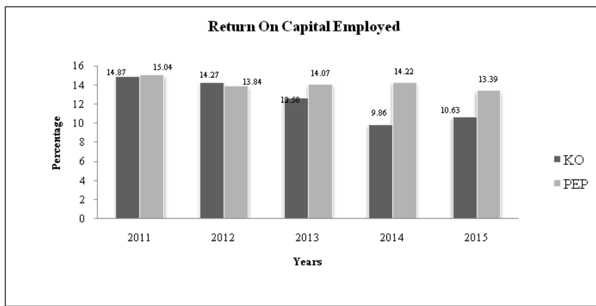


Figure 4: Return on Capital Employed

In the figure 5 we can see that the Quick Ratio of Coca-Cola (KO) is at 0.78 in 2011 after which it fluctuates by falling and rising alternatively through 2012-2014. In 2015 the Quick ratio increased to 0.89 from 0.81 of the previous year. In case of PepsiCo, we notice that the quick ratio is on an increasing trend with the exception to 2014 where it fell to 0.85 as compared to the 0.93 of 2013. It is also evident that although in 2011 the Quick Ratio of PepsiCo is much lower than that of Coca-Cola but eventually by 2015 PepsiCo has a Quick ratio of 1.05 as compared to Quick Ratio of Coca-Cola which is at 0.89.

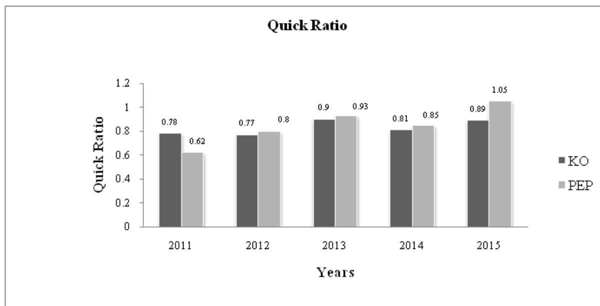


Figure 5: Liquidity Ratios

Here we see that the Debt-Equity Ratio of Coca-Cola (KO) although low but keeps increasing over the years. It has risen from 0.43 in 2011 to 1.11 in 2015. But although the Debt-Equity Ratio of PepsiCo (PEP) rises to 1.06 in 2012 from 1.00 in 2011, it falls again to 1.00 in 2013. It is seen that post 2013 it increases again and in 2015, it is as high as 2.45. We can also see that the Debt-Equity Ratio of PepsiCo is higher than that of Coca-Cola over the years.

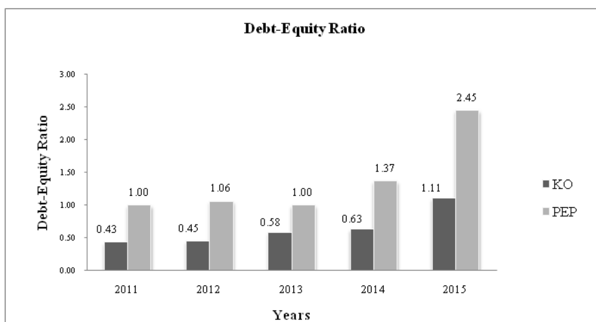


Figure 6: Solvency Ratio

In this case the receivables turnover ratio of Coca-cola (KO) has been decreasing from 2011 to 2013 after which it seems to be increasing effectively. It has reached the highest in the year 2015. On the other hand, the receivable turnover ratio of PepsiCo (PEP) has always been greater than of Coca-cola (KO) and it has been increasing every year. The maximum percentage of increase of PepsiCo's receivables ratio was seen in the year 2013. If the receivable turnover ratio is increasing, the conditions reflect that the economy or industry is strong then the customers should not be experiencing cash flow problems. The companies most likely have adequate credit policies and are doing an adequate job of collecting from slow-paying accounts (Figure 7).

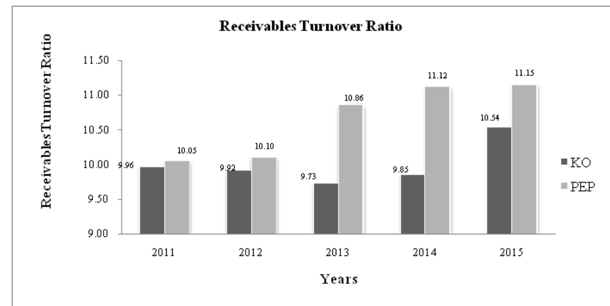


Figure 7: Efficiency Ratios

In the case of Coca-Cola (KO) we notice that the inventory turnover ratio is constantly falling over the years. It has fallen from 6.34 in 2011 to 5.83 in 2015. On the other hand we notice that the inventory turnover ratio of PepsiCo (PEP) has risen over the years except a dip in the year 2012 when it fell from 8.78 to 8.45 but the company recovered in 2013 when the ratio increased from 8.45 to 8.94. Low inventory turnover ratio of Coca-Cola (KO) is a signal of inefficiency, since inventory usually has a rate of return of zero. It may also imply either poor sales or excess inventory. A low turnover rate can indicate poor liquidity, possible overstocking, and obsolescence. The high inventory turnover ratio of PepsiCo (PEP) implies either strong sales or ineffective buying. A high inventory turnover ratio can indicate better liquidity, but it can also indicate a shortage or inadequate inventory levels, which may lead to a loss in business (Figure 8).

Figure 8: Turnover Ratios

Co-relation Analysis Interpretation

Coca-Cola

1. Here we can see that Return on Assets, Return on Equity and Return on Capital Employed are the variables which have a strong, significant and direct relation with the Net Margin Ratio. It may also be noted that all the variables except Debt Equity Ratio, Gross Margin Ratio, Quick Ratio and Receivable Turnover Ratio have a positive r-value which means that they have a direct relation with the Net Margin Ratio. Here Correlation is significant at the 0.05 level (2 tailed) which implies that there is 5% chance that the acquired result is accidental.
2. Here we can see that Net Margin Ratio, Return on Capital Employed and Assets Turnover Ratio are the variables which have a strong, significant and direct relation with the Return on Assets Ratio. It may also be noted that all the variables except Debt Equity Ratio, Gross Margin Ratio, Quick Ratio, Current Ratio, and Receivable Turnover Ratio have a positive r-value which means that they have a direct relation with the Operating Margin Ratio. Here Correlation of Return on Capital Employed with Return on Assets is significant at the 0.01 level (2 tailed) which implies that there is 1% chance that the acquired result is accidental. Correlation of Net Margin Ratio and Assets Turnover Ratio are significant at the 0.05 level (2 tailed) which implies that there is 5% chance that the acquired result is accidental.
3. Here we can see that Net Margin Ratio, Return on Assets and Assets Turnover Ratio are the variables which have a strong, direct and significant relation with the Return on Capital Employed Ratio. It may also be noted that all the variables except Debt Equity Ratio, Gross Margin Ratio, Quick Ratio, Current Ratio, and Receivable Turnover Ratio have a positive r-value which means that they have a direct relation with the Return on Capital Employed Ratio. Here Correlation of Return on Assets with Return on Capital Employed is significant at the 0.01 level (2 tailed) which implies that there is 1% chance that the acquired result is accidental. Correlation of Net Margin Ratio and Assets Turnover Ratio are significant at the 0.05 level (2 tailed) which implies that there is 5% chance that the acquired result is accidental.
4. Here we can see that Operating Margin Ratio is the only variable which has a strong and significant but inverse relation with the Debt Equity Ratio. It may also be noted that all the variables except Quick Ratio, Current Ratio, Fixed Assets Turnover Ratio and Receivable Turnover Ratio have a negative r-value which means that they have an inverse relation with the Debt Equity Ratio. Here Correlation is significant at the 0.05 level (2 tailed) which implies that there is 5% chance that the acquired result is accidental.
5. It may also be noted that Current Ratio, Quick Ratio, Receivables Turnover Ratio and Inventory Turnover Ratio have no strong or significant correlation with any of the above considered ratios.

PepsiCo

1. Here we can see that Operating Margin Ratio is the only variable which has a strong, significant and direct relation with the Net Margin Ratio. It may also be noted that all the variables except Operating Margin, Return on Assets and Return on Capital Employed have a negative r-value which means that they have an inverse relation with the Net Margin Ratio. Here Correlation is significant at the 0.01 level (2 tailed) which implies that there is 1% chance that the acquired result is accidental.
2. Here we can see that Operating Margin Ratio and Return on Capital Employed are the variables which have a strong, direct and significant relation with the Return on Assets Ratio. It may also be noted that all the variables except Operating Margin Ratio, Net Margin Ratio, Return on Capital Employed and Assets Turnover Ratio have a negative r-value which means that they have an inverse relation with the Operating Margin Ratio. Here Correlation of Return on Capital Employed with Return on Assets is significant at the 0.05 level (2 tailed) which implies that there is 5% chance that the acquired result is accidental. Correlation of Operating Margin Ratio and Assets Turnover Ratio are significant at the 0.01 level (2 tailed) which implies that there is 1% chance that the acquired result is accidental.
3. Here we can see that Gross Margin Ratio and Debt-Equity Ratio are the variables which have a strong direct and significant relation with the Return on Equity Ratio. It may also be noted that all the variables except Return on Asset, Operating Margin Ratio, Net Margin Ratio and Return on Capital Employed have a positive r-value which means that they have a direct relation with the Return on Equity Ratio. Here Correlation of Gross Margin Ratio with Return on

Equity is significant at the 0.05 level (2 tailed) which implies that there is 5% chance that the acquired result is accidental. Correlation of Debt-Equity Ratio and Assets Turnover Ratio are significant at the 0.01 level (2 tailed) which implies that there is 1% chance that the acquired result is accidental.

4. Here we can see that Return on Assets and Current Ratio are the variables which have a strong relation with the Return on Capital Employed Ratio. Return on Assets has a direct relation with the Return on Capital Employed Ratio while the Current Ratio has an inverse relation It may also be noted that all the variables except Operating Margin Ratio, Net Margin Ratio, Return on Assets and Assets Turnover Ratio have a negative r-value which means that they have a inverse relation with the Return on Capital Employed Ratio. Here Correlation of Return on Assets and Current Ratio are significant at the 0.05 level (2 tailed) which implies that there is 5% chance that the acquired result is accidental.
5. Here we can see that Current Ratio is the only variable which has a strong, direct and significant relation with the Quick Ratio. It may also be noted that all the variables except Operating Margin Ratio, Net Margin Ratio, Return on Assets, Return on Capital Employed and Assets Turnover Ratio have a positive r-value which means that they have a direct relation with the Quick Ratio. Here Correlation is significant at the 0.01 level (2 tailed) which implies that there is 1% chance that the acquired result is accidental.
6. Here we can see that Gross Margin Ratio and Return on Equity are the variables which have a strong, direct and significant relation with the Debt Equity Ratio. It may also be noted that all the variables except Operating Margin Ratio, Net Margin Ratio, Return on Assets and Return on Capital Employed have a positive r-value which means that they have a direct relation with the Debt Equity Ratio. Here Correlation of Gross Margin with Debt-Equity Ratio is significant at the 0.05 level (2 tailed) which implies that there is 5% chance that the acquired result is accidental. Correlation of Return on Equity and Debt-Equity Ratio are significant at the 0.01 level (2 tailed) which implies that there is 1% chance that the acquired result is accidental.
7. Here we can see that Inventory Turnover Ratio and Fixed Assets Turnover Ratio are the variables which have a strong, direct and significant relation with the Receivables Turnover Ratio. It may also be noted that all the variables have a positive r-value which means that they have a direct relation with the Receivables Turnover Ratio with the exception to Operating Margin Ratio, Net Margin Ratio, Return on Assets, Return on Capital Employed and Assets Turnover Ratio. Here Correlation is significant at the 0.05 level (2 tailed) which implies that there is 5% chance that the acquired result is accidental.
8. Here we can see that Gross Margin Ratio, Receivables Turnover Ratio and Fixed Assets Turnover Ratio are the variables which have a strong, direct and significant relation with the Inventory Turnover Ratio. It may also be noted that all the variables have a positive r-value which means that they have a direct relation with the Inventory Turnover Ratio with the exception to Operating Margin Ratio, Net Margin Ratio, Return on Assets, and Return on Capital Employed. Here Correlation of Receivables Turnover Ratio with Inventory Turnover Ratio is significant at the 0.05 level (2 tailed) which implies that there is 5% chance that the acquired result is accidental. Correlation of Gross Margin Ratio and Fixed Assets Turnover Ratio and Inventory Turnover Ratio are significant at the 0.01 level (2 tailed) which implies that there is 1% chance that the acquired result is accidental.

Conclusion

Efficient management of finance is very important for the success of an enterprise. The term financial performance is very dynamic term. In present time greater importance is given to financial performance. So, here the financial performance of the selected units i.e. Coca-Cola and PepsiCo are compared. While analyzing the financial performance of the selected units, we include the analysis of solvency, analysis of fixed assets and analysis of profitability.

Financial performance is an important yardstick to measure a company operational and financial efficiency. This aspect must form part of the company's strategic and operational thinking. Efforts should constantly be made to improve the financial position. This will yield greater efficiencies and improve investor's satisfaction. Coca-Cola and PepsiCo both the companies are major players in Soft-Drinks industry. After making the comparative analysis of both the firms we find that performance of PepsiCo is better than the Coca-Cola. It is so because except the Gross Profit Margin, Operating

Profit Margin, Net Profit Margin and Return on Assets, in case all the other selected ratios PepsiCo is performing way better than Coca-Cola. It is seen that Coca-Cola is better than PepsiCo in terms of Profit Margin and Return on Assets Ratio. But in case of the other selected profitability, liquidity, solvency and efficiency ratios PepsiCo is at a better position than Coca-Cola. But the main source of information is annual reports. They represent financial position on particular date. What happened between such two dates cannot easily be presumed or predicated.

The annual reports mostly contain quantitative and financial information and as regards to qualitative aspect of financial performance. Also, the financial performance covering a large period say 20 years or 30 years can give a much clear picture of management practices of financial performance. This study covering a period of 5 years can only give a brief idea of the performance.

References

1. Arvind R. and Srividya V. A Study on Financial Performance of Sakthi Finance Limited. Asia Pacific Journal of Marketing & Management Review, 2(7), 2013, pp 57-65. Retrieved on September 8, 2016 from indianresearchjournals.com/pdf/APJMMR/2013/July/6.pdf
2. Bansal R. A. Comparative Financial Study: Evidence from Selected Indian Retail Companies. Journal of Finance and Investment Analysis, 3, 2014, pp. 13-35. Retrieved on September 6, 2016 from http://www.scienpress.com/Upload/JFIA/Vol%203_3_2.pdf
3. Singla V. A. Comparative Study of Financial Performance of Sail and Tata Steel Ltd. International Journal of Review, Survey and Research (IJRSR), 2013, pp. 1-22. Retrieved on September 6, 2016 from http://www.ijrsr.com/January2013/11.pdf
4. Srinivas K. T. An Analysis of Financial Statements of Karnataka Power Corporation Limited, Bangalore. International Journal of Engineering and Management Research. Vol. 2. 2012. Pp 53-57 Retrieved on September 2, 2016 from http://www.ijemr.net/DOC/AnAnalysisOfFinancialStatementsOfKarnatakaPowerCorporationLimited-Bangalore(53-57)3c268baf-ef8c-4992-b88f-14d075d7b7bf.pdf
5. Sultan A. S. Financial Statements Analysis - Measurement of Performance and Profitability: Applied Study of Baghdad Soft-Drink Industry. Research Journal of Finance and Accounting, 5, 2014, pp.49-56. Retrieved on September 2, 2016 from http://www.iiste.org/Journals/index. php/RJFA/article/view/11276.pdf

A Study on Steel Industry in India

Riddhi Newatia[1] and Dr. Shrabanti Pal[2]
[1]M.Com. Scholar (Accounting and Finance) and [2]Assistant Professor, Department of Commerce, J D Birla Institute, Kolkata

Abstract

Steel is crucial to the development of any modern economy and is considered to be the backbone of human civilization. It is a product of a large and technologically complex industry having strong forward and backward linkages in terms of material flows and income generation. The current global steel industry is in its best position in comparing to last decades. In this study I have discussed about the Ratio and Correlation to evaluate the performance of steel industry. This study investigates performance of steel companies for the period of April- 2012 to March -2016. Financial statements of Jindal Steel and Power Limited (JSPL), Bhushan Steel Limited (BSL), Tata Steel Limited and JSW Steel for the indicated periods were obtained from database such as Money Control, Annual Report, and BSE. Necessary information derived from these financial statements were summarized and used to compute the financial ratios for the five-year period. Financial ratios are tools that were used to measure the profitability, liquidity, efficiency and solvency performance of four Indian steel companies. After calculating ratios, weightage have been given to the parameter of the Correlation. On the basis of this analysis it is found that the performance and efficiency of Tata Steel Limited is better than the other three companies.

Keywords: India, Performance, Steel Industry

Introduction

Total finished steel production in India has increased at a CAGR of 7.65 per cent during FY11–15, with country's steel production reaching to 92.16 million tonnes per annum (MTPA) in FY15 and 67.71 MTPA in FY16(1). The country became the third-largest crude steel producer in 2015 and is expected to become the third-largest crude steel producer in 2016, as large public and private sector players strengthen steel production capacity in view of rising demand. Moreover, capacity is also expected to increase from 100 million tonnes (MT) in FY15 to 112.5 MT by FY16 while in the coming 10 years the country is anticipated to produce 300 MT of steel During FY15, total steel production was 91.46 MT.

Strong Growth Opportunities

- Huge scope for growth is offered by India's comparatively low per capita steel consumption and the expected rise in consumption due to increased infrastructure construction and the thriving automobile and railways sectors
- In 2015, India's per capita consumption of steel was ~60 kg, which is close to one fourth of the international average, indicating strong growth opportunity
- National Mineral Development Corporation is expected to increase the iron ore production 75 MTPA until 2021 indicating new opportunities in the sector

Technological Advancements

- Increased government and corporate sector focus on using innovative production techniques for enhancing operational as well as financial performance is a positive.

Rising domestic and International investments

- Domestic players' investments in expanding and upgrading manufacturing facilities are expected to reduce reliance on imports. In addition, the entry of international players would provide benefits in terms of capital resources, technical knowhow and more competitive industry dynamics.

Methodology

The data used for the analysis and comparison is secondary in nature collected through various reports.

For the proposed topic four companies from steel industry has been selected on a random basis i.e. Jindal Steel and Power Limited (JSPL), Bhushan Steel Limited (BSL), Tata Steel Limited and JSW Steel. Secondary sources of data used to complete this project mainly include annual reports, balance sheet, and profit and loss statement, of both the company mentioned above. Calculation of various accounting ratios is done using the data taken from these financial reports and money control. Apart from this, the financial figures are obtained from ibef.

Graphs and Correlation analysis have been used for statistical analysis of data. Time horizon used for the analysis is 5 years i.e. from march 2012-2016.

- Analytical/Financial Analysis (Ratio Analysis)
- Correlation Analysis

Results and Discussion

Demand Supply Gap Leading to Rise in Imports

- With growth in demand for steel outpacing growth in domestic production over the last few years, import dependency has increased.
- India was a net importer of steel till FY13, but turned a net exporter of the same in FY14. In FY15, India imported 9.32 MT of steel while exports declined to 5.59 MT in FY15 from 5.98 MT during FY14
- During FY11-15, import of steel grew at a compounded annual rate of 9.01 per cent, whereas, exports increased at a CAGR of 11.32 per cent
- Total domestic demand for steel is estimated at 113.3 mtpa by 2016-17
- In FY16(1), India imported 8.39 MT of steel, while steel exports from the country declined to 2.91 MT in FY16(1) from 5.59 MT during FY15
- In order to reduce imports and boost domestic industry the government in February 2016 imposed the MIP (Minimum Import Price) on steel, in the range of $341 to $752 per tonne, on 173 steel products.

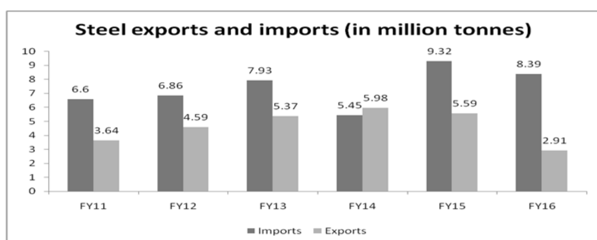


Figure 1: Company Profile

Jindal Steel and Power Limited (JSPL)

- Incorporated in 1979, Jindal Steel and Power Limited (JSPL) is an integrated steel producer and the largest coal-based sponge iron manufacturer in the world. The company has an installed steel production capacity of 3 MTPA at Raigarh in Chhattisgarh. JSPL is engaged in manufacturing long products and is specialised in producing long rails for railways and large sized H-beams as well as columns for the infrastructure and construction sector
- JSPL also has significant presence across the mining, power generation and infrastructure sectors
- New and expansion projects include setting up of a 7 MTPA integrated steel plant in Chhattisgarh, 12 MTPA integrated steel plant in Jharkhand and a 12.5 MTPA integrated steel plant in Orissa.

Achievements:

a) 2014 - Company has commissioned the billet caster plant with capacity of 6 MTPA at Angul with record time of one year

b) 2015 - Company has created history with its Raigarh steel facility producing 10,000 tonnes of crude steel in a single day.

Bhushan Steel Limited (BSL)

Established in 1983, Bhushan Steel Limited (BSL) is the third largest secondary steel producer in India. The company is headed towards an installed capacity of 7 MTPA (post completion of Phase III; 4.7 MTPA of primary and 2.2 MTPA of secondary). It primarily manufactures flat steel products for the automobile industry.

Products – Cold-rolled closed annealed coils, galvanized coils and sheets, high tensile steel strapping, color coated coils, galume sheets and coils, hardened and tempered steel strips, billets, sponge iron, precision tubes and wire rods.

Milestones:

- Emerged as third largest cold rolled steel producer with an installed capacity of 1 MT and sales more than USD1 Billion
- Transformed itself as one of the largest and only Cold Rolled Steel plant in India

Tata Steel Limited

Established in 1907 by the visionary founder – JN Tata, Tata Steel is among the top ten global steel companies with an annual crude steel capacity of nearly 30 MTPA.

The company caters to sectors such as automotive, construction, consumer goods, engineering, packaging, energy & power, ship building, rail and defense & security.

Milestones:

- 2009 – Tata Ryerson and HMPCL merge with Tata Steel
- 2007 – Tata Steel and Corus were integrated at USD12 billion, making Tata Steel one of the top ten global steel producers
- 2013 – Tata Steel made a transition from open cast mining to underground mining

- 2016 – Company would increase its crude steel capacity from the current level of 9.96 MTPA in FY16 to 33.2 MTPA by FY18
- As per Dow Jones Sustainability Index 2016, the company was declared global industry leader in the steel sector.

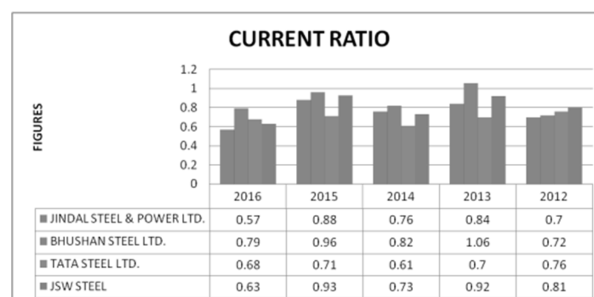
JSW Steel
Established in 1994, JSW Steel Ltd manufactures iron and steel products in India and abroad. The company has an installed capacity of 14.3 million tonnes per annum.

Products – Hot-rolled coils, plates and sheets; cold-rolled coils and sheets; galvanized sheets and coils, galvume; TMT bars, wire rods, cast products, pre-painted galvanised coils, sheets.

Achievements:
- 2011 – National Sustainability Award by the Indian Institute of Metals
- 2009 – Gold Award in the Metal and Mining sector
- 2008 – National Energy Management Award instituted by CII
- 2014 – Company plans to increase the crude steel capacity to 47 MTPA by FY18 from the current level of 14.3 MTPA
- In FY15, JSW reported net sales of USD8.79 billion and became the largest steel producer in the country leaving behind SAIL and Tata Steel
- In FY16, JSW accounted for net sales of USD6.4 billion

Ratio Analysis
A financial ratio (or accounting ratio) is a relative magnitude of two selected numerical values taken from an enterprise's financial statements. Often used in accounting, there are many standard ratios used to try to evaluate the overall financial condition of a corporation or other organization. Financial ratios may be used by managers within a firm, by current and potential shareholders (owners) of a firm, and by a firm's creditors. Financial analysts use financial ratios to compare the strengths and weaknesses in various companies.

Liquidity Ratios
Managers and creditors must closely monitor the firm's ability to meet short-term obligations. The liquidity ratios are measures that indicate a firm's ability to repay short-term debt. Current liabilities represent obligations that are typically due in one year or less. The current and quick ratios are used to gauge a firm's liquidity.



	2016	2015	2014	2013	2012
JINDAL STEEL & POWER LTD.	0.57	0.88	0.76	0.84	0.7
BHUSHAN STEEL LTD.	0.79	0.96	0.82	1.06	0.72
TATA STEEL LTD.	0.68	0.71	0.61	0.7	0.76
JSW STEEL	0.63	0.93	0.73	0.92	0.81

Figure 2: Liquidity Ratio

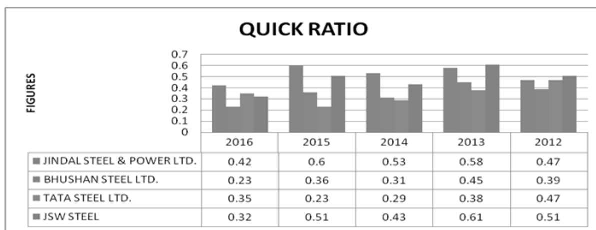
Current Ratio (CR)
This ratio shows the current assets available to cover current liabilities at the balance sheet date. There should be a reasonable buffer of current assets over current liabilities as an indication of the ability of the firm to pay its debts as and when they fall due.
Current Ratio = Current assets / Current liabilities

In the graph the companies have a very unstable pattern of growth. None of the above meets the standard of a current ratio. Although every company has an increased value in 2015, the current scenario is not that bright.

Quick Ratio (QR)
This ratio shows the extent of cash and other current assets that are readily convertible into cash in comparison to the short term obligations of an organization. Quick ratio differs from current ratio in that those current assets that are not readily convertible into cash are excluded from the calculation such as inventory and deferred tax credits since conversion of such assets into cash may take considerable time.

Quick ratio = current assets – (cash and equivalents + marketable securities + accounts receivable) / current liabilities

All the companies have declined in their values of quick ratio. The liquidity position is not satisfying. 2013 has been a growth year for all the companies.



	2016	2015	2014	2013	2012
JINDAL STEEL & POWER LTD.	0.42	0.6	0.53	0.58	0.47
BHUSHAN STEEL LTD.	0.23	0.36	0.31	0.45	0.39
TATA STEEL LTD.	0.35	0.23	0.29	0.38	0.47
JSW STEEL	0.32	0.51	0.43	0.61	0.51

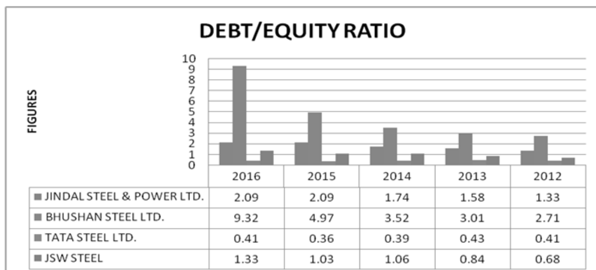
Figure 3 : Quick Ratio

Debt to Equity Ratio (DER)

This ratio shows the dependence on debt (borrowing) finance compared with equity funding. The greater is the reliance on debt financing, the greater is the level of interest and the greater the risk from exposure to rising interest rates.

Debt to equity = Long term debt or liabilities / Total equity

A debt to equity ratio of 1 would mean that investors and creditors have an equal stake in the business assets. A lower debt to equity ratio usually implies a more financially stable business, as we can see in case of Tata Steel. Year with a higher debt to equity ratio are considered more risky to creditors and investors, as in the case of other 3 companies especially Bhusan Steel Ltd.



	2016	2015	2014	2013	2012
JINDAL STEEL & POWER LTD.	2.09	2.09	1.74	1.58	1.33
BHUSHAN STEEL LTD.	9.32	4.97	3.52	3.01	2.71
TATA STEEL LTD.	0.41	0.36	0.39	0.43	0.41
JSW STEEL	1.33	1.03	1.06	0.84	0.68

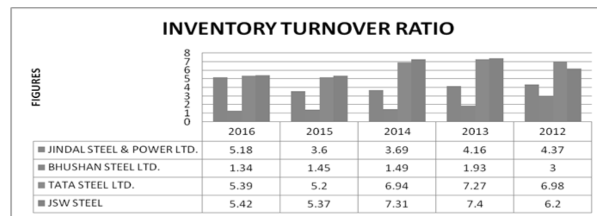
Figure 4: Debt Equity Ratio

Inventory Turnover Ratio (ITR)

This ratio is used to assess how efficiently a business is managing its inventories. A low inventory may be an indication of either a slow-down in demand or over-stocking of inventories. However, a very high value of this ratio may result in stock-out costs, i.e. when a business is not able to meet sales demand due to non-availability of inventories.

Inventory turnover ratio = Cost of goods sold / Average inventory

In the graph, we can interpret that Bhusan Steel Ltd has a consisted poor turnover of inventory; Jindal Steel has shown a slight growth, while the other two have declined.



	2016	2015	2014	2013	2012
JINDAL STEEL & POWER LTD.	5.18	3.6	3.69	4.16	4.37
BHUSHAN STEEL LTD.	1.34	1.45	1.49	1.93	3
TATA STEEL LTD.	5.39	5.2	6.94	7.27	6.98
JSW STEEL	5.42	5.37	7.31	7.4	6.2

Figure 5 : Inventory Turnover Ratio

Efficiency Ratio

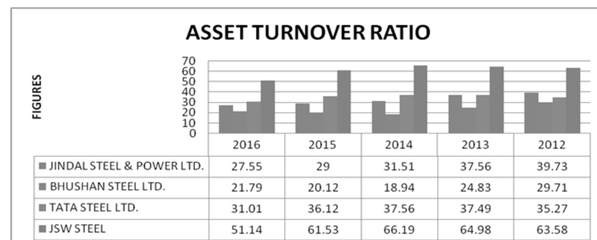
The efficiency ratio is typically used to analyze how well a company uses its assets and liabilities internally. An efficiency ratio can calculate the turnover of receivables, the repayment of liabilities, the quantity and usage of equity, and the general use of inventory and machinery.

Asset Turnover Ratio (ATR)

This is the ratio of a company's sales to its assets. It is an efficiency ratio which tells how successfully the company is using its assets to generate revenue. If a company can generate more sales with fewer assets it has a higher turnover ratio which tells it is a good company because it is using its assets efficiently.

Total Asset Turnover Ratio = Net Sales/Average Total Assets

JSW Steel has shown to be the most efficient in terms of asset turnover ratio. While Tata has shown a steady performance, the other two have declined.



	2016	2015	2014	2013	2012
JINDAL STEEL & POWER LTD.	27.55	29	31.51	37.56	39.73
BHUSHAN STEEL LTD.	21.79	20.12	18.94	24.83	29.71
TATA STEEL LTD.	31.01	36.12	37.56	37.49	35.27
JSW STEEL	51.14	61.53	66.19	64.98	63.58

Figure 6 : Asset Turnover Ratio

Profitability Ratio

A profitability ratio is a measure of profitability, which is a way to measure a company's performance. Profitability is simply the capacity to make a profit, and a profit is what is left over from income earned after you have deducted all costs and expenses related to earning the income. The formulas you are about to learn can be used to judge a company's performance and to compare its performance against other similarly-situated companies.

Return on Capital Employed (ROCE)

A higher value of return on capital employed is

favorable indicating that the company generates more earnings per dollar of capital employed. A lower value of ROCE indicates lower profitability. A company having fewer assets but same profit as its competitors will have higher value of return on capital employed and thus higher profitability.

Return on capital employed = net operating profit or EBIT / employed capital.

All the companies have a decreased return. Tata Steel has managed to stay afloat, while all others have gone down below zero in their performance. The overall scenario is very inadequate.

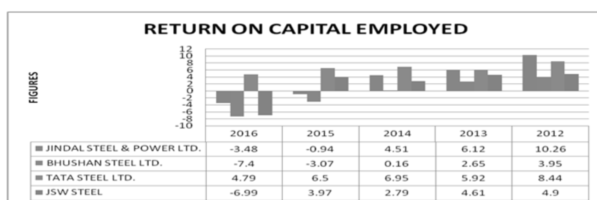


Figure 7: Return on Capital Employed

Net Profit Margin (NPM)

This ratio is a key performance indicator of the profitability of an enterprise. Measuring the trend of NP margin over several periods in comparison to industry benchmarks is crucial for identifying performance gaps that could be overcome to improve the profitability of business in the future.

Net Profit Margin = Net Income or Net Profit / Net Sales

The net profit margin of Jindal Steel and Bhushan Steel Ltd. has decreased tremendously. Tata Steel and JSW Steel have decreased slightly, but are fairly stable.

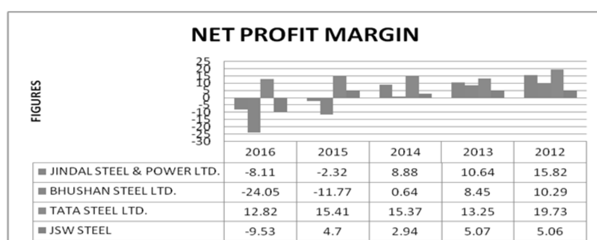


Figure 8: Net Profit Margin

Return on Equity (ROE)

Return on equity is the amount of net income returned as a percentage of shareholders equity. Return on Equity measures a corporation's profitability by revealing how much profit a company generates with the money shareholders have invested. It is also known as return on net worth. Return on Equity: Net Income / Shareholder's Equity. Higher values are generally favorable meaning that the company is efficient in generating incomeon new investment.

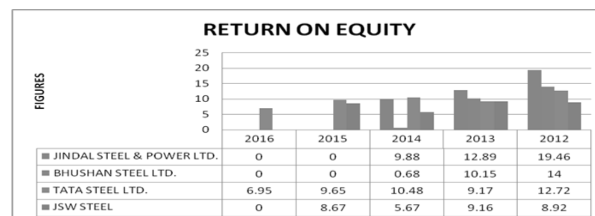


Figure 9: Return on Equity

Return on Assets (ROA)

Return on Asset is an indicator of how profitable a company is relative to its total asset. It gives an idea as to how efficient management is at using its assets to generate earnings.

