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Financial Performance of Fast-Moving Consumer Goods (FMCG) Companies in India

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ABSTRACT

The FMCG industry has been facing challenges such as increasing consumer demand, low consumer spending power, a rise in the health concerns, government regulations and a highly competitive market environment. However, with the increasing population of India with an average age of 28.2 years and an increase in the working population and awareness for healthy and ready to eat foods, a raise in nano-marketing makes the FMCG companies to seize a huge scope in both the rural and urban India. P & G Hygiene and Health Care Limited is in the first position concerning the overall performance score of 62 followed by Nestle India Limited with 57 and Colgate-Palmolive India Limited with a performance score of 55. It is of interest to observe that P & G Hygiene and Health Care Limited obtained one first rank and three second rank out of five indicators viz., Profitability concerning investment, Profitability with regard to sales, Operating efficiency and liquidity. Similarly, Nestle India Limited got one first rank (Solvency) and two-second ranks (Liquidity, Profitability with regard to investment). Good performance in all the categories would contribute to overall performance. P & G Hygiene and Health Care Limited has maintained its position in long-term performance ranking (2010-11 to 2021-22) also with an overall score of 60 points. Colgate-Palmolive India Limited is in the 2nd position. While, Nestle India Limited was pulled down to 3rd position. It can be observed that there is an improvement in the performance of some companies like United Spirits Limited in the recent past as compared to long-term performance. United Breweries Limited, and Tata Consumer Products Limited have maintained their positions in both periods.

Keywords: *P and G Hygiene and Health Care Limited, Nestle India Limited, United Spirits Limited, United Breweries Limited, Tata Consumer Products Limited, Fast Moving Consumer Goods (FMCG) Companies, Liquidity ratios, Solvency ratios, Operational efficiency ratios, Profitability ratios sales, Profitability ratios with regard to investment and Overall performance score.*

INTRODUCTION

FastMoving Consumer Goods (FMCG) which are also known as Consumer Packaged Goods (CPG) are non-durable products that are consumed frequently and are less expensive. Although the profit margin on FMCG products is relatively small, on account of the large volume of goods sold to consumers contributes to the difference in the turnover and total profit. Thus, the financial performance of FMCG companies is influenced by product range and number of goods sold. FMCGindustry produces highly innovative and diversified products which the need of different segments of the market worldwide. The growth of FMCG sector in India is at an average of about 11 per cent during 2010-2020 period[7].

In general, FMCG requires less shopping and decision-making efforts and used directly by end consumers. It comprises of different segments of products, the important ones being household care, personal care, branded and packaged food and beverages, spirits and tobacco. PersonalCare accounts for about one fifth (20%) of the market share comprising of oral care, cosmetics and toiletries, personal wash (soaps), deodorants, perfumes, hair care, skin care, paper products (tissues,diapers,sanitary), accessories care etc. Products in the category of household care account for about 10 per centof the market share comprising household cleaners (toilet cleaners, dish/utensil cleaners,floor cleaners, mosquito repellents and insecticides, air fresheners, metal and furniture polish), fabric wash (laundry soaps and detergents). Branded and packaged food and beverages segment has the largest share (53%) consisting of staples/cereals, branded flour, branded rice, branded sugar, health beverages, soft drinks, bakery products (snackfood, bread, biscuits,cakes), chocolates, ice cream, coffee, tea, processed vegetable sandfruits, meat, dairy products, bottled water, juices etc. Spirits and tobacco category accounts for about 15 per cent of the market share. Electrical appliances has the lowest share of about 2 per cent [21].

The total revenue of FMCG market is expected to increase at a CAGR of 27.9 per cent through 2021 to 2027, reaching nearly

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US$ 615.87 billion.In 2022, urban segment contributed 65 per cent whereas rural India contributed more than 35 per cent to the overall annual FMCG sales. In second quarter (Q2) of the calendar year (CY) 2022, the FMCG sector clocked a value growth of 10.9 per cent year-on-year (YOY), higher than the 6 per cent YOY value growth seen in first quarter (Q1).In September 2021, rural consumption of FMCG increased 58.2 per cent Year-On-Year (YoY) which is two times more than urban consumption, 27.7 per cent. Rise in rural consumption is driving the FMCG market.The Indian FMCG business rose by 16 per cent in the year 2021, a nine year high [7].As per reports by Credit Rating Information Services of India Limited (CRISIL), the FMCG sector is set for double-digit growth in 2022 at 10-12 per cent. The FMCG market in India is expected to increase at a Compound Annual Growth Rate (CAGR) of 14.9 per cent to reach US$ 220 billion by 2025, from US$ 110 billion in 2020.The major driver being household and personal careproducts segment with more than 50 per cent share, healthcare in second position with 31-32 per cent and food and beverage for the remaining 18-19 per cent. The FMCG sector in India witnessed US$20.84 billion foreign direct Investment (FDI) inflow between April 2000-June 2022 [8-9].

OBJECTIVES OF THE STUDY

1. To analyse the liquidity position of the FMCG companies.

2. To analyse the leverage or solvency position of the FMCG companies.

3. To analyse the operational efficiency or turnover or activity position of the FMCG companies.

4. To analyse the profitability with regard to sales position of the FMCG companies.

5. To analyse the profitability with regard to investment position of the FMCG companies.

6. To categorise FMCG companies based on financial performance scores.

RESEARCH HYPOTHESIS

Overall financial performance score ofallthe nifty FMCG companies are the same.

METHODOLOGY

SAMPLE AND DATA COLLECTION

All the individual FMCG companies which constitute the Nifty FMCG index were purposively selected. The financial statements of last twelve financial years i.e., FY 2010-11 to FY 2021-22 from the audited financial statements of published annual reports of the companies was considered for the analysis.

ANALYTICAL TOOLS AND TECHNIQUES EMPLOYED

To evaluate the financial condition and performance of the firm, the financial analysis needs certain yardsticks. The yard stick frequently used was a ratio (or) index. Analysis and interpretation of various ratios provide better insight into the relative financial condition and performance of the selected FMCG companies over time. This helps to study the composition of change and determine whether there has been improvement or deterioration in the financial condition and performance of the selected FMCG companies over time.The studies [19 and 28] has analyzed the evolution of accounting ratios [1-6], while, [10-13], [15-20], [23-25], [27-28] has analyzed the financial performance of the companies.

The financial ratios employed in the classification were classified according to their primary function. The ratios used were liquidity, leverage or solvency, activity or efficiency or operational, profitability ratios. The secondary data obtained from the balance sheet and profit and loss accounts of the respective companies for twelve years were subjected to financial analysis. The different financial ratios used for the analysis are discussed below.

1.1. Liquidity ratios

Liquidity ratio measures the ability of the firm to meet its short-term obligations that is the capacity of the firm to pay its current liabilities as and when they fall due. A firm should ensure that it does not suffer from lack of liquidity. Liquidity ratios indicate the liquid position of the business. They are used to ascertain whether the business is able to pay its short-term liabilities from its short-term resources or not. Thus, these ratios reflect the short-term financial solvency of a firm. The failure to meet obligations on due time may result in a bad credit image, loss of creditors' confidence, and even in legal proceedings against the firm. On the other hand, a very high degree of liquidity is also not desirable since it would imply that funds are idle and earn nothing. Therefore, it is necessary to strike a proper balance between liquidity and lack of liquidity.

i) Current ratio

The current ratio measures the short-term solvency of the firm. It establishes the relationship between current assets and current liabilities. It is calculated by dividing current assets by current liabilities.

$$\text{Current ratio} = \frac{Current\ assets}{Current\ Liabilities}$$

Current assets include cash and bank balances, marketable securities, inventory, and debtors, excluding provisions for bad debts and doubtful debtors, bills receivables and prepaid expenses. Current liabilities include sundry creditors, bills payable, short-term loans, income-tax liability, accrued expenses and dividends payable.

ii) Quick ratio / acid test ratio

It is an important indicator of the firm's liquidity position and is used as a complementary ratio to the current ratio. It establishes the relationship between quick assets and current liabilities. It is calculated by dividing quick assets by the current liabilities.

$$\text{Quick ratio} = \frac{Quick\ assets}{Current\ Liabilities}$$

Where, Quick Assets = Current Assets – (Inventories + Current Investments + Advances Paid) or = Trade Receivables + Cash and Cash equivalents + Bank Balance other than cash and cash equivalents + Loans receivables + Other liquid financial assets.

iii) Cash ratio

Cash ratio shows the relationship between absolute liquid or super quick current assets and liabilities. Absolute liquid assets include cash, bank balances, and marketable securities.

$$\text{Absolute liquid ratio} = \frac{Cash\ and\ Cash\ equivalents}{Current\ Liabilities}$$

1.2. Solvency or leverage ratios

The company's current debt-paying ability and company's long-term financial strengths are judged through financial leverage, or capital provided by owners and lenders. As a general rule, there has to be a proper blend of debts and owners' equity. Leverage ratio are calculated by profit and loss items by determining the extent to which operating profits are sufficient to cover the fixed charges. Solvency or leverage ratios study the composition of capital of the business i.e., the proposition of owners' funds and funds provided by outsiders are reflected by leverage or solvency ratios. For example, the Debt-Equity ratio shows the proportion of long-term liabilities with owners' funds.

i) Debt ratio

This is employed to measure the long-term solvency of the firm. Debt ratio is defined as the ratio of total debt to total assets, expressed in percentage, and can be interpreted as the proportion of a company's assets that are financed by debt.

$$\text{Debt ratio} = \frac{Total\ debt}{Capital\ employed} \text{ x } 100$$

The higher the ratio, the more leveraged the company and the greater its financial risk. Debt ratios vary widely across industries, with capital-intensive businesses such as utilities and pipelines having much higher debt ratios than other industries like technology.

ii) Debt-equity ratio

Debt equity ratio shows the relative claims of creditors (outsiders) and owners against the assets of the firm. Thus, this ratio indicates the relative proportions of debt and equity in financing the firm's assets. It can be calculated by dividing outsiders' funds (debt) by shareholders' funds (equity).

$$\text{Debt-equity ratio} = \frac{Total\ debt\ (Outsiders\ Funds)}{Equity\ (Shareholders\ funds)} \text{ x } 100$$

The outsider's fund includes long-term debts as well as current liabilities. The shareholder funds include equity share capital, preference share capital, reserves and surplus including accumulated profits. However, fictitious assets like accumulated deferred expenses etc. should be deducted from the total of these items to shareholder funds. The shareholder fund so calculated are known as net worth of the business.

iii) Proprietary ratio

The proprietary ratio indicates the proportion of total assets financed by owners. It is calculated by dividing proprietor (Shareholder) funds by total assets.

$$\text{Proprietary (equity) ratio} = \frac{Shareholders\ fund}{Total\ Assets} \text{ x } 100$$

1.3. Operational efficiency or activity or turnover ratios

The turnover ratio measures the number of times a company's inventory is replaced during a given time period. A high turnover ratio is a sign that the company is producing and selling its goods or services very quickly. Turnover ratios are also known as activity ratios or efficiency ratios with which a firm manages its current assets. The following turnover ratios can be calculated to judge the effectiveness of asset use. Activity or Turnover or Efficiency ratio indicates the efficiency of the resources of the business. They also indicate the efficiency of management. For example, the Stock Turnover ratio shows the number of times the stock is turned over the year. Therefore, activity ratios are employed to evaluate the efficiency with which the firm manages and utilizes its assets. These ratios are also called turnover ratios because they are turned over into sales. Activity ratios are thus involved in the relationship between sales and assets. A proper balance between sales and assets generally reflects that assets are managed well.