Return on Assets = Net Income / Average total assets

Higher values of return on assets show that business is more profitable. An increasing trend of ROA indicates that the profitability of the company is improving. Conversely, a decreasing trend means that profitability is deteriorating.

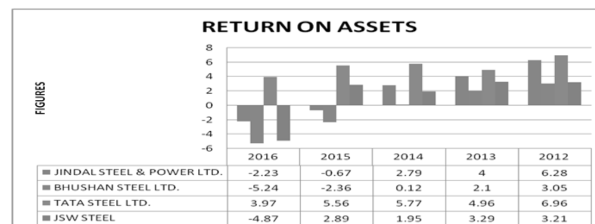


Figure 10 : Return on Assets

Correlation Analysis: Correlation is a bivariate analysis that measures the strengths of association between two variables. The correlation coefficient allows researchers to determine if there is a possible linear relationship between two variables measured on the same subject (or entity). A strong, or high, correlation means that two or more variables have a strong relationship with each other, while a weak or low correlation means that the variables are hardly related. In statistics, the value of the correlation coefficient varies between +1 and -1. When the value of the correlation coefficient lies around ± 1, then it is said to be a perfect degree of association between the two variables. As the correlation coefficient value goes towards 0, the relationship between the two variables will be weaker.

Table 1: Correlation of Jindal Steel & Power Ltd.

	ROCE	CR	QR	ICR	ATR	NPM(%)	ROE	ROI	DER
ROCE	1								
CR	0.217	1							
QR	0.104	0.988	1						
ICR	0.949	0.199	0.092	1					
ATR	0.260	-0.874	-0.849	-0.090	1				
NPM(%)	0.991	0.292	0.189	0.918	-0.352	1			
ROE	0.999	0.229	0.118	0.953	-0.262	0.993	1		
ROI	0.986	0.069	-0.040	0.953	-0.105	0.966	0.986	1	
DER	-0.983	-0.071	0.039	-0.966	0.083	-0.959	-0.984	-0.999	1

Interpretation: ROCE and ROA have high positive correlation (0.999). QR and DER are not correlated (0.039). Both variables ROCE and ROA tend to move in the same direction, if one variable increases, the other tends to increase, and vice-versa. Similarly in case of QR and DER both variables tend to move in the same direction, but the relationship between the two is weak. Similarly if any value that tends to ±1 then it is having positive or negative correlation but when it tends 0 then there is no relation or weaker relation.

Table 2: Correlation of Bhushan Steel Ltd.

	ROCE	CR	QR	ICR	ATR	NPM(%)	ROE	ROI	DER
ROCE	1								
CR	0.087	1							
QR	0.830	0.557	1						
ICR	0.616	-0.260	0.509	1					
ATR	0.769	-0.357	0.550	0.938	1				
NPM(%)	0.997	0.112	0.822	0.584	0.733	1			
ROE	0.999	0.077	0.825	0.636	0.781	0.997	1		
ROI	0.828	-0.056	0.723	0.941	0.927	0.811	0.844	1	
DER	-0.952	-0.206	-0.832	-0.383	-0.598	-0.949	-0.940	-0.636	1

Interpretation: ROCE and ROA have high positive correlation (0.999). CR and ROE are not correlated (0.056). Both variables ROCE and ROA tend to move in the same direction, if one variable increases, the other tends to increase, and vice-versa. But in case of QR and DER both variables tend to move in the opposite direction, the relationship between the two is weak. Similarly if any value that tends to ±1 then it is having positive or negative correlation but when it tends 0 then there is no relation or weaker relation.

Table 3: Correlation Analysis of Tata Steel Ltd.

	ROCE	CR	QR	ICR	ATR	NPM(%)	ROE	ROI	DER
ROCE	1								
CR	0.379	1							
QR	0.386	0.563	1						
ICR	0.486	-0.177	-0.170	1					
ATR	0.493	-0.034	0.578	0.618	1				
NPM(%)	0.955	0.521	0.455	0.213	0.298	1			
ROE	0.997	0.385	0.335	0.513	0.461	0.948	1		
ROI	0.996	0.371	0.405	0.542	0.557	0.930	0.993	1	
DER	-0.138	0.156	0.779	-0.116	-0.621	-0.163	-0.189	-0.086	1

Interpretation: ROCE and ROA have high positive correlation (0.997). ROE and DER are not correlated (-0.086). Both variables ROCE and ROA tend to move in the same direction, if one variable increases, the other tends to increase. If one decreases, the other tends to decrease. But in case of ROE and DER both variables tend to move in the opposite direction, but the relationship between the two is weak. Similarly if any value that tends to ±1 then it is having positive or negative correlation but when it tends 0 then there is no relation or weaker relation.

Table 4: Correlation Analysis of JSW Steel

	ROCE	CR	QR	ICR	ATR	NPM(%)	ROE	ROI	DER
ROCE	1								
CR	0.8110	1							
QR	0.8685	0.9170	1						
ICR	0.9257	-0.6088	0.7428	1					
ATR	0.4811	0.1757	0.4778	0.7345	1				
NPM(%)	0.9989	0.8232	0.8661	0.9251	0.4722	1			
ROE	0.9994	0.8250	0.8746	0.9255	0.4815	0.9998	1		
ROI	0.9743	0.9007	0.9301	0.8280	0.3625	0.9729	0.9752	1	
DER	-0.8572	-0.6275	-0.8067	-0.7361	-0.4137	-0.8332	-0.8417	-0.8723	1

Interpretation: NPM and ROA have high positive correlation (0.9998). CR and ITR are not correlated (0.1757). Both variables NPM and ROA tend to move in the same direction, if one variable increases, the other tends to increase. If one decreases, the other tends to decrease. Similarly in case of CR and ITR both variables tend to move in the same direction, but the relationship between the two is weak. Similarly if any value that tends to ±1 then it is having positive or negative correlation but when it tends 0 then there is no relation or weaker relation.

Conclusion

Steel and Cement are two great traditional indicators of state of the economy. Automobile is now a global benchmark and its status also sums up the state of the steel industry. India is the fourth largest producer of steel. Indian Steel industry has posted a CAGR growth of 10.7% over the last 10 years. It is a core industry for, as well as primary and secondary employment generation. Demand for steel products has almost continuously been higher than steel production in the past causing India to be a net importer of steel.

The Indian steel industry is expected to register exponential growth in the future, riding on increasing urbanization, and projected growth of infrastructure, automobile and real estate sectors. India's outlook has improved following the election of the new government which is promising pro-business reforms. The government of India has set a target to triple Indian steel production to 300 million tons by 2025. Key foreign players in the industry are investing in India which gives an optimistic feel for the industry. Delays in the government allocating sufficient iron ore blocks, regulatory approvals and challenges in land acquisition have slowed many steel projects.

The manufacturing cost in India remains high and with coal getting auctioned, it will only go up further. In the years to come by adopting more effective and efficient technologies for manufacturing companies can augment productivity in Iron and Steel Industry in India. This will effect in amalgamating environmental, social, and economic development objectives as well.

References

1. Firoz, A.S., Indian Steel: Critical Details, Evolving Structure and Strategic Options, Steel Business Briefings, UK. 2016, pp. 76-85
2. Firoz, A.S., Competitiveness, Market Distortion and Competition Issues: A study of Indian Steel Industry, Unpublished manuscript. 2014, pp. 1-13.
3. Government of India, Ministry of Steel, Glossary of Terms/Definitions commonly used in Iron and Steel Industry. (www.steel.nic.in, 2015).
4. India Brand Equity Foundation (2016), Metals Market and Opportunities, IBEF (www.ibef.in, 2016).
5. Radhakrishna, B.P. Boom in India's Iron and Steel Industry, Current Science, 1210, 92(9), May 2012, pp. 76-85.

Effectiveness of Working Capital Management in Paint Industry – Comparative Analysis Between Berger Paint India Ltd. & Asian Paint

Piyali Nag[1] and Pritha Sen[2]
[1]M.Com. Scholar (Accounting and Finance) and [2]Assistant Professor, Department of Commerce,
J D Birla Institute, Kolkata

Abstract

Working capital is that part of capital which is required to meet the day to day needs in running the business. It is required for the purchase of raw material, meeting the day to day expenses such as salaries, rent, stationery etc. Capital is also required to keep the stock of partly and fully finished products. Working capital generally involves the use of short term funds in business and is regularly converted into cash. To analyze the working capital management of Berger Paints India Limited, and Asian Paints Limited, To study the profitability position, efficiency and liquidity position and to find out the short term and long term solvency position of the companies. To offer suggestions and recommendations for the improvement of performance of Berger Paints India Limited, and Asian Paints Limited.

Keywords: Profitability position, Working capital

Introduction

The total capital invested in any business is divided into two types: permanent or fixed capital and working or running capital .Capital required for setting up a concern which is block up usually for acquiring fixed assets is fixed capital. On the other hand the portion of capital kept reserved and used for running the main operating activities of the concern is termed as working capital. Working capital as a name indicates, is the capital required for carrying on day to day operating expenses of business firm .Working Capital may be defined as the part of the total capital of the firm which is used to maintain its central operating activities by means of continuous rotation of capital employed for this purpose. Efficient management of working capital is very much important for the success of the company. Working capital management refers to the management of current assets and current liabilities to maintain liquidity / solvency.

Classification of working capital

1. Gross Working Capital: It refers to the firm's investment in current assets, that is the total of current asset is called Gross working capital. In other words the capital invested by a firm in acquiring its current or rotational assets is the gross working capital. The assets of the firm which are recurrently rotated in its continuous operating process for the purpose of creating surplus or value added are known as current assets.
2. Net Working Capital: Under this concept, the net working capital means excess of current assets over current liabilities. On other words net working capital means current assets minus current liabilities. As per this if the total current assets of the firm is less than its total current liabilities, then the firm does not have any working capital. Current liabilities refers to those liabilities which are payable with in short period that is within a particular accounting year.

Methodology

Secondary Data: The present study is based on the secondary published data.

a) The data relating to the financial statements of 5 years of Asian Paints Limited and Berger Paints India Limited have been collected from the published annual reports and accounts are obtain directly from the registered officers of the respective concern and used extensively.
b) The statistical information related to the Asian Paints Limited and Berger Paints India Limited has been collected through various journals, periodicals etc.
c) Institute like District Industry Centre (DIC) and various libraries have been consulted to get the information.
d) Published books on Asian Paints Limited and Berger Paints India Limited and regarding financial management have been used.

In short, the data related to the working capital management have been compiled from the profit & loss account and balance sheet of selected companies while data relating to the theoretical portion have been collected from different books and various journals, periodicals etc.

Period of Study: The present study covers the period of 5 years spanning from the year 2011-12 to 2015-16. The period of five years is sufficient to infer the results. This period has been selected for the study because the complete data are available for the present study and throughout the available data true insight into the financial heath can be obtained.

Tool for Data Analysis: The tool used in the analysis of working capital is Ratio Analysis.

Results and Discussion

Current Ratio

This ratio is an indicator of the firm's commitment to meet its short-term liabilities. An ideal current ratio is 2. The current ratio is an index of the concern's financial stability.

Table 1: Comparison of Current Ratios

Year	Berger Paints Limited			Asian Paints Limited		
	Current Assets (in crores)	Current Liability (in crores)	Times	Current Assets (in crores)	Current Liability (in crores)	Times
2012	1092.85	494.80	2.21	2825.93	2329.10	1.21
2013	1255.34	551.38	2.28	3044.14	2579.26	1.18
2014	1292.99	726.23	1.78	3601.37	3041.27	1.18
2015	1331.35	728.96	1.83	3274.39	3010.85	1.09
2016	1344.46	933.55	1.44	3206.54	3369.44	0.95

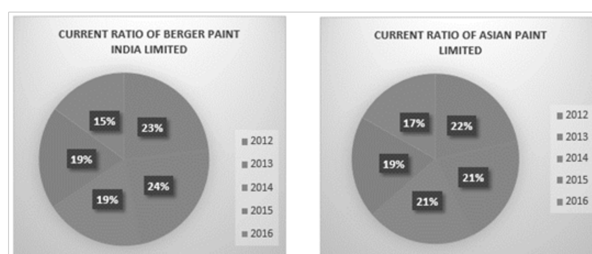


Figure 1: Comparison of Current Ratios

Interpretation: The above table reveals that the current ratio is adequate, so the liquidity position of Berger Paints India Limited is satisfactory. But the current ratio of Asian Paints Limited is not satisfactory, because an ideal current ratio is 2.In case of Berger paints India limited the current ratio is 1.9 in average which tends to 2 but in case of Asian Paints limited average current Ratio is 1.12 which is not satisfactory.

Liquid Ratio

This ratio is also termed as acid test ratio or quick ratio. This ratio is ascertained by comparing the liquid assets (i.e. assets which are immediately convertible into cash without loss) to current liabilities. Prepaid expenses and stock are not taken as liquid assets.

Table 2: Comparison of Liquid Ratios

Year	Berger Paints Limited			Asian Paints Limited		
	Quick Assets (in crores)	Quick Liability (in crores)	Times	Quick Assets (in crores)	Quick Liability (in crores)	Times
2012	578.89	494.80	1.17	1561.51	2329.10	0.67
2013	678.43	551.38	1.23	1563.35	2579.26	0.60
2014	674.29	726.23	0.928	1936.32	3041.27	0.64
2015	684.85	728.96	0.939	1472.21	3010.85	0.49
2016	656.24	933.55	0.702	1596.42	3369.44	0.47

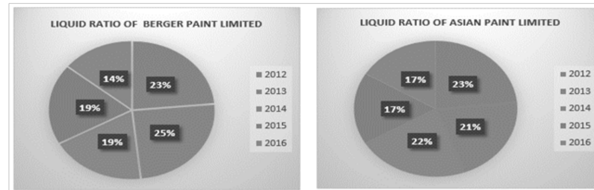


Figure 2: Comparison of Liquid Ratios

Interpretation: The ideal ratio is 1.33. The above table shows that the liquid ratio is less than the ideal value of 1.33 in the years 2014, 2015, 2016 for Berger Paints India Limited and in all years for Asian Paints Limited. So the short-term solvency position of both the companies need to be improved. Further analysis reveals that the major portion of current assets is in the form of inventories in both the cases. Though liquidity position of Berger paints India limited is better than the liquidity position of Asian paints Limited

Absolute Liquid Ratio

Although receivables, like debtors and bills receivable are generally more liquid than inventories, yet there may be doubts regarding their realization into cash immediately or in time. The ideal ratio is 0.5 times.

Table 3: Comparison of Absolute Ratios

Year	**Berger Paints Limited**			**Asian Paints Limited**		
	Absolute Liquid Assets (in crores)	Current Liability (in crores)	Times	Absolute Liquid Assets (in crores)	Current Liability (in crores)	Times
2012	176.29	494.80	0.36	500.97	2329.10	0.21
2013	222.54	551.38	0.40	566.86	2579.26	0.22
2014	163.07	726.23	0.22	745.36	3041.27	0.24
2015	141.15	728.96	0.19	61.81	3010.85	0.021
2016	62.81	933.55	0.067	155.02	3369.44	0.046

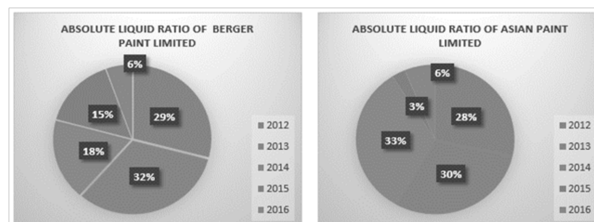


Figure 3: Comparison of Absolute Ratios

Interpretation: The ideal ratio 0.5:1 from the above table, it is seen that the absolute liquid ratio position is not good for both companies. Both the company needs to improve their cash and bank balance.

Working Capital Turnover Ratio

This ratio indicates whether or not working capital has been effectively utilized in making sales. This ratio indicates the number of times the working capital is turned over in the course of a year. A higher ratio indicates efficient utilization of working capital and a low ratio indicates inefficiency.

Table 4: Comparison of Working Capital Turnover Ratios

Year	Berger Paints Limited			Asian Paints Limited		
	Sales (in crores)	Working Capital (in crores)	Times	Sales (in crores)	Working Capital (in crores)	Times
2012	2662.09	598.05	4.45	8747.76	496.83	17.61
2013	3024.21	703.96	4.29	10040.61	464.88	21.60
2014	3384.82	566.76	5.97	11660.58	560.10	20.82
2015	4212.94	602.39	6.99	13041.96	263.54	49.49
2016	4580.72	410.91	11.15	14179.38	(162.90)	(87.04)

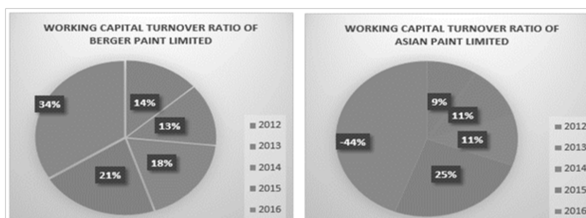


Figure 4: Comparison of Working Capital Turnover Ratios

Interpretation: From the table it is understood that working capital is effectively utilized by the Asian Paints India Limited except for the year 2016, but in Berger Paints India Limited somewhat not satisfactory in the initial years but in 2016 it got balanced.

Cash to Current Asset Ratio

Cash is the life blood of every business. Cash to current assets ratio explains the proportion of cash in the current assets. The management must keep sufficient cash balance to meet the day to day expenses, wages and emergency liabilities.

Table 5: Comparison of Current Asset Ratios

Year	Berger Paints Limited			Asian Paints Limited		
	Cash (in crores)	Current Assets (in crores)	Times	Cash (in crores)	Current Assets (in crores)	Times
2012	176.29	1092.85	0.16	500.97	2825.93	0.18
2013	222.54	1255.34	0.17	566.86	3044.14	0.19
2014	163.07	1292.99	0.13	745.36	3601.37	0.21
2015	141.15	1331.35	0.11	61.81	3274.39	0.019
2016	62.81	1344.46	0.047	155.02	3206.54	0.048

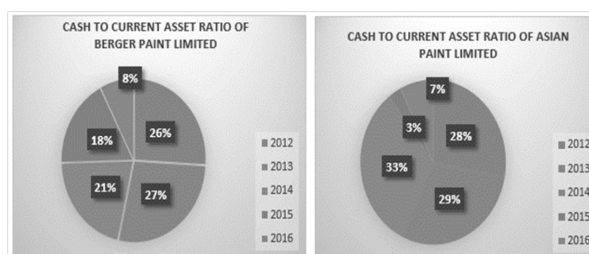


Figure 5: Comparison of Current Asset Ratios

Interpretation: From the table it is understood that there was a constant trend in cash from the both companies in the initial years but it got decreased in 2015 and 2016.

Inventory to Current Assets

In the current assets, inventory is a significant component. So when the management tries to manage current assets it must effectively manage inventories.

Table 6: Comparison of Inventory to Current Assets Ratios

Year	Berger Paints Limited			Asian Paints Limited		
	Inventory (in crores)	Current Assets (in crores)	Times	Inventory (in crores)	Current Assets (in crores)	Times
2012	513.96	1092.85	0.47	1264.42	2825.93	0.45
2013	576.91	1255.34	0.46	1480.79	3044.14	0.49
2014	618.70	1292.99	0.48	1665.05	3601.37	0.46
2015	646.50	1331.35	0.48	1802.18	3274.39	0.55
2016	688.22	1344.46	0.51	1610.12	3206.54	0.50

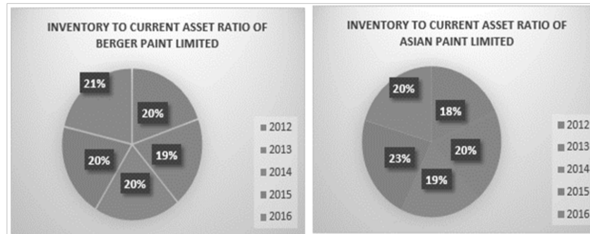


Figure 6: Comparison of Inventory to Current Assets Ratios

Interpretation: From the table it is observed that inventories are maintained at a fixed proportion to current assets, by and large. However, both the companies are efficient in terms of maintaining inventory.

Debtor Turnover Ratio

The quality of debtors to a great extent determines a firm‘s liquidity. Sales to accounts receivable ratio indicates the efficiency of collection of book debts. Higher the ratio, better it is, since it would indicate that debts are being collected promptly. For measuring the efficiency, it is necessary, to establish a standard.

Table 7: Comparison of Debt Turnover Ratios

Year	Berger Paints Limited			Asian Paints Limited		
	Credit Sales (in crores)	Average Debtors (in crores)	Times	Credit Sales (in crores)	Average Debtors (in crores)	Times
2012	2662.09	305.16	8.72	8747.76	500.24	17.49
2013	3024.21	314.85	9.61	10040.61	567.06	17.71
2014	3384.82	353.88	9.56	1160.58	673.12	17.32
2015	4212.94	408.81	10.31	13041.96	720.61	18.10
2016	4580.72	447.93	10.23	14179.38	743.96	19.06

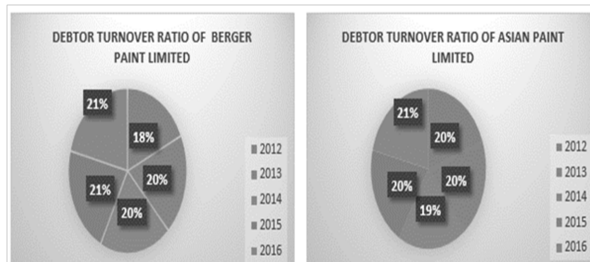


Figure 7: Comparison of Debt Turnover Ratios

Interpretation: The above table reveals a satisfactory position of debtor's turnover in both the companies. But debtors' turnover ratios are greater in Asian paint limited than in Berger Paints India limited.

Creditors Turnover Ratio

It indicates the speed with which the payments for credit purchases are made to the creditors. A higher creditor's turnover ratio signifies that the creditors are being paid promptly thus enhancing the creditworthiness of the company. Since credit purchase is not known, the total purchase is taken as credit purchase for calculation.

Table 8: Comparison of Creditors Turnover Ratios

Year	Berger Paints Limited			Asian Paints Limited		
	Credit Purchase (in crores)	Average Creditors (in crores)	Times	Credit Purchase (in crores)	Average Creditors (in crores)	Times
2012	2662.09	305.16	8.72	8747.76	500.24	17.49
2013	3024.21	314.85	9.61	10040.61	567.06	17.71
2014	3384.82	353.88	9.56	1160.58	673.12	17.32
2015	4212.94	408.81	10.31	13041.96	720.61	18.10
2016	4580.72	447.93	10.23	14179.38	743.96	19.06

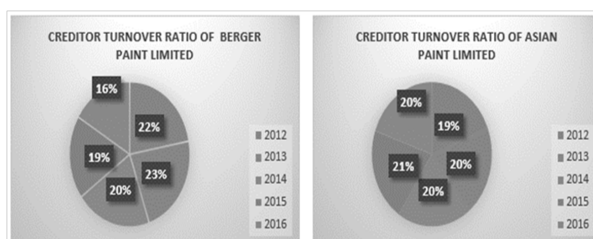


Figure 8: Comparison of Creditors Turnover Ratios

Interpretation: The above table shows the speed of payment to creditors. Asian paints has made their credit payments in shorter period when compared to Berger Paints.

Stock Turnover Ratio

This ratio indicates whether investments in inventory are efficiently used or not. A high inventory turnover indicates efficient management of inventory because more frequently the stocks are sold, the lesser is the amount of money required to finance the inventory.

Table 9: Comparison of Stock Turnover Ratios

Year	Berger Paints Limited			Asian Paints Limited		
	Sales (in crores)	Average Stock (in crores)	Times	Sales (in crores)	Average Stock (in crores)	Times
2012	2662.09	513.96	5.18	8747.76	1264.42	6.92
2013	3024.21	545.44	5.54	10040.61	1372.61	7.31
2014	3384.82	597.50	5.66	11660.58	1572.92	7.41
2015	4212.94	632.60	6.66	13041.96	1733.62	7.52
2016	4580.72	667.36	6.86	14179.38	1706.15	8.31

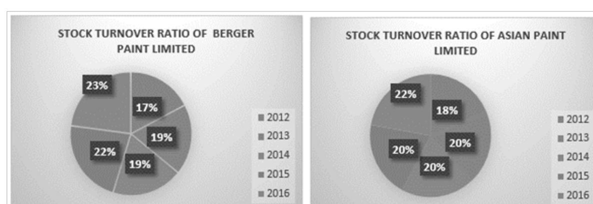


Figure 9: Comparison of Stock Turnover Ratios

Interpretation: It is seen from the above table that the inventory is effectively controlled by both the companies. But Asian paints are more effectively managing its inventory level when compared to Berger Paints.

Table 10: Schedule for Change in Working Capital in Berger Pains India Limited for the year 2012-2013

Particulars	**2012**	**2013**	**Increase**	**Decrease**
A. Current Assets				
Inventories	513.96	576.91	62.95	
Sundry Debtors	305.16	324.55	19.39	
Cash & Bank	176.29	222.54	46.25	
Loans & Advances	97.44	131.34	33.90	
Total CA	1092.85	1255.34		
B. Current Liability				
Liability	430.80	469.91		39.11
Provisions	64.00	81.47		17.47
Total CL	494.80	551.38		
Working Capital (A+B)	598.05	703.96		
Increase	105.91			105.91
Total	703.96	703.96	162.49	162.49

Interpretation: In the year 2012-2013 increase in working capital of the value is Rs. 105.91 (in crores).

Table 11: Schedule for Change in Working Capital in Berger Pains India Limited for the year 2013-2014

Particulars	2013	2014	Increase	Decrease
A. Current Assets				
Inventories	576.91	618.70	41.79	
Sundry Debtors	324.55	383.21	58.66	
Cash & Bank	222.54	163.07		59.47
Loans & Advances	131.34	128.01		3.33
Total CA	1255.34	1292.99		
B. Current Liability				
Liability	469.91	627.09		157.18
Provisions	81.47	99.14		17.67
Total CL	551.38	726.23		
Working Capital (A+B)	703.96	566.76		
Decrease		137.20		
Total	703.96	703.96		

Interpretation: In the year 2013-2014 Decrease in working capital of the value is Rs.137.20 (in crores).

Table 12: Schedule for Change in Working Capital in Berger Pains India Limited for the year 2014-2015

Particulars	2014	2015	Increase	Decrease
A. Current Assets				
Inventories	618.70	646.50	27.80	
Sundry Debtors	383.21	434.41	52.50	
Cash & Bank	163.07	141.15		21.92
Loans & Advances	128.01	109.29		18.72
Total CA	1292.99	1331.35		
B. Current Liability				
Liability	627.09	663.47		36.38
Provisions	99.14	65.49	33.65	
Total CL	726.23	728.96		
Working Capital (A+B)	566.76	602.39		
Increase	35.63			36.63
Total	602.39	602.39	113.65	113.65

Interpretation: In the year 2014-2015 Increase in working capital of the value is Rs.35.63 (in crores).

Table 13: Schedule for Change in Working Capital in Berger Pains India Limited for the year 2015-

Particulars	2015	2016	Increase	Decrease
A. Current Assets				
Inventories	646.50	688.22	41.72	
Sundry Debtors	434.41	461.46	27.05	
Cash & Bank	141.15	62.81		78.34
Loans & Advances	109.29	131.97	22.68	
Total CA	1331.35	1344.46		
B. Current Liability				
Liability	663.47	838.57		175.10
Provisions	65.49	94.98		29.49
Total CL	728.96	933.55		
Working Capital (A+B)	602.39	410.91		
Decrease		191.48	191.48	
Total	602.39	602.39	282.93	282.93

Interpretation: In the year 2015-2016 Decrease in working capital of the value is Rs.191.48 (in crores)

Table 14: Schedule for Change in Working Capital in Asian Paints India Limited for the year 2012-2013

Particulars	2012	2013	Increase	Decrease
A. Current Assets				
Inventories	1264.42	1480.79	216.37	
Sundry Debtors	500.24	633.88	133.67	
Cash & Bank	500.97	566.86	65.89	
Loans & Advances	560.30	362.61		197.69
Total CA	2825.93	3044.14		
B. Current Liability				
Liability	1908.87	2078.94		170.07
Provisions	420.23	500.32		80.09
Total CL	2329.10	2579.26		
Working Capital (A+B)	496.83	464.88		
Decrease		31.95	31.95	
Total	496.83	496.83	447.85	447.85

Interpretation: In the year 2012-2013 decrease in working capital of the value is Rs.31.95 (in crores).

Table 15: Schedule for Change in Working Capital in Asian Paints India Limited for the year 2013-2014

Particulars	2013	2014	Increase	Decrease
A. Current Assets				
Inventories	1480.79	1665.05	184.26	
Sundry Debtors	633.88	712.36	78.48	
Cash & Bank	566.86	745.36	178.50	
Loans & Advances	362.61	478.60	115.99	
Total CA	3044.14	3601.37		
B. Current Liability				
Liability	2078.94	2423.55		344.61
Provisions	500.32	617.72		117.40
Total CL	2579.26	3041.27		
Working Capital (A+B)	464.88	560.10		
Increase	95.22			95.22
Total	560.10	560.10	557.23	557.23

Interpretation: In the year 2013-2014 in increase working capital of the value is Rs.95.22 (in crores).

Table 16: Schedule for Change in Working Capital in Asian Paints India Limited for the 2014-2015

Particulars	2014	2015	Increase	Decrease
A. Current Assets				
Inventories	1665.05	1802.18	137.13	
Sundry Debtors	712.36	728.87	16.51	
Cash & Bank	745.36	61.81		683.55
Loans & Advances	478.60	681.53	202.93	
Total CA	3601.37	3274.39		
B. Current Liability				
Liability	2423.55	2313.57	109.98	
Provisions	617.72	697.28		76.56
Total CL	3041.27	3010.85		
Working Capital (A+B)	560.10	263.54		
Decrease		296.56	296.56	
Total	560.10	560.10	763.11	763.11

Interpretation: In the year 2014-2015 decrease in working capital of the value is Rs.296.56 (in crores).

Table 17: Schedule for Change in Working Capital in Asian Paints India Limited for the year 2015-2016

Particulars	2015	2016	Increase	Decrease
A. Current Assets				
Inventories	1802.18	1610.12		
Sundry Debtors	728.87	759.06	30.19	
Cash & Bank	61.81	155.02	93.21	
Loans & Advances	681.53	682.34	0.81	
Total CA	3274.39	3206.54		
B. Current Liability				
Liability	2313.57	2563.82		250.23
Provisions	697.28	805.62		108.34
Total CL	3010.85	3369.44		
Working Capital(A+B)	263.54	(162.90)		
Decrease		426.44	426.44	
Total	263.54	263.54	550.65	550.65

Interpretation: In the year 2016-2015 decrease in working capital of the value is Rs.426.44 (in crores).

Trend Analysis

Table 18: Trend Percentage of Asian Pains Limited

Sources of Fund	2012 (%)	2013 (%)	2014 (%)	2015 (%)	2016 (%)
Shareholder's Fund	100	121.48	144.74	170.04	199.50
Loan Fund	100	28.66	24.22	19.67	19.34
Application of Fund					
Fixed Assets	100	133.66	127.19	130.59	168.62
Interest	100	82.94	189.99	349.26	449.94
Noncurrent Assets	100	93.57	112.72	53.04	(32.78)

Interpretation: In the above table, values in the year 2012 are taken as the base and values of the succeeding years are represented as a percentage of the base year value. If the value of an item is less than the amount in the base year, the percentage will be below 100, if it is more than the base amount the trend percentage would be more than 100.

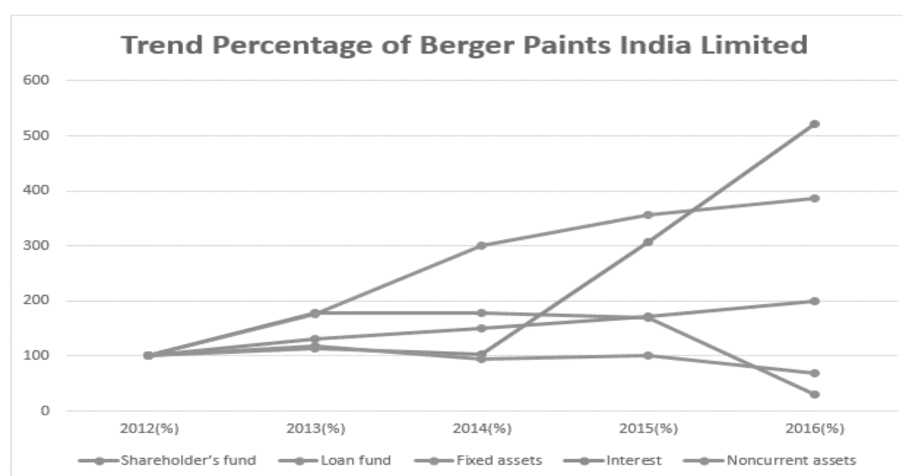


Figure 10: Trend Percentage of Berger Pains India Limited

Table 19: Correlation Analysis of Berger Pains India Limited

Years	2012	2013	2014	2015	2016
Sales (in crores)	2662.90	3024.21	3384.82	4212.94	4580.72
Profit (in crores)	227.48	336.32	389.64	475.40	607.47

Sales (X)	Profit (Y)	X-Xi	Y-Yi	(X-Xi)2	(Y-Yi)2	(X-Xi)(Y-Yi)
2662.90	227.48	(910.86)	(179.78)	829665.93	32320.84	16375.41
3024.21	336.32	(548.74)	(70.94)	301115.58	5032.48	30927.61
3384.82	389.64	(188.13)	(17.62)	35392.89	310.46	3314.85
4212.94	475.40	639.99	68.14	409587.20	4643.06	43608.91
4580.72	607.47	1007.77	200.21	1015600.37	40084.04	201765.63
Xi=3572.95	Yi=407.26		TOTAL	2591361.97	82390.88	443371.41

Interpretation: In the above table, values in the year 2012 are taken as the base and values of the succeeding years are represented as a percentage of the base year value. If the value of an item is less than the amount in the base year, the percentage will be below 100, if it is more than the base amount the trend percentage would be more than 100.