i) Inventory or stock turnover ratio

This ratio indicates the number of times the inventory has been converted into sales during the period. Thus, it evaluates the efficiency of the firm in managing its inventory. It is calculated by dividing the cost of goods sold by the average inventory.

$$\text{Inventory turnover ratio} = \frac{Cost\ of\ goods\ sold}{Average\ inventory}$$

The average inventory is a simple average of the opening and closing balances of inventory (Opening + Closing balances/2).

ii) Capital employed/ total assets turnover ratio

Capital employed or Assets are used to generate sales. The relationship between assets and sales is known as assets turnover.

$$\text{Total asset turnover ratio} = \frac{Total\ sales\ revenue}{Total\ assets/Capital\ employed}$$

Total assets turnover ratio shows the firm's ability to generate sales from all financial resources committed to total assets. It is calculated by dividing sales by total assets.

iii) Fixed assets turnover ratio

The fixed assets turnover ratio indicates the efficiency in using fixed assets to generate sales.

$$\text{Fixed asset turnover ratio} = \frac{Total\ sales\ revenue}{Fixed\ assets}$$

1.4. Profitability ratios

The profitability ratio measures a company's ability to generate earnings relative to sales, assets, and equity. These ratios assess the ability of a company to generate earnings, profits, and cash flows relative to some metric, often the amount of money invested. They highlight how effectively the profitability of a company is being managed.

Profitability ratios include return on sales, return on investment, return on equity, return on capital employed (ROCE), cash return on capital invested (CROCI), gross profit margin, and net profit margin. All of these ratios indicate how well a company is performing at generating profits or revenues relative to a certain metric.

Different profitability ratios provide different useful insights into the financial health and performance of a company. For example, Return on capital employed (ROCE) tells how well the company is using capital employed to generate returns.

The profitability ratio of the firm can be measured by calculating various profitability ratios. General two groups of profitability ratios are calculated.

include cash, bank balances, and marketable securities.

1.4.1) Profitability concerning sales
1.4.2) Profitability concerning investment.

1.4.1) Profitability concerning sales ratios

i) Gross profit margin or ratio

It measures the relationship between gross profit and sales. It is calculated by dividing gross profit by sales.

$$\text{Gross profit margin or ratio} = \left(\frac{\text{Gross profit}}{\text{Operating Sales revenue}}\right) \text{ x } 100$$

Gross profit is the difference between sales and cost of goods sold. Gross profit margin reflects the efficiency with which management produces each unit of product. The high gross profit margin ratio is a sign of good management.

ii) Net profit margin or ratio

It measures the relationship between net profit and sales of a firm. It is calculated by dividing profit after tax by sales.

$$\text{Net profit margin or ratio} = \left(\frac{\text{profit after tax}}{\text{Operating Sales revenue}}\right) \text{ x } 100$$

Net profit margin ratio indicates management's efficiency in manufacturing, administrating, and selling its products. It also indicates the firm's capacity to withstand adverse economic conditions.

iii) Operating profit ratio

It is used to measure the overall and managerial efficiency of the firm.

$$\text{Operating Profit Ratio} = \frac{\text{Operating profit (EBIT)}}{\text{Operating Sales revenue}} \text{ x } 100$$

iv) Operating cost ratio

This ratio is also known as the Operating expenses ratio. It is used to measure the overall profitability and managerial efficiency of the firm.

$$\text{Operating Cost Ratio} = \frac{\text{Operating cost}}{\text{Operating Sales revenue}} \text{ x } 100$$

1.4.2) Profitability concerning investment

i) Return on capital employed or investment ratio

It measures the relationship between earnings before interest and tax and total assets.

$$\text{Return on capital employed or investment} = \frac{\text{Earnings before interest and tax}}{\text{Total assets}} \text{ x } 100$$

ii) Return on equity ratio

It measures the relationship between profit after tax by shareholder's equity which is given by net worth or equity.

$$\text{ROE} = \frac{\text{Profit after tax}}{\text{Net worth (Equity)}} \text{ x } 100$$

Return on equity indicates how well firm has used the resources of owners.

iii) Earnings per share (EPS)

Earnings per share measure the profit available to the equity shareholders on a per-share basis. It is computed by dividing profit after tax by the total number of equity shares outstanding.

$$\text{Earnings per share} = \frac{\text{Profit after tax}}{\text{Number of shares outstanding}}$$

[14 and 22] helps in studying and understanding financial ratio analysis of any company given its financial statements.

2. Coefficient of Variation (CV)

Coefficient of variation (CV) is the percentage ratio of standard deviation σ) and the arithmetic mean (x). It is usually expressed in percentage. The formula for CV is,

$$\mathbf{CV} = \frac{\text{Standard deviation } (\sigma)}{\text{mean } (\bar{x})} \text{x } 100$$

3. Compound annual growth rate (CAGR)

For evaluating the compound annual growth of financial ratios of selected Fast Moving Consumer Goods (FMCG) companies an exponential form of the growth function was used as shown below,

$$Y_t = AB_t V_t$$

Where,
Y_t = Growth in the year 't'
A = Intercept indicating Y_t in the base period (t = 0)
B = growth in Y_t(b+1)
t_i = time period (i = 1 to t)

3. Categorisation of companies based on financial performance scores

Inspired from the study of [26], a performance scorecard was prepared to evaluate companies on the basis of their financial performance scores. A five-point Likert scale with performance categories of very good, good, average, poor and very poor was developed to group the sample companies based on the performance scores. Measurements were identified to each financial ratio against the respective performance category taking into consideration the arbitrary standards of financial ratios and earlier studies on the financial performance of companies. A corresponding score of 5, 4, 3, 2, 1 were given against the performance categories of very good, good, average, poor, and very poor performance respectively. The scale depicting the performance categories against financial ratios is presented in Table 1.

Table 1: Criteria for measurement of financial ratios against performance categories

	Very good	Good	Average	Poor	Very Poor
	Performance scores				
Financial ratios	**5**	**4**	**3**	**2**	**1**
Current ratio (in proportion)	2 to 2.5	Above 2.5 to 3 or above 1.5 to 2	Above 3 to 3.5 and above 1 to 1.5	Above 3.5 to 4.5 and above 0.5 to 1	Above 4.5 and below 0.5
Quick ratio (in proportion)	1 to 1.5	Above 1.5 to 2 and above 0.75 to 1	Above 2 to 2.5 and Above 0.5 to 0.75	Above 2.5 to 3.5 and Above 0.25 to 0.50	Above 3.5 and below 0.25
Cash ratio (in proportion)	0.60 to 0.50	Above 0.60 to 0.80 or Above 0.40 to 0.50	Above 0.80 to 1.00 or Above 0.30 to 0.40	Above 1.00 to 2.00 or Above 0.20 to 0.30	Above 2.00 and below 0.20
Debt to asset ratio (%)	30 to 40	40 to 50	50 to 60	60 to 70	70 to 80
Debt to equity ratio (%)	100:100	120 to 100:100 or 80 to 100:100	140 to 120:100 or 60 to 80:100	160 to 140:100 or 40 to 60:100	180 to 160:100 or 20 to 40:100
Proprietary ratio (%)	50 to 25	Above 50 to 55 and Below 25 to 20	Above 55 to 60 and Below 20 to 15	Above 60 to 65 and Below 15 to 10	Above 65 and Below 10
Inventory turnover ratio (in number of times)	Above 20	Above 15 to 20	Above 10 to 15	Above 5 to 10	Below 5
Capital employed turnover ratio (in number of times)	Above 2.5	Above 2 to 2.5	Above 1 to 2	Above 0.5 to 1	Less than 0.5
Fixed assets turnover ratio (in number of times)	Above 10	Above 8 to 10	Above 6 to 8	Above 4 to 6	Less than 4

(Cont)

	Very good	Good	Average	Poor	Very Poor
	Performance scores				
Financial ratios	**5**	**4**	**3**	**2**	**1**
Gross profit ratio (%)	Above 50	Above 40 to 50	Above 30 to 40	Above 20 to 30	Below 20
Net profit ratio (%)	Above 25	Above 20 to 25	Above 15 to 20	Above 10 to 15	Below 10
Operating profit ratio (%)	Above 40	Above 30 to 40	Above 20 to 30	Above 10 to 20	Below 10
Operating cost ratio (%)	Below 60	Below 70 to 60	Below 80 to 70	Below 90 to 80	Above 90
Return on capital employed ratio (%)	Above 40	Above 30 to 40	Above 20 to 30	Above 10 to 20	Below 10
Return on Equity ratio (%)	Above 50	Above 35 to 50	Above 20 to 35	Above 5 to 20	Below 5
Earnings per share (in rupee)	Above 50	Above 35 to 50	Above 20 to 35	Above 5 to 20	Below 5

RESULTS AND DISCUSSION

Financial performance analysis of the FMCG companies

An organisation's health is a blend of financial and non-financial performance. Understanding the financial performance of companies through assessment of their financial information provides deeper insights both to the policy makers and stakeholders regarding the actual performance, and management efficiency and thus, providing scope for identification of bottle-necks. As financial ratios interrelate the balance sheet and income statement components, assessment of the performance of organizations through the financial ratios provides profound information regarding the organization's health and financial strength. Further, these ratios facilitate inter-firm and intra firm comparisons. In this context, financial performance of the companies was analyzed through employing financial ratios. The secondary data pertaining to the financial statements, namely balance sheet and income statements for twelve financial years (FY) 2010-11 to 2021-22 were obtained from the audited financial statements present in the published annual reports and analyzed for evaluating their financial performance. The broad categories of financial ratios used in the analysis are liquidity ratios, leverage ratios, operating efficiency ratios, and profitability ratios.

The results about the financial performance of selected the FMCG companies were assessed through various ratios and the same is presented in Table 2-17 for the period 2010-11 to 2021-22.

1. To analyse the liquidity position of the FMCG companies

Liquidity ratios measures the ability of the company to realize value in money or the most liquid assets. The liquidity position of the companies is indicated by the most commonly used ratios viz., current ratio (CR), quick ratio (QR) and cash ratio (CAR). To know the liquidity position, the current ratio (,Table 1), quick ratio (Table 2) and cash ratio (Table 3) were calculated and the results are presented in the following section.

The current ratio is a quick measure of the firm's short-term liquidity. This ratio indicates the ability of the current assets to pay for current liabilities whenever they fall due. The current ratio establishes a relationship between current liabilities, which are the obligations soon becoming due and current assets, which presumably provide the source from which these obligations will be met. The ratio indicates the liquid position of the companies for managing the working capital expenses. The arbitrary standard of the current ratio is between 1.5:1 although varies across industries based on the norms, policy and strategy. A lower ratio than standard indicates a bad liquidity, less working capital and unsatisfactory short-term debt repayment capacity of the firm. Higher the ratio, the better is the liquidity position of the company. But very high current ratio is also not a sign of good performance as it may indicate the firm's difficulty in converting inventory into sales. In times of recession, the firm may have large unsold stock and long outstanding debtors. This would increase current assets and results in a high current ratio. In such cases, the trend indicated by the high current ratio may not stand favourable for the firm.

For the study period, the current ratio estimates from the balance sheet analysis of the sample FMCGs ranged between 0.49 and 4.69. Recent five-year average ratio values shows that Colgate-Palmolive India Limited (1.08), Hindustan Unilever Limited (1.31), Jubilant Foodworks Limited (1.15) and United Spirits Limited (1.16) were underperforming as their current ratio was below the standard of 1.5:1. ITC Limited had the highest average ratio value (3.14) followed by Tata Consumer Products Limited (2.57).For the industry, twelve-year and five-year average ratio values are 1.52 and 1.68 respectively

Hindustan Unilever Limited was more consistent with a CV of 12.17 per cent with a minimum and maximum value of 0.99 and 1.44 respectively followed by United Spirits Limited with a CV of 14.08 per cent with a minimum and maximum value of 1.10 and 1.71respectively. Whereas, Emami Limited was least consistent with a CV of 64.78 per cent with a minimum and maximum value of 0.49 and 4.69 respectively. While, the Industry as a whole has shown a CV of 30.21 per cent with a minimum and maximum value of 1.23 and 1.79 respectively.

A declining trend in the current ratio was observed with the highest fall being Britannia Industries Limited and P & G Hygiene and Health Care Limited with a CAGR of -4.48 per cent followed by Dabur India Limited with -2.53 per cent, Emami Limited with -3.01 per cent which is a bad sign indicating a decrease in the current assets compared to current liabilities.

An increasing CAGR in current ratio was recorded by Godrej Consumer Products Limited (12.20 %) followed by Tata Consumer Products Limited (7.42 %), RadicoKhaitan Limited (6.18 %), ITC Limited (5.23 %) and United Spirits Limited (5.18 %).

Quick ratio indicates the ability of the firm in meeting the current liabilities through effective use of quick liquid assets namely trade receivables, cash and cash equivalents, short term loans and advances. The general arbitrary standard of quick ratio is 1:1. Quick ratio of less than one indicates quick liquid assets alone were not sufficient to meet the current liabilities unless the inventories get converted into sales. A high quick ratio along with a higher current ratio is favourable which indicates a good short term liquidity and debt repayment capacity of the firm. Even if the current ratio is high, a low Quick ratio does not indicate a good debt repayment capacity of the firm. However, a company with high value of quick ratio can suffer if it has slow paying, doubtful and long-duration outstanding debtors.

The quick ratio of the sample ranged between 0.07 and 2.92. Except P & G Hygiene and Health Care Limited and RadicoKhaitan Limited, the remaining sample FMCG companies had the twelve-year and recent five-year averages of quick ratios are below the standard norm.

Five year average ratio values of P & G Hygiene and Health Care Limited (1.28), RadicoKhaitan Limited (1.06), Tata Consumer Products Limited (1.00) and twelve-year average ratio values of P & G Hygiene and Health Care Limited (1.55) and RadicoKhaitan Limited (1.06) are the only companies that are greater than or equal to that of arbitrary standard value of 1.00. For the industry, twelve-year and five year average ratio values are 0.69 and 0.75 respectively.

United Spirits Limited was more consistent with a CV of 14.01 per cent with a minimum and maximum value of 0.47 and 0.75 respectively followed by United Breweries Limited with a CV of 15.14 per cent with a minimum and maximum value of 0.63 and 1.10 respectively. Whereas, Jubilant Foodworks Limited was least consistent with a CV of 74.71 per cent with a minimum and maximum value of 0.11 and 0.97 respectively. While, the Industry as a whole has shown a CV of 37.58 per cent with a minimum and maximum value of 0.53 and 0.83 respectively.

A declining CAGR in the quick ratio was observed with the highest fall of 9.41 per cent in Emami Limited followed by Dabur

India Limited (-6.20 %), P & G Hygiene and Health Care Limited (-5.66 %). Whereas, the remaining companies has reported an increasing trend with the highest rise being Tata Consumer Products Limited (15.11 %).

The cash ratio indicates the ability of the firm to manage the working capital expenses with the help of most liquid assets like cash and cash equivalents.

For the study period, the cash ratio of the sample ranged between 0.00 and 2.10. P & G Hygiene and Health Care Limited and Tata Consumer Products Limited had adequate cash ratio compared to the rest of the companies. For the industry, twelve-year and five-year average ratio values are 0.30 and 0.35 respectively.

Colgate-Palmolive India Limited and Hindustan Unilever Limited were more consistent with a CV of 30.29 per cent with minimum and maximum values of 0.27, 0.22 and 0.70, 0.55 respectively followed by ITC Limited with a CV of 46.14 per cent with a minimum and maximum value of 0.26 and 0.89 respectively. Whereas, RadicoKhaitan Limited with a CV of 126.40 and United Breweries Limited with a CV of 126.20 per cent with a minimum and maximum values of 0.01, 0.01 and 0.17, 0.46 respectively. While, the Industry as a whole has shown a CV of 80.76 per cent with a minimum and maximum value of 0.17 and 0.41 respectively.

The highest fall in cash ratio was for Emami Limited with a CAGR of -17.58 per cent followed by Britannia Industries Limited, United Spirits Limited and Dabur Indian Limited which is a bad sign indicating that most liquid assets alone are not sufficient to meet current liabilities. Whereas, the other companies have shown an increasing trend with the highest rise being Tata Consumer Products Limited with a CAGR of 49.32 per cent.

Thus, it can be inferred from the liquidity ratios that over the study period most of the companies were improving in maintaining adequate liquidity for meeting their working capital expenses and were trying to convert inventory into sales and were receiving the trade receivables in time.

Table 2: Current ratios of FMCG companies

(in proportion)

	Britannia Industries Limited	Colgate-Palmolive India Limited	Dabur India Limited	Emami Limited	Godrej Consumer Products Limited	Hindustan Unilever Limited	ITC Limited	Jubilant Foodworks Limited	Marico Limited	Nestle India Limited	P & G Hygiene and Health Care Limited	RadicoKhaitan Limited	Tata Consumer Products Limited	United Breweries Limited	United Spirits Limited	Industry Average Ratio Value
2010-11	1.54	1.13	1.51	1.71	0.74	1.05	1.54	0.80	1.42	0.88	2.19	1.27	0.72	1.10	0.88	1.23
2011-12	0.88	1.09	1.48	1.65	1.20	1.21	1.58	0.90	1.65	1.31	1.93	1.74	0.81	1.13	0.82	1.29
2012-13	0.71	1.01	1.60	2.19	1.14	0.99	1.70	0.88	1.67	1.71	1.91	1.67	0.89	1.32	0.73	1.34
2013-14	0.90	0.80	1.66	2.93	0.72	1.04	1.82	0.70	1.43	1.45	2.02	1.69	0.86	1.27	0.91	1.34
2014-15	1.47	0.74	1.49	4.69	0.89	1.05	2.05	0.54	2.03	1.68	1.90	1.55	1.08	1.21	0.85	1.55
2015-16	1.35	0.82	1.52	0.61	1.09	1.44	3.66	0.58	1.87	2.40	3.19	1.20	1.37	1.15	0.90	1.54
2016-17	1.84	0.87	1.48	0.49	1.17	1.30	3.59	0.57	2.46	2.64	1.04	1.15	1.64	1.24	0.95	1.50
2017-18	2.03	1.08	1.59	0.97	1.26	1.29	2.77	1.07	2.46	2.55	1.46	1.30	3.09	1.47	0.99	1.69
2018-19	1.94	0.96	1.40	1.44	1.12	1.36	3.07	1.49	2.35	1.74	1.70	1.57	3.94	1.43	1.04	1.77
2019-20	1.45	1.16	2.26	1.35	1.20	1.31	4.02	1.19	2.34	1.68	2.23	1.69	2.49	1.49	1.04	1.79
2020-21	1.21	0.85	1.39	1.83	1.55	1.26	3.13	0.95	2.11	1.05	1.34	1.98	1.75	1.55	1.23	1.55
2021-22	0.93	1.37	1.14	1.22	2.62	1.34	2.70	1.04	2.07	1.13	1.32	2.46	1.59	1.71	1.53	1.61
CV (in %)	32.57	18.74	17.00	64.78	40.46	12.17	33.36	31.61	19.16	34.56	30.38	22.88	59.83	14.08	21.51	30.21
RFYA	1.51	1.08	1.56	1.36	1.55	1.31	3.14	1.15	2.27	1.63	1.61	1.80	2.57	1.53	1.16	1.68
TYA	1.35	0.99	1.54	1.76	1.22	1.22	2.64	0.89	1.99	1.69	1.85	1.61	1.69	1.34	0.99	1.52
TYCAGR (in %)	-4.48	1.73	-2.53	-3.01	12.20	2.20	5.23	2.39	3.49	2.33	-4.47	6.18	7.42	4.05	5.18	2.53

CV: *Co-efficient of Variation;* ***RFYA:*** *Recent Five Year Average;* ***TYA:*** *Twelve Year Average;*
TYCAGR: *Twelve Year Compound Annual Growth Rate.*

Table 3: Quick ratios of FMCG companies

(in proportion)

	Britannia Industries Limited	Colgate-Palmolive India Limited	Dabur India Limited	Emami Limited	Godrej Consumer Products Limited	Hindustan Unilever Limited	ITC Limited	Jubilant Foodworks Limited	Marico Limited	Nestle India Limited	P & G Hygiene and Health Care Limited	RadicoKhaitan Limited	Tata Consumer Products Limited	United Breweries Limited	United Spirits Limited	Industry Average Ratio Value
2010-11	0.34	0.86	0.53	1.31	0.34	0.45	0.44	0.47	0.36	0.29	1.89	0.95	0.19	0.78	0.52	0.65
2011-12	0.27	0.75	0.59	1.17	0.65	0.46	0.47	0.20	0.31	0.78	1.64	1.27	0.28	0.82	0.51	0.68
2012-13	0.34	0.76	0.46	1.34	0.52	0.42	0.51	0.27	0.48	0.69	1.55	1.22	0.30	0.95	0.48	0.69
2013-14	0.36	0.52	0.62	1.43	0.31	0.42	0.54	0.22	0.41	0.44	1.69	1.28	0.28	0.92	0.61	0.67
2014-15	0.59	0.37	0.44	1.70	0.46	0.45	0.84	0.13	0.56	0.45	1.73	1.17	0.16	0.83	0.53	0.70
2015-16	0.54	0.43	0.40	0.23	0.39	0.62	1.22	0.11	0.42	0.75	2.92	0.74	0.23	0.63	0.47	0.67
2016-17	0.96	0.50	0.31	0.07	0.33	0.41	0.87	0.12	0.43	1.09	0.70	0.72	0.25	0.72	0.53	0.53
2017-18	0.91	0.77	0.34	0.27	0.32	0.62	0.69	0.31	0.41	0.98	1.21	0.77	1.05	0.85	0.55	0.67
2018-19	1.03	0.70	0.38	0.67	0.36	0.71	0.91	0.97	0.73	0.69	1.35	0.94	1.25	0.74	0.58	0.80
2019-20	0.72	0.78	0.64	0.67	0.33	0.82	1.15	0.93	0.51	0.81	1.86	1.08	0.94	0.72	0.57	0.83
2020-21	0.49	0.62	0.55	0.92	0.33	0.66	0.72	0.63	0.84	0.39	1.00	1.10	0.86	0.87	0.64	0.71
2021-22	0.37	1.01	0.26	0.44	0.76	0.61	0.71	0.67	0.66	0.39	1.00	1.43	0.90	1.10	0.75	0.74
CV (in %)	46.34	28.07	27.67	63.05	34.47	24.57	33.59	74.71	31.47	39.31	37.16	22.20	72.03	15.14	14.01	37.58
RFYA	0.70	0.77	0.43	0.59	0.42	0.68	0.84	0.70	0.63	0.65	1.28	1.06	1.00	0.86	0.62	0.75
TYA	0.58	0.67	0.46	0.85	0.43	0.55	0.76	0.42	0.51	0.65	1.55	1.06	0.56	0.83	0.56	0.69
TYCAGR (in %)	0.71	1.48	-6.20	-9.41	7.61	2.76	4.51	3.39	5.74	2.85	-5.66	3.78	15.11	3.11	3.36	2.21