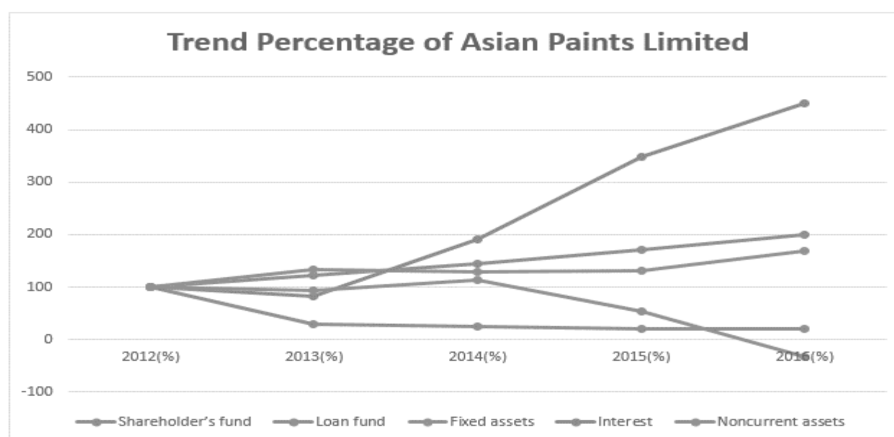


Figure 11: Trend Percentage of Asian Pains Limited

Correlation Analysis

Table 20: Correlation Analysis of Asian Paints India Limited

Years	2012	2013	2014	2015	2016
Sales (in crores)	8747.76	10040.61	11660.58	13041.96	14179.38
Profit (in crores)	1351.75	1547.27	1777.27	2010.52	2479.56

Sales (X)	Profit (Y)	X-Xi	Y-Yi	(X-Xi)2	(Y-Yi)2	(X-Xi)(Y-Yi)
8747.76	1351.75	(2786.24)	(481.52)	7763133.34	231861.51	1341630.28
10040.61	1547.27	(1493.39)	(286)	2230213.69	81796	427109.54
11660.58	1777.27	126.58	(56)	16022.49	3136	7088.48
13041.96	2010.52	1507.96	179.25	2273943.36	32130.56	270301.83
14179.38	2479.56	2645.38	646.29	6998035.34	417690.76	1709682.64
Xi=11534	Yi=1833.27		TOTAL	1928134.22	766614.83	3755812.77

1. The Current Ratio reveals that the Berger Paints India Limited has an ideal current ratio while the current ratio of Asian Paints Limited is far from satisfactory.
2. The liquidity ratios reveal that the liquidity position of both the companies is unsatisfactory in majority of the years in the study period.

3. Though liquidity position of Berger short-term solvency position of both the companies need to be improved. Further analysis reveals that the major portion of current assets is in the form of inventories in both the cases.
4. Working capital turnover ratio indicates that the working capital is effectively utilized by
5. The Asian Paints India Limited in the initial years but In 2016 there is tremendous fall in working capital turnover ratio due to negative working capital which is needed to be taken care of by the management. Working capital turnover ratio of Berger Paints India Limited it is not that satisfactory. Asian Paints Limited is effectively managing its debtors compared Berger Paints India Limited.
6. Asian Paints has made their credit payments in shorter period when compared to Berger Paints. Cash to Current Assets Ratio indicates that the cash is a small component in the total current assets for both the companies. So both the companies need to maintain adequate cash for meeting immediate liabilities.
7. Inventories to Current Assets Ratio indicate that the inventories are maintained in the current assets for the both companies at a constant rate.
8. The Statement of Changes in Working Capital indicates that the working capital maintenance is not satisfactory in Asian Paints Limited and Berger Paints India Limited.
9. As per the trend analysis of Berger paints shareholder's fund has a positive trend and loan fund has negative trend, fixed assets is having increasing trend, interest is having increasing trend and non-current assets is having decreasing trend. In case of Asian paints shareholder's fund is having increasing trend but loan fund is having decreasing trend, fixed assets are having increasing trend and non-current assets are having decreasing trend.
10. Sales and profits are highly positively correlated for both the companies. This means both sales and profit's value increases together.

Conclusion

In the light of the study the following suggestions and conclusions are made for improvement.

1. The Asian Paints Limited must concentrate on their current assets position to improve the current ratio.
2. Both the companies must concentrate on their liquidity position to improve the liquid ratio.
3. The Berger Paints India Limited must utilize their working capital in effective way. In case of Asian paints in 2016 there is tremendous fall in working capital turnover ratio due to negative working capital which is needed to be taken care of by the management. This is the situation where current liability is greater than current assets.
4. Berger Paints India Limited and Asian paints limited needs to take necessary steps to improve its efficiency in inventory management.
5. Berger Paints India Limited needs to take necessary steps to repay its creditors early to maintain its creditworthiness.
6. Berger Paints India Limited and Asian Paints Limited have grown over the last few decades in to dominant players in the Indian paint market. However both the companies have to concentrate on certain aspects of working capital and fund management. The performance of both these companies will improve significantly if they implement the above suggestions.

References

1. Bora, S. A Study of Working Capital Management in Kansai Nerolac Paints Limited (pp.32-59). 2014 University of Pane.
2. Bhunia, A. A Study of Liquidity Trends on Private Sector Steel Companies in India (pp. 618-628). 2005-06, Asian Journal of Management Research.
3. Bhunia, A. & Khan, U. I. , Liquidity Management Efficiency of Indian Steel Companies – A Case Study (pp.3-10). 2011, Far East Journal of Psychology and Business.
4. Chatterjee, M. World steel Industry and India. Kolkata: 2007 Steel Scenario Journal.
5. Eljelly, A.Liquidity-Profitability Tradeoff: An Empirical Investigation in An Emerging Market (pp.48-61). 2004, International Journal of Managerial Finance.
6. Garacia- Teruel, P. J. & Martinez-Solano, P. Effects of Working Capital Management on SME Profitability (pp.164-177). 2007 International Journal of Managerial Finance.
7. Gosh, S. Iron and Steel Industry in India – Past, Present and Future. Kolkata: Steel Scenario Journal. 2007
8. Maheswari, S. Principles of Management Accounting. New Delhi: Sultan Chand & Sons, 2009.
9. Pandey, I.M. Financial Management. New Delhi: Vikas Publishing House Pvt. 2009.

Analysis of the Investment and Funding Pattern of Public Sector Banks vs. Private Sector Banks in India- Based on Case Study

Monideepa Mullick[1] and Pritha Sen[2]
[1]M.Com. Scholar (Accounting and Finance) and [2]Assistant Professor, Department of Commerce, J D Birla Institute, Kolkata

Abstract
Banks were boon to the society. The study involves a comparative analysis of private sector banks and public sector banks in India with respect to investment and funding pattern. The case study has been done by selecting five private sector banks namely HDFC, Axis, Indusind, Kotak Mahindra and ICICI Bank and five public sector banks namely State Bank of India, Punjab National Bank, Allahabad Bank, Bank of India and Bank of Baroda and aggregating the amount the analyses has been done for past 15 years (2001-2016). The study resulted that public sector invests and lends more than private sector banks but the private sector earns more return than public sector banks in India.

Keywords: Banking Sector, Investment, Loans and Advances, Returns on Investment and Loans & Advances

Introduction

After liberalization i.e. after 1991 many economic reforms took place so there were changes in the banking system too. When people come across the word ‘banking’ they think of savings and deposits. They only think about their own investment in the banks, but they never think about banks investments and from where the bank are giving them interest with principal amount on the date of maturity. So to find the answer of the above question a research has been conducted on banks investment and funding pattern. The entire process is a cyclical process.

The term investment in simple word means to utilise the part of our excess capital in purchasing assets with an expectation that it will generate income or appreciate overtime in future. Stocks, bonds, real estate, mutual funds, government securities, commodities, annuities, options, etc are the mostly common medium for investment. The main objective of an investor who is investing his money is capital growth. Funding pattern here states the loans and advances provided by bank to its clients in need. This is the asset of the bank. As per the rules and regulations set by RBI the banks provide loans and advances to the third party. Bank provides them with loan which has to be repaid back with interest by the loan taker to the loan giver i.e. the bank.

There are various types of bank loans such as home, personal, business, education, gold, vehicle /car loan, loan against insurance policy, loan against PPF, etc. There are various types of advances such as demand loan, term loan, overdraft, cash credit, bills purchased, bills discounted, etc. The most common type of commercial bank is nationalised or public sector banks and private sector banks in India.

Methodology

Comparative analysis have been done taking into account the aggregate investments, loans and advances of five public sector banks namely State Bank of India, Punjab National Bank, Allahabad Bank, Bank of India and Bank of Baroda with that of five private sector banks namely Axis Bank, HDFC Bank, ICICI Bank, IndusInd Bank And Kotak Mahindra Bank as extracted from 15 years balance sheet, Reserve Bank of India handbook and money control as samples. For analysing various ratios has been used such as investment deposit ratio, return on investment and advances, term loan to total advances and non approved securities to total investment. Trend analysis, compound annual growth rate, correlation of coefficient and t-test have used for comparative analyse.

Result and Discussion

The data collected indicates that the public sector bank has invested more in various securities and bonds than private sector banks in India in the past 15 years (2001-2016).

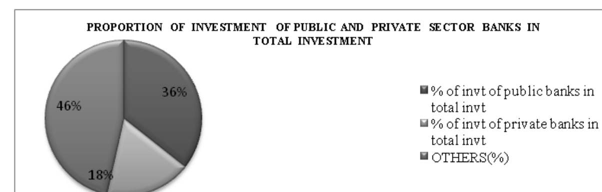


Figure1: Proportion of Investment of Public and Private Sector Banks in Total Investment

There is significant difference statistically between the means of investment of private sector banks and the public sector banks during the study period. So here null hypothesis is rejected.

Table 1: Investment Deposit Ratio

Year	Public Sector Bank	Private Sector Bank
2015-2016	26.62	40.75
2014-2015	27.66	41.09
2013-2014	29.07	47.03
2012-2013	29.03	46.93
2011-2012	29.38	45.94
2010-2011	31.75	45.16
2009-2010	31.46	44.53
2008-2009	31.42	44.71
2007-2008	31.12	45.17
2006-2007	37.10	45.48
2005-2006	46.15	44.47
2004-2005	49.19	46.68
2003-2004	47.01	41.83
2002-2003	43.78	65.85
2001-2002	42.16	48.02
Average	35.53	46.24
Standard Deviation	7.642044	5.636415784
Cumulative Growth	-36.86%	-15.15%
Coefficient of Variance	21.51%	12.19%
Correlation Coefficient	0.33	

There is considerably a low positive correlation between Investment-Deposit ratios of private and public sector banks in India.

Table 2: Hypothesis T-Test

t-Test: Two-Sample Assuming Unequal Investment of Private and Public Sector Banks	
T-Stat	6.028677516
T-Critical Two-tail	2.131449536

The private and the public sector banks are positively and moderately correlated with each other. There is no major difference in the return on the pattern of the investment between the private and the public sector banks in India

Table 3: Return on Investment

Year	**Public Sector Bank**	**Private Sector Bank**
2015-2016	7.82	7.32
2014-2015	7.77	7.29
2013-2014	7.81	7.30
2012-2013	7.77	7.29
2011-2012	6.74	6.39
2010-2011	6.45	6.40
2009-2010	7.04	6.93
2008-2009	7.21	7.48
2007-2008	7.83	7.15
2006-2007	7.99	6.56
2005-2006	8.21	5.94
2004-2005	8.89	6.60
2003-2004	9.85	6.92
2002-2003	10.66	9.00
2001-2002	10.92	10.78
Average	8.20	7.29
Standard Deviation	1.29	1.15
Cumulative Growth	-28.38%	-32.09%
Coefficient of Variation	15.77%	15.79%
Correlation of Coefficient	0.71	

There is a huge gap between private and public sector banks in the case of investment in non-approved securities in India.

The data collected indicates that the public sector bank has given more loans and advances to industrialists, firms, individuals and companies for different purposes than private sector banks in India in the past 15 years (2001-2016).

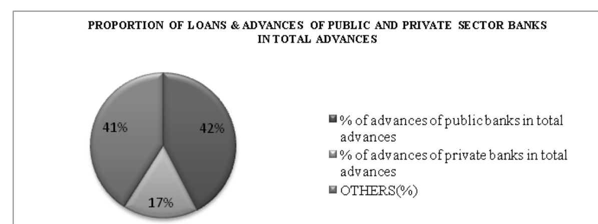


Figure 2: Proportion of Loans & Advances of Public and private Sector Banks

There is significant difference statistically between the means of advances of private sector banks and the public sector banks during the study period. So here null hypothesis is rejected.

Table 4: Hypothesis T-Test

t-Test: Two-Sample Assuming Unequal Variances of Advances of Private and Public sector banks	
t Stat	4.098997597
t - Critical Two-tail	2.131449536

Table 5: Return on Advances

Year	Public Sector Bank	Private Sector Bank
2015-2016	8.91	11.21
2014-2015	9.05	11.79
2013-2014	9.52	12.20
2012-2013	9.88	11.83
2011-2012	8.94	10.53
2010-2011	8.90	10.64
2009-2010	9.84	12.73
2008-2009	9.40	11.74
2007-2008	8.65	10.19
2006-2007	7.83	8.97
2005-2006	7.77	8.95
2004-2005	8.27	9.59
2003-2004	9.33	8.15
2002-2003	10.07	8.28
2001-2002	11.19	10.95
AVERAGE	9.17	10.52
Standard Deviation	0.86	1.41
Cumulative Growth	20.34%	2.38%
Coefficient of Variance	9.37%	13.38%
Correlation of Coefficient	0.37	

There is a highly positive relation between the Public and private sector banks with regards to the amount of money the banks have as term loans out of the total advances.

There is a low degree of positive relation between the private and the public sector banks in respect to secured loans to total advances.

There is a positive but low rate of co-relation between the private and the public banks with respect to the interest earning capacity. There is a significant difference between the two types of banks with regards to the return on advances. As per Compound Annual Growth Rate the private sector banks are gaining more in terms of advances than public sector banks and income from advances is more than investment.

Conclusion

It can be concluded that it has been observed from the research that the new private sector banks performed really well as compared to nationalized banks from bankers' point of view but from the social point of view public sector banks are better performers as compared to private sector banks. It is really a matter of concern that the amount of investment and funding of public sector banks is more than private sector banks but the results drawn out of it are that the return on both the investment and advances are less in public sector banks than in private sector banks in India with respect to selected banks of both groups. It may be advised that the public sector banks in India should be made more efficient and should have more customer-friendly banking operations to keep pace with the competitors i.e. the private sector banks in India and follow globalised systems to compete with the changing preferences of the customers.

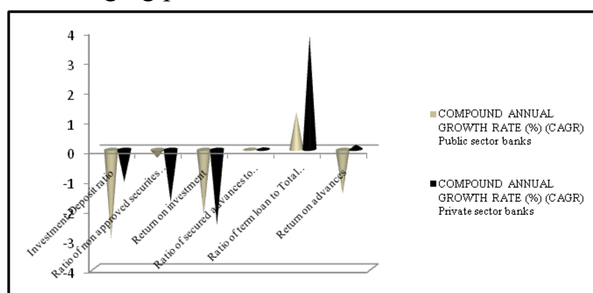


Figure 3: Compound Annual Growth Study

Unique schemes should be formulated by public sector banks so that customers are attracted to take loans and advances so in return bank can earn more return. More people in outskirts and villages should be made aware about banks so that they borrow from banks. Investment in approved securities and term loans should be increased so that the return on investment increases. For accelerating the pace of socio-economic growth process both the banking sector should try to increase their investment and funding pattern.

References

1. Ashish Gupta and V S Sundram, Comparative study of public and private sector banks In India: An empirical analysis. Retrieved on September 26, 2016 from http://www.allresearchjournal.com/archives/2015/vol1issue12/PartM/1-11-174.pdf
2. Dr. Rimpi Kaur and Pallavi Manik, A Comparative Study on Investment Pattern of Indian Banking in the Global Era. June 2012 , Retrieved on July 10,2016 from https://www.researchgate.net/publication/265622660_A_Comparative_Study_on_Investment_Pattern_of_Indian_Banking_in_the_Global_Era.
3. Garima Chaudhary, Performance Comparison of Private Sector Banks with the Public Sector Banks in India. February 2014, Retrieved on September 26, 2016 from http://www.ermt.net/docs/papers/Volume_3/2_February2014/V3N2-114.pdf
4. Jose Manuel Pastor et.al, European Journal of Operational Research Efficiency analysis in Banking firms: An international comparison. 1997, Retrieved on August 18, 2016 from http://www.uv.es/~perezgar/publicaciones/EJOR.pdf
5. Manjunath M, Prof Divya Prabhu, "A Study on Evaluation of Performance of SCDCC Bank with Special-Reference to Assets and Investments". November 2014, Retrieved on September 6, 2016 from http://www.ijaetmas.com/wp-content/uploads/2014/11/IJXCN1114.pdf
6. Priya Someshwar, An investment pattern of scheduled commercial banks in India. December, 2015, Retrieved on July 10, 2016 fromhttp://abhinavjournal.com/journal/index.php/ISSN-2277-1166/article/viewFile/854/pdf_189.
7. Pradip Kumar Pradha (2015) A comparative study on the performance of public and private Sector banks in India. Retrieved on September 7, 2016 from http://www.journalijmri.com/sites/default/files/issue-files/0032_0.pdf

Mergers and Acquisitions in India: A Comparative Financial Evaluation of Two Acquisitions in Telecommunication Sector

Riddhi Choudhary[1] and Dr. Shrabanti Pal[2]
[1]M.Com. Scholar (Accounting and Finance) and [2]Assistant Professor, Department of Commerce, J D Birla Institute, Kolkata

Abstract
The present study was undertaken with an aim to analyze the financial statements and make a comparative evaluation of the financial conditions two leading companies in the telecommunication sector, namely Bharti Airtel and Reliance. Foreign market see Indian telecommunication market to be the fastest growing and profitable avenue, and mergers and acquisitions have been the key for success in this market. The project was based on collection of secondary data (taken from internet) and, T-test: Paired two samples for mean and hypothesis testing was used to find out the results on the basis of liquidity and profitability ratios. The results showed that the acquisition had a negative impact on the liquidity position of Airtel in terms of debt equity ratio and long term debt equity ratio and also the profitability ratios and overall profit fell. On the other hand, Infotel Broadband acquisition of Reliance too resulted in a bad impact on both the liquidity and profitability position.

Keywords: Acquisition, Comparative Evaluation, Financial Condition, Telecommunication Sector

Introduction

Today the scenario of mergers and acquisitions has changed totally. It is just not concentrated on financial transactions aimed at controlling undervalued assets or changing the acquirer's core business or getting cash to repay debts but is more of buying inbuilt customer bases, channels with better distribution facilities, wider geographical boundaries, and loads of other new talent that comes with mergers. These acquired factors can result in maximizing revenues, profits, market share, market prices. The Companies Act, 2013, a merger is a combination of two or more companies into one company or business along with accumulation of assets and liabilities of the former distinct entities. On the other hand, an acquisition is the purchase of assets and/or liabilities either all or almost all or share capital of target entity by another entity. Mergers are of 5 types: Horizontal, vertical, conglomerate, congeneric, and cash mergers and Acquisition take the following 2 forms: Friendly takeover, and hostile takeover.

Recent Overview of Merger and Acquisition in India

Mergers and acquisition activity in India has witnessed a slowdown in past few years. Total value of mergers and acquisition were $33 billion in 2014, $26.3 billion in 2015 amid a sharp slowdown in domestic deal-making activities, and nearly $7.8 billion in the first three months of 2016, primarily surged by big disinvestment transactions, says a report. The increase in merger and acquisition deals in 2016 is a direct result of Modi led government's reform agenda and the policies which gave faith to both local and international investors. Investor community saw India with a hope of tremendous growth in upcoming years thus leading to an increase in foreign investments especially the telecommunication sector. India is considered as the fastest growing telecommunication industry of the world. The scenario of telecommunication sector too has changed and mergers and acquisition has been increasing to a great extent. It is driven by innovation and development of new technology which in turn is opening up to stiff competition, better products and services and growth of the market. With a hike in mergers and acquisition, a whole new era in telecommunication has started where innovative, creative and strategic ideas are welcomed in order to tackle the rivals.

Two Leading Telecom Acquisitions of 2010

Two leading rival companies in telecommunication sector- Bharti Airtel and Reliance, decided to acquire Zain and Infotel Broadband respectively in 2010 in order to strengthen their power, market share and give a stiff completion to its rival. Bharti Airtel needed to make a strategically safe move after being unsuccessful twice due to the Bharti Airtel-MTN deal because of their weak financial laws governing the market, intervention by government and politics and cultural differences. On February 15, 2010, Bharti Airtel announced acquisition of Zain Africa International BV, the untapped market, and completely acquired Zain by June,2010, thereby becoming the seventh largest mobile groups in the world with the help of subscriber connections and second largest mobile group after MTN. It signed the deal with Zain for $ 10.7 billion.

On the other hand, On the 11th of June, 2010, Reliance Industries Ltd. (RIL) struck a deal with Infotel Broadband Services Pvt. Ltd to acquire a 95% stake of Infotel business through investments upto Rs. 4800 crores by subscribing to fresh equity share capital at par to by Infotel Broadband and Infotel agreed to become subsidiary of RIL. Being the sole winner of broadband in India with Rs. 12872 crore, Infotel was acquired with the scope of value creation in wireless broadband space and thus, RIL will become a leader by providing India with world-wide 4G network and services.

Methodology

The research study is based on collection of secondary data. Two leading rival companies, namely Bharti Airtel and Reliance was chosen for the research work. The financial data of both the companies' pre and post-acquisition was extracted from a relevant website. Six profitability and four solvency ratios of 10 years were calculated which served as the basis for tests. T-test: Paired two samples for mean and hypothesis testing was used to get the result, thereby fulfilling the main objective of the project.

The decision criteria for hypothesis:
If $P <= 0.05$ Reject H_0, Accept H_1
If $P > 0.05$ Reject H_1, Accept H_0.

where,
H_0: There is no significant difference in the concerned ratio of a company between pre and post acquisition period.
H_1: There is significant difference in the concerned ratio of a company between pre and post acquisition period.

Results and Discussion

Table 1: Bharti Airtel

Ratio	p-value	Hypothesis Accepted
Current Ratio	0.10	H_0
Quick Ratio	0.44	H_0
Debt Equity Ratio	0.00	H_1
Long Term Debt Equity Ratio	0.00	H_1
Operating Profit Margin	0.02	H_1
Profit Before Interest and Tax Margin	0.01	H_1
Gross Profit Margin	0.01	H_1
Net Profit Margin	0.03	H_1
Return on Capital Employed	0.00	H_1
Return on Net Worth	0.03	H_1

Table 2: Reliance

Ratio	p-value	Hypothesis Accepted
Current Ratio	0.13	H_0
Quick Ratio	0.15	H_0
Debt Equity Ratio	0.05	H_1
Long Term Debt Equity Ratio	0.00	H_1
Operating Profit Margin	0.03	H_1
Profit Before Interest and Tax Margin	0.00	H_1
Gross Profit Margin	0.01	H_1
Net Profit Margin	0.08	H_1
Return on Capital Employed	0.09	H_1
Return on Net Worth	0.06	H_1

Difference in Hypothesis and Summary of Results

- The hypothesis testing of paired t-test showed current and quick ratio before acquisition to be indifferent from that of after acquisition on the basis of two mean for both the companies- Bharti Airtel and Reliance Telecommunication Ltd. For Bharti Airtel, the current ratio fell after acquisition but quick ratio increased, whereas for Reliance, both the ratios increased. But in both the cases, the difference was not statistically significant which means that the change should not be considered in determining the impact of acquisition on the financial condition of the companies.
- The debt equity ratio before acquisition was significantly different from that of after acquisition on the basis of two mean for both the companies. The ratio of both the companies after acquisition was significantly higher than pre-acquisition. Portion of assets held by creditors post acquisition of Airtel was higher than assets held by shareholders but in the case of Reliance its opposite indicating that the acquisition had a worse impact on the financially stability rather than Airtel.
- In both the cases, long term debt ratio was near to 1 indicating a very high risk and debt position. Moreover as the difference in ratio before and after acquisition was statistically significant, thus we may acquisition had a negative impact on the liquidity position based on this ratio.
- In case of Airtel, the operating profit margin has significantly decreased in post-acquisition, whereas the actual figures of average operating profit and revenue has increased significantly. As for Reliance, along with the operating profit

margin, the actual figures of average operating profit fell post-acquisition, although the actual figure of revenue increased because the rise in expenses made in the post-acquisition had offset the increase in revenue post-acquisition.

- The result of operating profit margin for the two companies was same for both EBIT margin and gross profit margin.
- The hypothesis testing of paired t-test showed net profit margin before acquisition to be different from that of after acquisition on the basis of two mean for both the companies. Even though volume of sales increased monetarily in both the cases, the net profit fell due to excessive expenses made after acquisition which lowered the profitability of the acquirer companies. This thereby led to a negative impact on net profit margin and average figure of net profit 5 years post-acquisition fell.
- The hypothesis testing of paired t-test showed return on capital employed to be different from that of after acquisition on the basis of two mean for both the companies. The ratio of both the companies declined after acquisition indicating less rupees of profit generated by each rupee of capital employed. Where both return and capital employed rose for Airtel, in case of Reliance return fell along with a rise in capital employed.
- The hypothesis testing of paired t-test showed return on net worth to be different from that of after acquisition on the basis of two mean for both the companies. In both cases this ratio fell drastically for both the companies. Although net worth of both the companies increased, net return fell indicating a fall on profitability in post-acquisition.

The acquisition had a negative impact on the liquidity position of Airtel in terms of debt equity ratio and long term debt equity ratio. Current and quick ratio had no impact on the liquidity position of Airtel. Moreover, the profitability ratios also fell after acquisition. The positive impacts of acquisition were that the operating profit, gross profit and EBIT increased significantly although the overall (net) profit fell. Another good turn was the increase in both: capital employed and net worth of the company after acquisition.Net sales also rose in the years post-acquisition. On the other hand, Infotel Broadband acquisition of Reliance telecom resulted in a very bad impact on both the liquidity and profitability position. Not only debt amount increased hugely but the figures of profits fell drastically. Apart from current and quick ratios, all other ratios fell significantly and as former two ratios had no significant impact it could bring about any positive impact. Thus, acquisition hampered liquidity and profitability position of Reliance along with the fall in operating, gross and net profits and EBIT. Only the capital employed, net worth and net sales figures rose after acquisition.

Conclusion

Airtel's performance has been consistently below expectations since acquisition, a disappointing run that is well into its sixth year. Due to moderating subscriber additions, political and regulatory uncertainty in different countries, and aggressive competition from its rivals, we do not see any proper indication of improvement. Bharti's challenges in the African market are evident from the lack of meaningful improvement even though it is among the top 2 players by market share in 14 out of the 17 countries that it operates. Despite this, neither its margin moved up significantly nor its performance has been impressive. African operations will continue to be a drain on the Indian operations as the amount of capital needed to revive the business is huge and even after investment of such heavy capital, a revival is not guaranteed.

In June 2010, Reliance Industries (RIL) bought a 96% stake in Infotel Broadband Services Limited (IBSL) for 4,800cr. Although unlisted, IBSL was the only firm to win broadband spectrum in all 22 zones in India in the 4G auction that took place earlier that year. Later continuing as RIL's telecom subsidiary, Infotel Broadband Services Limited was renamed as Reliance Jio Infocomm Limited (RJIL) in January 2013. In June 2015, Jio announced that it will start its operations all over the country by the end of 2015 but the launch was postponed to the first quarter of the financial year 2016-2017. With this it is expected that in the near future RIL's financial condition will improve and overall profit will rise. Although acquisition did not make quite an impact till 2015, the profitability margins and liquidity position is expected to improve with the decision of Jio in this year.

References

1. Goyal K. A. & Joshi V., Merger and Acquisition in Banking Industry: A Case Study of ICICI Bank Ltd. 2012.
2. Gupta P. K., Mergers And Acquisitions (M&A): The Strategic Concepts For The Nuptials Of Corporate Sector, 2012.
3. Lee K. & Pennings J. M., Mergers and Acquisitions: Strategic - Organizational Fit and Outcomes, 1996.
4. Maditinos D. et. al., The Effect of Mergers and Acquisitions on the Performance of Companies- The Greek Case of Ioniki-Laiki Bank and Pisteos Bank, 2009.
5. Malik M. F., Mergers and Acquisitions: A Conceptual Review, 2014.
6. Rong J., Analysis of Resource Integration Strategy in Mergers and Acquisitions of Enterprises, 2015.

A Project on Indian Stock Market - A Trend Analysis

Sadgi Agarwal[1] *and Papia Mitra*[2]
[1]*M.Com. Scholar (Accounting and Finance) and* [2]*Assistant Professor, Department of Commerce,*
J D Birla Institute, Kolkata

Abstract

The stock exchange or market is a place where stocks, shares and other long-term commitments or investment are bought and sold. Stock Exchanges are noted as "an essential concomitant of the Capitalistic System of economy. The study was done with an aim to find out the factors that influence the stock market index (SENSEX) of Bombay stock exchange and also to study about the pattern of change in SENSEX index overtime. From the trend analysis it was observed that SENSEX up and downward trends in the past ten years were due to various reasons. It was observed that happening of some events throughout the world had a direct or indirect impact on SENSEX. From world trade center attacks, president elections, declaration of union budget, patch up of Ambani bBrothers, Satyam computer scam, Subprime crisis and collapse of Lehman Brothers in the United States, terrorist attacks in Mumbai, change in monetary and fiscal policies like change in interest rates and cash reserve ratio, SEBI rules in respect of use of participatory notes, adoption of free-float methodology for calculation of SENSEX, market-wide circuit breaker triggered and market halted, Narendra Modi visit to Bombay Stock Exchange etc had an impact on the SENSEX. Also from the regression analysis of SENSEX return data of last ten years from 2001 to 2015 it was interpreted that time is statistically insignificant to explain the variations in return values of SENSEX and overall return values of the stocks were very low.

Keywords: Circuit Breaker, Key Lending Rate, Repo Rate, Subprime Crisis

Introduction

The stock exchange or market is a place where stocks, shares and other long-term commitments or investment are bought and sold. Stock Exchanges are noted as "an essential concomitant of the Capitalistic System of economy. Most of the trading in the Indian stock market takes place on its two stock exchanges: the Bombay Stock Exchange (BSE) and the National Stock Exchange (NSE). However, both exchanges follow the same trading mechanism, trading hours, settlement process, etc.

Almost all the significant firms of India are listed on both the exchanges. The Bombay Stock Exchange is the oldest exchange in Asia. In 1986, it developed the BSE SENSEX index, giving the BSE a means to measure the overall performance of the exchange. The S&P BSE SENSEX (S&P Bombay Stock Exchange Sensitive Index), also-called the BSE 30 or simply the SENSEX, is a free-float market-weighted stock market index of 30 well-established and financially sound companies listed on Bombay Stock Exchange.

SENSEX is not only scientifically designed but also based on globally accepted construction and review methodology. The index is widely reported in both domestic and international markets through print as well as electronic media. The 30 component companies which are some of the largest and most actively traded stocks are representative of various industrial sectors of the Indian economy. The base value of the S&P BSE SENSEX is taken as 100 on 1 April 1979, and its base year as 1978–79. The 30 stocks included in SENSEX are those of Adani Ports, Asian Paints, Axis Bank, Bajaj Auto Ltd ,Bharti Airtel Ltd , Cipla Ltd, Coal India Ltd ,Dr. Reddy's Laboratories Ltd ,Gail, HDFC Bank, Hero Motocorp, Hindustan Unilever Limited, ICICI Bank, Infosys, ITC, Larsen, Lupin Ltd, M&M , Maruti Suzuki, NTPC Ltd ,Oil and Natural Gas Corporation Ltd,Power Grid Corporation of India ,Reliance Industries Ltd , State Bank of India, Sun Pharmaceutical Industries Ltd ,Tata Motors Ltd, Tata Steel Ltd Tata Consultancy Services Ltd, Wipro Ltd .

SENSEX can go up or down depending on demand and supply and various fundamental and technical factors. Fundamental factors include study of everything from the overall economy and industry conditions to the financial condition and management of companies. Technical factors deal with evaluation of securities by means of studying statistics generated by market activity, such as past prices and volume. However, the financial institutional investors also have a strong control over the stock market. Some of the financial institutional investors are mutual funds, insurance companies and private pension funds. The general guidelines for selection of constituents in SENSEX are as follows:

1. Listing history
2. Trading frequency,
3. Market capitalization weight age,
4. Industry/sector representation and
5. Track record.

Methodology

The data taken here is the Primary data. The data has been taken from the official website of Bombay stock exchange. The daily closing prices has been taken into consideration for the analysis. The time period for the data taken is from January 2000 to December 2015 that is last fifteen years data. The methodologies used for the analysis are Trend analysis, regression analysis and line diagram. The return derived here is as follows:

*Return = (Log Value of the Closing Price of Current Day – Log Value of the Closing Price of Previous Day)*100*

A line graph is commonly used to display change over time as a series of data points connected by straight line segments on two axes. The line graph therefore helps to determine the relationship between two sets of values, with one data set always being dependent on the other set. Line graphs are drawn so that the independent data are on the horizontal a-axis (e.g. time) and the dependent data are on the vertical y-axis. Line graphs are used to track changes over short and long periods of time.

Regression analysis is a form of predictive modelling technique which investigates the relationship between a dependent (target) and independent variable (s) (predictor). With the help of regression analysis we regress the dependent variable (Y) over time (X). Here the estimated slope co-efficient we get is multiplied by 100 to find out the growth rate of the concerned dependent variable.

Trend analysis is a mathematical technique that uses historical results to predict future outcome. This is achieved by tracking variances in cost and schedule performance. In this context, it is a project management quality control tool. Trend analysis is very useful to find how the concerned variable that is the return here is changing overtime.

Results and Discussion

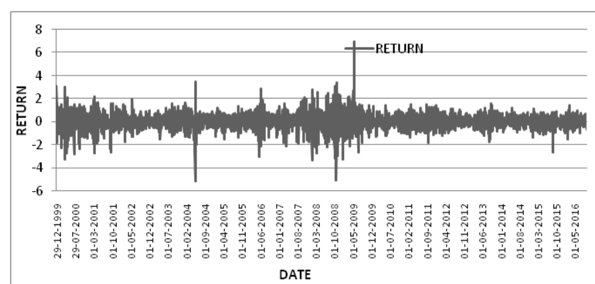


Figure 1: Showing the return trend

Here trend analysis is shown with the help of a line diagram. Here, in the given line diagram two axes are there. The vertical axis represents the return values (dependent variable) while the horizontal axis represents the date figures (independent variable). The period of study being from January 2000 to December 2015.

Interpretation: Being a SENSEX trend it is natural that fluctuations were there throughout the period from 2000 to 2015 but the major fluctuations with their reasons have been analyzed. It was observed that in the year 2000 (February 11), the uptrend of SENSEX was very high such that it crossed the 6000 mark, it happened due to the information technology boom. It was observed that in the year 2001 (September 11), the down trend of SENSEX was very low in sympathy with the falling world trade centre twin towers following unprecedented terrorist attacks on the United States. Stock markets tend to react violently around the budget. Listed companies, either directly or indirectly gets benefit or get hurt by provisions of the budget.