CV: *Co-efficient of Variation;* ***RFYA:*** *Recent Five Year Average;* ***TYA:*** *Twelve Year Average;*
TYCAGR: *Twelve Year Compound Annual Growth Rate.*

Table 4: Cash ratios of FMCG companies

(in proportion)

	Britannia Industries Limited	Colgate-Palmolive India Limited	Dabur India Limited	Emami Limited	Godrej Consumer Products Limited	Hindustan Unilever Limited	ITC Limited	Jubilant Foodworks Limited	Marico Limited	Nestle India Limited	P & G Hygiene and Health Care Limited	RadicoKhaitan Limited	Tata Consumer Products Limited	United Breweries Limited	United Spirits Limited	Industry Average Ratio Value
2010-11	0.06	0.64	0.21	0.68	0.10	0.25	0.26	0.08	0.03	0.15	0.48	0.01	0.01	0.11	0.05	0.21
2011-12	0.03	0.47	0.24	0.71	0.46	0.28	0.31	0.08	0.05	0.65	0.46	0.04	0.02	0.12	0.06	0.27
2012-13	0.06	0.55	0.15	0.88	0.32	0.22	0.35	0.19	0.03	0.56	0.38	0.03	0.05	0.17	0.03	0.26
2013-14	0.07	0.34	0.26	0.93	0.14	0.26	0.29	0.09	0.14	0.33	0.54	0.02	0.01	0.09	0.09	0.24
2014-15	0.19	0.27	0.12	1.44	0.32	0.29	0.65	0.09	0.14	0.34	0.86	0.01	0.01	0.01	0.04	0.32
2015-16	0.02	0.31	0.05	0.11	0.14	0.41	0.89	0.08	0.16	0.64	2.10	0.01	0.07	0.01	0.00	0.33
2016-17	0.05	0.30	0.02	0.01	0.07	0.23	0.40	0.08	0.09	0.98	0.20	0.01	0.03	0.01	0.01	0.17
2017-18	0.07	0.46	0.07	0.04	0.06	0.39	0.29	0.27	0.06	0.87	0.70	0.02	0.79	0.01	0.02	0.28
2018-19	0.03	0.38	0.08	0.24	0.06	0.44	0.39	0.91	0.29	0.60	0.84	0.02	0.84	0.02	0.01	0.34
2019-20	0.02	0.48	0.36	0.10	0.05	0.55	0.75	0.90	0.07	0.71	1.52	0.02	0.61	0.04	0.01	0.41
2020-21	0.03	0.54	0.41	0.62	0.07	0.40	0.39	0.61	0.53	0.28	0.79	0.16	0.73	0.22	0.01	0.39
2021-22	0.01	0.70	0.06	0.08	0.36	0.33	0.34	0.60	0.22	0.31	0.75	0.17	0.54	0.46	0.01	0.33
CV (in %)	87.85	30.29	75.84	93.97	81.39	29.91	46.14	99.47	94.73	47.47	65.81	126.40	115.59	126.20	90.30	80.76
RFYA	0.03	0.51	0.20	0.22	0.12	0.42	0.43	0.66	0.24	0.55	0.92	0.08	0.70	0.15	0.01	0.35
TYA	0.05	0.45	0.17	0.49	0.18	0.34	0.44	0.33	0.15	0.53	0.80	0.04	0.31	0.10	0.03	0.30
TYCAGR (in %)	-13.03	0.85	-10.83	-17.58	12.01	2.72	2.25	19.54	19.18	6.42	4.12	24.94	49.32	14.11	-13.36	6.71

CV: *Co-efficient of Variation;* ***RFYA:*** *Recent Five Year Average;* ***TYA:*** *Twelve Year Average;*
TYCAGR: *Twelve Year Compound Annual Growth Rate.*

2.To analyse the leverage or solvency position of the FMCG companies

Solvency or leverage ratios measures the extent to which the firm uses the debt to finance their growth. It is a measure of financial soundness of the company. It is useful to analyse the long term solvency and financial stability of the firm. The most commonly used solvency ratios are debt ratio (DR), debt-equity ratio (DER) and proprietary ratio (PR). To know the solvency position, debt ratio (Table 14), debt equity ratio (Table 15) and proprietary ratio (Table 16) was calculated and results are presented.

Debt ratio (DR) is also referred to as debt to asset ratio. It is the ratio of total debt to total assets. The debt ratio can help investors to determine a company's risk level. Companies with higher levels of debt compared with assets are considered as highly leveraged and are more risky for lenders. A lower ratio is favourable because creditors are always looking about being repaid. When companies borrow more money from creditors or lenders, their debt ratio will be increased and thereby the companies further unable to get loans from the creditors or financial institutions. A debt ratio of less than 50 per cent is often considered to be less risky.

For the study period, the debt ratio of the sample ranged between 9.96 per cent and 102.57 per cent. Twelve year and recent five-year average ratio values were less than 25 per cent for ITC Limited and Tata Consumer Products Limited, while the rest had higher debt ratio. For the industry, twelve-year and five year average ratio values are 42.36 per cent and 37.98 per cent respectively.
Nestle India Limited was more consistent with a CV of 15.40 per cent, with a minimum and maximum value of 51.25 per cent and 74.61 per cent respectively followed by Colgate-Palmolive India Limited with a CV of 18.52 per cent, with a minimum and maximum value of 38.78 per cent and 62.86 per cent respectively. Whereas, ITC Limited was least consistent with a CV of 37.44 per cent with a minimum and maximum value of 14.89 per cent and 37.28 per cent respectively. While, Industry as a whole has shown a CV of 27.11 per cent with a minimum and maximum value of 36.94 and 49.78 respectively.
An increasing trend in debt ratio was observed in Jubilant Foodworks Limited (3.71 %) and P & G Hygiene and Health Care Limited (5.37 %) which is a bad sign. Whereas, a decreasing trend of debt ratio with a greater fall was in Godrej Consumer Products Limited followed by Hindustan Unilever Limited, ITC Limited, RadicoKhaitan Limited and Tata Consumer Products Limited. While the industry as a whole has shown a declining trend of -3.16 per cent CAGR indicating good credit worthiness such that they can further borrow.

Debt equity ratio (DER) indicates the extent of debt utilised by the company to finance its business operations relative to the owned funds. It is the relationship describing the lender's contribution for every hundred rupee of the owner's contribution. This ratio is used for long term solvency, capital structure and risk, financial stability and managerial efficiency of the firm. An equal amount of debt and equity is the general arbitrary standard. However, the ratio may vary across industries, based on the policy and strategy. Generally, Companies with higher fixed assets exhibit higher DER. A too higher the ratio, the more the investment of loan capital than equity capital which could be of higher risk to a shareholder because of higher claim of outsiders on the firm. A lower the ratio to the standard value is favourable which indicates more use of equity capital than debt capital which indicates low financial risk. A very low ratio indicates a sound long-term solvency, low risk, conservative capital structure and inefficient managerial efficiency to attract loans.
For the study period, the sample DER ranged between 11.06 per cent and 377.98 per cent. Twelve year average ratio value is the highest for Nestle India Limited (190.60 %) followed by Hindustan Unilever Limited (178.55 %), Colgate-Palmolive India Limited (114.29 %) and Britannia Industries Limited (113.38 %). For the industry, twelve years and five-year average ratio values are 93.51 per cent and 78.95 per cent respectively.For the industry, twelve-year and five-year average ratio values are 93.51 per cent and 78.95 per cent respectively.
Godrej Consumer Products Limited was more consistent with a CV of 29.72 per cent with a minimum and maximum value of 13.14 per cent and 51.72 per cent respectively followed by Emami Limited with a CV of 35.73 per cent with a minimum and maximum value of 20.88 per cent and 66.01 per cent respectively. Whereas, Britannia Industries Limited was least consistent with a CV of 63.17 per cent with a minimum and maximum value of 39.94 per cent and 228.49 per cent respectively. While, the Industry as a whole has shown a CV of 46.54 per cent with a minimum and maximum value of 73.24 per cent and 119.27 per cent respectively.
For the study period, only three companies' DER have shown an increasing trend with the highest rise being P & G Hygiene and Health Care Limited with a CAGR of 9.72 per cent followed by Jubilant Foodworks Limited (7.06 %), Nestle India Limited (0.70 %) indicating a hike in the debt proportion towards business expansion.
Proprietary ratio (PR) indicates the per cent of total assets collected through proprietary capital. It is useful to analyze the long term solvency and financial stability of the firm. General arbitrary standard is 33.33 per cent. However, the ratio may vary across industries based on the policy, strategy and norms followed. A higher ratio is favourable which indicates more use of the proprietor's fund in acquiring the firm's assets thereby useful to attract long-term creditors and investors. A lower ratio indicates less use of proprietary funds and more use of debt funds. This situation speaks of the high risk, poor solvency and unstable financial position of the firm. A too high of this ratio indicates potoo-higherial efficiency to rise outside funds. For the sample, rarely, companies reached an arbitrary standard.