Hence, on release of Jaswant Singh's budget on (February 28) in the year 2002, SENSEX surged by 200 points and hence showed an upward trend. On (May 17), 2004 the Indian stock market –wide circuit breaker triggered and market halted. On that day foreign institutional investor UBS sold shares worth rupees 188.35 crores. UBS AG got orders to sell from clients including Caxton International. In order to find out sellers identity SEBI (Securities Exchange Board of India) asked UBS for names of investors in Caxton International but failed to get the information.

SEBI also approached Caxton directly, but without any success. SEBI then asked US stock market regulator Securities and Exchange Commission (SEC) for help in securing client agreement between

UBS and Caxton International. The agreement revealed Indian sounding names, leading SEBI to suspect Indians may have been among the big sellers on May 17. In the year 2005 (June 21), the news of settlement between the Ambani brothers that is Mukesh Ambani and Anil Ambani, boosted investor sentiments and the scrips of Reliance Industries Limited, Reliance Energy, Reliance Capital and Indian Petrochemicals Corporation Limited made huge gains.

It was observed that on (May 22) 2006 again the Indian stock market-wide circuit breaker triggered and market halted. SENSEX plunged by 1,100 points during intra-day trading, leading to the suspension of trading for the first time since 17 May 2004. Again on (October 17) 2007 Indian stock market-wide circuit breaker triggered and market halted. On 16 October 2007, SEBI (Securities & Exchange Board of India) proposed curbs on participatory notes which accounted for roughly 50% of FII investment in 2007.

SEBI was not happy with P-notes because it was not possible to know who owned the underlying securities, and hedge funds acting through P-notes might therefore cause volatility in the Indian markets. However the proposals of SEBI were not clear and this led to a knee-jerk crash when the markets opened on the following day (17 October 2007). Within a minute of opening trade, the SENSEX crashed by about 9% of its value – the biggest intra-day fall in Indian stock markets in absolute terms till then. This led to the automatic suspension of trade for one hour. Finance Minister P. Chidambaram issued clarifications, in the meantime, that the government was not against FIIs and was not immediately banning PNs.

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.005210627
R Square	2.71506E-05
Adjusted R Square	-0.000214564
Standard Error	0.667097814
Observations	4139

ANOVA

	df	SS	MS	F	Significance F
Regression	1	0.049986908	0.049987	0.112325	0.737529281
Residual	4137	1841.045644	0.445019		
Total	4138	1841.095631			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	0.018425	0.010369119	1.776911	0.075656	-0.001904046	0.038754	-0.001904	0.03875405
-2070	2.91E-06	8.6752E-06	0.33515	0.737529	-1.41006E-05	1.992E-05	-1.41E-05	1.9916E-05

RESIDUAL OUTPUT

Figure 2: Regression Analysis

It was observed that on (Jan 10) in the year 2008 SENSEX surged to an all time high of 21207 points. There were many reasons as to why it achieved this high record. Overnight interest rates in the US have been near zero since December 2008 when the Fed initiated its bond buying programme to stimulate the economy.

As a result of this ultra-low interest rate regime and abundant liquidity, money has flown out from the US to emerging countries like India, where interest rates are comparatively higher. On (Jan 21) in the same year, SENSEX dropped to a new low, because of the subprime crisis in the United States. In the same year on (September 15) SENSEX dropped, it got affected from bankruptcy of Lehman Brothers in the United States. It was observed that in the year 2009 (January 7), SENSEX dropped to very low due to the Satyam computer scam. Then in the same year on (May 18) SENSEX showed an upward trend as UPA-II (United progressive alliance) won the elections.

The United Progressive alliance (UPA) is a coalition of centre-left political parties in India. It was observed that in the year 2011, Reserve bank of India (RBI) hiked key lending rate by 25 basis points to 8.5% and deregulated savings deposit interest rate, due to which SENSEX showed an upward trend. It was observed that in the year 2012, RBI slashed cash reserve ratio by 50 basis points. Cash reserve ratio refers to the portion of deposits as cash which banks have to keep with the RBI. A cut in CRR would lead to a fall in interest rate. A cut in interest rates would make savings in banks unattractive. Thus, depositors may move to the stock market at a time when the revival of the bourses is crucial for regenerating Indian industry.

Thus a reduction in CRR boosted the securities prices and likewise response was seen in the SENSEX. It was observed that in the year 2014 (May 13) SENSEX crossed record of level 24000 for the first time due to sustained capital inflows by foreign funds at the domestic bourses and widespread buying by retail investors after exit. It was observed that in the year 2015, on (March 4) SENSEX was recorded with all time high of 30024.74 as RBI (Reserve Bank of India) had reduced the repo rate.

From the regression analysis it can be interpreted that the estimated scope of explanatory variable is here statistically insignificant this is clear from the absolute value of the estimated t-statistic which turns out to be less than 2. Hence we accept the null hypothesis of statistical insignificance of the explanatory variable (Time) to explain the variation in the dependent variable. Here the return value is at 5% level of significance. Here, the growth rate of

return turns out to be very low, or rather it is close to zero. Hence, we can say that the growth rate of return throughout the period of analysis was very low. Moreover, the R square statistic and the adjusted R square statistic are very low. Hence, we can say that the overall model is statistically insignificant. Hence, we accept the null hypothesis (H_0) of statistical insignificance of the overall model at 5% level of significance.

Hence, from the above study it can be concluded that happening of some events throughout the world had a direct or indirect impact on SENSEX. From world trade center attacks, president elections, declaration of union budget, patch up of Ambani brothers, Satyam computer scam, Subprime crisis and collapse of Lehman Brothers in the United States, terrorist attacks in Mumbai, change in monetary and fiscal policies like change in interest rates and cash reserve ratio, SEBI rules in respect of use of participatory notes, adoption of free-float methodology for calculation of SENSEX, market-wide circuit breaker triggered and market halted, Narendra Modi visit to Bombay Stock Exchange etc had an impact on the SENSEX. Also that time is statistically insignificant to explain the variations in return values of SENSEX, still study of the past was helpful to know when SENSEX got affected and for what.

References

1. Arora E. "A Study of performance of NSE and BSE in India". International Journal of Social Sciences & Interdisciplinary Research.Vol.4, 2012.
2. Bala A. "Indian stock market- Review of literature". TRANS Asian Journal of Marketing & Management research. Vol 2. Issue 7, 2013.
3. Mukherjee D. "Comparative Analysis of Indian Stock Market with International Markets". Vol 1. Issue 1, 2007.
4. Shah B. "A comparative study of Bombay stock exchange (BSE) and National stock exchange (NSE)". International Journal of Scientific Research. Vol 1.Issue 7, 2012.

The Impact of Trade Balance on the Economic Growth of India

Indrani Roy[1] and Papia Mitra[2]
[1]M.Com. Scholar (Accounting and Finance) and [2]Assistant Professor, Department of Commerce,
J D Birla Institute, Kolkata

Abstract

The general observation from this project is trade balance is not just imports subtracted from exports but there are several other things attached to it. The factors on which the balance of trade depends, there is a difference between balance of trade and payment. The relation that our country shares with other countries in terms of trade, who are the largest trading partners of India. Then some of the terms related to trade balance like GNI, GDP, GNP, etc. without these it is not possible to calculate trade balance. There is a relationship between Trade Balance and GDP, which has been found out in trend analysis. From the regression analysis we got to accept the null hypothesis of insignificance of the explanatory variable (Trade Balance). Then the basic reasons for the positive and negative returns in trade were also seen.

Keywords: Economic Growth, GDP, Returns, Trade Balance

Introduction

The commercial balance or net exports is the difference between the monetary value of a nation's exports and imports over a certain period. The trade balance subtracts imports from exports. Imports are any goods and services that are made in a foreign country and bought by a country's residents. We think of imports as being shipped in from a foreign country. But, even if it's purchased by residents while traveling abroad, it's still an import. They are just shipping the imports home themselves, in their suitcases. Services provided while traveling, such as transportation, hotels, and meals, are also technically imports. It also doesn't matter if the company that makes the good or service is a domestic company. Exports are any goods or services sold by a native resident or business to a foreign one. It can be a pair of jeans you mail to a friend or signage a corporate headquarters transfers to its foreign office. If the foreigner pays for it, then it's an export. Factors that can affect the balance of trade includes:

a) The cost of production (land, labor, capital, taxes, incentives, etc.) in the exporting economy vis-à-vis those in the importing economy;
b) The cost and availability of raw materials, intermediate goods and other inputs;
c) Exchange rate movements;
d) Multilateral, bilateral and unilateral taxes or restrictions on trade;
e) Non-tariff barriers such as environmental, health or safety standards;
f) The availability of adequate foreign exchange with which to pay for imports; and
g) Prices of goods manufactured at home (influenced by the responsiveness of supply).

Balance of Trade vs. Balance of Payments

The balance of trade is a component of the balance of payments. However, the balance of payments also measures international investments and net income made on those investments. A country can run a trade deficit, but still have a surplus in its balance of payments when foreigners invest in the country's growth by loaning to businesses, buying government bonds, and hiring workers from that country. If the other components of the balance of payments are in a large enough surplus, a trade deficit can be entirely offset. Balance of payments is the overall record of all economic transactions of a country with the rest of the world, it always balances itself, whereas Balance of trade is the difference in the value of exports and imports of only visible items.

Relationship between Economic Growth and Trade Balance

Favorable Trade balance is a major determinant of growth in any country, as surplus increases GDP and deficit reduces it. If a country is subjected to free trade, it means that the country is having many benefits from this trade openness. By doing trade with countries or to be a part of any trade agreement like South African Development Authority. Trade openness has positive impact on economic growth. Through trade openness, the ratio of domestic investment to GDP increases and this has been proven by many theorists. Sometimes your country may lack in many goods and services, so by trading you can get those products. Free trade means no barriers to trade like no protectionist policies which

can be very favorable for the developing countries like Pakistan that is heavily dependent on some imports from outside countries.

GDP

GDP is a monetary measure of the market value of all final goods and services produced in a period (quarterly or yearly). Nominal GDP estimates are commonly used to determine the economic performance of a whole country or region, and to make international comparisons. Nominal GDP does not, however, reflect differences in the cost of living and the inflation rates of the countries; therefore using a GDP per capita basis is arguably more useful when comparing differences in living standards between nations.

Relationship between Trade Balance and GDP

The balance of trade is one of the key components of a country's gross domestic product (GDP) formula. GDP increases when the total value of goods and services that domestic producers sell to foreigners exceeds the total value of foreign goods and services that domestic consumers buy, otherwise known as a trade surplus. If domestic consumers spend more on foreign products than domestic producers sell to foreign consumers – a trade deficit – then GDP decreases. A standard formula for GDP can be written as: GDP = private consumption spending + investments + government spending + (exports - imports).These studies can be divided into three groups. First, conventional regression analyses trying to capture the effect of openness by regressing it on per capita growth. There are several studies in this vein, with the vast majority concluding that openness to trade is a significant explanatory variable for economic growth.

Methodology

Data has been collected through secondary sources. The secondary data has been collected from the official website of RBI. This research is based on descriptive approach. The secondary data has been collected from journals, websites, articles, and books. For data interpretation the tools that are used are Trend analysis and Regression analysis.

Results and Discussions

External Trade and Investment

Until the liberalization of 1991, India was largely and intentionally isolated from the world markets, to protect its economy and to achieve self-reliance. Foreign trade was subject to import tariffs, export taxes and quantitative restrictions. India's exports were stagnant for the first 15 years after independence, due to general neglect of trade policy by the government of that period. Imports in the same period, due to industrialization being nascent, consisted predominantly of machinery, raw materials and consumer goods.

Since liberalization, the value of India's international trade has increased sharply, with the contribution of total trade in goods and services to the GDP rising from 16% in 1990–91 to 47% in 2008–10.

Largest Trading Partners of India

According to the Ministry of Commerce and Industry, the fifteen largest trading partners of India represent 59.37% of total trade by India in the financial year 2015-2016. These figures include trade in goods and commodities, but do not include services or foreign direct investment. The two largest goods traded by India are Mineral fuels (refined / unrefined) and gold (finished gold ware or gold metal).

Table 1: India's Top Trade Partners with their Total Trade (Sum of Imports and Exports) in Millions of US Dollars For Financial Year 2014–15

Country	Exports	Imports	Total Trade	Trade Balance
United States	42,449	21,815	64,264	20,634
China	11,934	60,413	72,347	-48,479
Japan	5,386	10,131	15,517	-4,745
Australia	2,782	10,247	13,029	-7,465
Switzerland	1,069	22,133	23,202	-21,064
Sources: Total Trade, commerce.nic.in. Department of Commerce. Retrieved 20 December 2015				

In the year 2013-14, mineral fuels are the largest traded item with 181.383 billion US$ worth imports and 64.685 billion US$ worth re-exports after refining. In the year 2013-14, gold and its finished items are the second largest traded item with 58.465 billion US$ worth imports and 41.692 billion US$ worth re-exports after value addition. These two goods are constituting 53% total imports, 34% total exports and nearly 100% of total trade deficit (136 billion US$) of India in the financial year 2013-14. The services trade (exports and imports) are not part of commodities trade. The trade surplus in services trade is US$ 73 billion in the year 2013-14.

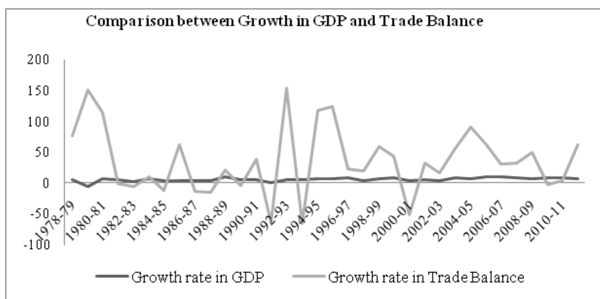


Figure 1: Trend Analysis on GDP and Trade Balance

In the above graph we can see that the numbers of years starting from the financial year 1978-1979 to 2010-2011 are plotted on the x- axis and the growth rates are shown on the y- axis.

We can find that in some years that has been sharp increase in economic growth and in some years there has been sharp decrease in the growth of the economy. Economic growth means an increase in real GDP which leads to an increase in national output and national income. India's economic growth in the first three decades of the post-independence period had recorded 4% per annum and accelerated moderately to 5.4% in the 1980s.

The global financial crisis in 1991 raised the GDP growth to 6.6% during the period 1992-97. However, the East Asian Crisis led to poor harvests, combined with restless coalition governance and fiscal imbalance which in turn reduced the GDP growth to an average of 5.4% in the period 1997-2003. The National Democratic Alliance (NDA) governments of 1998-2004 revived the economic reforms, which is further followed by global economic boom, thereby fostering the GDP growth to an average of 9% per annum during the period 2003-08. However, in 2009-12, the Indian economy was affected unfavorably due to the Global Economic Crisis. During this period, the average GDP growth came to 7.5% per annum. In 2011-12, GDP growth was reduced to 6.5%. However, the first half of 2012-13 recorded a growth of 5.5%.

Table 2: Regression Analysis Based on Growth of Trade Balance and GDP - Summary Output

R Square	0.000704905		
Adjusted R Square	-0.030523067		
Observations	34		
F Statistic	0.022572872		
Significance F	0.881516159		
	Coefficients	Standard Error	t Stat
Intercept	5.999218086	0.603043371	9.948236516
X Variable 1	-0.001391785	0.009263575	-0.15024271

Interpretation: The value of R Square and Adjusted R Square are very low. This implies that the overall model is statistically insignificant. Also the absolute value of the estimated F-Statistic is lower than that of its critical value.

This implies that we accept the null hypothesis of insignificance of the overall model at 5% level of significance. However the explanatory variable (Trade Balance) is statistically insignificant to explain the variation in the explained variable (the growth rate of GDP).

As the absolute value of the t- statistic is lower than 2. Also the absolute value of the estimated t-statistic is lower than that of its critical value. Hence we accept the null hypothesis of insignificance of the explanatory variable (Trade Balance) at 5% level of significance.

Economic growth is caused by two main factors:
1. An increase in aggregate demand,
2. An increase in aggregate supply.

The Primary reasons for positive returns are:
a) Proper Production
b) Proper flow of monetary Fund
c) Development of Infrastructural facilities
d) Tariff rate should decrease

The Main reasons for the negative returns are:
a) Inflation
b) Ineffective Monetary policies
c) Weakening Rupee
d) Poor Quality Image
e) Uncertainties, Procedural Complexities and Institutional Rigidities.

Conclusion

In the era of globalization, the country has both opportunity and threat. The trade among the countries results trade imbalances for the domestic country. Export and import are the two significant factors for trade imbalances. The gap between the export and import creates trade imbalance. It may cause trade surplus or trade deficit. Due to factors like exchange rate volatility, currency devaluation, economic disequilibrium, global crisis the trade deficit gets wider. It also reduces the growth of the country to improve this situation the government and RBI has taken corrective measures.

They announce new policies, cuts the rates, promoted the export and discourages the export. The result of these policies has reflected in the trade balance of 2013-14, in which the trade deficit has narrowed down.

The Indian economy has been experiencing a major transformation since 1990's in the wake of unilateral economic reforms initiated since 1991 and the reorientation of the economy in accordance with the rules and regulations within the multilateral framework of GATT/WTO. Accordingly the globalization of production process, market for goods as well as financial markets has been initiated, though slowly. This has generated debate on the linkage between trade policy and economic growth along with poverty and income inequalities. The large quantities of capital inflows and trade liberalization have brought forefront the debate on the linkages between trade policy and the macro variables. The World Bank and IMF have endorsed liberalization policies in developing countries such as India and began to condition funds to the member countries on the basis of implementation of these policies.

The open trade and capital flows regimes are being supported and advocated on several theoretical grounds. India wedded to economic reforms since 1991 as a consequence of its serious balance of payments crisis though there were some attempts in this regard in 1980s. Some of the policy measures are homebred and some are initiated as a part of IMF and World Bank conditions. The unilateral trade policy measures initiated include: market oriented exchange rate policy, removal of trade restrictions and subsidies, drastic reduction in tariffs on imports and removal of non- tariff barriers, easing the restrictions on foreign investments, and measures relating external borrowing and import licensing.

India's trade policy has been inward looking and based on several regulations and controls. Huge tariff rates and non- tariff barriers have been the hallmark till recently. India has been continuing with quantitative restrictions (QRs) on imports since 1957. Enhancing economic growth through the operation of foreign trade multiplier, gains due to specialization based on comparative advantage, widening market size, availability of cheaper capital goods needed for development, access to the international capital and technology, availability of skilled manpower, competition, resource allocation gains and market discipline.

There has been several increase and decreases in the trade balance, but most of the time India has tried to maintain an increasing trend. India also topped the World Bank's growth outlook for 2015-16 for the first time with the economy having grown 7.6% in 2015-16 and expected to grow 8.0%+ in 2016-17.

References

1. Backus D, Kehol J.P. and Kydland E.F. 'Dynamics of the trade balance and the terms of trade: the S-curve'. 'American Economic Review'. Vol.84. 1994, Pp.84-103.
2. Brander A.J. and Spencer J.B.'Export subsidies and international market share rivalry'. 'Journal of International Economics'. Vol.18. No.1-2. 1985, Pp.83-100.
3. Easterly W, 'The lost decades: developing countries' Stagnation in spite of Policy Reform 1980-1998'. 'Journal of Economic Growth'. Vol.6. No.2. 2001, Pp.135-157.
4. Evenson E.R. and Westphal E.L.. 'Technological change and technological strategy'. 'Handbook of Development Economics'. Vol. 3. Part A. 1995, Pp. 2209-2299.
5. Frankel A.J. and Rose K.A. 'Empirical research on nominal exchange rates'. 'Handbook of International Economics'. Vol.3. 1995, Pp.1689-1729.
6. Goldstein M and Khan S.M.. 'Income and price effects in foreign trade'. 'Handbook of international economics'. Vol.2. 1985,Pp.1041-1105.
7. Meixell J.M. and Gargeya B.W. 'Global supply chain design: A literature review and critique'. 'Journal of global logistics'. Vol.41. No.6. 2005, Pp.531-550.
8. Wacziarg R and Welch H.K.. 'Trade liberalization and Growth: New Evidence'. 'World Bank Economic Review'. Vol.22. No.2. 2008, Pp.187-231.
9. Yanikkaya H. 'Trade openness and economic growth: a cross-country empirical investigation'. 'Journal of development economics'. Vol.72.No.1, 2003, Pp.57-89.

Analysis of Profitability Ratios of Indian Overseas Bank

Puja Agarwal[1] and Pritha Sen[2]
[1]M.Com. Scholar (Accounting and Finance) and [2]Assistant Professor, Department of Commerce, J D Birla Institute, Kolkata

Abstract
This paper deals with the profitability of IOB showing a one to one relationship between dependent variable and independent variables. Analysis of a bank's financial statements requires a distinct approach that recognizes a bank's somewhat unique risks. Banks assume two primary types of risk as they manage the flow of money through their business. Interest rate risk is the management of the spread between interest paid on deposits and received on loans over time. Credit risk is the likelihood that a borrower will default on its loan or lease, causing the bank to lose any potential interest earned as well as the principal that was loaned to the borrower.

Keywords: Analysis, IOB, Profit, Profitability Ratios

Introduction

Indian Overseas bank is one of the oldest banks in India. It is having its strong base in South India. The bank has undergone many structural changes in the past and is serving crores of people all over the world. There are some unique characteristics for this bank. In this research, the financial performance of the select bank is analyzed with the data collected for a period of 10 years.

The data are current and are in accordance with the Banking rules and regulations. Hence the study is highly unique and is an updated one. Analysis of a bank's financial statements requires a distinct approach that recognizes a bank's somewhat unique risks. Banks take deposits from savers, paying interest on some of these accounts. They pass these funds on to borrowers, receiving interest on the loans. Their profits are derived from the spread between the rate they pay for funds and the rate they receive from borrowers. This ability to pool deposits from many sources that can be lent to many different borrowers creates the flow of funds inherent in the banking system.

The Banking sector in India has always been one of the most preferred avenues of employment. In the current decade, this has emerged as a resurgent sector in the Indian economy. The banking sector index has grown at a compounded annual rate of over 51 per cent since the year 2001, as compared to a 27 per cent growth in the market index during the same period. It is projected that the sector has the potential to account for over 7.7 per cent of GDP with over Rs.7, 500 billion in market cap, and to provide over 1.5 million jobs.

Today, banks have diversified their activities and are getting into new products and services that include opportunities in credit cards, customer finance, wealth management, life and general insurance, investment banking, mutual funds, pension fund regulation, stock broking services, custodian services, private equity, etc. Further, most of the leading Indian banks are going global, setting up offices in foreign countries, by themselves or through subsidiaries.

Indian Overseas Bank provides customer and commercial Banking services extending their aims to obtain a radical change that can cause reinforcement in economy. It inculcates in every one to buy or sell or transfer money conferring to diverse facts and figures. The overseas Bank ensures a good way of tackling the intensification evolving currency.

Imagining the world without paper notes adds more simplicity in conduct adhered to it that makes it lucid for people round the corner with good user interface and other amenities such that it can outfit them in a first-rate craze. The term profitability ratio analysis refers to the measure of profitability, which is a way to measure a company's performance.

Profitability is simply the capacity to make a profit, and a profit is what is left over from income earned after you have deducted all costs and expenses related to earning the income. Ratio analysis is the process of determining and interpreting numerical relationships based on financial statements. A ratio is a statistical yardstick that provides a measure of the relationship between two variables or figures. This relationship can be expressed as a percent or as a quotient. Ratios are simple to calculate and easy to understand.

The present study is taken up with the following objectives-

1. To analyze the profitability of Indian overseas bank during the last 10 year period.
2. To identify the parameters which affect the profitability performance of the bank.
3. To suggest suitable measures for improving the profitability of the bank.

Methodology

The data is collected secondarily from various sources such as books, journals, newspapers, and internet websites (annual reports of banks, various data bases, the Reserve Bank of India publications, and from various websites.) and as well as the latest updates on television news channels. Last 10 years data is collected and various profitability ratios like Net margin, Operating margin, and Selling General and Administrative expenses as a % of sales ratio, Return on assets and Return on equity are compared from year to year.

A correlation between the profitability ratios of different years is administered (one to one relationship) to analyze the impact of dependent variable on the independent variable. Here, Net margin is taken as the dependent variable and the rest as independent variable.

Results and Discussion

Table 1: Profitability Ratios (2007-2016)

	Dependent variable	Independent variable			
2007	34.21	52.9	8.66	1.42	28.14
2008	34.48	57.4	8.72	1.31	27.18
2009	29.69	56.5	8.69	1.19	22.08
2010	16.40	42.8	9.7	0.56	9.63
2011	19.74	52.7	8.48	0.69	12.73
2012	15.68	52.8	8.97	0.53	9.88
2013	7.85	7.9	1.79	0.24	4.47
2014	7.77	7.8	1.97	0.23	4.06
2015	-12.13	-12.1	1.74	-0.16	-2.86
2016	-136.22	-136.2	6.1	-1.03	-18.51

In Table 1, the dependent variable is taken as Net Margin. Net margin is the result of Net profit divided by net revenues, often expressed as a percentage. This number is an indication of how effective a company is at cost control.

The higher the net margin is, the more effective the company is at converting revenue into actual profit. The net margin is a good way of comparing companies in the same industry, since such companies are generally subject to similar business conditions. However, the net margins are also a good way to compare companies in different industries in order to gauge which industries are relatively more profitable.

The independent variables are:

Operating Margin also known as the operating profit margin is a profitability ratio that measures what percentage of total revenues is made up by operating income. The operating margin is calculated by dividing the operating income by the net sales during a period. In other words, the operating margin ratio demonstrates how much revenues are left over after all the variable or operating costs have been paid. Conversely, this ratio shows what proportion of revenues is available to cover non-operating costs like interest expense. This ratio is important to both creditors and investors because it helps show how strong and profitable a company's operations are.

Selling, general and administrative expenses (SG&A) are reported on the income statement as the sum of all direct and indirect selling expenses and all general and administrative expenses of a company. There are many factors that go into manufacturing a product, such as a warranty, and therefore SG&A expenses are deducted to generate a net income. SG&A expenses are also monitored to ensure proper cash flow is being managed.

Return on Assets (ROA) is the ratio of annual net income to average total assets of a business during a financial year. It measures efficiency of the business in using its assets to generate net income. An increasing trend of ROA indicates that the profitability of the company is improving. Conversely, a decreasing trend means that profitability is deteriorating.

Return on Equity (ROE) or Return on Capital is the ratio of net income of a business during a year to its stockholders' equity during that year. It is a measure of profitability of stockholders' investments. It shows net income as percentage of shareholder equity. Return on equity is an important measure of the profitability of a company. Higher values are generally favorable meaning that the company is efficient in generating income on new investment. Investors should compare the ROE of different companies and also check the trend in ROE over time. However, relying solely on ROE for investment decisions is not safe. It can be artificially influenced by the management, for example, when debt

financing is used to reduce share capital there will be an increase in ROE even if income remains constant.

Table 2: One to One Relationship

Factor	Correlation Value	Remarks
Net Margin vs. Operating Margin	0.98	Very strong positive correlation
Net Margin vs. SG&A % sales	0.25	Weak positive correlation
Net Margin vs. Return on Assets	0.88	Very strong positive correlation
Net Margin vs. Return on Equity	0.86	Very strong positive correlation

In Table 2, we are finding out one to one relationship between dependent variable and independent variables.

Net Margin vs. Operating Margin

When doing a simple profitability ratio analysis, net profit margin is the most often margin ratio used. The net profit margin shows how much of each sales rupee shows up as net income after all expenses are paid. For example, if the net profit margin is 5%, that means that 5 paisa of every rupee is profit.

Net profit margin takes into consideration the costs of taxes and interest payments, and it provides a more detailed view of financial health. Operating profit is also known as EBIT and is found on the company's income statement. EBIT is earnings before interest and taxes. The operating profit margin looks at EBIT as a percentage of sales. The operating profit margin ratio is a measure of overall operating efficiency, incorporating all of the expenses of ordinary, daily business activity. Operating margin takes a wider look at costs than profit margin. By taking into account variable costs, such as wages, operating margin is a better reflection of the effectiveness of the company's overall pricing strategy. Unlike net profit margin, operating margin does not consider interest expenses.

Here, the correlation value of Net Margin and Operating Margin is 0.98 remarking it is a very strong positive correlation which means the variables move in the same direction. This means that as one variable increases, so does the other one.

Net Margin vs. SG&A % Sales

Net profit margin is the Gross Profit as a percentage of Net Sales. The calculation of the Net Profit is: Sales minus Cost. The Cost of Goods Sold consists of the fixed and variable product costs, but it excludes all of the selling and administrative expenses. Whereas, the selling, general and administrative expense (also known as SG&A) is comprised of all operating costs of a business that are not included in the cost of goods sold. Management should maintain tight control over these costs, since they increase the breakeven point of a business.

Net Margin vs. Return on Assets

The net profit margin is equal to the net profit after taxes and excluding extraordinary items divided by total revenues, whereas, the return on assets (ROA) is one of the most widely used profitability ratios because it is related to both profit margin and asset turnover, and shows the rate of return for both creditors and investors of the company. ROA shows how well a company controls its costs and utilizes its resources.

Net Margin vs. Return on Equity

The common thread between Return on equity (ROE) and net profit margin is net income; however what is different with ROE is the equity part. Net profit margin is the percentage of net income received from the company's revenue. On the other hand, return on equity is the percentage of net income generated by the average shareholder equity. Net income being net profit, which is the income the company generates less its costs and expenses. The Return on Equity ratio is perhaps the most important of all the financial ratios to investors in the company. It measures the return on the money the investors have put into the company. This is the ratio potential investors look at when deciding whether or not to invest in the company.

Conclusion

The banking industry is one of the rapidly growing industries in India. It has transformed itself from a sluggish business entity to a dynamic industry. The growth rate in this sector is remarkable and it has become the most preferred banking destinations for international investors. In the last two decades, there have been paradigm shift in Indian banking industries. The Indian banking sector is growing at an astonishing pace.

Based on the analysis of 10 years of profitability ratios of Indian Overseas Bank we can conclude that firstly, as in years 2015 and 2016 the net margin is negative i.e. -12.13 and -136.22 respectively, which

means the bank spent more money than it made and in the years from 2007-2014 the bank made more money than it spent as the net margin is positive though it started declining drastically in the year 2013.A high net profit margin means a company is able to control its costs that buy goods and services at prices significantly higher than it costs to produce or provide them.

A company with a low or negative net profit margin can potentially increase its profitability by taking steps to reduce costs and increase sales.

Net profit margin provides clues to the company's pricing policies, cost structure and production efficiency. Different strategies and product mix cause the net profit margin to vary among different companies. Net profit margin is an indicator of how efficient a company is and how well it controls its costs. The higher the margin is, the more effective the company is in converting revenue into actual profit.

Net profit margin is mostly used to compare company's results over time. To compare net profit margin, even between companies in the same industry, might have little meaning. For example, if a company recently took a long-term loan to increase its production capacity, the net profit margin will significantly be reduced. That does not mean, necessarily, that the company is less efficient than other competitors.

Secondly, the operating margin also declined drastically from 52.8 in the year 2012 to 7.9 in 2013 and came down to a negative value of -136.2 in 2016. Operating margin gives an idea of how much a company makes (before interest and taxes) on each rupees of sales. Generally, the higher a company's operating margin is, the better off the company is. If a company's margin is increasing, it is earning more per rupees of sales.

Thirdly, the ratio of SG&A costs to sales (the SG&A cost ratio) is considered to be a measure of operating efficiency—an increase in the ratio indicates inefficiency and inability of managers to control costs, whereas a decrease in the ratio indicates efficiency and the ability to control costs. Here, in the year 2010, SG&A had the highest percentage of 9.7 which indicates inefficiency whereas, it is lowest in the year 2015 i.e. 1.74.

Fourthly, the higher the Return on assets (ROA), the better, because the company is earning more money on less investment. In the year 2007, the bank had the highest ROA and kept decreasing to -1.03 in the year 2016.

Lastly, a high return on equity ratio indicates that the company is using its investors' funds effectively. Return on equity measures how efficiently a firm can use the money from shareholders to generate profits and grow the company. ROE is a profitability ratio from the investor's point of view—not the company. In other words, this ratio calculates how much money is made based on the investors' investment in the company, not the company's investment in assets.

The bank size is very important determinant of profitability because it can influence the banks operations internally to cut-off their cost due to economies of scale. The positive relation of size with profitability is due to economies of scale and negative relationship is due to diseconomies of scale. The high value of gearing ratio demonstrates higher liquidity risk which might lead to low profitability levels and debt holders will demand more rate of return on further loan financing. The proxy to measure the gearing ratio for banks is total debts to equity. Another factors being expense management is also an important determinant of a bank's profitability. Efficient management of expenses improves bank's profitability. Also better quality management and profitability go hand in hand.

References

1. Andreas Dietrich and Gabrielle Wanzenried. (January 2010).
2. Bhunia. A. et.al, Financial Performance Analysis- A Case Study. Current research journal, (Vol.3 (3), 2011, pp. 269-275)
3. Reserve Bank of India, Report of the Committee on the Financial System (Chairman: Shri M. Narasimham), 1991.
4. Suresh. M. Indian Overseas Bank- An analysis of the financial position. Asian Jounal of Multidimensional Research, Vol. 1 Issue 5, October 2012

A Study on the Impact of Visual Merchandising on Consumer Behaviour in the City of Kolkata

Joyitri Das[1] and Dr. Namrata Maheshwari[2]
[1]M.Com student (Marketing) and [2]Assistant Professor, Department of Commerce, J.D. Birla Institute Kolkata, India

Abstract
The study was undertaken with an aim to understand the various visual merchandising factors which influence consumer buying behavior in Kolkata. Factors influencing consumer behavior like ambiance, category management and festive decorations. A structured questionnaire was constructed and distributed among 130 respondents to study their attitude and opinion towards visual merchandising. A consumer is the focal point of a retail store hence the retail should take into consideration the consumer's taste and preference and invest in visual merchandising accordingly.

Keywords: Visual Merchandising, Consumer Behavior, Ambiance, Retail

Introduction

Visual Merchandising, known as the 'silent salesman' is the science and art of suggestive selling by display and presentation. It requires conceptual, aesthetic and analytical skills to create footfalls into the store, guide buyers, influence buying decisions and motivate customers to come to the store again. Visual Merchandise is the presentation of the store and the merchandise in a manner that will attract the attention of the potential customers. The ultimate purpose of visual merchandise is to aid in promoting sales. Visual merchandise requires a combination of skills including creativity, artistic knowledge and understanding of store design. Colour is a significant attraction element in converting potential shoppers into customers. It encompasses all of the physical elements that merchandisers use to project the retail outlet image to the customers.

Functions of Visual Merchandising: It attracts and engages customers. It promotes interest in merchandise or services. It encourages purchasing and it reinforces customer satisfaction.

Elements of Visual Merchandising
a) Storefront
b) Store layout
c) Store interior
d) Interior displays

Visual Merchandising enhances products, supports brands, increases traffic and sales, adds visual excitement by way of strategically located and illuminated focal destinations in an environment, typically businesses and stores, defines and advertises overall personality and image of the retail outlet.