For the study period, the sample debt ratio ranges between 20.92 per cent and 90.04 per cent. Twelve year and five year average ratio values are 51.64 per cent and 55.88 per cent for Britannia Industries Limited, 48.39 per cent and 55.17 per cent for Colgate-Palmolive India Limited, 65.23 per cent and 71.79 per cent for Dabur India Limited, 71.59 per cent and 76.00 per cent for Emami Limited, 72.82 per cent and 77.78 per cent for Godrej Consumer Products Limited, 40.65 per cent and 52.93 per cent for Hindustan Unilever Limited, 75.93 per cent and 82.94 per cent for ITC Limited, 58.56 per cent and 50.80 per cent for Jubilant Foodworks Limited, 67.53 per cent and 70.87 per cent for Marico Limited, 36.79 per cent and 30.10 per cent for Nestle India Limited, 59.27 per cent and 52.73 per cent for P & G Hygiene and Health Care Limited, 50.47 per cent and 62.02 per cent for RadicoKhaitan Limited, 78.87 per cent and 86.24 per cent for Tata Consumer Products Limited, 52.32 per cent and 61.40 per cent for United Breweries Limited and 38.81 per cent and 43.72 per cent for United Spirits Limited respectively. For the industry, twelve-year and five year average ratio values are 57.98 per cent and 62.07 per cent respectively.
Godrej Consumer Products Limited was more consistent with a CV of 9.07 per cent with a minimum and maximum value of 65.91 per cent and 88.38 per cent followed by Emami Limited with a CV of 10.03 per cent with a minimum and maximum value of 60.24 per cent and 82.73 per cent. Whereas, Hindustan Unilever Limited was least consistent with a CV of 38.81 per cent with a minimum and maximum value of 23.23 per cent and 69.92 per cent respectively. While, the Industry as a whole has shown a CV of 19.68 per cent with a minimum and maximum value of 50.22 per cent and 63.06 per cent respectively.
P & G Hygiene and Health Care Limited with a -3.96 per cent CAGR, Jubilant Foodworks Limited with a CAGR of -3.13 per cent, and Nestle India Limited with a CAGR of -0.50 per cent has shown a decreasing trend which is a bad sign indicating a reduction in the owners' contribution relative to total assets. While, all other companies has shown an increasing trend with the highest rise being Hindustan Unilever Limited with a CAGR of 9.35 per cent followed by Colgate-Palmolive India Limited with a CAGR of 4.42 per cent, Dabur India Limited with a CAGR of 3.71 per cent and RadicoKhaitan Limited with a CAGR of 3.89 per cent, Godrej Consumer Products Limited with a CAGR of

2.70 per cent, United Breweries Limited with a CAGR of 3.33 per cent, ITC Limited with a CAGR of 2.44 per cent, Marico Limited with a CAGR of 2.48 per cent, Tata Consumer Products Limited with a CAGR of 2.04 per cent, Britannia Industries Limited with a CAGR of 1.09 per cent, Emami Limited with a CAGR of 1.41 per cent, United Spirits Limited with a CARG of 1.35 per cent which is a good sign in building a favourable less risky environment to the industry since companies are inclining towards using more proprietary capital rather than debt for acquiring total assets.

Thus, it can be inferred from the solvency ratios that all companies except Hindustan Unilever Limited (TYA Debt ratio of 59.36 per cent; TYA Debt equity ratio of 178.55 per cent, TYA Proprietary ratio of 40.65 per cent), Nestle India Limited (TYA Debt ratio of 63.21 per cent; TYA Debt equity ratio of 190.60 per cent; TYA Proprietary ratio of 36.79 per cent) and United Spirits Limited (TYA Debt ratio of 61.19 per cent, TYA Debt equity ratio of 192.17 per cent, TYA Proprietary ratios of 38.81 per cent) are effectively maintaining healthy levels of debt by taking the advantage of trading on equity. The trend for debt ratio, debt to equity, proprietary ratios of Jubilant Foodworks Limited (Debt Ratio TYCAGR of3.71 per cent; Debt equity ratio TYCAGR of 7.06 per cent; Proprietary ratio TYCAGR of -3.13 per cent) and P & G Hygiene and Health Care Limited (Debt Ratio TYCAGR of 5.37 per cent; Debt equity ratio TYCAGR of9.72 per cent; Proprietary ratio TYCAGR of -3.96 per cent) showed not a good sign whereas for all other companies trend of debt ratio, debt equity ratio and the proprietary ratio has shown a good sign indicating a decrease in the debt proportion which can attract further debt by repaying, thereby, acquiring assets for business expansion and growth. While, Dabur India Limited (TYA Debt ratio of 34.77 per cent; TYA Debt equity ratio of 56.62 per cent, TYA Proprietary ratio of 65.23 per cent), Emami Limited (TYA Debt ratio of 28.41 per cent; TYA Debt equity ratio of 41.02 per cent, TYA Proprietary ratio of 71.59 per cent), Godrej Consumer Products Limited (TYA Debt ratio of 27.18 per cent; TYA Debt equity ratio of 38.28 per cent, TYA Proprietary ratio of 72.82 per cent), ITC Limited (TYA Debt ratio of 24.07 per cent; TYA Debt equity ratio of 33.51 per cent, TYA Proprietary ratio of 75.93 per cent), Marico Limited (TYA Debt ratio of 32.47 per cent; TYA Debt equity ratio of 50.31 per cent, TYA Proprietary ratio of 67.53 per cent) and Tata Consumer Products Limited (TYA Debt ratio of 21.12 per cent; TYA Debt equity ratio of 28.24 per cent, TYA Proprietary ratio of 78.87 per cent) has a strong long term solvency, low risky, conservative capital structure which can attract more investors since these companies are very less dependent on debt.

Table 5: Debt ratios of FMCG companies

(in per cent)

	Britannia Industries Limited	Colgate-Palmolive India Limited	Dabur India Limited	Emami Limited	Godrej Consumer Products Limited	Hindustan Unilever Limited	ITC Limited	Jubilant Foodworks Limited	Marico Limited	Nestle India Limited	P & G Hygiene and Health Care Limited	RadicoKhaitan Limited	Tata Consumer Products Limited	United Breweries Limited	United Spirits Limited	Industry Average Ratio Value
2010-11	69.56	62.86	54.27	36.74	34.09	73.83	37.28	37.48	48.21	71.06	31.57	52.36	33.77	53.82	49.77	49.78
2011-12	68.90	61.46	46.84	39.76	29.49	67.94	35.17	36.27	45.45	65.17	36.55	59.05	30.18	58.46	51.42	48.81
2012-13	61.76	62.53	44.05	32.52	32.46	76.77	34.48	33.39	37.14	62.49	35.54	59.61	32.61	59.59	51.39	47.76
2013-14	53.50	59.83	39.06	26.32	32.58	74.79	33.06	35.39	37.23	51.25	33.49	61.25	30.34	56.21	64.78	45.94
2014-15	40.37	55.10	31.92	17.27	31.27	72.68	30.46	36.34	27.49	53.70	36.92	60.28	21.24	52.34	78.46	43.06
2015-16	34.97	48.52	30.15	38.41	26.18	54.89	16.74	36.37	26.18	51.80	23.75	58.32	22.24	102.57	79.08	43.35
2016-17	30.14	44.87	29.89	29.84	29.02	56.00	16.37	36.03	22.29	53.54	54.65	53.61	14.29	47.86	77.97	39.76
2017-18	30.08	40.53	27.28	24.12	29.93	58.74	17.60	33.42	24.35	54.58	43.49	48.81	13.88	43.03	71.02	37.39
2018-19	28.54	44.92	28.86	20.08	26.08	57.13	16.97	30.83	26.67	73.25	43.78	41.05	11.21	40.84	63.85	36.94
2019-20	41.07	38.78	25.01	25.99	26.12	59.03	14.89	65.20	30.17	74.44	36.67	38.20	9.96	36.54	55.47	38.50
2020-21	55.24	59.71	28.16	23.64	17.37	30.64	17.57	60.62	32.28	74.61	56.25	34.31	16.44	38.75	49.31	39.66
2021-22	65.69	40.22	31.75	26.18	11.62	29.80	18.23	55.95	32.16	72.61	56.13	27.52	17.32	33.81	41.75	37.38
CV (in %)	32.90	18.52	26.34	25.27	24.29	26.57	37.44	28.59	25.15	15.40	25.52	23.29	40.85	35.02	21.42	27.11
RFYA	44.12	44.83	28.21	24.00	22.22	47.07	17.06	49.20	29.13	69.90	47.27	37.98	13.76	38.60	56.28	37.98
TYA	48.32	51.61	34.77	28.41	27.18	59.36	24.07	41.44	32.47	63.21	40.73	49.53	21.12	51.99	61.19	42.36
TYCAGR (in %)	-0.52	-3.98	-4.76	-3.03	-9.32	-7.92	-6.29	3.71	-3.61	0.20	5.37	-5.68	-5.89	-4.14	-1.58	-3.16

CV: *Co-efficient of Variation;* ***RFYA:*** *Recent Five Year Average;* ***TYA:*** *Twelve Year Average;*
TYCAGR: *Twelve Year Compound Annual Growth Rate.*

Table 6: Debt equity ratios of FMCG companies

(in per cent)

	Britannia Industries Limited	Colgate-Palmolive India Limited	Dabur India Limited	Emami Limited	Godrej Consumer Products Limited	Hindustan Unilever Limited	ITC Limited	Jubilant Foodworks Limited	Marico Limited	Nestle India Limited	P & G Hygiene and Health Care Limited	RadicoKhaitan Limited	Tata Consumer Products Limited	United Breweries Limited	United Spirits Limited	Industry Average Ratio Value
2010-11	228.49	169.24	118.67	58.09	51.72	282.12	59.43	59.96	93.07	245.52	46.12	109.92	51.00	116.62	99.07	119.27
2011-12	221.58	159.45	88.11	66.01	41.82	211.94	54.26	56.92	83.31	187.14	57.60	144.20	43.23	140.75	105.86	110.81
2012-13	162.75	166.91	78.75	48.20	48.07	330.53	52.63	50.13	59.10	166.57	55.13	147.61	48.39	147.48	105.72	111.20
2013-14	115.61	148.97	64.10	35.72	48.33	296.65	49.38	54.77	59.30	105.11	50.36	158.07	43.56	128.38	183.93	102.82
2014-15	67.69	122.73	46.89	20.88	45.49	266.04	43.79	57.09	37.91	115.99	58.52	151.75	26.98	109.81	364.35	102.39
2015-16	53.77	94.26	43.16	62.35	35.47	121.69	20.10	57.16	35.47	107.49	31.16	139.95	28.59	208.52	377.98	94.47
2016-17	43.15	81.40	42.62	42.53	40.89	127.29	19.57	56.31	28.68	115.24	120.50	115.58	16.67	91.81	353.94	86.41
2017-18	43.03	68.17	37.52	31.79	42.71	142.39	21.36	50.20	32.19	120.16	76.95	95.35	16.11	75.53	245.12	73.24
2018-19	39.94	81.54	40.57	25.12	35.29	133.25	20.45	44.58	36.37	273.81	77.88	69.64	12.62	69.04	176.62	75.78
2019-20	69.68	63.34	33.36	35.12	35.36	144.08	17.50	187.33	43.21	291.20	57.91	61.81	11.06	57.58	124.55	82.21
2020-21	123.41	148.23	39.19	30.96	21.02	44.01	21.31	153.92	47.68	293.86	128.58	52.24	19.67	63.27	97.28	85.64
2021-22	191.48	67.28	46.52	35.47	13.14	42.63	22.30	127.02	47.43	265.11	127.94	37.97	20.95	51.09	71.68	77.87
CV(in %)	63.17	37.07	45.89	35.73	29.72	54.33	49.68	60.36	40.23	41.03	45.28	40.00	51.56	44.24	59.77	46.54
RFYA	93.51	85.71	39.43	31.69	29.50	101.27	20.59	112.61	41.38	248.83	93.85	63.40	16.08	63.30	143.05	78.95
TYA	113.38	114.29	56.62	41.02	38.28	178.55	33.51	79.62	50.31	190.60	74.06	107.01	28.24	104.99	192.17	93.51
TYCAGR(in %)	-1.59	-8.04	-8.16	-4.39	-11.71	-15.79	-8.52	7.06	-5.94	0.70	9.72	-9.21	-7.77	-7.23	-2.90	-4.92

CV: *Co-efficient of Variation;* ***RFYA:*** *Recent Five Year Average;* ***TYA:*** *Twelve Year Average;*
TYCAGR: *Twelve Year Compound Annual Growth Rate.*

Table 7: Proprietary ratios of FMCG companies

(in per cent)

	Britannia Industries Limited	Colgate-Palmolive India Limited	Dabur India Limited	Emami Limited	Godrej Consumer Products Limited	Hindustan Unilever Limited	ITC Limited	Jubilant Foodworks Limited	Marico Limited	Nestle India Limited	P & G Hygiene and Health Care Limited	RadicoKhaitan Limited	Tata Consumer Products Limited	United Breweries Limited	United Spirits Limited	Industry Average Ratio Value
2010-11	30.44	37.14	45.73	63.25	65.91	26.17	62.72	62.51	51.79	28.94	68.43	47.64	66.23	46.15	50.23	50.22
2011-12	31.10	38.54	53.16	60.24	70.51	32.06	64.83	63.73	54.55	34.83	63.45	40.95	69.82	41.54	48.58	51.19
2012-13	37.95	37.47	55.95	67.48	67.54	23.23	65.52	66.61	62.86	37.51	64.46	40.39	67.39	40.41	48.61	52.22
2013-14	46.27	40.17	60.94	73.68	67.42	25.21	66.94	64.61	62.77	48.75	66.51	38.75	69.66	43.79	35.22	54.05
2014-15	59.63	44.90	68.08	82.73	68.73	27.32	69.54	63.66	72.51	46.30	63.08	39.72	78.73	47.66	21.54	56.94
2015-16	65.03	51.48	69.85	61.59	73.82	45.11	83.26	63.63	73.82	48.20	76.25	41.68	77.76	49.19	20.92	60.11
2016-17	69.86	55.13	70.11	70.16	70.98	44.00	83.63	63.97	77.71	46.46	45.35	46.39	85.71	52.14	22.03	60.24
2017-18	69.92	59.47	72.72	75.88	70.07	41.26	82.40	66.58	75.65	45.42	56.51	51.19	86.12	56.97	28.98	62.61
2018-19	71.46	55.08	71.14	79.92	73.92	42.87	83.03	69.17	73.33	26.75	56.22	58.95	88.79	59.16	36.15	63.06
2019-20	58.93	61.22	74.99	74.01	73.88	40.97	85.11	34.80	69.83	25.56	63.33	61.80	90.04	63.46	44.53	61.50
2020-21	44.76	40.29	71.84	76.36	82.63	69.64	82.43	39.38	67.72	25.39	43.75	65.69	83.56	61.25	50.69	60.36
2021-22	34.31	59.78	68.25	73.82	88.38	69.92	81.77	44.05	67.82	27.39	43.87	72.48	82.68	66.19	58.25	62.60
CV (in %)	30.84	19.75	14.04	10.03	9.07	38.81	11.87	20.23	12.09	26.46	17.54	22.86	10.94	16.95	33.78	19.68
RFYA	55.88	55.17	71.79	76.00	77.78	52.93	82.94	50.80	70.87	30.10	52.73	62.02	86.24	61.40	43.72	62.02
TYA	51.64	48.39	65.23	71.59	72.82	40.65	75.93	58.56	67.53	36.79	59.27	50.47	78.87	52.32	38.81	57.92
TYCAGR(in %)	1.09	4.42	3.71	1.41	2.70	9.35	2.44	-3.13	2.48	-0.50	-3.96	3.89	2.04	3.33	1.35	2.04

CV: *Co-efficient of Variation;* ***RFYA:*** *Recent Five Year Average;* ***TYA:*** *Twelve Year Average;*
TYCAGR: *Twelve Year Compound Annual Growth Rate.*

3. To analyse theoperational efficiency or turnover or activity position of the FMCG companies

Operational efficiency ratios are also called as asset turnover ratios. They reflect the efficiency with which the company utilises its assets in generating revenues from their business operations. The other names are activity and turnover ratios. The higher the ratio, the better is the asset utilisation efficiency of the company. The commonly used ratios reflecting operating efficiency of a company are Inventory turnover ratio (ITR), Capital employed turnover ratio (CETR) and fixed assets turnover ratio (FATR). The operating efficiency ratios of the sample companies are presented in the Table 17 to 19.

Inventory or stock turnover ratio (ITR) indicates the efficient production and sale of its products. For the study period, the sample inventory turnover ratio (ITR) ranged between 2.23 and 39.18 times. Twelve year and five year average ratio values are the highest for Jubilant Foodworks (29.73 times and 23.37 times) and the least for ITC Limited (2.66 times and 3.03 times). For the industry, twelve year and five year average ratio values are 7.41 times and 6.74 times respectively.

Godrej Consumer Products Limited was more consistent with a CV of 8.34 per cent with a minimum and maximum value of 4.47 per cent and 5.95 per cent respectively followed by Dabur India Limited with a CV of 9.08 per cent with a minimum and maximum value of 4.54 per cent and 6.18 per cent respectively. Whereas, Nestle India Limited was least consistent with a CV of 25.95 per cent with a minimum and maximum value of 5.95 per cent and 11.72 per cent respectively. While, Industry as a whole has shown a CV of 16.11 per cent with a minimum and maximum value of 6.06 per cent and 8.43 per cent respectively.

An increasing trend was observed for Hindustan Unilever Limited with a CAGR of4.51 per cent, ITC Limited with a CAGR of3.79 per cent, Marico Limited with a CAGR of 3.20 per cent and Tata Consumer Products Limited with a CAGR of 2.29 per cent which is a good sign indicating an improvement in the efficiency in converting inventory into sales. Whereas, a decreasing trend with the highest fall being -7.16 per cent CAGR by Jubilant Foodworks Limited, -5.71 per cent CAGR by United Breweries Limited, -2.16 per cent CAGR by Britannia Industries Limited, -1.60 per cent CAGR by Nestle India Limited, -1.83 per cent CAGR byRadicoKhaitan Limited, -2.55 per cent CAGR by Colgate-Palmolive India Limited, -2.71 per cent CAGR by Emami Limited, -2.74 per cent CAGR by United Spirits Limited, -1.28 per cent CAGR by Dabur India Limited and -0.66 per cent CAGR by Godrej Consumer Products Limitedwhich is a bad sign indicating a decrease in the efficiency in converting inventory into sales revenue. While, industry as a whole has shown a declining trend of -1.00 per cent which is not a good sign indicating a fall in the efficiency in converting the inventory into sales.

Capital employed turnover ratio (CETR) indicates the efficient convertion of the capital employed by the firm into sales revenue which indicates the rupee of sales generated for one rupee of capital employed. It is a ratio of revenue from operations and total capital employed. The CETR of the sample ranged between 0.47 and 4.55. Twelve year and five year average ratio values were the lowest for Godrej Consumer Products (0.87 and 0.81 times, respectively) and the highest for RadicoKhaitan Limited (2.19 times and 3.73 times). Industry as a whole has shown a recent five year average and twelve year average ratio as 1.66 and 1.56 respectively.

Godrej Consumer Products Limited was more consistent with a CV of 10.02 per cent with a minimum and maximum value of 0.78 per cent and 1.10 per cent respectively followed by Marico Limited with a CV of 11.25 per cent with a minimum and maximum value of 1.08 per cent and 1.67 per centrespectively. Whereas, RadicoKhaitan Limited was least consistent with a CV of 68.42 per cent with a minimum and maximum value of 0.69 per cent and 4.55 per cent respectively. While, Industry as a whole has shown a CV of 26.18 per cent with a minimum and maximum value of 1.39 per cent and 1.74 per cent respectively.

A declining trend with the highest fall being Hindustan Unilever Limited and Jubilant Foodworks Limited with a CAGR of -8.44 per cent followed by Britannia Industries Limited with a CAGR of -4.57 per cent, Dabur India Limited with a CAGR of -3.21 per cent, Godrej Consumer Products Limited with a CAGR of -3.02 per cent, Colgate-Palmolive India Limited with a CAGR of -2.07 per cent, Emami Limited with a CAGR of 0.84 per cent and ITC Limited with a CAGR of -0.53 per centis not a good sign indicating a fall in the efficient utilisation of the capital employed or total assets in generating sales revenue. Whereas, an increasing trend with the highest rise being RadicoKhaitan Limited with a CAGR of 18.67 per cent followed by United Spirits Limited with a CAGR of 17.38 per cent, P & G Hygiene and Health Care Limited with a CAGR of 6.65 per cent, United Breweries Limited with a CAGR of 6.61 per cent, Marico Limited with a CAGR of 1.65 per cent, Nestle India Limited with 0.89 per cent. While, industry as a whole has shown a positive trend with a CAGR of 1.46 per cent which is a good sign indicating an increase in the efficient of capital employed in generating sales revenue.

Fixed assets turnover ratio (FATR) shows the relationship between sales revenue and fixed assets. It indicates the generation of sales revenue for each rupee invested in fixed assets. The higher the ratio, the better it is indicating efficient utilisation of fixed assets in generating the sales.

For the sample, FATR ranges between 0.13 times and 23.70 times. Twelve year and five year average ratio value was the highest for United Spirits Limited (14.98 times and 21.59 times respectively) indicating the efficiency in rupee of sales revenue generated per rupee of investment in fixed assets. For the industry, twelve year and five year average ratio values are 7.14 times and 6.62 times respectively.

Marico Limited was more consistent with a CV of 13.00 per cent with a minimum and maximum value of 7.09 per cent and 10.81 per centrespectively followed by Dabur India Limited with a CV of 15.61 per cent, ITC Limited with a CV of 15.93 per cent with a minimum and maximum value of 5.09 per cent, 1.95 per cent and 7.81 per cent, 3.16 per cent respectively. Whereas, RadicoKhaitan Limited was least consistent with a CV of 93.83 per cent with a minimum and maximum value of 0.13 per cent and 14.66 per cent respectively. While, Industry as a whole has shown a CV of 37.67 per cent with a minimum and maximum value of 5.87 per cent and 7.79 per cent respectively.

An increasing trend has been observed with the highest rise being RadicoKhaitan Limited with a CAGR of 53.55 per cent followed by P & G Hygiene and Health Care Limited with a CAGR of 12.66 per cent, United Spirits Limited with a CAGR of 11.43 per cent, United Breweries Limited with a CAGR of 8.57 per cent, Godrej Consumer Products Limited with a CAGR of 7.85 per cent, Nestle India Limited with a CAGR of 6.25 per cent, ITC Limited with a CAGR of 0.64 per cent and Marico Limited with a CAGR of 1.17 per cent which is a good sign indicating an increase in the efficient utilisation of fixed assets. While, a decreasing trend has been observed with the highest fall being Hindustan Unilever Limited with a CAGR of -14.26 per cent followed by Tata

Consumer Products Limited with a CAGR of -14.33 per cent, Jubilant Foodworks Limited with a CAGR of -7.42 per cent, Britannia Industries Limited with a CAGR of -5.74 per cent, Colgate-Palmolive India Limited with a CAGR of -5.43 per cent, Dabur India Limited with a CAGR of -1.80 per cent, Emami Limited with a CAGR of -0.80 per cent which is not a good sign because of decrease in efficient utilisation of fixed assets in generating sales revenue. While, industry as a whole has shown an increasing trend of 4.15 per cent which is a good sign indicating an improvement in the efficient utilisation of fixed assets in generating sales revenue.
Thus, it can be inferred from the operating efficiency that inventory turnover ratio of industry has shown a decreasing trend at a CAGR of -1.00 per cent indicating a decrease in the efficient conversion of inventory into sales revenue. While, Capital employed turnover ratio and fixed asset turnover ratio of industry average ratio value has shown an increasing trend at a CAGR of +1.46 per cent and +4.15 per cent respectively indicating an increase in the efficient utilisation of capital employed and fixed assets in generating sales revenue.