Merchandising Techniques: There are several techniques used to deliver great merchandising solutions:
a) Creating stories/themes or idea oriented presentation
b) Price lining
c) Co-ordination
d) Blocking by style/type
e) Using colour [complementary or contrasting]
f) Symmetry and balance
g) Repetition

Green Visual Merchandising: The practice of visual merchandising can be considered to be quite 'wasteful' with promotional banners, props and decorative being discarded with each new seasonal display. Hence to reduce visual merchandising costs and most importantly, cost to the environment following options may be considered while planning the next display:
- Visual merchandisers should always think of the reusability or recyclability of any props they buy, source, or make displays with.
- 100% recycled paper for all printing needs and for large volume print runs, use a printer who prints with vegetable-based inks.

Principles of Good Design: Balance, emphasis, harmony, proportion and rhythm.

Aims & Objectives

The primary objectives of this project are:
- To analyse the consumer's perceptions towards visual merchandising.
- To know the consumer's opinion regarding the visual displays considered by them during the process of purchase.

- To test a hypothesis of impact of creative displays on consumer's preference towards a merchandise.

Methodology

Research Methodology consists of the presentation and analysis of the data collected through survey and significant results and conclusions can thus be drawn therefrom.

Research Plan: For conducting the research on Visual Merchandising mainly primary data was collected and with the help of SPSS software results were found and interpreted.

Scope of Study: The study was conducted across various parts of the city of Kolkata. The respondents consisted of the consumers from various age groups but majorly the youth.

Sample Size: For the study of "Impact of Visual Merchandising on Consumers in the city of Kolkata, a sample of 130 consumers were selected randomly.

Table 1: Demographic Analysis of Respondents'

Particulars	Categories	Frequency	Percentage
Gender	Male	39	30%
	Female	91	70%
Marital Status	Married	21	16.2%
	Unmarried	109	83.8%
Age	15 – 25	100	76.9%
	26 – 40	25	19.2%
	41 – 60	6	4.6%
	60 and above	0	0
Income	Less than 20000	71	54.6%
	20000 – 35000	24	18.5%
	35000 – 50000	11	8.5%
	50000 and above	24	18.5%
Education	Secondary	3	2.3%
	Higher Secondary	15	11.5%
	Graduate	43	33.1%
	Post Graduate	66	50.8%
	Doctorate	3	2.3%
Occupation	Student	70	53.8%
	Service	35	26.9%
	Business	14	10.8%
	Housewife	5	3.8%

Types of Data and Approach of Collection: To conduct the entire project both primary and secondary data have been collected.

- To collect the required primary data a survey was undertaken where respondents across various parts of Kolkata were directly approached with a structured questionnaire, which was a Self-completion questionnaire (where the respondent answers without the help of the interviewer).
- The data was collected over a period of 4 weeks. During the months of August and September.
- The Questionnaire was structured and was distributed among respondents and also an online questionnaire was formed and was filled up on online.
- Secondary data was also used in addition to primary data. The secondary data was collected through various research publications, journals – online & printed, magazines, web sites

Structure of Questionnaire: The design of the questionnaire is such that it includes different types of questions, such as close ended questions, dichotomous questions, multiple choice and Likert Scale questions, and the questionnaire starts with questions studying consumer perceptions, basic idea of the topic and ends with the demographics. A five point likert scale ranging from 1 (strongly agree) to 5 (strongly disagree) was used to get the responses regarding the perceptions.

Software Used: The responses collected through questionnaire were summarized and put in SPSS (Statistical Package for Social Sciences) to run and interpret.

Representation of Data - The responses were represented in the form of pie charts and bar graphs.

Statistical Tools Used: Factor Analysis, Correlation, Regression, Hypothesis Testing (One Sample T-Test)

This entire research work was based on descriptive study. The sample size of the study is 130 respondents and the study is covering various parts of Kolkata city only. The convenience sampling was used in the study.

Results and Discussion

Consumers were given various statements related to retail visual merchandising for which they had to express their opinion for each through five point

Likert scale, ranging from 1- strongly disagree to 5- strongly agree. For using SPSS statistical tool, the 5 point likert scale was coded as follows:
1 - Strongly Disagree, 2 - Disagree, 3 - Neutral, 4 - Agree and 5 - Strongly Agree.

Those statements for which the consumers have almost agreed on an average are

- Attractive store decoration attracts customers (Mean: 3.94)
- Creative display of promotional offers are effective (Mean: 3.81)
- Price tags lead to impulsive buying (Mean: 3.76)
- Colourful assortments of fashion products increase consumer's interest (Mean: 3.74)
- Colours used in display attract consumers (Mean: 3.70)
- Creative and category-wise product display promotes sales (Mean: 3.70)

The above factors should be focussed upon by the retailers and the store should be uplifted by attractive store decoration, the promotional offers should be strategically displayed to grab attention, the pricing strategy adopted by the retailer should be attractively and tactfully displayed so that it is noticeable

- Product display with accessories increase chances of purchase (Mean: 3.56)
- Attractive mannequin styling promotes impulsive buying (Mean: 3.52)
- Products covered with strong lighting grab attention (Mean: 3.38)
- Products covered with strong lighting grab attention (Mean: 3.36)
- Interiors of retail store influences consumers (Mean: 3.43)

The standard deviation obtained for each statement is showing the degree of variability of each observation from its mean value.

Table 2: Rotated Component Matrix

Statements/Factors		**Component**		
		1	2	3
Creative window display		0.023	0.685	0.315
Outer glimpse of the store		0.132	0.833	0.092
Light and Music		0.269	0.650	0.070
Ambiance		0.183	0.483	0.474
Category-wise product display		-0.020	0.181	0.797
Trendy mannequin styling		0.261	0.155	0.795
Décor in trial rooms		0.701	-0.077	0.286
Decoration according to themes		0.541	0.116	0.548
Sitting and refreshment area		0.639	0.319	0.103
Spearman's Ratio	REGR factor for analysis1	0.793	0.040	0.076
	REGR factor score for analysis 1			
Ceiling suspended props and talkers				
Furniture and fixture	0.772	0.306	-0.040	
Festive decoration and promotions	0.626	0.389	0.200	

Factor analysis will be used to reduce the variables so to reduce the different variables. We obtain the Cronbach alpha value as 0.852. Then we consider the table item total statistic and find no factor is getting eliminated since its Cronbach alpha if deleted value is not more than 0.852. After running the factor analysis KMO value is 0.809 which means there is a strong association among the variables. Now we take the Eigen value>1 as the number of factors.

So we get 3 factors which are having Eigen value >1 we name them accordingly

- Promotional Tool
- Ambiance
- Merchandise display and decoration

From the above Correlation test as carried out in SPSS we can conclude that the correlation between the preference towards visiting stores with proper visual merchandise and age is -0.67 which means that these two variables are negatively related and are inversely proportionate to one another.

Table 3: Results of Correlation Analysis

Correlations	Do you really prefer to go to stores with proper visual merchandise?	Age
Do you really prefer to go to stores with proper visual merchandise?		
Age	Pearson	
Correlation		
Sig.(2 Tailed)		
N		
Pearson Correlation		
Sig.(2 –Tailed)		
N	1	
130		
-0.067		
0.050		
130	-0.067	
0.050		
130		
1		
130		

Testing of Hypothesis

H_0: Creative display of merchandise does not attract and influence consumer's preference towards it.

H_1: Creative display of merchandise attracts and influence consumer's preference towards it.

Table 4: One-Sample Statistics for Influence of Display on Consumer's Preference

	N	Mean	Std. Deviation	Std. Error Mean
Creative display of merchandise attracts and influences consumer's preference towards it	130	1.11	0.311	0.027

Analysis

To test the hypothesis "Creative display of products attracts and influences consumer's preference towards it", One-sample T test was carried out with assumed mean value of 3. The calculated mean value of influence of creative on the customer's preference in Kolkata is less than the assumed mean value 3 i.e., 1.11 and the observed P value 0.000 is less than 0.05 as seen in the above table. The mean difference value is negative illustrating the respondent's affinity and magnitude towards agreement with the given statements. This result indicates that the above null hypothesis that Creative display of products does not attract and influence consumer's preference towards it is rejected and the alternative hypothesis that Creative display of products attracts and influence consumer's preference towards it is accepted. This is also justified with the analysis of mean and standard deviation from the Table 5.20.1.

Table 5: One-Sample Test for Influence of Display on Consumer's Preference

	Test Value = 3					
	T	Df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Creative display of products attracts and influences consumer's preference towards it	-69.333	129	.000	-1.892	-1.95	-1.84

Table 6: Results of Simple Linear Regression Analysis

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
Constant Income	2.035	.172		11.832	0.000
	-.010	.077	-.012	-.133	0.894

Table 7: Results of Chi Square Test Analysis

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	1.041a	2	.594
Likelihood Ratio	.982	2	.612
Linear-by-Linear Association	.119	1	.730
N of Valid Cases	130		

Table 8: Chi Square Test: Impact of Visual Merchandising on Gender

		Gender		Total
		Male	Female	
When visiting stores do you take notice of the shop window displays?	Yes	21	51	72
	No	4	6	10
	Sometimes	14	34	48

Table 9: Results of Regression Analysis

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	0.019	1	0.019	0.018	0.894
Residual	133.951	128	1.046		
Total	133.969	129			

For the purpose of studying how one variable is related to another, regression test has been run. Here, the aim is to study how income of the respondents is related to their frequency of visiting retail stores.

For this reason, the hypothesis postulated is as follows:

H_0: Income of the consumer has no relation with the frequency of visiting retail stores.

H_1: Income of the consumer has a relation with the frequency of visiting retail stores.

From the survey we conclude that most of the consumers in the metro city of Kolkata visit retail outlets on a regular basis. Hence the significance of Visual Merchandising has been growing along with the increasing importance of the role of a Visual Merchandiser. It requires conceptual, aesthetic and analytical skills to create footfalls into the store, guide buyers, influence buying decisions and motivate customers to come to the store again.

Till date the field of Visual Merchandising has yet not proliferated in Kolkata has hence is not a driving factor that is considered important enough in comparison to the other factors for selecting a retail store. But majority (87.7%) of the respondents have agreed that they definitely prefer to visit the

retail outlets which are equipped with proper visual displays and 65.4% of the respondents agree that visual merchandising has a direct relation with the stores image. We also find a positive relation between the design and layout of the retail store and overall shopping experience.

Among all the categories, Apparel sector is considered as the most important field for Visual Merchandising according to the survey. Hence the apparel and fashion accessories retail outlets must spend and focus on visual merchandising and should employ experienced visual merchandisers for the best possible visual effects.

References

1. Hefer Y. and Cant C.M., Visual Merchandising Displays' Effect on Consumers: A Valuable Asset or an Unnecessary Burden for Apparel Retailers. International Business & Economics Research Journal. 2013, Vol. 12, Issue. 10. Pp. 1217 – 1224
2. Dr. Kumar V., "A study on Needs of Visual Merchandising for Online & Physical Stores". IOSR Journal of Business and Management. 2014, Vol. 16, Issue 9. Pp. 98-101
3. Seock K.Y. and Lee E.Y., Understanding the Importance of Visual Merchandising on Store Image and Shopper Behaviours in Home Furnishings Retail Setting. European Journal of Business and Management. 2013, Vol.5, No.4. Pp. 174 – 187
4. Asirvatham P. A. and Dr. Mohan N., Role of Visual Merchandising on Consumer Buying Decision. 2014. ISSN – 2249 – 555X. Vol.4. Issue. 10. Pp. 1 – 2
5. Hefer Y. and Cant C.M., Visual Merchandising Displays' Effect on Consumers: A Valuable Asset or an Unnecessary Burden for Apparel Retailers. International Business & Economics Research Journal. 2013, Vol. 12, Issue. 10. Pp. 1217 – 1224
6. Dr. Kumar V., "A study on Needs of Visual Merchandising for Online & Physical Stores". IOSR Journal of Business and Management. 2014, Vol. 16, Issue 9. Pp. 98-101
7. Seock K.Y. and Lee E.Y., Understanding the Importance of Visual Merchandising on Store Image and Shopper Behaviours in Home Furnishings Retail Setting. European Journal of Business and Management. 2013, Vol.5, No.4. Pp. 174 – 187
8. Asirvatham P. A. and Dr. Mohan N., Role of Visual Merchandising on Consumer Buying Decision. 2014. ISSN – 2249 – 555X. Vol.4. Issue. 10. Pp. 1- 2.

Life Insurance - A Comparative Analysis of the Public and Private Life Insurance Companies

Ruchika R. Dadlani[1] *and Dr. Rachana Kejriwal*[2]
[1]*M.Com. Scholar (Accounting and Finance) and* [2]*Assistant Professor, Department of Commerce, J D Birla Institute, Kolkata*

Abstract

The financial system in India is highly influenced by the banking and insurance sector. The banking sector has been showing a growth since a long time and is still doing well. The insurance sector is the sector that has a lot scope and is still yet to develop as compared to that of the banking sector. The Insurance sector in India is a growing sector. This sector is not just meant for people investing their resources for securing their life or their family's life against uncertainties, but it's much beyond. This research paper attempts to study and compare the public and private life insurance sectors to reflect their contribution towards the development and growth of the entire Insurance sector.

Keywords: Comparison, Development, Insurance Sector, Private and Public Life Insurance Companies

Introduction

Life insurance sector has been a part of all our lives from our ancestral period. But the way we look at it has been different since years. Some people think that life insurance is way of securing their lives, hedging the risk, tax saving scheme and claiming the benefits with extra bonus at the time of maturity. But the scope of this sector and the other benefits that can be gained by the people have always been ignored. Life insurance policies not only help in hedging the risk but it also provides an avenue to invest out extra income in the form of legal investments which can not only help us in saving our taxes but can also provide us with extra and high returns.

The common practice of the life insurance companies that have been known is that these companies invest the amount which is received by them in the share market of those companies which are financially doing well and earning profits. This is just not all about investing in the form premiums and getting secured against the uncertainties, it's much beyond. Investing in the sector has proved to give a lot of benefits and it still promises to generate profits and increased rate of return on investments. In order to better analyze the growth and investment of this sector a comparative analysis between the public and private sector on the basis of various parameters is initiated in this research paper. various parameters such as growth in terms of GDP affecting the life insurance penetration, increase in premiums collected, increase in the number of agents employed, increase in the average number of policies sold, increase in the density and insurance penetration rates etc. all have been analyzed.

In order to better understand the growth and improvement and to analyze whether both the public and the private sectors have equally contributed towards the growth of this sector, a comparison between the two giants of both the sectors has been initiated. Life Insurance Corporation of India representing the public sector and ICICI Prudential Life Insurance Ltd are compared on the basis of the above mentioned factors. This comparison has been made with the intensions of knowing the growth of both the companies, growth of the public and as well as the private sector and the life insurance industry as a whole.

Role of Life Insurance in Society

Life insurance companies play an important role in a country's economic development. They contribute in a significant sense to ensure that the wealth of the country is protected and preserved. Some of their contributions are given below:

- Their investments benefit the society at large. A Life Insurance company's strength lies in the fact that huge amounts are collected and pooled together in the form of premiums.
- These funds are collected and held for the benefit of the policyholders. Life Insurance companies are required to keep this aspect in mind and make all their decisions in dealing with these funds so as to be in ways that benefit the community. This applies also to the investments. That is why successful insurance companies would not be found investing in speculative ventures i.e., stocks and shares.
- The system of life insurance provides numer-

ous direct and indirect benefits to the individual, his family, to the industry and commerce and to the community and the nation as a whole. The insured people are directly benefitted because they are protected from the consequences of the loss that may be caused by accident or fortuitous event.

- Life insurance also removes the fear, worry and anxiety associated with one's future and promotes efficient use of existing resources. Thus, life insurance encourages commercial and industrial development along with the generation of employment opportunities, thereby contributing to a healthy economy and increased national productivity.
- Life insurance encourages savings. Life insurance does not only protect against risks and uncertainties, but also provides an investment channel too. Life insurance enables systematic savings due to payment of regular premium. Life insurance provides a mode of investment. It develops a habit of saving money by paying premium. The insured get the lump sum amount at the maturity of the contract. Thus life insurance encourages savings.
- Life insurance facilitates spreading of risk from the insured to the insurer. The basic principle of insurance is to spread risk among a large number of people. A large number of persons get insurance policies and pay premium to the insurer. Whenever a loss occurs, it is compensated out of funds of the insurer.
- Large funds are collected by the way of premium. These funds are utilized in the industrial development of a country, which accelerates the economic growth. Employment opportunities are increased by such big investments. Thus, life insurance has become an important source of capital formation.

Factors Affecting the Relationship between Life Insurance Sector and Economic Growth in Indian Economy

- Mobilization of Resources: The premium collected is pooled and invested in projects which reduces the transaction cost of financing and eases the pressure on the financial intermediaries. Countries with strong insurance industries have a robust infrastructure and strong capital formation. Life insurance generates long-term capital, which is required to build infrastructure projects that have a long gestation period. Concurrently, life insurance protects individuals from sudden unfavorable events. A well developed and evolved insurance sector (life and non- life insurance sector) is needed for economic development as it provides long-term funds for infrastructure development and simultaneously strengthens the risk taking ability. The bulk funds invested in large and infrastructure projects promote economies of scale, promoter economic development and growth and other technological innovation.
- Growth in GDP and Household Financial Savings: The Life insurance is linked to growth only in higher income economies and makes a positive contribution in both developing and higher income economies. High GDPS have been strongly supported by savings in the household sector. Overall growth in GDP and household savings has significantly influenced the growth of Indian life insurance business. Reforms and liberalization are expected to exert a significant impact on income, savings and insurance purchase; financial reforms are expected to improve allocation of savings. India is one of the few countries in the world which has maintained higher growth rate in domestic savings in spite of economic deregulation and increased consumerism due to higher prosperity to save by the household sector. GDS in India steadily increased from 306588 crores of rupees in 2001-02 to 1283456 crores of rupees in 2009-10. Expansion of the life insurance market in India, expansion of service sector and increase in GDS all contributed significantly to the steady growth in economy.
- Inflation and Interest Rate: An inflation and business recession directly reduces the real purchasing power and network of the people respectively. Insurance can provide cover to these, yet the negative side is the adverse impact on the financial performance of companies. Higher interest rates in other alternative savings and instruments may discourage purchasing life insurance and lower interest rates in other alternative savings may encourage purchasing life insurance.
- Employment: Life insurance creates both direct and indirect employment in the economy. Alongside regular jobs in insurance, there is always demand for a range of associated professionals such as brokers, insurance advisors, agents, underwriters, claims managers and actuaries. The increasing insurance business especially the life insurance sector has increased the

demand for highly skilled professionals as well as semiskilled and unskilled people. To ensure continued growth, the need of the hour is trained manpower with specialized knowledge about insurance. Insurance companies need to invest in the professional training of their employees, especially for subjects such as underwriting, claims and risk management.

Growth of Life Insurance Sector in India

Growth of the life insurance sector can be measured on the basis of several parameters. Certain parameters that are covered in this study are discussed below. Study of these parameters reveal the fact the life insurance sector has grown and developed over the years in India, which has led to the overall development and growth of insurance sector in India.

1. Growth in terms of GDP and the Insurance sector as a whole (emphasis more towards the Life Insurance sector)
2. Growth in terms of Life Insurance premium
3. Growth in terms of average number of policies sold
4. Growth in terms of agents employed
5. Growth in terms of new insurance companies
6. Growth in terms of offices

The life insurance sector's growth can be shown in terms of the above mentioned parameters. The analysis of these parameters shows that this sector has grown and shown positive results. This sector has positively contributed towards the economic growth. In order to understand and have an in depth knowledge about its growth and development a comparison between the public and private life insurance sectors is undertaken.

The comparison can reveal the fact that whether both the sectors have contributed towards the overall growth of the life insurance sector, whether it's the public sector alone playing a dominant role and the private sectors have not shown any improvement in their performance? These are certain questions that usually arise when we talk about the growth of the Life insurance sector in India. The public sector of the life insurance sector has only one life insurance company but whereas the private sector consists of 23 life insurance companies presently.

Comparison between Life Insurance Corporation of India and ICICI Prudential Life Insurance Ltd.

Life Insurance Corporation of India (LIC) represents the public sector and ICICI Prudential Life Insurance Ltd represents the private sector of the life insurance industry. LIC has been in the market since ages and since then it has occupied a dominant position in the market. On the other hand ICICI Prudential Life Insurance Ltd has been improving day by day. Among the private players this company has shined and improved since day 1. It was incorporated at Mumbai on July 20, 2000 as ICICI Prudential Life Insurance Company Limited, a public limited company under the Companies Act, 1956.

ICICI Prudential Life began its operations in fiscal year 2001 and has consistently been the market leader amongst private players in the Indian life insurance sector. LIC came into existence with the help of a bill that was passed in the parliament. The parliament of India passed the Life Insurance Corporation Act in the year 1956 and this resulted in the formation and establishment of the LIC in India. So, we can say that the public sector has in existence as compared to that of the private sector. So, this is one of the basis on which both the companies can be compared i. e, the years of existence. This is also one of the reasons because of which LIC enjoys a dominant position in the Indian Life Insurance industry.

These two companies can be compared on the basis other factors as well. However, the comparison just do not only reflects the comparison between the two companies but also shows us that how the life insurance industry grown and developed over the years. The parameters on the basis of which the comparison has been made are as follows:

1. Profits of the last ten years
2. Liquidity in terms of current ratios of the last ten years
3. Premiums collected in the last ten years
4. Individual agents employed in the last ten years
5. Claim settlement ratios

Comparisons of the two companies on the basis of the above mentioned factors show that both the companies have grown, developed and helped the Life insurance industry to outshine. It has also helped the country to penetrate into this industry and positively contributed towards its economic growth. The comparison also reveals that the public sector that is, LIC has been and still continues to be the

dominant giant in India as compared to the private players. ICICI Prudential Life insurance Ltd on the other hand enjoys a dominant position among the private players. Both the companies in their own way are enjoying it's market position and helping the people to earn and contributing towards the economic growth. Though privatization of the insurance sector is feared to affect the prospects of the LIC, the study shows that the LIC continues to dominate the sector. Private sector insurance companies also tried to increase their market share.

Methodology

To fulfill the objectives of the present study, the following research methodology has been used:-
Selection of the Data for the Study: The study aims to provide an insight into the parameters and basis on which the growth of the life insurance can be measured and understood. So the data just related to the public sector cannot be just considered as the existence of private sector in India is prevailing presently. Therefore, in order to understand this sector and its performance over the years the public and private both the sectors are taken into consideration. In Life Insurance industry, LIC plays a major role as one and only company in public sector. Apart from LIC there are 23 Life insurance companies in India. Their role cannot be avoided and overlooked because of the giant and dominant position and market share of LIC. At present it's just not just LIC which is positively contributing towards the growth of this sector. The private players are not less at all in contributing towards the growth of this industry. This is the reason why the company that acts as the biggest competitor among the private players is chosen in this study for the comparison purpose. This company is none the less ICICI Prudential Life Insurance Ltd. this company has grown and reached such a position at present that it is recognized as the largest private sector life insurer in India.

Collection of Data: The main sources of secondary data are published annual reports, manuals, books, journals, articles, and other research papers.

Period of Analysis: In order to achieve the objectives of the study, a time-series data on the relevant indicators of the overall industry (public and private sectors) have been collected from 2005-06 to 2015-2016 and in certain cases from the period 2005-06 to 2012-13.

Analysis of Data: To achieve the objectives of the study, the collected data has been analyzed in tabular form as well as by using statistical tools like percentage and growth rates. The data collected have also been analyzed in the form of line graphs to indicate the growth over the years. Statistical methods Correlation and Regression have also been used in order to understand the relationship between the profitability and liquidity of the two companies and then compared accordingly to indicate the comparison between the two and to correlate premiums earned and profitability. In order to study the change in pattern of the investments of LIC over the years, Regression method has been used to indicate the investment patterns and growth of the overall industry. For the analysis purpose the current ratios, net profit ratios and claim settlement ratios of the LIC and ICICI Prudential Life Insurance Ltd have also been analyzed to go ahead with the comparison.

Results and Discussion

Growth in Terms of New Life Insurance Companies

Table 1: Growth in Number of Life Insurance Companies in India

Year	Number of Companies
2000-01	5
2001-02	12
2003-04	13
2004-05	13
2005-06	14
2006-07	15
2007-08	16
2008-09	18
2009-10	22
2010-11	23
2011-12	23
2012-13	24
2013-14	24
2014-15	24
2015-16	24

Source: Annual Reports of IRDAI 2000-01 to 2015-16

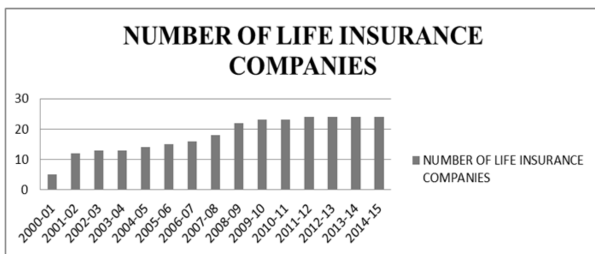


Figure1: LIC Companies in India

Table above shows that number life insurance companies formed over the years. The number of companies formed over the last years 10 years have tremendously increased. The total number of Life Insurance Companies was 5 in the year 2000-2001. But it increased up to 15 in the next 5 years and later on up to 24 companies in the year 2012-13 and has remained 24 in number till 2014-15. At present there are 24 life insurance companies operating in India in which there's just 1 company in the public sector that is, LIC and the rest 23 companies belong to the private sector. The rise the number of companies formed is a reflection of the fact that the life insurance sector is successfully penetrating in the country. The increase in the number also shows that this industry has been performing well in the Indian economy. This is one of the most important factors which prove the growth of this sector.

Growth in Terms of GDP and the Insurance Sectors as a Whole

Table 2: Relationship of GDP with Insurance Penetration in India

Years	Growth in GDP (in percentage)	Insurance Penetration (in percentage)
2000	5.8	2,32
2001	3.9	2.71
2002	4.6	3.26
2003	6.9	2.88
2004	7.6	3.17
2005	9.0	3.14
2006	9.5	4.80
2007	10.0	4.70
2008	6.9	4.60
2009	5.9	6.20
2010	10.1	5.10
2011	7.9	4.10
2012	4.5	3.95
2013	4.9	4.70
Source: www.tradingeconomics.com and World Bank Report		

Table above shows that there has been a growth in the GDP rates over the years (between 2000-2009). Rate of growth has gone maximum up to 10.1% which has led to a growth in the insurance penetration in India upto 5.1%. With the fluctuating growth rates of GDP there has been a fluctuating growth in the penetration rates of insurance industry in India. There might be many reasons for the increase in the penetration rates of insurance in India, but is the growth in GDP related to the insurance penetration in India or not, has to be analyzed. For this a correlation test was conducted taking GDP growth rates as one of the variables and the insurance penetration rates as the other variable. The correlation value obtained was 0.310659. The value obtained is positive. This means that the two variables are related positively to each other. The results suggest that there can be several reasons for the growth in the penetration rates of the insurance sector in India, but the GDP growth rates can be one of the factors.

Table 3: Result of the Correlation between GDP and Insurance Penetration in India

Correlation Result between GDP and Insurance Penetration in India		
Column 1	1	
Column 2	0.310659	1

Frowth in Terms of Life Insurance Premium

Growth in Terms of Life Insurance Premium

Table 4: Growth in Terms of Life Insurance Premium

Year	Premium of Life Insurance Industry (Rupees in Crore)
2000-01	34898.47
2001-02	50094.46
2002-03	55747.55
2003-04	66534.75
2004-05	82854.80
2005-06	105875.76
2006-07	156075.84
2007-08	201351.41
2008-09	221785.47
2009-10	2675447.00
2010-11	291638.64
2011-12	287072.00
2012-13	287202.49
2013-14	314301.66
2014-15	328101.14

Source: Annual Report of IRDAI 2014-15

Industry has seen a stable growth rate in premium in all years except 2011-12, growth is declined by -1.57% which is experienced for the first time in the last decade. The total premium of the life insurance industry at the end of the year 2013 is Rs287202.49 crore only. Rs 328101.14crore is the highest premium of the industry which is recorded 2010-11. 2006-07 and 2001-02 are recorded highest growth rate respectively.

Growth in Terms of Average Number of Policies Sold by Individual and Corporate Agents

Table 5: Growth in Terms o Average Number of Policies Sold By Individual and Corporate Agents

S.No	Year	Individual Agents			Corporate Agents		
		LIC Average	Private Average	Industry Average	LIC Average	Private Average	Industry Average
1	2008-09	28	6	16	2190	1857	1908
2	2009-10	28	4	15	1606	2289	2172
3	2010-11	26	4	15	1708	1976	1933
4	2011-12	27	3	16	2194	2533	2474
5	2012-13	29	3	18	2569	5064	4376

Source: Annual Report of IRDAI 2012-13

Corporate agents are performed very well in last five years and good growth rate is seen by industry. Remarkable development is found when compare industry average number of policies sold 2012-13 to 2011-12. Overall there's been an increase in the number of policies been sold and therefore this proves that the insurance sector is developing on a whole. Overall there's been a satisfactory performance and growth in this sector.

Growth in Terms of Agents Employed

Table 6: Growth in Terms of Agents Employed

Years	Number of Agents Employed
2001-02	826334
2002-03	1068441
2003-04	1265183
2004-05	1212679
2005-06	1420235
2006-07	1976934
2007-08	2485980
2008-09	2883214
2009-10	2898653
2010-11	2581840
2011-12	2358885
2012-13	2122757

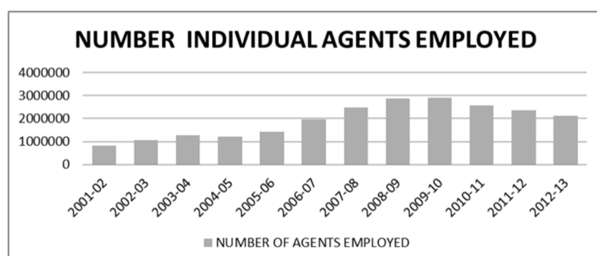


Figure 2: Bar Graph showing the Number of Agents Employed over the years

Regression Test

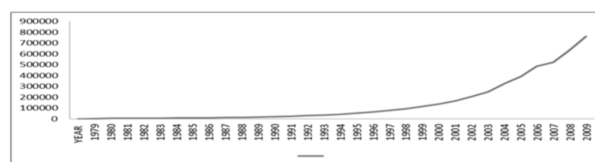


Figure 3: Line graph showing the trend and rise in investments made by LIC

The graph above shows the rise in investments for the public insurance sector since 1980-2008. These investments are made by LIC in the following sectors: Public sector, Private sector, Joint and Co-operatives. Initially the investments made by LIC was about 4587.7 crores in the year 1979 which rose up to 762891.7 crores in the year 2009. In order to understand whether there has been a significant change in the investment pattern of LIC (public sector insurance sector) or not a test was conducted. The study is based on the hypothesis that: Classical Linear Regression Model(CLRM) = Constant + Bx(time) + error

Assumption of the Hypothesis

H_0: There is no significance Change in the pattern of the investment strategy of LIC over the period 1980 to 2009

H_1: There is a significant change in the pattern of investment strategy of LIC over the period 1980 to 2009

Table 7: Result of Regression

Regression Statistics	
Multiple R	0.827927612
R Square	0.68546413

The value for R2 is 0.68546, which is equal to 68.546%. The value 0.68546 lies between the ranges 0.5-0.8, that is the value lies between 50%-80% which means that the overall model is moderately significant. The Absolute Estimated F-statistic value is 63.199 and the Critical F- statistic value is 9.0099. The Absolute Estimated F-statistic value is more than the critical F-statistic value, which implies that we have to reject the null hypothesis of statistical insignificance of the overall model at 5% level of significance. However, the absolute value for T-statistic is 7.949, which is more than 2. This implies that the concerned explanatory variable (investments over the years) is statistically significant to explain the variation in the explained variable (time). Hence the null hypothesis of statistical insignificance of the concerned explanatory variable is rejected and alternative hypothesis is accepted showing that there is significance change in the pattern of the investment strategy of LIC over the period 1980 to 2009 at 5% level of significance. The overall result suggests that there's been a growth in the investments of LIC over the years.

Comparison and Growth in Both Public and Private Sectors of Life Insurance Companies

Life Insurance Corporation of India V/S ICICI Prudential Life Insurance Ltd.

On the Basis of Profits

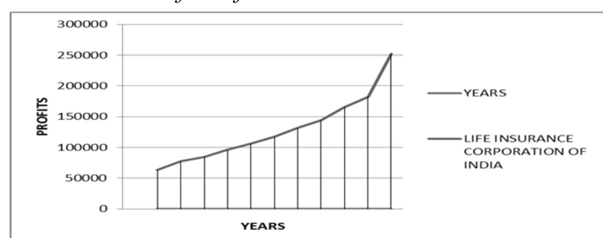


Figure 4: Line graph showing the rise and trend in profits of LIC

The graph above shows the profit after tax earned by the Life Insurance Corporation of India. The profits of 10 years are taken into consideration from the year 2005-06 to 2015-2016. It can be observed that the profits of LIC Company has shown trend in its profits. The company has managed to earn consistent profits after taxes since the last 10 years. It is observed that there has been Rs. 188626.78 lakhs growth in the profits of LIC over the years. During the years it can be seen the growth in the profits is just about Rs. 10336.8 lakhs. Though the company has managed to earn profits, but the rate is not increasing but remains as to be fluctuating. This can be because of the participation of the private players and competition between the 2 sectors. May be the increase in the profits or reduction in the losses of the private sector insurance companies affected the profits of LIC.

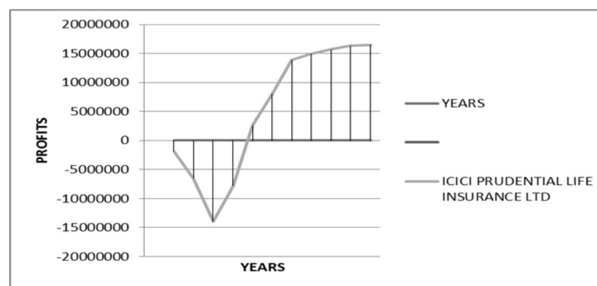


Figure 5: Line graph showing the rise and trend in the profits of ICICI Prudential Life Insurance Ltd.

The above graph shows the trend in the profits and losses of ICICI Prudential life insurance. It is observed that the company incurred losses till the period of 2008-2009. The company has faced 4 years of loss, starting from 2005-06 to 2008-09. It was after 2008-09, that the company started earning profits and since then it has been consistent in earning profits. The graph shows an upward shift of profits from the years 2009-10 to 2015-16. This has affected the public sector. This was the time when the private sector insurance companies witnessed a growth in its performance.