Table 8: Inventory turnover ratios of FMCG companies

(in number of times)

	Britannia Industries Limited	Colgate-Palmolive India Limited	Dabur India Limited	Emami Limited	Godrej Consumer Products Limited	Hindustan Unilever Limited	ITC Limited	Jubilant Foodworks Limited	Marico Limited	Nestle India Limited	P & G Hygiene and Health Care Limited	RadicoKhaitan Limited	Tata Consumer Products Limited	United Breweries Limited	United Spirits Limited	Industry Average Ratio Value
2010-11	11.07	8.81	5.23	6.19	5.95	5.01	2.25	37.51	3.86	7.36	8.23	4.62	3.40	7.39	4.17	8.07
2011-12	10.64	7.46	5.63	6.40	4.91	5.37	2.37	36.36	4.11	10.78	8.52	4.80	3.37	6.34	3.95	8.07
2012-13	11.38	8.14	6.18	7.63	4.47	6.50	2.56	39.18	3.52	11.72	8.52	4.31	3.16	5.15	4.09	8.43
2013-14	12.69	8.63	5.79	6.73	4.66	6.64	2.45	36.71	3.47	7.86	8.54	4.40	3.10	4.67	4.10	8.03
2014-15	13.99	8.01	6.11	7.53	5.19	7.12	2.50	33.09	4.32	5.95	9.78	4.51	2.96	5.02	3.63	7.98
2015-16	14.60	7.14	5.90	7.77	5.01	7.26	2.23	30.05	3.92	6.25	8.97	4.74	2.53	4.90	3.33	7.64
2016-17	12.07	6.78	5.56	6.60	4.66	7.78	2.46	27.00	3.18	6.69	7.35	4.23	2.65	4.29	3.11	6.96
2017-18	11.11	7.71	5.43	6.11	4.95	8.36	2.76	28.10	2.82	7.11	7.61	4.14	2.95	4.68	2.76	7.11
2018-19	11.12	8.79	5.61	6.05	5.02	9.00	3.11	28.88	3.18	6.61	8.99	4.02	3.06	4.54	2.97	7.40
2019-20	11.49	7.84	5.23	5.23	4.62	8.39	2.94	26.48	3.16	6.02	6.78	4.40	4.65	4.09	3.14	6.96
2020-21	10.55	6.78	4.76	4.90	5.21	8.60	2.94	16.83	4.22	6.01	6.46	3.60	4.68	2.64	2.76	6.06
2021-22	8.71	6.63	4.54	4.58	5.53	8.14	3.39	16.57	5.46	6.17	7.85	3.77	4.37	3.87	3.07	6.18
CV (in %)	13.57	10.18	9.08	16.48	8.34	17.36	13.67	25.15	19.00	25.95	11.85	8.60	21.86	24.85	15.72	16.11
RFYA	10.59	7.55	5.11	5.37	5.07	8.50	3.03	23.37	3.77	6.38	7.54	3.98	3.94	3.96	2.94	6.74
TYA	11.62	7.73	5.50	6.31	5.01	7.35	2.66	29.73	3.77	7.38	8.13	4.29	3.41	4.80	3.42	7.41
TYCAGR (in %)	-2.16	-2.55	-1.28	-2.71	-0.66	4.51	3.79	-7.16	3.20	-1.60	-0.43	- 1.83	2.29	-5.71	-2.74	-1.00

CV: *Co-efficient of Variation;* ***RFYA:*** *Recent Five Year Average;* ***TYA:*** *Twelve Year Average;*
TYCAGR: *Twelve Year Compound Annual Growth Rate.*

Table 9: Capital employed turnover ratios of FMCG companies

(in number of times)

	Britannia Industries Limited	Colgate-Palmolive India Limited	Dabur India Limited	Emami Limited	Godrej Consumer Products Limited	Hindustan Unilever Limited	ITC Limited	Jubilant Foodworks Limited	Marico Limited	Nestle India Limited	P & G Hygiene and Health Care Limited	RadicoKhaitan Limited	Tata Consumer Products Limited	United Breweries Limited	United Spirits Limited	Industry Average Ratio Value
2010-11	2.85	2.21	1.36	1.11	1.10	1.94	0.84	2.21	1.39	1.71	1.14	0.69	0.58	1.09	0.63	1.39
2011-12	2.97	2.38	1.53	1.20	0.87	2.02	0.87	2.16	1.44	1.61	1.18	0.70	0.64	1.08	0.63	1.42
2012-13	3.35	2.42	1.55	1.41	0.88	2.24	0.88	2.15	1.08	1.44	1.35	0.70	0.68	1.04	0.64	1.45
2013-14	3.43	2.40	1.56	1.35	0.91	2.16	0.85	1.98	1.17	1.69	1.36	0.72	0.73	1.09	0.79	1.48
2014-15	2.90	2.29	1.47	1.28	0.90	2.26	0.83	1.90	1.45	1.34	1.20	0.71	0.65	1.21	0.89	1.42
2015-16	2.57	2.17	1.22	0.86	0.95	2.41	1.04	1.92	1.42	1.39	1.08	1.85	0.68	1.46	2.86	1.59
2016-17	2.35	1.96	1.03	0.96	0.83	2.34	1.02	1.91	1.29	1.38	2.09	2.19	0.69	2.29	2.89	1.68
2017-18	2.03	1.69	0.96	0.91	0.81	2.05	0.71	1.90	1.29	1.40	1.72	2.81	0.66	2.64	3.02	1.64

2018-19	1.85	1.70	1.12	0.96	0.85	2.14	0.66	1.84	1.25	1.72	1.82	3.61	0.69	2.63	3.29	1.74
2019-20	1.51	1.74	1.03	0.98	0.79	1.98	0.62	1.14	1.42	1.69	1.64	3.83	0.47	2.64	3.34	1.66
2020-21	1.67	1.67	0.96	1.12	0.81	0.67	0.68	0.86	1.41	1.79	2.19	3.86	0.53	1.74	3.34	1.55
2021-22	1.91	1.76	0.95	1.01	0.78	0.74	0.80	0.91	1.67	1.88	2.32	4.55	0.56	2.21	3.65	1.71
CV (in %)	26.77	15.22	20.39	16.37	10.02	30.42	16.30	27.80	11.25	11.72	27.45	68.42	12.09	38.48	60.05	26.18
RFYA	1.79	1.71	1.01	1.00	0.81	1.52	0.69	1.33	1.41	1.70	1.94	3.73	0.58	2.37	3.33	1.66
TYA	2.45	2.03	1.23	1.10	0.87	1.91	0.82	1.74	1.36	1.59	1.59	2.19	0.63	1.76	2.16	1.56
TYCAGR (in %)	-3.57	-2.07	-3.21	-0.84	-3.02	-8.44	-0.53	-7.79	1.65	0.89	6.65	18.67	-0.41	6.61	17.38	1.46

CV: *Co-efficient of Variation;* ***RFYA:*** *Recent Five Year Average;* ***TYA:*** *Twelve Year Average;*
TYCAGR: *Twelve Year Compound Annual Growth Rate.*

Table 10: Fixed assets turnover ratios of FMCG companies

(in number of times)

	Britannia Industries Limited	**Colgate-Palmolive India Limited**	**Dabur India Limited**	**Emami Limited**	**Godrej Consumer Products Limited**	**Hindustan Unilever Limited**	**ITC Limited**	**Jubilant Foodworks Limited**	**Marico Limited**	**Nestle India Limited**	**P & G Hygiene and Health Care Limited**	**RadicoKhaitan Limited**	**Tata Consumer Products Limited**	**United Breweries Limited**	**United Spirits Limited**	**Industry Average Ratio Value**
2010-11	13.39	8.68	6.54	2.46	2.06	8.03	2.22	3.71	9.51	2.55	5.06	0.13	14.38	2.63	6.72	5.87
2011-12	10.84	8.32	6.29	2.98	2.60	9.36	2.21	3.88	10.73	2.35	5.71	0.18	14.26	2.50	6.41	5.91
2012-13	9.68	8.27	6.86	3.89	2.83	10.29	2.35	3.60	7.09	2.48	6.59	0.20	15.46	2.29	7.04	5.93
2013-14	9.81	5.13	7.26	4.46	3.26	10.22	2.32	3.15	7.42	2.88	6.07	0.23	16.57	2.51	6.88	5.88
2014-15	12.42	4.32	7.81	4.52	3.58	10.49	2.24	2.82	9.68	2.61	6.71	0.28	14.10	2.47	7.10	6.08
2015-16	11.11	4.00	7.57	1.09	3.77	10.15	3.16	2.90	9.35	3.25	6.67	5.84	14.27	5.19	17.75	7.07
2016-17	9.99	3.55	5.26	1.19	3.85	8.16	3.01	3.04	9.23	3.76	7.41	6.90	13.56	5.49	19.96	6.96
2017-18	7.62	3.32	5.31	1.32	3.93	7.70	2.15	3.87	9.70	4.51	9.04	8.89	13.40	7.00	23.70	7.43
2018-19	7.53	3.21	5.93	1.48	4.14	8.17	2.09	4.41	8.72	4.98	11.85	11.04	13.20	7.28	22.90	7.79
2019-20	7.33	3.45	5.09	1.67	3.91	7.00	2.01	1.78	7.74	4.74	13.13	12.37	1.96	6.97	19.67	6.59
2020-21	8.17	4.00	5.48	2.33	4.39	1.34	1.95	1.53	9.28	4.54	16.14	12.53	2.34	4.92	19.59	6.57
2021-22	6.99	4.70	5.35	2.25	4.74	1.48	2.38	1.59	10.81	4.97	18.79	14.66	2.62	6.51	22.09	7.33
CV (in %)	21.95	41.26	15.61	50.32	21.57	41.04	15.93	31.67	13.00	29.11	47.83	93.83	48.71	44.01	49.19	37.67
RFYA	7.53	3.74	5.43	1.81	4.22	5.14	2.12	2.64	9.25	4.75	13.79	11.90	6.70	6.54	21.59	7.14
TYA	9.57	5.08	6.23	2.47	3.59	7.70	2.34	3.02	9.11	3.63	9.43	6.10	11.34	4.65	14.98	6.62
TYCAGR(in %)	-5.74	-5.43	-1.80	-0.80	7.85	-14.26	0.64	-7.42	1.17	6.25	12.66	53.55	-14.33	8.57	11.43	4.15

CV: *Co-efficient of Variation;* ***RFYA:*** *Recent Five Year Average;* ***TYA:*** *Twelve Year Average;*
TYCAGR: *Twelve Year Compound Annual Growth Rate*

4. To analysethe profitability with regard to sales position of the FMCG companies

Profitability with regard to sales measures the earnings generated by companies through their business operations. The most common profitability ratios with respect to sales are gross profit ratio (GPR), net profit ratio (NPR), operating profit ratio (OPR) and operating cost ratio (OCR). To know the profitability position with regard to sales, gross profit ratio (Table 20), net profit ratio (Table 21), operating profit ratio (Table 22) and operating cost ratio (Table 23) was calculated and results are presented.