On the Basis of Total Life Insurance Premium Collected

Table 8: Premiums and Profits after tax of LIC and ICICI Prudential Life Insurance Ltd.

Years	Life Insurance Corporation of India	ICICI Prudential Life Insurance Ltd.
2000-01	34892.02	5.97
2001-02	49821.91	116.38
2002-03	54628.49	417.62
2003-04	63533.43	989.28
2004-05	75127.29	2363.82
2005-06	90792.22	4261.05
2006-07	127822.84	7912.99
2007-08	149789.99	13561.06
2008-09	157288.04	15356.22
2009-10	186077.31	16528.75
2010-11	203473.40	17880.63
2011-12	202889.28	14021.58
2012-13	208803.58	13538.2
2013-14	236942.30	12428.65
2014-15	239667.65	15306.62

Source: Annual Reports of LIC and ICICI Prudential Life Insurance Ltd.

The table shows the total premium collected by LIC and ICICI Prudential life insurance over the years. There's been an increase in the amount of premium collected by the two companies, but the premium collected by the LIC has increased with a greater percentage as compared to that of ICICI Prudential life insurance. This shows there are more number of policies been renewed and sold by the public sector insurance company as compared to that of a private player insurance company.

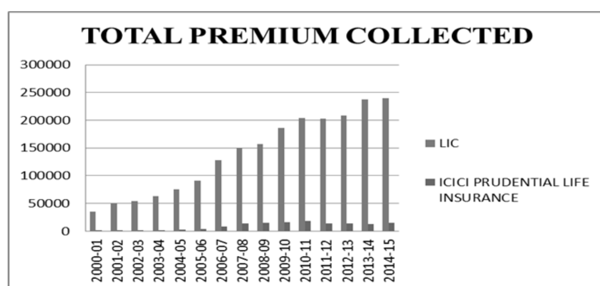


Figure 6: Bar charts showing total premiums collected by LIC and ICICI Prudential Life Insurance Ltd

Table 9: Number of Individual Agents Employed

Years	Life Insurance Corporation of India	ICICI Prudential Life Insurance Ltd.
2001-02	792112	10861
2002-03	988358	18344
2003-04	1098910	32706
2004-05	1041737	56600
2005-06	1052283	72481
2006-07	1103047	234000
2007-08	1193744	290993
2008-09	1344856	276929
2009-10	1402807	211169
2010-11	1337064	176076
2011-12	1278234	138883
2012-13	1172983	147547
2013-14	1195916	171734
2014-15	1163604	132463

Source: IRDAI Handbook on insurance 2014-15

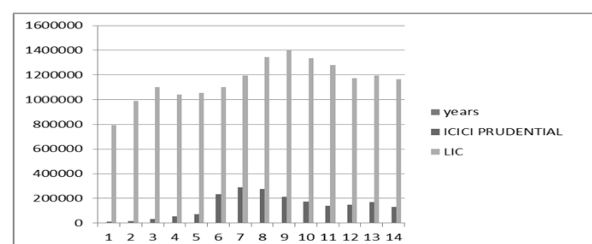


Figure 7: Bar Charts showing the trend in the number of Individual agents employed by LIC and ICICI Prudential Life Insurance Ltd

The graph above shows the number of individual agents employed by both the companies. LIC has employed more number of individual agents as compared to the private player ICICI Prudential Life Insurance Ltd. This means that the public sector generates more employment opportunities as compared to that of the private player ICICI Prudential Life Insurance Ltd.

On the Basis of Average Number of Policies Sold

Table 10: Average Number of Policies Sold by Individual and Corporate Agents of LIC and ICICI Prudential Life Insurance Ltd.

Years	ICICI Prudential Life Insurance Ltd.		Life Insurance Corporation of India	
	Individual Agents	Corporate Agents	Individual Agents	Corporate Agents
2007-08	6	7478	32	1905
2008-09	4	7723	28	2190
2009-10	3	7413	28	1606
2010-11	3	13195	26	1708
2011-12	2	16328	27	2194
2012-13	2	28843	29	2569
2013-14	1	38030	29	2723
2014-15	1	35092	16	2420

Source: IRDAI Handbook on insurance 2014-15

Table above shows the number of policies sold by individual and corporate agents of LIC and ICICI Prudential Life Insurance Ltd. It's noticed that the average number of policies sold by LIC is less than as compared to that of ICICI Prudential Life Insurance Ltd. This means that the average number of policies sold by the public sector is less than that of the private sector. But LIC took a lead in case of the average number of policies sold by the individual agents. The number of policies sold by the individual agents was higher in case of LIC. On the other hand the number of policies sold by the corporate agents is higher in case of ICICI Prudential Life Insurance Ltd. this means that the individual agents in the public insurance sector are more efficient enough to sell of the policies to the people of the nation. It also means that the people trust more on the individual agents of LIC as compared to that of ICICI Prudential Life Insurance Ltd and the main reason for it would be because of the long term existence of LIC. Overall the life insurance industry has witnessed an increase in the Average number of policies sold by both the sectors.

On the Basis of Number of Offices

Table 11: Comparison on the Basis of Number of Offices of the ICICI Prudential Life Insurance Ltd And LIC

Years	ICICI Prudential Life Insurance Ltd. No. of Offices	Life Insurance Corporation of India No. of Offices
2006-07	584	2301
2007-08	1958	2522
2008-09	2102	3030
2009-10	1921	3250
2010-11	1402	3371
2011-12	990	3455
2012-13	557	3526
2013-14	557	4839
2014-15	545	4877

Source: IRDAI Handbook on insurance 2014-15

Figure 8: Bar graph showing Comparison on the basis of number of offices

The table above shows the number of offices for ICICI Prudential Life Insurance Ltd and LIC. It reflects that the number of offices for LIC as compared to that of ICICI Prudential Life Insurance Ltd. In case of ICICI Prudential Life Insurance Ltd 2008-09 experienced the highest number of offices. In the initial years the number of offices kept on increasing in case of the private player. But then after reaching 2102 offices in the year 2008-09, the number stated falling. This reduction might be due to the new emerging private life insurance companies in India. On the other hand the number of offices for LIC kept on increasing. This was mainly due to the fact that LIC is a giant and enjoys a dominant position in the market as compared to the other players and therefore the number of offices in case of LIC kept on increasing. More over the demand for LIC products is always high because of it's long term existence in the country.

On the Basis of Claims Settled

The table and graph below shows the claims settled by LIC and ICICI Prudential Life Insurance Ltd. the table reflects that the total claims and claims paid by LIC is much more than that of ICICI Prudential Life Insurance Ltd. This proves that the claim settlement in case of LIC is higher than ICICI Prudential Life Insurance Ltd.

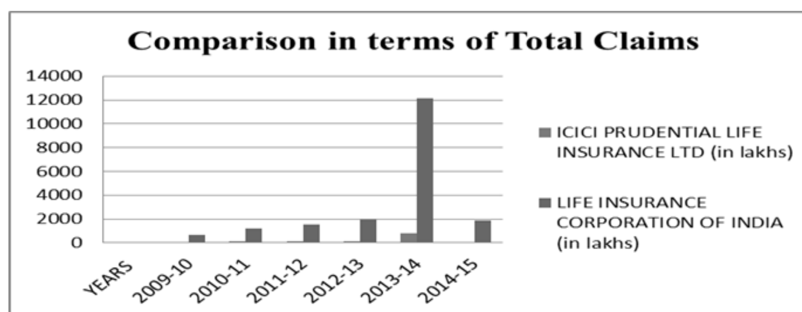


Figure 9: Bar graphs showing Comparison in terms of Total Claims

Table 12: Comparison on the Basis of Claims Settled by ICICI Prudential Life Insurance Ltd and LIC

Years	ICICI Prudential Life Insurance Ltd. (in Lakhs)		Life Insurance Corporation of India (in Lakhs)	
	Total Claims	Claims Paid	Total Claims	Claims Paid
2009-10	1.65	1.65	642.92	637.17
2010-11	141.26	141.26	1190.17	1174.12
2011-12	162.15	162.15	1558.06	1540.38
2012-13	133.80	133.80	1974	1954.95
2013-14	770	766	12136	12048
2014-15	88.65	87.65	1845.48	1817.67

Source: IRDAI Handbook on insurance 2014-15

Conclusion

The Insurance sector has been ignored since its initial stages for the investment purposes and this is one of the reasons because of which India faces a low insurance penetration and density as compared to the other countries. In spite of having a low insurance penetration and density percentile, India has managed to grow in this field. The percentage for penetration and density of the insurance sector in India has increased over the years. This increase in percentage is because of the Life insurance sector. We've noticed the growth in GDP of our country, noticed even the development rates and the upliftment in the standards of living of the people of India, but we've ignored the growth rates of the life insurance sector. This study helped me not only to analyze the growth rates of the Life insurance sector but also the factors on the basis of which the growth can be analyzed.

The comparison between the public sector and the private Life insurance players revealed the fact that Life Insurance Corporation Of India has witnessed a huge growth and since years it's been with the people, protecting and securing their lives and the lives of their family members. It's been there with the people and their families during and after their lives. It alone represents the public sector of life insurance industry. Whereas, the ICICI Prudential Life Insurance Ltd is known as the largest private player among the other private life insurance companies. The two giants of both the sectors have been growing in terms of total premiums collected, total number of offices, net profits, number of agents employed and claim settlement. This sector does not only prove that it has scope for investments and higher returns, but it also has a lot of scope for employment opportunities and development of the economy as a whole.

References

1. Kadam R., Life Insurance Corporation of India: A Giant In India's Insurance Sector, 2012.
2. Kumar S. and et al, Growth and Penetration of Life Insurance Industry in India, 2014.
3. Kumari T. and et al, Benefit Amount Settlement Ratio: A better indicator for measuring the Productivity of Insurance Companies, 2015.
4. Nagaraja B., Performance of Insurance Industry in India: A Critical Analysis, 2015.
5. Naidu C. and et al, A Comparative Study of Public & Private Life Insurance Companies in India, 2015.
6. Parvathi G. Impact of Insurance Sector on Indian Economy, 2013.

Financial Reporting - A Comparative Analysis of Pharmaceutical Companies

Mir Aleena Mohammad[1] and Pritha Sen[2]
[1]M.Com. Scholar (Accounting and Finance) and [2]Assistant Professor, Department of Commerce, J D Birla Institute, Kolkata

Abstract

This study attempts basically to measure the financial performance of the Pharmaceutical Industry taking top companies like Cipla Ltd. and Aurobindo Pharma ltd for the study, for the period 2011-2012 to 2015-2016. The shareholders, creditors, suppliers, managers, employees, tax authorities and others are interested in broadly knowing about what the firm is doing and what is its financial condition. Financial ratio helps an investor to identify the healthiness of a firm. The top two companies by market capitalization taken for study viz, Aurobindo Pharma Limited and Cipla Limited have been analysed from financial perspective. Gross Profit ratio, Net profit ratio and Operating Profit Margin ratio are taken for the study. There is a continuous research on company financing activities, particularly aimed at understanding how companies finance their investments and what source they used to finance. In practice, it is observed that finance managers use different combinations of debt and equity to meet the various financial requirements of the company at least cost and risk and for the long term benefit of the company. Thus, here in this study, analysis of debt equity ratio of the selected companies have also been carried out over a period of five years i.e 2011-12 to 2015-16. ANOVA and correlation has also been used in this study to identify variance and to find if there is a considerable variance between the two companies

Keywords: Financial Reporting, Pharmaceutical Industry, R&D facto

Introduction

Financial Reporting involves the disclosure of financial information to the various stakeholders about the financial performance and financial position of the organization over a specified period of time. These stakeholders include – investors, creditors, public, debt providers, governments & government agencies. In case of listed companies the frequency of financial reporting is quarterly and annual. Financial Reporting is usually considered as end product of Accounting. The Government and the Institute of Chartered Accounts of India (ICAI) have issued various accounting standards & guidance notes which are applied for the purpose of financial reporting. This ensures uniformity across various diversified industries when they prepare & present their financial statements.

Objectives of Financial Reporting

The following are the objectives & purposes of financial reporting –

1. Providing information to management of an organization which is used for the purpose of planning, analysis, benchmarking and decision making.
2. Providing information to investors, promoters, debt provider and creditors which is used to enable them to male rational and prudent decisions regarding investment, credit etc.
3. Providing information to shareholders & public at large in case of listed companies about various aspects of an organization.
4. Providing information about the economic resources of an organization, claims to those resources (liabilities & owner's equity) and how these resources and claims have undergone change over a period of time.
5. Providing information as to how an organization is procuring & using various resources.
6. Providing information to various stakeholders regarding performance of management of an organization as to how diligently & ethically they are discharging their fiduciary duties & responsibilities.
7. Providing information to the statutory auditors which in turn facilitates audit.
8. Enhancing social welfare by looking into the interest of employees, trade union & Government.

The Pharma companies taken for the purpose of this study are Cipla Limited and Aurobindo Pharma Limited which are the among the top 10 Pharmaceutical companies in India.

Cipla Limited

It is an Indian pharma company. Its headquarters are located in Mumbai, India. It was founded in 1935 by Dr. K. A. Hamied. Cipla has a presence in

treatment areas that include cardiovascular disease, respiratory, weight control, diabetes, urology etc. Cipla's Research & Development (R&D) is focused towards developing new products, improving existing products as well as drug delivery systems and expanding product applications.

Aurobindo Pharma Limited

Aurobindo is the second largest pharma company among its Indian peers in terms of portfolio. Aurobindo has been consistently investing in R&D (4% of the revenue. Its headquarters are located in Hyderabad. Founded in 1986 by Mr. P.V. Ramaprasad Reddy, Mr. K. Nityananda Reddy and a small group of highly committed professionals, Aurobindo Pharma was born off a vision. A well integrated pharma company, Aurobindo Pharma features among the top 10 companies in India in terms of consolidated revenues. Aurobindo exports to over 125 countries across the globe with more than 70% of its revenues derived out of international operations. Our customers include premium multi-national companies.

India: The Next R&D Destination

The privatization and globalization policy of the government of India in the mid-1990s provided incentives to R&D in the pharma sphere. Innovative products were given exemption from price control, a number of financial schemes were made available to firms for undertaking R&D, technology collaborations were brought under the automatic approval route, and patent rights were granted for a period of 20 years for products as well as processes. The prime reasons why R&D in India is viewed as beneficial are:

1. Cost effectiveness: The cost of setting up world class R&D facilities in India cost a fraction of what they do in the west. The overall R&D costs are about one-eighth and clinical trial expenses around one-tenth of western levels.
2. Skill: A large pool of English speaking technical skill power is available at a low cost with highly developed R&D oriented skill sets;
3. Established R&D centers: Pre-established state of the art R&D centers offer logistic convenience and cost effectiveness;
4. Growing biotechnology industry: Indian biotechnology industry has grown by leaps and bounds and has some world class players;
5. Market access: India is one of the fastest growing markets in the world. R&D in India allows companies to gain a foothold in this new and growing market;
6. Rising household incomes: The growing middle class in India is an attractive market for drugs.
7. With increasing disposable incomes, the market for non-essential drugs, is set to grow rapidly;
8. Governmental incentives: Post the liberalisation era, the Indian government has offered numerous incentives to R&D in India; and
9. Biodiversity: Some drugs aimed at the Indian market require certain gene specific R&D and clinical trials. India's rich genetic bio diversity offers a perfect destination for such R&D and clinical trials.
10. Pharma R&D in India is expected to witness exponential growth in the near future, and with the growth of the economy and pharma industry in India, innovation assumes new economic importance in the Indian pharma industry.

Methodology

This study is based on the secondary data. The data required for the study is extracted from the annual reports of Cipla Limited and Aurobindo Pharma Limited, various magazines, journals, websites, newspapers and other necessary official records. The study is based on both qualitative and quantitative approach to analyze the performance and growth of the selected companies. Various methods have been used to fulfill the listed objectives and draw valuable conclusions. These are as follows:

- Ratio Analysis
- Correlation
- Research and Development
- Analysis of Variance
- SWOT Analysis

Results and Discussion

Ratio Analysis: Debt Equity Ratio

Table 1: Debt/Equity Ratio of Cipla Limited and Aurobindo Pharma Limited from the Period 2011-12 to 2015-16

Years	Cipla Limited	Aurobindo Pharma Limited
2015-16	0.09	0.43
2014-15	0.12	0.54
2013-14	0.09	0.70
2012-13	0.11	0.70
2011-12	0.08	0.94

The debt-to-equity ratio (D/E) is a financial ratio indicating the relative proportion of shareholders' equity and debt used to finance a company's assets. The two components are often taken from the firm's

balance sheet or statement of financial position, but the ratio may also be calculated using market values for both, if the company's debt and equity are publicly traded, or using a combination of book value for debt and market value for equity financially.

A high debt/equity ratio generally means that a company has been aggressive in financing its growth with debt. This can result in volatile earnings as a result of the additional interest expense. A low debt/equity ratio usually means that a company has been friendly in financing its growth with debt and more aggressive in financing its growth with equity. Table shows that Cipla Limited over the past 5 years has very low debt equity ratio and this is an indication of improper debt-equity management. A high debt equity ratio is observed in case of Aurobindo Limited which means the company has been aggressive in financing its growth with debt but in the past two FY i.e 2015-16 and 2014-15 however they have gradually reduced the use of debt as indicated by the ratios 0.43 and 0.54 respectively.

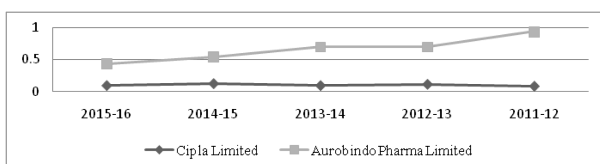


Figure 1: Line Graph showing the Debt/ Equity Ratio of Cipla Limited and Aurobindo Pharma Limited from the period 2011-12 to2015-16

Operating Profit Margin Ratio

Table 2: Operating Profit Margin Ratio of Cipla Limited and Aurobindo Pharma Limited from the Period 2011-12 to 2015-16.

Years	Cipla Limited	Aurobindo Pharma Limited
2015-16	17.06	26.71
2014-15	19.35	27.79
2013-14	21.20	26.99
2012-13	25.83	26.99
2011-12	22.67	17.65

2015-16 its 17.06% indicating a less cost benefit from its sales.

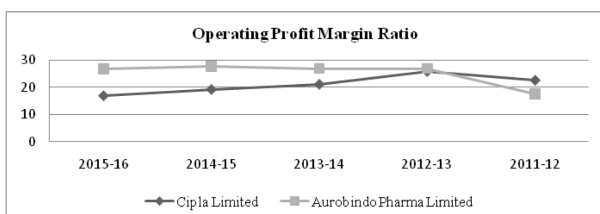


Figure 2: Line Graph

Correlation Coefficient Analysis

The correlation coefficient is a measure that determines the degree to which two variables' movements are associated. The range of values for the correlation coefficient is -1.0 to 1.0.A correlation of -1.0 indicates a perfect negative correlation, while a correlation of 1.0 indicates a perfect positive correlation. While the correlation coefficient measures a degree to which two variables are related, it only measures the linear relationship between the variables.

Table 3: Correlation Coefficient of Aurobindo Pharma Limited

Net Sales	Gross Profit Ratio	Net Profit Ratio	Operating Profit Ratio
1			
0.695435257	1		
0.296786748	0.229560865	1	
0.713905858	0.999163527	0.253835018	1

Operating margin ratio shows whether the fixed costs are too high for the production or sales volume. High or increasing operating margin is preferred because if the operating margin is increasing, the company is earning more per rupee of sales. Operating margin shows the profitability of sales resulting from regular business. Operating income results from ordinary business operations and excludes other revenue or losses, extraordinary items, interest on long term liabilities and income taxes.

Operating margin can be used to compare a company with its competitors and with its past performance. It is best to analyze the changes of operating margin over time and to compare company's figure to those of its competitors. Thus from the analysis of the trend of the said ratio we can see that the operating profit margin ratio of Aurobindo Pharma Limited has been more or less constant and high compared to that of Cipla Limited which in 2011-12 had the highest operating profit margin ratio but gradually over the years it decreased.

There is a positive correlation between operating profit and sales of the company.

There is a positive correlation between gross profit and sales for the said company.

There is a positive correlation between net profit and sales for the company.

Thus, it can be said that the dependant variable is perfectly influenced by the chosen independent variables.

Table 4: Correlation Coefficient of Cipla Limited

Net Sales	Gross Profit Ratio	Net Profit Ratio	Operating Profit Ratio
1			
-0.81175	1		
-0.80576	0.979664401	1	
-0.83657	0.966538742	0.995254474	1

- There is a positive correlation between operating profit and sales of the company.
- There is a positive correlation between gross profit and sales for the said company.
- There is a negative correlation between net profit and sales for the company.

Thus, it can be said that the dependent variable is negatively influenced by the chosen independent variables.

Analysis of Variance: It is a statistical method used to test differences between two or more means. ANOVA is a collection of statistical models used to analyze the differences among group means and their associated procedures (such as "variation" among and between groups). ANOVA is used in the analysis of comparative experiments, those in which only the difference in outcomes is of interest. The statistical significance of the experiment is determined by a ratio of two variances.

Table 5: Gross Profit Ratio of Cipla Limited and Aurobindo Pharma Limited

Years	Cipla Limited	Aurobindo Pharma Limited
2014-15	15.08	24.77
2013-14	17.75	24.37
2012-13	22.14	24.37
2011-12	18.62	14.50

Hypothesis I

Ho: There is no significant relationship between Gross profit ratio among the two companies

H1: There is a significant relationship between Gross profit ratio among the two companies.

Level of significance: P-value ranges from 0 (no chance) to 1(absolute certainty). Thus, for the basis of our analysis we have considered 0.05 level of significance which means that there is 5% chance of certainty i. e if the p-value is less than 0.05 then results are highly statistically significant and if the p-value is more than 0.05 then the results are statistically insignificant.

Table 6: Analysis of Variance (ANOVA) of Cipla Limited and Aurobindo Pharma Limited with Respect to Gross Profits of the Two Companies

Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	61.80196	1	61.80196	4.009252	0.080228	5.317655
Within Groups	123.3187	8	15.41484			
Total	185.1206	9				

In the above table it can be seen that the p-value obtained is greater than 0.05 level of significance i.e 0.080228. Thus, the model is statistically insignificant and hence, we would accept the Null Hypothesis at 5% level of significance. Therefore, there is no variance between the two companies in gross profit ratio.

Table 7: Net Profit Ratio of Cipla Limited and Aurobindo Pharma Limited

Years	Cipla Limited	Aurobindo Pharma Limited
2015-16	11.61	17.67
2014-15	11.65	18.73
2013-14	14.80	0
2012-13	18.37	16.48
2011-12	16.10	9.14

Hypothesis II

Ho: There is no significant relationship between Net profit ratio among the two companies

H1: There is a significant relationship between Net profit ratio among the two companies.

Level of significance: P-value ranges from 0 (no chance) to 1(absolute certainty). Thus, for the basis of our analysis we have considered 0.05 level of significance which means that there is 5% chance of certainty i.e if the p-value is less than 0.05 then results are highly statistically significant and if the p-value is more than 0.05 then the results are statistically insignificant.

Table 8: Analysis of Variance (ANOVA) of Cipla Limited and Aurobindo Pharma Limited with respect to

Net Profits of the Two Companies

Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	11.04601	1	11.04601	0.31228	0.591579	5.317655
Within Groups	282.977	8	35.37213			
Total	294.0231	9				

In the above table it can be seen that the p-value obtained is greater than 0.05 level of significance i.e 0.591579. Thus, the model is statistically insignificant and hence, we would accept the Null Hypothesis at 5% level of significance. Therefore, there is no variance between the two companies in net profit ratio.

R&D Expenditure Analysis

The expenditure in R&D by the firms is taken as an indicator of their activeness in new research and development. The data presented in the above figure shows that the expenditure incurred by Aurobindo limited has gradually increased over the years. However, in comparison to Cipla Limited, Aurobindo's expenditure in this field is still not upto the mark. Cipla's R&D expenditure has increased with a good amount every year. Moreover, this is substantiated by the increase in the number of products it comes up with each year and earns high returns.

Table 9: Research and Development Expenditure of Cipla Limited and Aurobindo Pharma Limited

Years	Cipla Limited	Aurobindo Pharma Limited
2015-16	1035.34	442.56
2014-15	844.14	359.88
2013-14	517.51	270.80
2012-13	425.14	233.34
2011-12	284.85	198.90

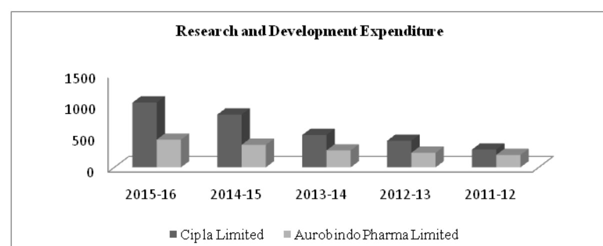


Figure 3: Bar Graph showing Research and Development expenditure of Cipla Limited and Aurobindo Pharma Limited

Conclusion

The shareholders, creditors, suppliers, managers, employees, tax authorities and others are interested in broadly knowing about the firm is doing and what is its financial condition. Long term shareholders and managers who want to make a career with the firm are interested inthe profitability and growth of the firm over an extended period of time. Financial reporting by the Companies helps an investor to identify the healthiness of a firm. Financial performance analysis is the process of determining the operating and financial characteristics of a firm from accounting and financial statements. The goal of such analysis is to determine the efficiency and performance of firm's management, as reflected in the financial records and reports. The analyst attempts to measure the firm's liquidity, profitability and other indicators that the business is conducted in a rational and normal way; ensuring enough returns to the shareholders maintain at least its market value.

In any industry, whether manufacturing or service, we have multiple departments, which function day in day out to achieve organizational goals. The functioning of these departments may or may not be interdependent, but at the end of day they are linked together by one common thread – Accounting & Finance department. The accounting & financial aspects of each and every department are recorded and are reported to various stakeholders.

There are two different types of reporting – Financial reporting for various stakeholders & management Reporting for internal management of an organization. Both these reporting are important and are integral part of Accounting & reporting system of an organization. But considering the number of stakeholders involved and statutory & other regulatory requirements, Financial Reporting is very important and critical task of an organization.

Financial reporting is very important from various stakeholders point of view. At times for large organizations it becomes very complex but the benefits are far more than such complexities. We can say that financial reporting contains reliable and relevant information which are used by multiple stakeholders for various purposes. A sound & robust financial reporting system across industries promotes good competition and also facilitates capital inflows. This in turn helps in economic development.

The analysis undertaken aimed to help the management to find out its financial problems at present and the specific areas in the business, which

might need some effort for more effective and efficient utilization of its resources.

The financial health plays a significant role in the successful management of a company. The analysis practically reveals that gross profit ratio, operating ratio, and net profit do not have significant effect on the net sales of the selected pharmaceutical companies during the study period. However, profitability of the selected pharmaceutical companies in India during the study period is satisfactory. During the period of study there were a few ups and downs in the profitability but it did not affect the operations of the company to a great extent. If the Pharmaceutical Industry has to perform well, it has to invest more capital and has to do more sales, only then it will improve its performance level.

From the study it is found that Cipla ltd shows high profitability than Aurobindo Pharma ltd, higher level of consistency is noticed in Cipla ltd.As far as Debt-equity position is concerned Aurobindo Pharma ltd seems to be ideal than the Cipla ltd.

Since R&D expenditure of Aurobindo Limited is less compared to Cipla Limited over the period of study this means that they have to start investing more in this field to develop and acquire resources in order to survive in the competitive era. Cipla has established large production facilities in India and started improving their manufacturing efficiency and technology. Nowadays, more number of applications is related to inventions in new or improved processes for products than for the product themselves. The product related applications are concerned with intermediates and formulations with maximum contribution in modified release dosage forms. Hence the Cipla pharmaceutical company has a quiet satisfactory and sound financial management.

The Indian pharmaceutical industry will witness an increase in the market share. The sector is poised not only to take new challenge but to sustain the growth momentum of the past decade. The Indian Pharmaceutical Industry is a success story providing employment for millions and ensuring that essential drugs at affordable prices are available to the vast population of this sub-continent.

References

1. Anjum B. and Nayyar. S. “Financing decisions: a study of pharmaceutical companies of india’’. International journal of marketing, financial services & management research. Vol. 1. Issue No. 1, 2012, Pp. 14-28.
2. Bedi. P. “Liquidity Analysis of Selected Pharmaceutical Companies: A Comparative Study”. Journal of Intellectual Property Right. Vol. 18. , 2013, Pp. 105-110.
3. Bhunia. A. and Roy,G.“Financial Performance Analysis-A Case Study’’. Research Journal of Social Sciences. Vol. 3. Issue No. 3., 2011 Pp. 269-275.
4. Pandya. P. “Financial Analysis of Selected Pharmaceutical Companies in India with Special Reference to Gross Profit to Sales Ratio’’. Indian Journal of Applied Research. Vol. 2. Issue No. 2., 2012, Pp. 5-6.
5. Swarnalatha.C and Dhinesh. G. “A study on ratio analysis of select CNX Pharma Stocks”.Indian Journal of Applied Research. Vol. 4. Issue No. 8., 2014, Pp. 401-406.
6. Vijayalakshmi.V andSrividya M., “A study on financial performance of pharmaceutical industry in India”. Journal of Management and Science. Vol.4. Issue no.3.,2014, Pp. 36-54.
7. Yadav. P. “Liquidity Analysis of Selected Pharmaceutical Companies: A Comparative Study”. International Journal of Advance Research in Computer Science and Management Studies. Vol.2. Issue no.8. , 2014,Pp. 271-274.

Financial Performance of Blue Chip Companies in India - A Case Study of Axis Bank & HDFC Bank

Shreya Agarwal[1] and Dr. Shrabanti Pal[2]
[1]M.Com. Scholar (Accounting and Finance) and [2]Assistant Professor, Department of Commerce, J D Birla Institute, Kolkata

Abstract
In today's scenario, survival of economy depends upon smooth supply of financial resources which is possible only if nation banking sector is effective, efficient and strong. The banking sector is one of the fastest growing sectors and a lot of funds are invested in Banks. Also today's banking system is becoming more complex. So, there is a strong need to evaluate their performance of the banks. There are various ways for evaluating the performance of the banks, but in this study I have discussed about the Ratio and Correlation to evaluate the performance of the banks. This study investigates performance of commercial banking sector for the period of April- 2012 to March -2016. Financial statements of Axis bank, and HDFC bank for the indicated periods were obtained from database such as Money Control, NDTV Profit, Annual Report, BSE and NSC. Necessary information derived from these financial statements were summarized and used to compute the financial ratios for the five-year period. Financial ratios are tools used to measure the profitability, liquidity, efficiency and solvency performance of two major Indian commercial banks. This research is to analyze the financial statements of these banks using liquidity ratios, efficiency ratios, profitability ratios, and solvency ratios. After calculating ratios weightage have been given to the parameter of the Correlation. On the basis of this analysis it is found that the performance and efficiency of HDFC bank is better than Axis bank.

Keywords: AXIS Bank, HDFC Bank, Financial Performance, Ratio and Correlation

Introduction

Blue-chip Company is a nationally recognized, well-established and financially sound company. Blue chips generally sell high-quality, widely accepted products and services. Blue chip companies are known to weather downturns and operate profitably in the face of adverse economic conditions, which help to contribute to their long record of stable and reliable growth.

Generally speaking blue chip companies are the companies which are listed on the stock exchange and have established company and financial structures which generally have strong management. Usually these are the large public companies which hold relatively safer investment opportunities. A blue chip stock is the stock of a well-established company having stable earnings and no extensive liabilities. Most blue chip stocks pay regular dividends, even when business is faring worse than usual. They are valued by investors seeking relative safety and stability, though prices per share are usually high. Typically, such stocks are perceived to offer reliable returns, low yield, and low risk.

Characteristics of a Blue Chip

The exact criteria used to classify a company's stock as a blue chip is relatively subjective. Most professional investors agree that blue chips share several important characteristics including:

1. An established record of stable earning power over several decades.
2. A history of regular increases in the dividends payable to each share.
3. Strong balance sheets with a moderate debt burden.
4. High credit ratings in the bond and commercial paper markets.
5. Diversified product lines and/or geographic location.
6. A competitive advantage in the market place due to cost efficiency, franchise value or distribution control.

Parameters on which Blue Chip Companies can be classify

Large Companies

- Market Capitalization: This provides me a list of companies that Market Likes (Large Companies).
- High Annual Profit of Latest Financial Year: This provides me a list of companies that are making high profits.
- High Annual Revenue of Latest Financial Year:

This provides me a list of companies that has majority market share in terms of turnover.

Established Companies

- Profit Growth: Looking at PAT growth rate of last 3 years provides list of companies that enjoys competitive advantage.
- Revenue Growth: Looking at turnover growth rate of last 3 years provides list of companies that enjoys competitive advantage. Increasing market share hints at strong business fundamentals.

Strong Management Team

- ROCE %: Return on Capital Employed is parameter that talks loads about company's real profitability and competitive advantage. ROCE considered in my list is of latest financial year.

The study is empirical in nature and the objectives of the study are enumerated below

1. To analyze the financial statement of HDFC Bank and Axis Bank for the year 2012-2016
2. To study the liquidity position of the companies and analyze them.
3. To study the profitability position of the companies and analyze the same.
4. To study the solvency position of the companies and analyze the same.
5. To offer appropriate suggestions for the better performance of the Organization.

Methodology

The present study attempts to evaluate the performance of selected banks in India. The data used for the analysis and comparison is secondary in nature collected through various reports. The design used for the research is Descriptive in nature, in descriptive research design without affecting various factors data is put forth as it is. This is the type of data where different factors cannot be changed. Hence, descriptive research design has been chosen.

For the proposed topic two companies are selected from banking industry i.e., AXIS BANK LTD. and HDFC BANK LTD. Statistical technique: Graphs and Correlation analysis have been used for analysis of data.

Time horizon used for the analysis is 5 years i.e. from march 2012-2016.

Two types of Analysis:

- Analytical/Financial Analysis (Ratio Analysis)
- Correlation Analysis

Results and Discussion

AXIS Bank: Company Profile

Axis Bank Limited (formerly UTI Bank) is the third largest private sector bank in India. It offers financial services to customer segments covering Large and Mid-Sized Corporates, Agriculture and Retail Businesses Axis Bank have its headquarters in Mumbai, Maharashtra. As on 31-Mar-2014, the Bank had a network of 2402 branches and extension counters and 12922 ATMs. Axis Bank has the largest ATM network among private banks in India and it operates an ATM at one of the world's highest sites at Thegu, Sikkim at a height of 4,023 meters (13,200 ft.) above sea level. Axis Bank began its operations in 1994, after the Government of India allowed new private banks to be established. As on 31 March 2013, Axis Bank had 37,901 employees, out of which 7,117 employees were women (19%). The attrition rate in Axis Bank is approx. 9% per year.

HDFC Bank: Company Profile

HDFC Bank Limited is the fifth largest bank in India by assets, incorporated in 1994. It is the largest private sector bank in India by market capitalization as of 24 February 2014. The bank was promoted by the Housing Development Finance Corporation, a premier housing finance company (set up in 1977) of India. According to the Brand Trust Report 2014, HDFC was ranked 32nd among India's most trusted brands. HDFC was ranked 45th on the list of top 50 Banks in the world in terms of their market capitalization. Its customer base stood at 28.7 million customers on 31 March 2013.As of 30 September 2013, HDFC Bank has 3,251 branches and 11,177 ATMs, in 2,022 cities in India, and all branches of the bank are linked on an online real-time basis. As of 31 March 2013, the company has 69,065 employees, out of which 12,295 are women (17.80%). In June 2013, the company reported an annual attrition rate of approx. 20%. HDFC offers Wholesale Banking for Corporate and Financial Institutions & Trusts. The Bank also provides services such as Investment Banking and other services in the Government sector. HDFC Bank was the first bank in India to launch an International Debit Card in association with VISA (Visa Electron).

SWOT Analysis

SWOT analysis (alternately SLOT analysis) is a strategic planning method used to evaluate the Strengths, Weaknesses / Limitations, Opportunities, and Threats involved in a project or in a business venture. It involves specifying the objective of the business venture or project and identifying the internal and external factors that are favorable and unfavorable to achieve that objective.

Identification of SWOTs is important because they can inform later steps in planning to achieve the objective

SWOT Analysis of Axis Bank

Strengths:

- The bank has a good image among urban population.
- It has been showing good growth in banking industry sector.
- Axis bank market share is increasing in rural areas.
- It is among the largest bank in India which is providing Agriculture loans.
- It has around 2400 domestic branches and 8000+ ATMs.
- Gender diversity.

Weaknesses:

- It has limited branches as compared to its direct competitors.
- Less number of International branches.
- Share prices are not stable.
- Higher Cost.
- Market Capitalization is low.

Opportunities:

- Market penetration in rural areas of India.
- Market development in International markets.
- People have become more service oriented
- Use of informal lending channels.

Threats:

- Threats of new entrants.
- Tough competition of foreign banks.
- Fierce competition.
- Other better saving, Investment option available (like insurance, Real Estate).
- Government Rules & Regulation

SWOT analysis of HDFC Bank

Strengths:

- HDFC bank is the second largest private banking sector in India having 2,201 branches and 7,110 ATM's.
- HDFC bank is located in 1,174 cities in India and has more than 800 locations.
- HDFC bank has the high degree of customer satisfaction when compared to other banks.

Weaknesses:

- HDFC bank doesn't have strong presence in rural areas.
- HDFC cannot enjoy first mover advantage in rural areas. Rural people are hard core loyal in terms of banking services.
- HDFC lacks in aggressive marketing strategies.
- The share prices of HDFC are often fluctuating causing uncertainty for the investors.

Opportunities:

- HDFC bank has better asset quality parameters over government banks; hence the profit growth is likely to increase.
- HDFC has good reputation in terms of maintaining corporate salary accounts.
- HDFC bank has improved its bad debts portfolio and the recovery of bad debts is high when compared to government banks.
- Very good opportunities in abroad.

Threats:

- The non-banking financial companies and new age banks are increasing in India.
- The HDFC is not able to expand its market share.
- The government banks are trying to modernize to compete with private banks
- RBI has opened up to 74% for foreign banks to invest in Indian market.

Current Ratio

Current ratio judges whether current assets are sufficient to meet the current liabilities or not. It measures the liquidity position of the bank in terms of its short term working capital requirement.

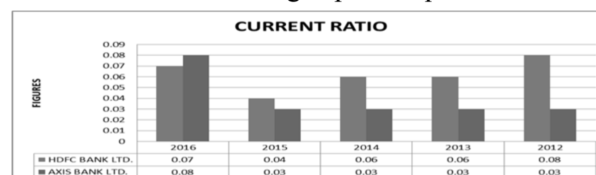


Figure 1: Current Ratio

Interpretation: The ideal current ratio is 2:1. As shown in above chart it has been observed that there is ups and down during the study period. Both the bank is having quick ratio less than 2:1 but current ratio of HDFC Bank is much better than Axis Bank. There is high modulation in liquidity ratio of the bank.

Quick Ratio

In finance, the Acid-test or quick ratio or liquid ratio measures the ability of a company to use its near cash or quick assets to extinguish or retire its current liabilities immediately. Quick assets include those current assets that presumably can be quickly converted to cash.

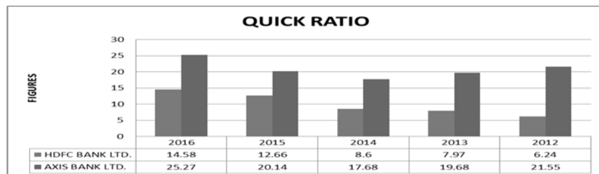


Figure 2: Quick Ratio

Interpretation: The ideal quick ratio is 1:1. As shown in above chart both the bank is having quick ratio more than 1:1 but quick ratio of Axis Bank is much better than HDFC Bank. This reveals the healthy sign in its solvency position and if look at the other side it symbolize the ineffective financial management.

Debt Equity Ratio

A measure of a company's financial leverage is calculated by dividing its total liabilities by shareholders' equity. It indicates what proportion of equity and debt the company is using to finance its assets. It measures the long term solvency of the firm.Debt Equity ratio (DER) helps to measure the relative claims of outsiders and the shareholders against the firm's assets. This ratio indicates the relationship between the outsider's funds and the shareholder's funds.

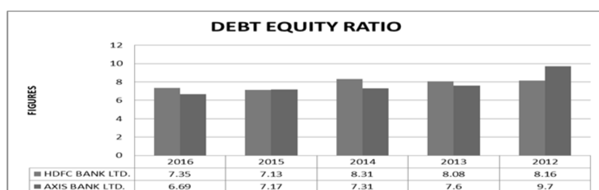


Figure 3: Debt Equity Ratio

Interpretation: Normally DER of 2:3 or 0.67 is considered as satisfactory. As shown in above chart both the bank is having debt equity ratio more than 0.67 but DER of Axis Bank is better than HDFC Bank. By analyzing these figures it is clear that the bank is highly levered. A higher proportion is not considered as good and it's an indication of early warning signal for insolvency of the firm. By observing the data it is clear that the bank uses too much debt in its capital structure.

Interest Coverage Ratio

ICR also known as risk ratio helps in determining the firm's ability to repay its debt obligations. The lower the ratio, the more the company is burdened by debt expense and the firm will have difficulties in meeting its debt payments.

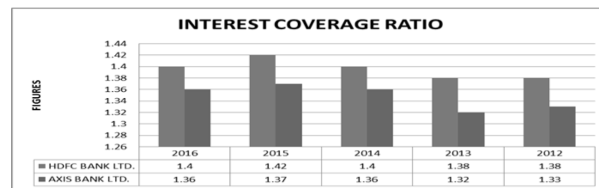


Figure 4: Interest Coverage Ratio

Interpretation: An interest coverage ratio below 1 indicates the company is not generating sufficient revenues to satisfy interest expenses. The ratio for HDFC bank and Axis bank are on the lower side indicating HDFC bank's and Axis bank's interest expenses are very high due to high borrowings. As compared to Axis bank, HDFC is better placed indicating HDFC has less interest expenses as compared to Axis bank.

Asset Turnover Ratio

The Asset Turnover ratio is an indicator of the efficiency with which a company is deploying its assets. In other words, the amount of sales or revenues generated per unit of assets. It can be said that the higher the ratio, the better it is, since it implies the company is generating more revenues per unit of assets.

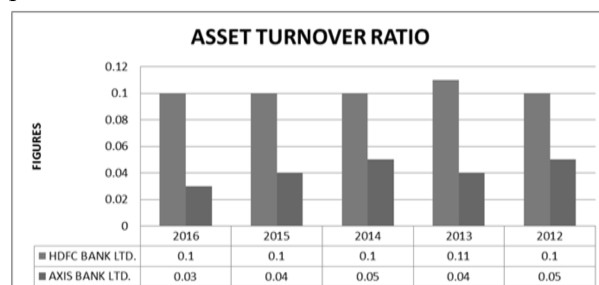


Figure 5: Asset Turnover Ratio

Interpretation: As shown in above chart both the bank is having ATR quite stable but ATR of HDFC Bank is much better than Axis Bank. It is observed that the range of Asset Turnover Ratio is quite stable for both the banks and it is a good sign.

Fixed Asset Turnover Ratio

This ratio indicates the efficiency of assets management. Fixed Assets Turnover Ratio is used to measure the utilization of fixed assets. This ratio establishes the relationship between cost of goods sold and total fixed assets. Higher the ratio highlights a firm has successfully utilized the fixed assets. If the

ratio is depressed, it indicates the underutilization of fixed assets.

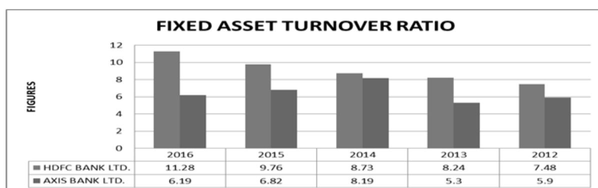


Figure.6: Fixed Asset Turnover Ratio

Interpretation: It measures the efficiency of the bank and how the bank makes use of its total fixed assets to produce income. The ratio of both the banks is certainly high but HDFC bank is doing much better than Axis bank. Axis bank is showing moderate result whereas HDFC bank showing immense high ratio. So it is observed that both the bank is utilizing its assets successfully.

Working Capital Turnover Ratio

A measurement comparing the depletion of working capital to the generation of sales over a given period is known as working capital turnover. It shows how effectively a company is using its working capital to generate sales. Higher turnover reflects efficient utilization resulting in higher liquidity and profitability in the business.

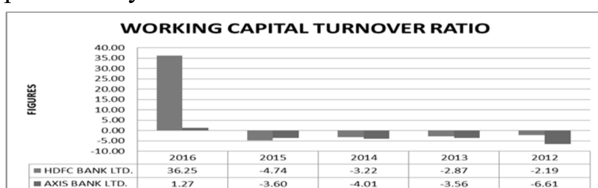


Figure 7: Working Capital Turnover Ratio

Interpretation: As seen in the table both the banks are not doing well. But still with proper evaluation it is observed that in current year it has performed really well compare to past years in which they were attaining negative outcomes.

Return on Capital Employed

Return on capital employed (ROCE) is a financial ratio that measures a company's profitability and the efficiency with which its capital is employed. Capital employed means the long-term funds employed in the business and includes shareholders' funds, debentures and long-term loans. It reveals the efficiency of the business in utilization of funds entrusted to it by shareholders, debenture-holders and long-term loans.

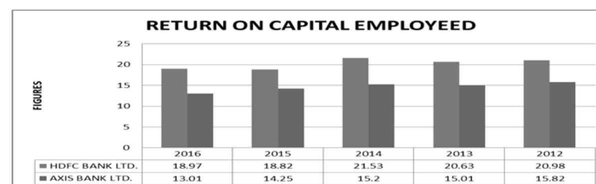


Figure 8: Return on Capital Employed

Interpretation: Return on capital employed funds is considered a good measure of profitability. It also helps in assessing whether the firm is earning a higher return on capital employed as compared to the interest rate paid. As shown in above chart both the bank is having high ROCE but ROCE of HDFC Bank is much better than Axis Bank. The graph indicates that in the last 5 year HDFC Bank had efficiently utilized the funds employed in generating profits as compared to Axis Bank.

Return on Investment

Return on investment (ROI) measures the gain or loss generated on an investment relative to the amount of money invested. It is typically used for personal financial decisions, to compare a company's profitability or to compare the efficiency of different investments.

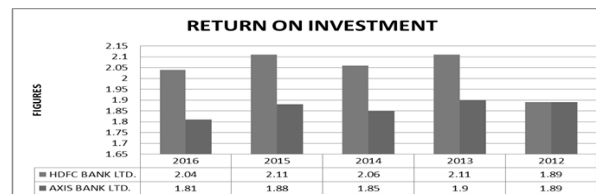


Figure 9: Return on Investment

Interpretation: As shown in above chart both the bank is having high ROI but HDFC Bank is performing much better than Axis Bank. This reveals that it's a good sign for both the banks.

Correlation Analysis: Correlation is a bivariate analysis that measures the strengths of association between two variables. The correlation coefficient allows researchers to determine if there is a possible linear relationship between two variables measured on the same subject (or entity). A strong, or high, correlation means that two or more variables have a strong relationship with each other, while a weak or low correlation means that the variables are hardly related. In statistics, the value of the correlation coefficient varies between +1 and -1. When the value of the correlation coefficient lies around ± 1, then it is said to be a perfect degree of association between the two variables. As the correlation coefficient value

goes towards 0, the relationship between the two variables will be weaker.

Positive Correlation: Both variables tend to move in the same direction, if one variable increases, the other tends to increase. If one decreases, the other tends to decrease.

Negative Correlation: Both variables tend to move in the opposite directions, if one variable increases, the other tends to decrease, and vice-versa.

Table 1: Correlation Analysis of AXIS Bank

	ROCE	CR	QR	DER	ICR	ATR	FATR	WCTR	ROI
2016	13.01	0.08	25.27	6.69	1.36	0.03	6.19	1.27	1.81
2015	14.25	0.03	20.14	7.17	1.37	0.04	6.82	-3.60	1.88
2014	15.2	0.03	17.68	7.31	1.36	0.05	8.19	-4.01	1.85
2013	15.01	0.03	19.68	7.6	1.32	0.04	5.3	-3.56	1.9
2012	15.82	0.03	21.55	9.7	1.33	0.05	5.9	-6.61	1.89

ROCE	1								
CR	-0.854	1							
QR	-0.682	0.872	1						
DER	0.785	-0.480	-0.101	1					
ICR	-0.567	0.309	0.080	-0.608	1				
ATR	0.929	-0.802	-0.703	0.671	-0.248	1			
FATR	0.037	-0.147	-0.479	-0.310	0.712	0.385	1		
WCTR	-0.954	0.896	0.641	-0.809	0.431	-0.900	-0.034	1	
ROI	0.749	-0.858	-0.557	0.586	-0.613	0.524	-0.376	-0.810	1

Interpretation: ROCE and WCTR have high negative correlation (0.954). ROCE and FATR are not correlated (0.037). Both variables ROCE and WCTR tend to move in the opposite directions, if one variable increases, the other tends to decrease, and vice-versa. But in case of ROCE and FATR both variables tend to move in the same direction, but the relationship between the two is weak. Similarly if any value that tends to ±1 then it is having positive or negative correlation but when it tends 0 then there is no relation or weaker relation.

Table 2: Correlation Analysis of HDFC Bank

	ROCE	CR	QR	DER	ICR	ATR	FATR	WCTR	ROI
2016	18.97	0.07	14.58	7.35	1.4	0.01	11.28	36.25	2.04
2015	18.82	0.04	12.66	7.13	1.42	0.01	9.76	-4.74	2.11
2014	21.53	0.06	8.6	8.31	1.4	0.01	8.73	-3.22	2.06
2013	20.63	0.06	7.97	8.08	1.38	0.11	8.24	-2.87	2.11
2012	20.98	0.08	6.24	8.16	1.38	0.1	7.48	-2.19	1.89

ROCE	1								
CR	0.428	1							
QR	-0.881	-0.401	1						
DER	0.989	0.511	-0.882	1					
ICR	-0.636	-0.766	0.728	-0.737	1				
ATR	0.203	-0.075	-0.328	0.290	-0.325	1			
FATR	-0.793	-0.272	0.981	-0.781	0.636	-0.325	1		
WCTR	-0.520	0.350	0.699	-0.441	0.084	-0.237	0.797	1	
ROI	-0.355	-0.824	0.462	-0.372	0.502	0.421	0.416	-0.049	1

Interpretation: ROCE and DER have high positive correlation (0.989). ROI and WCTR are not correlated (0.049). Both variables ROCE and DER tend to move in the same direction, if one variable increases, the other tends to increase. If one decreases, the other tends to decrease. But in case of ROI and WCTR both variables tend to move in the opposite direction, but the relationship between the two is weak. Similarly if any value that tends to ±1 then it is having positive or negative correlation but when it tends 0 then there is no relation or weaker relation.

Conclusion

Looking at the profile of both the bank, it is believe Axis Bank stands to gain disproportionately in this sector. With a presence in the top 150 cities, Axis Bank is very well positioned to rapidly reap the benefits of the expanded reach by scaling up its retail foray. On the other hand, HDFC Bank is the largest private sector bank in India by market capitalization. With presence of in 2,022 cities in India the bank holds to be in better position.

The ratios calculated above are analyzed on the basis of last 5 years data, it can be concluded that, the bank has to take an appropriate measure to keep current ratio and Quick ratio on par with the norms. The liquidity position of the bank is not good. The current ratio is below 1 (current liabilities exceed current assets) for the study period, so the banks may have problems paying its bills on time. However, low values do not indicate a critical problem but should concern the management.

The DER is quite high viz. worrisome, as it indicates a precarious amount of leverage. Asset turnover ratio should be looked at together with the company's financing mix and its profit margin for a better analysis. A lower turnover ratio means that the company is not using its assets optimally.

References

1. Bimal A.& Kumar R, Performance of Indian banks in and after financial crisis - a comparative study of selected banks, GALAXY International Interdisciplinary Research Journal, Vol. 2, No. 3, .2014, Pp. 147- 153.
2. Gupta S. (2014),An Empirical Study Of Financial Performance Of ICICI Bank- A Comparative Analysis, IITM Journal of Business Studies (JBS), Vol. 1, NO. 1, Pp. 1-13.
3. Kandasamy C. & Indrani C., A Study on Financial Performance of New Generation Private Sectors Commercial Banks in India, International Journal of Science and Research (IJSR), Vol. 4, No. 2, 2015, Pp. 1758-1763.
4. Kapoor R. et.al. (2012), Factors Affecting Bank Profitability: An Empirical Study, Journal of Accounting and finance, Vol. 26, No.2, Pp. 25- 37.
5. Krishnan M., Trends and Growth Opportunities of Indian banking sector, Journal of Management Outlook, Vol. 2, No. 1, 2012, Pp. 76-85.
6. Rani N. & Dr. GabaD. , Analysis of Profitability and Efficiency: A Comparison of HDFC and ICICI, Paripex - Indian journal of research, Vol. 3, No. 9, 2014, Pp. 19-21.

The Indian FMCG Sector and its Growth Opportunities

Sanjukta Munshi[1] and Pritha Sen[2]
[1]M.Com. Scholar (Accounting and Finance) and [2]Assistant Professor, Department of Commerce, J D Birla Institute, Kolkata

Abstract
Growing awareness, easier access, and changing lifestyles have been the key growth drivers for the consumer market. The Government of India's policies and regulatory frameworks such as relaxation of license rules and approval of 51 per cent foreign direct investment (FDI) in multi-brand and 100 per cent in single-brand retail are some of the major growth drivers for the consumer market. FMCG products account for 53% of total rural spending. During FY 11, over 80% of FMCG products grew at a faster pace in rural markets as compared to urban ones with premium skin care brands growing twice as fast in rural areas than urban brands.

Keywords: Awareness, Brand Consciousness, Rural Marketing

Introduction

The FMCG sector has grown at an annual average of about 11 per cent over the last decade. The overall FMCG market is expected to increase at (CAGR) of 14.7 per cent to touch US$ 110.4 billion during 2012-2020, with the rural FMCG market anticipated to increase at a CAGR of 17.7 per cent to reach US$ 100 billion during 2012-2025.Food products is the leading segment, accounting for 43 per cent of the overall market. Personal care (22 per cent) and fabric care (12 per cent) come next in terms of market share.

Growing awareness, easier access, and changing lifestyles have been the key growth drivers for the consumer market. The Government of India's policies and regulatory frameworks such as relaxation of license rules and approval of 51 per cent foreign direct investment (FDI) in multi-brand and 100 per cent in single-brand retail are some of the major growth drivers for the consumer market.

FMCG brands would need to focus on R&D and innovation as a means of growth. Companies that continue to do well would be the ones that have a culture that promotes using customer insights to create either the next generation of products or in some cases, new product categories.

One area that we see global and local FMCG brands investing more in is health and wellness. Health and wellness is a mega trend shaping consumer preferences and shopping habits and FMCG brands are listening. Leading global and Indian food and beverage brands have embraced this trend and are focused on creating new emerging brands in health and wellness.

Rural areas expected to be the major driver for FMCG, as growth continues to be high in these regions. Rural areas saw a 16 per cent, as against 12 per cent rise in urban areas. Companies are also working towards creating specific products specially targeted for the rural market. The Government of India has also been supporting the rural population with higher minimum support prices (MSPs), loan waivers, and disbursements through the National Rural Employment Guarantee Act (NREGA) program. These measures have helped in reducing poverty in rural India and given a boost to rural purchasing power. Hence rural demand is set to rise with rising incomes and greater awareness of brands.

Contributors to FMCG Sector Revenue

The urban segment is the biggest contributor to the sector, accounting for two-thirds of total FMCG sector revenue. The semi-urban and rural segments which are growing at a brisk pace, currently account for 33.5% of revenues of the FMCG sector. FMCG products account for 53% of total rural spending. During FY 11, over 80% of FMCG products grew at a faster pace in rural markets as compared to urban ones with premium skin care brands growing twice as fast in rural areas than urban brands. Lower priced packs have increased the penetration of the FMCG sector in rural India. The sectors that are witnessing high growth include salty snacks, refined edible oil, healthcare products, iodised salt, etc. Hair oils, toothpastes and shampoos have quite high penetration in both urban and rural markets while the sales of instant noodles, floor cleaners and hair dyes is increasing in rural markets due to higher awareness. There are a total of 12-13 million retail outlets in India, being the majority of them. Some of the major FMCG players in India include ITC, HUL, Nestle, Dabur, Godrej Consumer, etc.

The Objectives are following:
1. To understand the concept of FMCG.
2. To present an overview Indian FMCG sector.
3. To study the growth of Indian FMCG sector.
4. To critically analyze Indian FMCG sector
5. To study the growth opportunity of this sector in rural India.
6. To study the impact of GST on this sector
7. To study the impact of rising per capita income and changing lifestyle on the prospects of this sector.
8. Export potential of Indian FMCG goods

Methodology

India's Advantage Favouring Growth of FMCG Sector

Growing demand

- Rising incomes and growing youth population have been key growth drivers of the sector.
- Brand consciousness has also aided to the rise in demand
- Tier 2 and 3 cities are witnessing faster growth in modern trade.

Attractive opportunities

- Lower penetration in rural market has kept room for further growth
- Disposable income in rural India has increased due to direct cash transfer scheme.
- Growing demand for premium goods.

Higher investments

- Many players are expanding into new geographies and categories
- Modern retail trade is expected to triple its growth from USD 60 billion in 2015 to USD 180 billion in 2020.

Policy support

- Initiatives like Food Security Bills and Direct Cash Transfers reach about 40 percent of household in India.
- The minimum capitalization for foreign FMCG companies in India is USD 100 million.

The Urban Market Accounts for a Major Chunk of Revenues

- The urban segment is the largest contributor to the sector, Urban/Rural industry break-up (2015) accounting for around 65 per cent of total revenue and hada market size of around USD20.74 billion in 2015
- Semi-urban and rural segments are growing at a rapid pace; they currently account for 35 per cent of revenues.
- In the last few years, the FMCG market has grown at a faster pace in rural India compared with urban India
- FMCG products account for 50 per cent of total rural spending.

Rural Segment Catching Up at a Brisk Pace:

- In 2015, rural India accounted for more than 40 per cent of the total FMCG market.
- Total rural income, which is currently at around USD572 billion, is projected to reach USD1.8 trillion by FY21.
- As income levels are rising, there is also a clear uptrend in the share of non-food expenditure in rural India.
- Amongst the leading retailers, Dabur generates over 40-45 per cent of its domestic revenue from rural sales. HUL rural revenue accounts for 45 per cent of its overall sales while other companies earn 30- 35 percent of their revenues from rural areas.

Notable Trends in Indian FMCG Market:

- Consolidation: Indian FMCG companies are consolidating their existing business portfolios which are leading to divestments, mergers and acquisitions.
- Product innovation: Several companies have started innovating or customizing their existing product portfolios for new consumer segments. In 2015, 'Honitus' from Dabur performed well because of its unique non drowsy property.
- Premiumnisation: Despite the slowdown, consumers are willing to buy premium goods at higher prices in the space of convenience, health, and wellness
- Brand consciousness: Consumers are becoming more brand conscious and prefer lifestyle and premium range products given their increasing disposable income. Companies are required to continuously focus on innovation and customer engagement to strengthen their brand appeal in market
- Focus on rural marketing: Companies are now focusing on the rural market segment which is growing at a rapid pace and contributes about 50 per cent to the total FMCG market. Companies like Dabur are trying to increase its penetration in rural areas to generate more revenues from rural India.

- Expanding distribution networks: Companies are now focused on improving their distribution networks to expand their reach in rural India. ITC one of the leading FMCG company in India is trying to reduce its lead time by making its distribution channel more efficient and aiming to reach the retail outlets directly from manufacturing facility.

Policy and Regulatory Framework affecting FMCG Market:

Excise duty

- Excise duty on instant tea, quick brewing black tea, and ice tea would be decreased to reduce the retail price by 30 per cent.
- Excise duty on other beverages and lemonade would be decreased to reduce retail sale price by 35 percent.

Relaxation of license rules

- Industrial license is not required for almost all food and agro-processing industries, barring certain items such as beer, potable alcohol and wines, cane sugar, and hydrogenated animal fats and oils as well as items reserved for exclusive manufacture in the small-scale sector.

Food Security Bill (FSB)

- FSB would reduce prices of food grains for Below Poverty Line (BPL) households, allowing them to spend resources on other goods and services, including FMCG products.
- This is expected to trigger higher consumption spends, particularly in rural India, which is an important market for most FMCG companies.

Impact of GST (Goods and Services Tax)

Health and Wellness: A Lifestyle Change Impacting the FMCG Sector

FMCG brands focused on R&D and innovation as a means of growth have a culture that promotes using customer insights to create either the next generation of products or in some cases, new product categories.

According to a survey, obstacles to the successful development and launch of new consumer products can be found in the earliest stages of the innovation process. While most companies participating in the survey had little difficulty generating product ideas, less than 20% of those ideas resulted in products considered to be highly innovative. The remainder were product revisions, line extensions or promotional ideas and packaging changes.

One area that we see global and local FMCG brands investing in is health and wellness. Health and wellness is a mega trend shaping consumer preferences and shopping habits and FMCG brands are listening. Leading global and Indian food and beverage brands have embraced this trend and are focused on creating new emerging brands in health and wellness.

Increasing Sales of Top 10 FMCG Companies

- Consumer products manufacturers ITC, Godrej Consumer Products Limited (GCPL), Dabur and Marico reported healthy net sales in FY15 and F16*
- Aggregate financial performance of the leading 10 FMCG companies over the past eight quarters displays that the industry has grown at an average 16-21 per cent in the past two years
- ITC (FMCG) has generated highest revenue till FY16*.

Success Stories of Top FMCG Companies

EMAMI

- Niche category player and innovator
- Key brands are strong market leaders in their respective categories
- Portfolio includes Zandu, one of the strongest Ayurvedic brands
- Over 80 per cent of business comes from wellness categories
- During FY11-15, net sales grew at CAGR of 7.7 per cent to USD367.8 million in FY15 and the profit after tax grew 12.6 per cent to USD80.6 million
- A new product to be launched under the Zandu brand known as 'ZanduGluco Charge
- Emami has increased focus on OTC products, concentrating on advertising, distribution, and product launches. These initiatives are expected to increase revenue contribution to 8 per cent from 6 per cent by FY16
- Emami scaled up direct distribution in rural markets at CAGR of 12 per cent over FY11–15 to 640,000 outlets. Rural contribution is significant at 55 per cent; hence, direct reach presents opportunity to materially increase throughput per outlet

Dabur

- Among top four FMCG companies in India
- 14 brands with turnover of USD16.6 million with 3 brands over USD165.9 million
- Wide distribution network covering 2.8 million retailers across the country
- 17 world-class manufacturing plants catering to needs of diverse markets
- Dabur's Vision Plan for 2011-15, successfully got completed with the sales of USD1,295.6 million recording a growth of 9.7 per cent
- In 2015, Dabur launched sugar free Chyawanprash in India.

ITC

- ITC is one of the foremost company in private sector in terms of sustained value creation, operating profits and cash profits
- It is the only India-based FMCG company to feature in Forbes 2000 List
- ITC is a market leader in its traditional businesses of Cigarettes, Hotels, Paperboards, Packaging and Agri Exports
- The company is rapidly gaining market share even in its nascent businesses of Packaged Foods & Confectionery, Branded Apparel, Personal Care and Stationery
- Its Agri-Business is one of India's largest exporters of agricultural products
- ITC's sales increased at a CAGR of 7.3 per cent between FY11 and FY15 to reach net sales of USD5,985.9 million
- In 2015, ITC launched its One Rural Programme focusing on penetration in villages.

SWOT Analysis on Indian FMCG Sector

Strengths:

- Low operational costs: One of the important strength of this sector is low operational cost.
- Presence of established distribution networks in both urban and rural areas. A well established and wide distribution network of both MNC and Indian FMCG companies increased an access for consumers.
- Presence of well-known FMCG brands: The Presence of strong brands in Indian FMCG sector not only results in increased sales but also provides an opportunity in future.

Weakness:

- Low scope for investing in technologies and achieving economies of scale, especially in small sector.
- Less innovative abilities and systems: Indian FMCG sector, especially small players are lagging behind in adopting innovative approaches for fulfilling needs of the consumers.

Opportunities:

- Untapped rural market, changing life style: An untapped, huge and fragmented rural market is an opportunity for FMCG players. The Penetration level for many FMCG product categories is very low especially in rural area.
- Rising income levels, i.e. increase in purchasing power of consumers. In next two decades income level of Indian consumer will almost triple and India will become world's fifth – largest consumer market by 2025. India's middle class size will increase to 583 million, or 41% of the population. Extreme rural poverty has declined from 94% in 1985 to 61% in 2005 and is projected to drop to 26% by 2025. This will result into increased purchasing power of Indian consumer.
- Large domestic market with more population of median age 25 years: India has large young population, 54 % of Indians are under 25 years of age. A rising productive population fuels growth and drives personal consumption
- High consumer goods spending: The rising income is resulting into high spending into consumer goods. According to a Nielsen report, the spending on consumer goods set to triple to $ 5 billion by 201511.
- Export potential to neighboring countries like Bangladesh, Pakistan, Srilanka.

Conclusion

Today, Fast Moving consumer's goods have become an integral part of human life. This sector is recession proof and created huge employment opportunity in India, hence becoming one of the key pillars of the Indian economy. FMCG companies should encash opportunities like increasing consumer income, changing consumer life style, aspiring rural consumer, consistent economic growth by utilizing its strengths. The competition from unorganized sector can be overcome by increasing brand awareness and by reducing cost through sharing resources such as distribution network. Favourable developments happening in demand side, supply side and systematic drivers shows that this sector has very bright future.

References

1. Bhattacharjee, A., 'Media Influence on FMCGs- A Comparative Study Among rural and Urban Households on their Product Purchase Decision', Indian Journal of Marketing' ,Volume 41, June 2011, pp 22.
2. Kumar A., Meenakshi N., Marketing Management, New Delhi :(1st ed.). Vikas Publishing House Pvt Ltd, 2006, pp 174.
3. Mallick J., FMCG stocks outperform Sensex by 35%, The Hindu Business Line, (2011, December 28), Kolkata.
4. Singh, A.K., Pandey S., Rural Marketing- Indian Perspective, New Delhi: First edition, New Age International Publisher, 2005.
5. Singh, P. Nielsen V.P., FMCG retail will hit $100 billion by 2025: Nielsen The Economic Times, New Delhi,.
6. Shula R.,Bordolloi M., The changing dynamics of India's consumer economy, The Financial Express, 2015 November 20, New Delhi.

A Comparative Analysis of the Two Top Most Companies having Highest Market Capitalization

Priyanka Nikita Biswas[1] and Pritha Sen[2]
[1]M.Com. Scholar (Accounting and Finance) and [2]Assistant Professor, Department of Commerce, J D Birla Institute, Kolkata

Abstract

This research empirically examines the dynamics between the volatility of stock returns of TCS and RIL with the movement of exchange rates, in terms of the extent to which the exchange rate impacts the change in the share price. The study has been done over a time period of six years (2010-2015). TCS and RIL are the two companies with highest market capitalization. It also examines how the stock prices changes overtime. The interest of rational investors to understand how to invest their money in shares and have a new factor to also help them predict the movement of share prices has motivated me to test the impact of the volatility in the exchange rate on the share prices of the two companies. A comparison and analysis of the stock prices have been done. The correlation of the share prices with the exchange rate shows that there is moderate impact or relation of exchange rate with the stock price of TCS and there is no impact or relation of exchange rate with stock price of RIL. R Square and adjusted R Square shows that the exchange rate will have more of an effect on the share price of TCS as compared to that of RIL. The standard error also shows that TCS share price is more affected by the exchange rate as compared to RIL. The regression output suggests that the exchange rate statistically has an impact on both the share price of TCS and RIL.

.

Keywords: Exchange Rate, Market Capitalisation, Regression Analysis,

Introduction

Tata Consultancy Services Limited (TCS): It is an Indian multinational information (IT) service, consulting and business solutions company headquartered in Mumbai, Maharashtra. It is a subsidiary of the Tata Group and operates in 46 countries. TCS is now placed among the 'Big 4' most valuable IT services brands worldwide. It is the world's 10th largest IT services provider, measured by the revenues. TCS is the largest Indian company by market capitalisation (Rs. 515,966.41 crore).

Reliance Industries Limited (RIL): It is an Indian conglomerate holding company headquartered in Mumbai, Maharashtra, India. Reliance owns businesses across India engaged in energy, petrochemicals, textiles, natural resources, retail and telecommunications. Reliance is the second most profitable company in India, the second-largest publicly traded company in India by market capitalisation and the second largest company in India as measured by revenue after the government-controlled Indian Oil Corporation.

The exchange rate: It is a key financial variable that affects deci¬sions made by foreign exchange investors, exporters, importers, bankers, businesses, economic institutions, policymakers and tourists in the developed as well as developing world. Exchange rate fluctuations affect the value of international investment portfolios, competitiveness of exports and imports, value of in¬ternational reserves, currency value of debt payments, and the cost to tourists in terms of the value of their currency. Move¬ments in exchange rates thus have important implications for the economy's business cycle, trade and funds flows and are therefore crucial for understanding financial developments and changes in trade and industry policy. Therefore, to study the impact of changes in exchange rate on Indian stock markets is necessary.

BSE: Established in 1875, BSE (formerly known as Bombay Stock Exchange Ltd.), is Asia's first & the Fastest Stock Exchange in world with the speed of 6 micro seconds and one of India's leading exchange groups. Over the past 140 years, BSE has facilitated the growth of the Indian corporate sector by providing it an efficient capital-raising platform.

SENSEX: The SENSEX-(or SENSitve indEX) was introduced by the Bombay stock exchange on January 1 1986. It is one of the prominent stock market indexes in India. The Sensex is designed to reflect the overall market sentiments. It comprises of 30 stocks. These are large, well-established and financially sound companies from main sectors. The

method adopted for calculating Sensex is the market capitalisation weighted method in which weights are assigned according to the size of the company

NSE: The National Stock Exchange (NSE) is India's leading stock exchange covering various cities and towns across the country. NSE offers capital raising abilities for corporations and a trading platform for equities, debt, and derivatives including currencies and mutual fund units. It allows for new listings, initial public offers (IPOs), debt issuances and Indian Depository Receipts (IDRs) by overseas companies raising capital in India. The National Stock Exchange of India Limited (NSE) is the leading stock exchange of India

NIFTY: NIFTY was coined from the two words 'National' and 'FIFTY'. The word fifty is used because; the index consists of 50 actively traded stocks from various sectors. Nifty is calculated using the same methodology adopted by the BSE in calculating the Sensex – but with three differences. They are, the base year is taken as 1995, the base value is set to 1000, Nifty is calculated on 50 stocks actively traded in the NSE, 50 top stocks are selected from 24 sectors.

Methodology

This project is based on both analytical and descriptive research. In this study we used secondary data. The data so collected is used to compare the companies on their their stock prices and exchange rate. Firstly the data is converted into log form to make the data normal.

Graphical trend analysis has been conducted to find out how the stocks have performed overtime The standard deviation, mean, median, skewness and kurtosis of the stock prices of both companies have also been calculated to analyze the stock prices of the companies over the years. Regression has been conducted to analyze the impact of exchange rate on the stock prices of TCS and RIL. For calculation of impact we take daily closing price of exchange rate, TCS and RIL. Hypothesis has also been used to find out whether there is any statistical significant impact of the exchange rate on the stock prices of TCS and RIL.

Results and Discussion

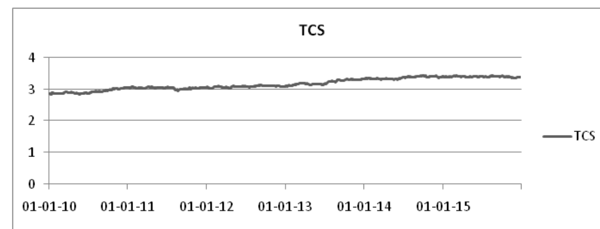


Figure 1: Share price of TCS

From the figure above we see that the share prices of TCS were very steady and consistent over the years 2010 to 2015. There was a gradual rise in the share price of TCS over the years.

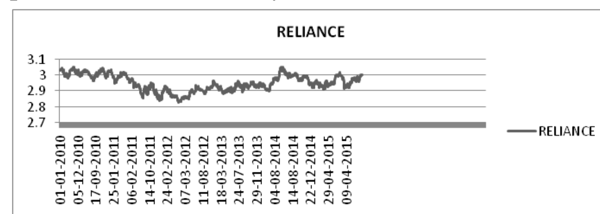


Figure 2: Share price of RIL

From the figure above we see that the share price of RIL was very volatile all along. There was a downward trend in the share prices in the year 2012 which resulted in an upward trend till 2014. Again in 2015 there was a downward trend which was soon recovered.

Table 1: Comparative Analysis Parameters

Parameters	TCS	RIL
Mean	3.18	2.95
Median	3.13	2.95
Standard dev	0.18	0.05
Skewness	-0.03	-0.11
Kurtosis	-1.32	-0.80

The mean of TCS is more compared to RIL this indicates that the average share price of TCS is more than that of RIL.

We see that there is a 0.5 difference in the mean and median of TCS thus indicating presence of a few outliers. In RIL we see that the mean and the median are both the same. Thus we can analyze from this that the share price of RIL tends to comeback to a certain benchmark share price whereas that of TCS has no such set benchmark of share price that it tends to settle at. Therefore making it more profitable and risky at the same time to invest in the shares of TCS.

Standard deviation is also a measure of Risk. We see that there is a vast difference in the standard deviation of TCS and RIL. The standard deviation of TCS is higher as compared to RIL. Thus making TCS a much more riskier share to invest in. We can analyse and see that the share price of TCS kept increasing through the years thus proving true the theory of Risk Return Trade off. The Risk Return Trade off states that potential return rises with an increase in risk.

The skewness of TCS is closer to 0 than that of RIL. Thus we can compare and say that the data of the TCS share prices are more normal as compared to the data of the share prices of RIL as per skewness. Since both TCS and RIL have negative figures as their skewness their outliers are negative rather than positive.

The kurtosis of TCS is closer to 3 than that of RIL. Thus we can compare and say that the data of TCS share prices are more normal as compared to the data of the share prices of RIL as per kurtosis. Hence we see that TCS data is more normal as compared to that of RIL.

Table 2: Simple Linear Regression Analysis Results

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
TCS	0.55	0.30	0.30	0.15
RIL	0.21	0.04	0.04	0.06

Here the correlation R= 0.55 of TCS which means that there is a moderate relationship between exchange rate and stock price of TCS. The correlation R= 0.21 of RIL, that means there is no or negligible relationship between exchange rate and stock price of RIL. Hence we can say that there is moderate impact or relation of exchange rate with the stock price of TCS and there is no impact or relation of exchange rate with stock price of RIL. Although it does not interpret the statistical significance of this model.

Independent Variable (X): Exchange Rate
Dependent Variable (Y): Share Price of TCS, RIL

Regression includes various factors like Multiple R, R square, Adjusted R square, Standard Error, and Number of observations, P Value, T- Stat, and significance F. R Square is the descriptive replica that let us know that how much proportion of variation is explained by self sufficient variables. Coefficient shows the change in the dependent variable with the change of 1 unit in the independent variables. If significance F is less than or equal to 0.05 than it is significant and if it is greater than 0.05 then it is insignificant.

R Square shows the percentage of the total variation on TCS and RIL that can be explained by Exchange Rate. Here as R Square is 0.3 & 0.04 that means about 30% variations in TCS and 4% variation in RIL are explained by Exchange Rate. It can also be understood that the exchange rate will have more of an effect on the share price of TCS as compared to that of RIL since TCS has a lot of overseas business dealings.

Adjusted R Square is a measure of explanatory power. Here the adjusted R Square for TCS and RIL is 0.3 and 0.04 therefore the exchange rate explains stock prices of TCS and RIL by 30% and 4% respectively.

The standard error of the estimated variable is 0.15 and 0.06 for TCS and RIL which is an estimate of the variation of the observed home prices, in dollar terms, about the regression line. The standard error also shows that TCS share price is more affected by the exchange rate as compared to RIL.

Table 3: ANOVA Results (for TCS Share Price)

	df	SS	MS	F	Significance F
Regression	1.00	14.73	14.73	675.49	0.00
Residual	1542.00	33.63	0.02		
Total	11543.00	48.36			

H_0: There is no statistically significant impact of exchange rate on stock price of TCS.
H_1: There is statistically significant impact of exchange rate on stock price of TCS.

Significance F indicates the probability that the regression output could have been obtained by chance. A small significance of F confirms the validity of the regression output. Since F is 0 indicates that the regression output was definite and not by chance.

TCS Regression Summary Output

Since the absolute value of estimated F-statistic is greater than the critical value therefore we reject the H0 (null hypothesis) of statistical insignificance of the overall model at 5% level of significance. Moreover the concerned explanatory variable (i.e.

exchange rate) is statistically significant in explaining the variation in the explained variable (stock price of TCS) as the absolute value of t-statistic is greater than 2 i.e. it is 25.99 so we reject H0 (null hypothesis) which means exchange rate is not statistically significantly affecting log (share price of TCS) and accept H1 (alternative hypothesis) which means time is statistically significantly affecting log (share price of TCS).

This shows that exchange rate statistically has an impact on the share price of TCS.

Table 4: ANOVA Results (for RIL Share Price)

	df	SS	MS	F	Significance F
Regression	1.00	0.24	0.24	70.74	0.00
Residual	1554.00	5.19	0.00		
Total	1555.00	5.43			

H0: There is no statistically significant impact of exchange rate on stock price of RIL.
H1: There is statistically significant impact of exchange rate on stock price of RIL.

Significance F indicates the probability that the regression output could have been obtained by chance. A small significance of F confirms the validity of the regression output. Since F is 0 indicates that the regression output was definite and not by chance.

TCS Regression Summary Output
Since the absolute value of estimated F-statistic is greater than the critical value therefore we reject the H0 (null hypothesis) of statistical insignificance of the overall model at 5% level of significance. Moreover the concerned explanatory variable (i.e. exchange rate) is statistically significant in explaining the variation in the explained variable (stock price of RIL) as the absolute value of t-statistic is greater than 2 i.e. it is -8.41 so we reject H0 (null hypothesis) which means exchange rate is not statistically significantly affecting log (share price of RIL) and accept H1 (alternative hypothesis) which means time is statistically significantly affecting log (share price of RIL).

This shows that exchange rate statistically has an impact on the share price of RIL.

Conclusion

This research empirically examines the dynamics between the volatility of stock returns of TCS and RIL with the movement of exchange rates, in terms of the extent to which the exchange rate impacts the change in the share price. TCS and RIL are the two companies with highest market capitalization.

It also examines how the stock prices changes overtime. A comparison and analysis of the stock prices have also been done. To begin with, absolute values of data were converted to log normal forms and checked for normality. I employed the daily share price data for a time period of 6 years ranging from January 2010 till December 2015. Firstly, a trend analysis is done of the share prices of the companies over the years and is shown through a line graph. We see that the share prices of TCS were very steady and consistent over the years 2010 to 2015 and there was a gradual rise in the share price of TCS over the years. The share prices of RIL were very volatile all along. There was a downward trend in the share prices in the year 2012 which resulted in an upward trend till 2014. Again in 2015 there was a downward trend which was soon recovered.

Secondly, a comparative analysis was done between the two companies on the basis of their mean, median, standard deviation, skewness and kurtosis. The mean of TCS was more compared to RIL which indicated that the average share price of TCS was more than that of RIL over the years. The difference between the mean and median indicated that there were very few outliers. Although the median and standard deviation suggest that it is more risky as well as profitable to invest in TCS as compared to RIL, also proving true the risk return trade off theory. The correlation of the share prices with the exchange rate suggests that there is moderate impact or relation of exchange rate with the stock price of TCS and there is no impact or relation of exchange rate with stock price of RIL. R Square and adjusted R Square shows that the exchange rate will have more of an effect on the share price of TCS as compared to that of RIL since TCS has a lot of overseas business dealings. The standard error also shows that TCS share price is more affected by the exchange rate as compared to RIL. The regression output suggests that the exchange rate statistically has an impact on both the share price of TCS and RIL.

References

1. Desislava D. et.al, The Relationship between Exchange Rates and Stock Prices: Studied in a Multivariate Model in the journal Issues in Political Economy Vol. no 14, 2005.
2. Gulati D. et.al, Relationship Between Stock Market and Foreign Exchange Market in India: An Empirical Study in the journal Pacific Business Review International Vol no.5, 2012.
3. Mohan C. et.al, Impact of Inflation and Exchange Rate on Stock Market Performance in India Vol. no 4. Issue. no 3,2014.
4. Patel D. et.al, The Impact of Exchange Rate on Indian Stock Exchanges like BSE & NSE Vol no.2, 2013.
5. Singh S. et.al , An Empirical Study Of Impact Of Exchange Rate & Inflation Rate On Performance Of BSE SENSEX in the Journal of Multidisciplinary Research Vol no.1,2012

A Study on Industrial Report on Food Processing Industry in India

Sweta Mundhra[1] and Dr. Shrabanti Pal[2]
[1]M.Com. Scholar (Accounting and Finance) and [2]Assistant Professor, Department of Commerce, J D Birla Institute, Kolkata

Abstract

India is the world's second largest producer of food next to China, and has the potential of being the biggest with the food and agricultural sector. The food processing industry is one of the largest industries in India-it is ranked fifth in terms of production, consumption, export and expected growth. This study investigates performance of four food processing industry for the period of April- 2012 to March -2016. Financial statements of Dabur Foods Ltd, Britannia, Hindustan Uniliver Ltd, Heritage Foods for the indicated periods were obtained. I have discussed about the Ratio and Correlation analysis of four food processing industry to evaluate their performance. On the basis of this analysis it is found that the food processing industry has a strong potential in India and there is still a scope for further development and improvement to meet the national objective of employment and income generation. The industry should use more of labour which could be facilitated by liberal labour laws.

Keywords: Export, GDP, Organized Sector

Introduction

India is world's second largest producer of food next to china, and has the potential of being biggest with the food and agriculture sector. The food processing industry is one of the largest industry India- it is ranked fifth in terms of production, consumption, export and expected growth. The food industry is on a high as Indians continue to have a feast. Fuelled by what can be termed as a perfect ingredient for any industry- large disposable incomes- the food sector has been witnessing a marked change in consumption patterns, especially in terms of food. India is largest producer of Pulses, Mangoes, Banana, Milk, ginger, Buffalo meat and 2nd largest producer of rice, wheat, potato, garlic, cashew nut, groundnut, dry onion, green peas, pumpkin, gourds, cauliflowers, sugarcane, and tea in the world.

Accounting for about 32 percent of the country's total food market, the food processing industry is one of the largest industries in India and is ranked fifth in terms of production, consumption, export and expected growth. The total food production in India is likely to double in the next 10years with the country's domestic food market. The food processing industry forms an important segment of the Indian economy in terms of contribution to GDP, employment and investment, and is a major driver in the country's growth in the near future.

This industry contributes as much as 9-10 percent of GDP in agriculture and manufacturing sector. India has about 26 types of different climatic conditions, 46 varieties of soils are there in India out of total 60 types of soils worldwide. 127 'agro climatic zones' have been identified in India. Also, Indian food is known worldwide for its unique taste and aroma.

India's regional and cultural diversity is perfectly reflected in food. Every state in India has something unique to offer. For e.g. South Indian, Gujarati, Bengali, Rajasthani and Punjabi delicacies are different and are admired in many parts of the world. But they haven't been able to make inroads in other countries the way Mc Donald's, Domino's etc. has done in India. This is because lack of creativeness, innovation, branding and most importantly shallow pockets of Indian manufacturers.

India's total agriculture and food yield, just 2 per cent is processed. The maximum share of processed food is in the Dairy sector, where 37 per cent of the entire yield is processed, of which only 15 percent is processed by the organised sector.

Dairy Sector: India is largest milk producer in the world. The dairy sector stands first as regards processed foods with 37 per cent of the yield being processed. The organized sector processes a projected 15 per cent of the whole milk production in India.

Fruits and Vegetables: India yields the widest variety of fruits and vegetables across the world, and is the second major vegetable and third major fruit producer accounting for 8.4 per cent of the world's entire food and vegetable yield. The part of organized sector in fruit processing is projected to be almost 48 percent.

Grain Processing: India yielded almost 209.32 million tons of grains in 2005-06, and the country's yield covers up every key grain such as rice, wheat, maize, barley and millets like jowar, bajra and ragi. India ranks third when it comes to the yielding of grains across the world. By way of a share of 40 per cent, grain processing is the principal constituent of food sector. Prime processing comprises 96 per cent with the left over accounted for by the secondary and tertiary sectors.

Meat and Poultry Processing: India has the biggest quantity of farm animal inhabitants in the world accounting for 50 per cent of buffaloes and 16 per cent of the goat inhabitants. Most of the animals in India are not bred for meat. Animals are normally utilized for yielding of meat are cattle, buffaloes, sheep, pigs and poultry. Just 11 percent of the buffalo inhabitants, 6 percent of the livestock, 33 per cent of the sheep and 38 percent of the goat inhabitants is picked for meat. Fisheries: India is the third biggest fish producer across the world and next in domestic fish production. The fisheries sector in the country has been categorized into marine, inland and aquaculture.

Packaged Foods: Packaged foods division in India recorded a growth of 8 percent in 2005-06. Noodles/ Vermicelli is the best ever rising group in this section with a growth rate of 15 percent. The marketplace for branded noodles is projected at 230 million servings yearly. Beverages: The beverages market largely comprises non-alcoholic beverages which may well be largely categorized into carbonated drinks, non-carbonated drinks and hot beverages. In recent years, the carbonated drinks market recorded a vigorous growth rate of 20 percent, compelled by the optimistic changes in India's consumer contour. Staples: Bread is gradually emerging to be a staple product consumed by populace of every economic group in the country.

With global food price inflation set to persist, snack food manufacturers need robust strategies if they are to sustain growth and protect margins.
Firstly, snack food manufacturers need to develop a clear pricing strategy so they can respond in a timely and effective manner to rising costs. When confronted with such a scenario they have three possible options: increase prices, reduce pack size or keep prices the same.
All of these options have advantages and disadvantages but manufacturers should prepare their response according to their target customer, the response of their competitors and their long-term strategy. For example, a mass market potato chip manufacturer with highly price sensitive customers may seek to absorb lower margins to gain market share from competitors who immediately pass on rising costs to their customer.

In addition to pricing strategies, manufacturers could develop lower cost alternatives to their existing products to retain price conscious customers. Due to high cocoa prices a number of leading Indian brands have launched biscuits with lower cost vanilla fillings rather than the traditional chocolate in order to keep prices affordable.

Methodology

The data used for the analysis and comparison is secondary in nature collected through various reports. For the proposed topic four companies from steel industry has been selected on a random basis i.e. Dabur Foods Ltd , Britannia , Hindustan Uniliver Ltd , Heritage Foods. Secondary sources of data used to complete this project mainly include annual reports, balance sheet, and profit and loss statement, of both the company mentioned above. Calculation of various accounting ratios is done using the data taken from these financial reports and money control. Statistical technique: Graphs and Correlation analysis have been used for analysis of data.

Time horizon used for the analysis is 5 years i.e. from March 2012-2016.

- Analytical/Financial Analysis (Ratio Analysis)
- Correlation Analysis

Results and Discussion

Dabur Foods Ltd

Dabur Foods is a part of ten Dabur Group. Dabur India Limited is the fourth largest FMCG Company in India. Dabur operates in key consumer products categories like Hair Care, Oral Care, Health Care, Skin Care, Home Care & Foods. For the past 125 years, the company has been dedicated to providing nature-based solutions for a healthy and holistic lifestyle. They touch the lives of consumers, in all age groups, across all social boundaries. Its processed foods includes fruit juices -with the brand names of Real, Burst & Active, spices paste, sauces, refreshment drinks.

Hindustan Uniliver Ltd.

The Company is a part of the everyday life of millions of consumers across India.HUL is one of India's leading food companies. The major food brands & their products are Annapurna – wheat flour, Brooke Bond Tazza– tea, Red Label – tea, Bru – coffee, Kissan– tomato ketchup, Knorr – soups, Kwality Walls – ice creams, Lipton – Tea, Modern– bread.

Britannia

Britannia strode into the 21st Century as one of India's biggest brands and the pre-eminent food brand of the country. In 2002, it entered into a joint venture with Fonterra, the world's second largest Dairy Company, to form Britannia New Zealand Foods Private Ltd. The food range includes Biscuits, Dairy products like cheese, daily bread. Britannia Biscuits are the most used products by its consumers. The company's factories have an annual capacity of 433,000 tones. Some of the known biscuit brand names are Marie Gold, Tiger, Nutrichoice Junior, Good day, Treat, Pure Magic, Milk Biscuits, Good Morning, Bourbon, Thin Arrowroot, Nice, Little Hearts and many more.

Heritage Foods

The Heritage Group, founded is one of the fastest growing Public Listed Companies in India, with six-business divisions viz., Dairy, Retail, Agri, Bakery, Renewable Energy and VetCa under its flagship Company Heritage Foods Limited .Its principal products/services are milk, value added products and FMCG (food and non-food). The Dairy segment mainly deals with procuring milk, processing and selling of milk; value added products, fat products, skimmed milk powder, tradable goods and job work

Ratio Analysis

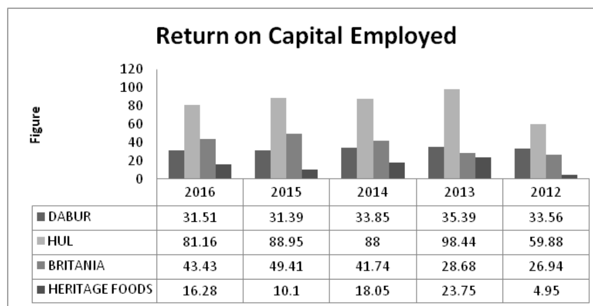
Profitability Ratio

A profitability ratio is a measure of profitability, which is a way to measure a company's performance. Profitability is simply the capacity to make a profit, and a profit is what is left over from income earned after you have deducted all costs and expenses related to earning the income. The formulas you are about to learn can be used to judge a company's performance and to compare its performance against other similarly-situated companies.

Return on Capital Employed Ratio

Return on capital employed (ROCE) is a financial ratio that measures a company's profitability and the efficiency with which its capital is employed. ROCE is calculated as:

ROCE = Earnings before Interest and Tax (EBIT) / Capital Employed



	2016	2015	2014	2013	2012
DABUR	31.51	31.39	33.85	35.39	33.56
HUL	81.16	88.95	88	98.44	59.88
BRITANIA	43.43	49.41	41.74	28.68	26.94
HERITAGE FOODS	16.28	10.1	18.05	23.75	4.95

Figure 1: Return on Capital Employed

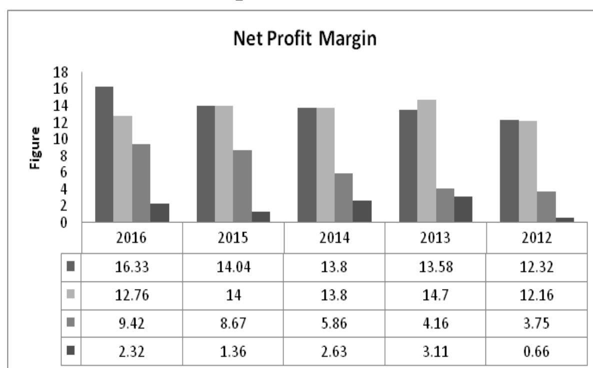
The return on capital employed for all the four company is seen increasing in 2012-2013. But then we notice a fall in the return on capital employed in 2014 for all the companies except Britania. The decreasing return on capital employed is unfavorable for the company.

Net Profit Margin

The net profit percentage is the ratio of after-tax profits to net sales. It reveals the remaining profit after all costs of production, administration, and financing have been deducted from sales, and income taxes recognized. As such, it is one of the best measures of the overall results of a firm, especially when combined with an evaluation of how well it is using its working capital. The measure is commonly reported on a trend line, to judge performance over time. It is also used to compare the results of a business with its competitors.

Net Profit Ratio = (Net profit / sales) × 100

The Net profit of the Dabur and heritage foods falls is increasing every year whereas for HUL and Britania its unstable. When the net profit ratio starts increasing and recovering from the loss. The higher the margin is the more effective the company is in converting revenue into actual profit.



	2016	2015	2014	2013	2012
■	16.33	14.04	13.8	13.58	12.32
■	12.76	14	13.8	14.7	12.16
■	9.42	8.67	5.86	4.16	3.75
■	2.32	1.36	2.63	3.11	0.66

Figure 2: Net Profit Margin

Return on Equity

Return on equity is the amount of net income returned as a percentage of shareholders equity. Return on Equity measures a corporation's profitability by revealing how much profit a company generates with the money shareholders have invested. It is also known as return on net worth.

Return on Equity = Net Income / Shareholder's Equity

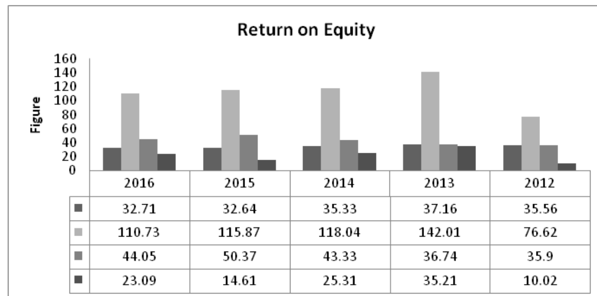


Figure 3: Return on Equity

Return on equity measures how efficiently a firm can use the money from shareholders to generate profit. A high return on equity ratio means company is using its investors' fund effectively.

Return on Asset

Return on Asset is an indicator of how profitable a company is relative to its total asset. It gives an idea as to how efficient management is at using its assets to generate earnings.

Return on Asset = Net Income / Total Assets

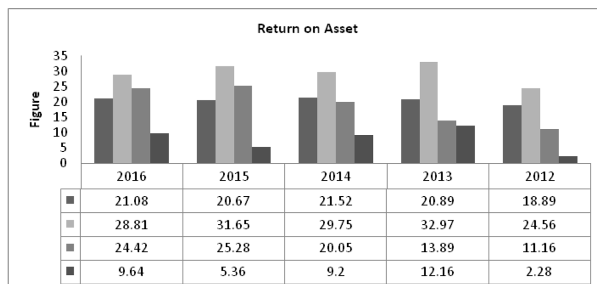


Figure 4: Return on Asset

The return on asset ratio measures how effectively a company can earn a return on its investment in assets. A higher ratio is more favorable to investors because it shows that the company is more effectively managing its assets.

Liquidity Ratio

Managers and creditors must closely monitor the firm's ability to meet short-term obligations. The liquidity ratios are measures that indicate a firm's ability to repay short-term debt. Current liabilities represent obligations that are typically due in one year or less. The current and quick ratios are used to gauge a firm's liquidity.

Current Ratio

The current ratio is liquidity ratio that measures a company's ability to pay short term and long term obligations. To gauge this ability, the current ratio considers the total assets of a company relative to that company's total liabilities

Current Ratio = Current Assets / Current Liability

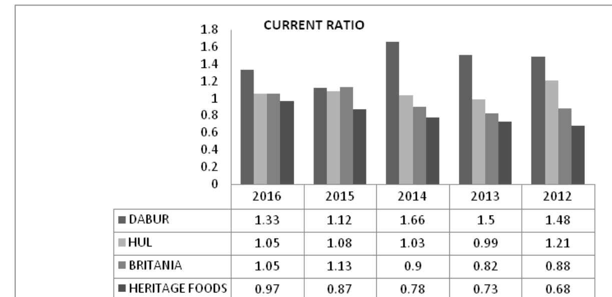


Figure 5: Current Ratio

A higher current ratio is always more favorable than a lower current ratio because it shows the company can more easily make current debt payments. The current ratio of all the company is very unstable. It keeps on fluctuating year to year. For heritage foods its ratio is increasing and for other three company its unstable.

Quick Ratio

The quick ratio or acid test ratio is a liquidity ratio that measures the ability of a company to pay its current liabilities when they come due with only quick assets. Quick assets are current assets that can be converted to cash within 90 days or in the short-term. Cash, cash equivalents, short-term investments or marketable securities, and current accounts receivable are considered quick assets

Quick Ratio = Quick Assets / Quick Liabilities

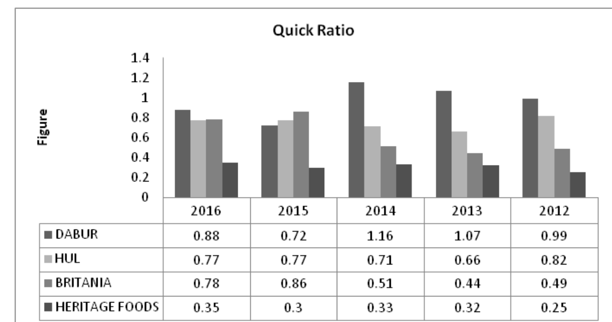


Figure 6: Quick Ratio

If quick ratio is higher, company may keep too much cash on hand or have a problem collecting its accounts receivable. Higher quick ratio is needed when the company has difficulty borrowing on short-term notes. A quick ratio higher than 1:1 indicates that the business can meet its current financial obligations with the available quick funds on hand.

Debt Equity Ratio

Debt/Equity Ratio is a debt ratio used to measure a company's financial leverage, calculated by dividing a company's total liabilities by its stockholders' equity The D/E ratio indicates how much debt a company is using to finance its assets relative to the amount of value represented in shareholders' equity.

Debt Equity Ratio = Long term Debt / Shareholder's Fund

A debt to equity ratio of 1 would mean that investors and creditors have an equal stake in the business assets. A lower debt to equity ratio usually implies a more financially stable business. Year with a higher debt to equity ratio are considered more risky to creditors and investors than year with a lower ratio.

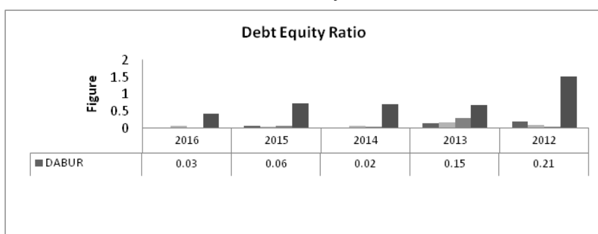


Figure 7: Debt Equity Ratio

Inventory Turnover Ratio

Inventory turnover is a ratio showing how many times a company's inventory is sold and replaced over a period. The days in the period can then be divided by the inventory turnover formula to calculate the days it takes to sell the inventory on hand or "inventory turnover days."

Inventory Turnover Ratio = COGS/Average Inventory

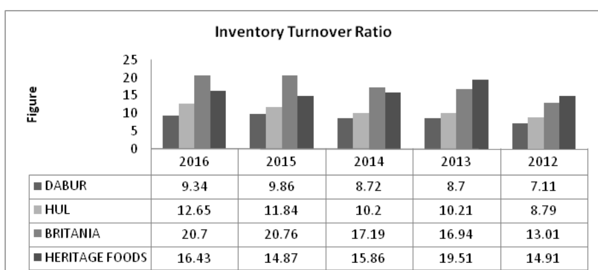


Figure 8: Inventory Turnover Ratio

Low inventory turnover ratio is a signal of inefficiency, since inventory usually has a rate of return of zero. It also implies either poor sales or excess inventory. A low turnover rate can indicate poor liquidity, possible overstocking, and obsolescence, but it may also reflect a planned inventory buildup in the case of material shortages or in anticipation of rapidly rising prices.

If the company has a high inventory turnover this indicates strong sales or ineffective buying. A high turnover ratio can also indicate a shortage or inadequate inventory levels, which may lead to a loss in business.

Efficiency Ratio

The efficiency ratio is typically used to analyze how well a company uses its assets and liabilities internally. An efficiency ratio can calculate the turnover of receivables, the repayment of liabilities, the quantity and usage of equity, and the general use of inventory and machinery.

Asset Turnover Ratio

The asset turnover ratio is a measure of a company's ability to use its assets to generate sales or revenue.

Asset turnover ratio= sales / total asset

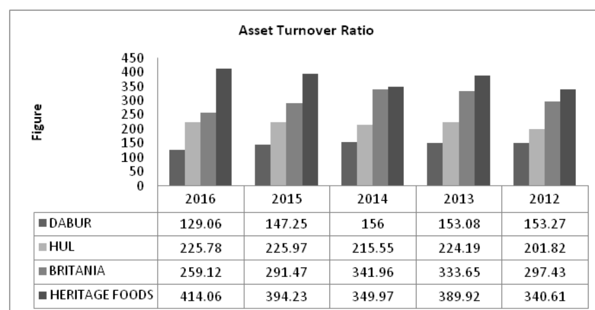


Figure 9: Asset Turnover Ratio

The higher the asset turnover ratio, the better the company is performing, since higher ratios imply that the company is generating more revenue.

Correlation Analysis: Correlation is a statistical technique that can show whether and how strongly pairs of variables are related.

Table Matter Later

CR and QR have high positive correlation (0.990). ROCE and ROA are not correlated (0.046). Both variable CR and QR tend to move in the same direction, if one variable increases than other also

tend to increase. and if one variable decrease than other also tend to decrease. but in case of ROCE and ROA both variable tend to move in opposite direction, and the relationship between the two is weak.

CR and ITR have high positive correlation (0.984). ROCE and ROE are not correlated (0.019). Both variable CR and ITR tend to move in the same direction; if one variable increases than other also tend to increase. and if one variable decrease than other also tend to decrease. but in case of ROCE and ROE both variable tend to move in opposite direction, and the relationship between the two is weak.

Table 1: Heritage Foods

	ROCE	CR	QR	ITR	ATR	DER	ROA	ROE	NPM
ROCE	1								
CR	0.124	1							
QR	0.768	0.694	1						
ITR	0.865	-0.145	0.435	1					
ATR	0.397	0.798	0.649	0.354	1				
DER	-0.722	-0.757	-0.961	-0.410	-0.778	1			
ROA	0.988	0.263	0.844	0.835	0.506	-0.798	1		
ROE	0.992	0.028	0.693	0.916	0.353	-0.641	0.971	1	
NPM	0.993	0.174	0.816	0.808	0.379	-0.752	0.988	0.975	1

ROCE and NPM have high positive correlation (0.993). ROCE and CR are not correlated (0.124). Both variable ROCE and NPM tend to move in the same direction, if one variable increases than other also tend to increase. and if one variable decrease than other also tend to decrease. Similarly in case of ROCE and CR both variable tend to move in same direction, and the relationship between the two is weak.

Conclusion

Development of food processing sector during the study period became a lot more capital intensive. In terms of output, employment or number of factories, five traditional sectors that is oils and fats, grain, sugar, dairy and tea, coffee and others still dominate the food processing industry.

The overall profitability and solvency position of food processing industry is sound but industry still need to focus to increase the net profit of the company by reducing cost of sales or increasing the selling price and should also look after the short-term solvency of the company by taking relevant steps . The food processing industry has a strong potential in India and there is still a scope for further development and improvement to meet the national objective of employment and income generation. The industry should use more of labour which could be facilitated by liberal labour laws.

References

1. Area and Production Statistics National Horticulture Board, http://nhb.gov.in/database-2010.pdfIndian Horticulture Database 2010 accessed on 19th November, 2011
2. Food Processing in India Website of CC, http://www.cci.in/pdf/surveys_reports/food-processing-india.pdf accessed on November 19, 2011
3. Industry: Agriculture India Brand Equity Foundation, November 2011,http://www.ibef.org/industry/agriculture.aspx,accessed on November 19, 2011.
4. Industry: Food Industry India Brand Equity Foundation, November 2011, http://www.ibef.org/industry/foodindustry.aspx accessed on November 19, 2011