GPR measures the relationship between gross profit and sales revenue. For the sample, GPR ranged between 23.92 and 85.02 per cent. Twelve years average ratio value was more than 50 per cent for Colgate-Palmolive India Limited, Emami Limited, P & G Hygiene and Health Care Limited, RadicoKhaitan Limited, United Breweries Limited and United Spirits Limited. For the industry, twelve year and five year average ratio values are 45.30 per cent and 49.36 per cent respectively.

Dabur India Limited was more consistent with a CV of 3.14 per cent and with a minimum and maximum value of 34.74 per cent and 39.50 per cent respectively followed by Jubilant Foodworks Limited with a CV of 3.99 per cent, with a minimum and maximum value of 40.13 per cent and 45.00 per cent respectively. Whereas, United Spirits Limited was least consistent with a CV of 40.71 per cent and with a minimum and maximum value of 30.30 per cent and 80.64 per cent respectively. While, Industry as a whole has shown a CV of 12.39 per cent with a minimum and maximum value of 38.34 per cent and 50.79 per cent respectively.

A decreasing trend was observed with a greatest fall being Dabur India Limited and Marico Limited with a CAGR of -1.16 per cent followed by Godrej Consumer Products Limited with a CAGR of -0.88 per cent, ITC Limited with a CAGR of -0.72 per cent which is a bad sign indicating a fall in the gross profit margin. An increasing trend with the highest rise being United Spirits Limited with 7.82 per cent followed by RadicoKhaitan Limited with 7.27 per cent, United Breweries Limited with 4.84 per cent, Britannia Industries Limited with a CAGR of 1.05 per cent, Colgate-Palmolive India Limited with a CAGR of 1.03 per cent, Emami Limited with a CAGR of 0.70 per cent, Hindustan Unilever Limited with a CAGR of 1.29 per cent, Jubilant Foodworks Limited with a CAGR of 0.81 per cent, Tata Consumer Products Limited with a CAGR of 0.78 per cent and industry as a whole has shown a CAGR of 1.45 per cent is a good sign indicating an improvement in overall profitability and managerial efficiency of the company over the time.

NPR measures the relationship between net profit and sales revenue of a firm. It indicates management's efficiency in manufacturing, administrating and selling the products.For the sample, net profit margin ranges between -59.92 per cent and 32.34 per cent. Twelve year average ratio values and five year average ratio values are 8.81 per cent and 12.11 per cent by Britannia Industries Limited, 16.55 per cent and 18.70 per cent by Colgate-Palmolive India Limited, 16.55 per cent and 18.91 per cent by Dabur India Limited, 18.28 per cent and 17.11 per cent by Emami Limited, 18.25 per cent and 22.40 per cent by Godrej Consumer Products Limited, 14.52 per cent and 16.51 per cent by Hindustan Unilever Limited, 24.88 per cent and 27.39 per cent by ITC Limited, 7.61 per cent and 8.08 per cent by Jubilant Foodworks Limited, 14.93 per cent and 16.59 per cent by Marico Limited, 12.82 per cent and 14.89 per cent by Nestle India Limited, 15.28 per cent and 15.38 per cent by P & G Hygiene and Health Care Limited, 3.63 per cent and 2.27 per cent by RadicoKhaitan Limited, 11.40 per cent and 11.52 per cent by Tata Consumer Products Limited, 3.58 per cent and 2.79 per cent by United Breweries Limited and -4.84 per cent and 2.12 per cent by United Spirits Limited respectively. For the industry, twelve year and five year average ratio values are 12.15 per cent and 13.78 per cent respectively.

P & G Hygiene and Health Care Limited was more consistent with a CV of 12.11 per cent and with a minimum and maximum value of 12.05 per cent and 18.24 per cent respectively followed by Hindustan Unilever Limited with a CV of 14.11 per cent, with a minimum and maximum value of 11.68 per cent and 17.37 per cent respectively. Whereas, United Spirits Limited was least consistent with a CV of -393.95 per cent and with a minimum and maximum value of -59.92 per cent and 6.05 per cent respectively. While, Industry as a whole has shown a CV of -2.25 per cent and with a minimum and maximum value of 8.59 per cent and 14.47 per cent respectively.

A decreasing CAGR in NPR was observed with a highest fall of 11.44 per cent in RadicoKhaitan Limited followed by United Spirits Limited (-7.71 %) and United Breweries Limited (-4.86 %) which is a bad sign indicating a fall in the margin of net profit. An increasing trend was observed with the highest rise being Britannia Industries Limited with a CAGR of 12.02 per cent followed by Emami Limited (4.18 %) and Hindustan Unilever Limited (3.59 %). The rest of the companies had less than two per cent growth in NPR.

Operating profit ratio measures the per cent of operating profit i.e., Earnings Before Interest and Tax (EBIT) to the sales revenue. An increase in ratio is favourable indicating an increase in operating profitability. A higher ratio is favourable indicating higher operating profitability.

For the sample, OPR ranged between 8.71 per cent and 81.86 per cent. Twelve years' and five year average ratio values were more than 40 per cent for ITC Limited, RadicoKhaitan Limited, United Breweries Limited and United Spirits Limited respectively. For the industry, twelve year and five year average values are 32.70 and 38.00 per cent respectively.

Dabur India Limited was more consistent with a CV of 5.19 per cent and with a minimum and maximum value of 22.91 per cent and 26.81 per cent respectively followed by Nestle India Limited with a CV of 6.96 per cent and P & G Hygiene and Health Care Limited with a CV of 7.49 per cent, with a minimum and maximum value of 26.06 per cent, 34.56 per cent and 31.52 per cent, 43.15 per cent respectively. Whereas, RadicoKhaitan Limited was least consistent with a CV of 45.86 per cent with a minimum and maximum value of 25.52 per cent and 81.86 per cent respectively. While, industry as a whole has shown a CV of 20.35 per cent and with a minimum and maximum value of 24.83 per cent and 38.91 per cent respectively.

All the companies have shown an increasing trend in operating profit ratio with the highest rise being United Breweries Limited (11.51 %) followed by RadicoKhaitan Limited (11.11 %) and the least growth was registered by Tata Consumer Products Limited (0.67 %).

Operating cost ratio measures the per cent of total operating expenses to the sales revenue. For the sample, operating cost ratio ranges between 18.14 and 91.29 per cent. Twelve year and five year average ratio values are 78.17 per cent and 75.99 per cent for Britannia Industries Limited, 66.36 per cent and 63.88 per cent for Colgate-Palmolive India Limited, 75.42 per cent and 74.98 per cent for Dabur India Limited, 74.46 per cent and 76.31 per cent for Emami Limited, 69.52 per cent and 67.55 per cent for Godrej Consumer Products Limited, 73.17 per cent and 69.82 per cent for Hindustan Unilever Limited, 56.53 per cent and 58.41 per cent for ITC Limited, 81.10 per cent and 75.16 per cent for Jubilant Foodworks Limited, 77.60 per cent and 77.12 per cent for Marico Limited, 70.75 per cent and 69.13 per cent for Nestle India Limited, 60.97 per cent and 60.12 per cent for P & G Hygiene and Health Care Limited, 43.10 per cent and 19.75 per cent for RadicoKhaitan Limited, 81.58 per cent and 81.01 per cent for Tata Consumer Products Limited, 55.35 per cent and 36.62 per cent for United Breweries Limited, 45.37 per cent and 24.12 per cent for United Spirits Limited respectively. For the industry, twelve year and five year average ratio values are 67.30 per cent and 62.00 per cent respectively.

Dabur India Limited was more consistent with a CV of 1.69 per cent and with a minimum and maximum value of 73.19 per cent and 77.09 per cent respectively followed by Tata Consumer Products Limited with a CV of 2.53 per, Marico Limited with a CV of 2.78 per cent, Nestle India Limited with a CV of 2.88 per cent and cent and with a minimum and maximum value of 77.85 per cent, 73.20 per cent, 68.48 per cent, and 83.79 per cent, 80.60 per cent, 73.94 per cent respectively. Whereas, RadicoKhaitan Limited was least consistent with a CV of 60.53 per cent with a minimum and maximum value of 18.14 per cent and 74.48 per cent respectively. While, industry as a whole has shown a CV of 14.64 per cent, with a minimum and maximum value of 61.09 per cent and 75.17 per cent respectively.

Most of the companies have shown a declining trend with the highest fall being RadicoKhaitan Limited with a CAGR of -11.91 per cent followed by United Spirits Limited (-9.30 %). While, Godrej Consumer Products Limited, Marico Limited, ITC limited and Dabur India Limited registered a slight positive trend.

Thus, it can be inferred from the profitability based on sales that the companies can further find cheaper suppliers and cost-effective measures of production and supply chains to cut down the costs to improve their profit margin and thereby their profitability

Table 11: Gross profit ratios of FMCG companies

(in per cent)

	Britannia Industries Limited	Colgate-Palmolive India Limited	Dabur India Limited	Emami Limited	Godrej Consumer Products Limited	Hindustan Unilever Limited	ITC Limited	Jubilant Foodworks Limited	Marico Limited	Nestle India Limited	P & G Hygiene and Health Care Limited	RadicoKhaitan Limited	Tata Consumer Products Limited	United Breweries Limited	United Spirits Limited	Industry Average Ratio Value
2010-11	24.05	49.09	39.50	48.35	44.72	36.63	48.55	41.16	32.34	35.81	50.89	39.05	24.10	41.30	34.84	39.36
2011-12	25.81	48.55	36.06	46.76	41.46	35.37	48.65	41.66	31.79	37.18	48.23	36.16	26.78	38.67	31.96	38.34
2012-13	27.68	48.15	36.52	48.04	39.49	36.52	47.55	41.75	36.02	37.35	46.68	37.87	24.98	39.81	32.29	38.71
2013-14	29.73	50.44	37.09	50.92	41.24	37.51	48.55	40.51	35.38	37.00	50.60	40.11	25.60	41.75	31.27	39.85
2014-15	30.53	51.91	37.58	52.72	42.37	38.18	48.03	40.43	32.87	39.37	50.24	35.84	25.27	41.04	30.30	39.78
2015-16	33.02	55.37	36.55	53.55	46.32	44.39	64.94	40.13	37.29	41.92	52.92	72.95	27.58	68.36	75.47	50.05
2016-17	31.41	56.19	37.12	55.96	48.79	44.85	63.62	40.35	39.52	39.56	53.70	75.38	28.46	69.87	77.03	50.79
2017-18	29.11	53.75	36.86	54.41	47.37	43.98	52.92	42.81	34.86	41.22	53.33	80.07	30.78	70.72	80.32	50.17
2018-19	30.33	53.18	35.77	51.70	47.36	43.69	49.63	44.50	32.27	39.95	50.09	83.29	28.98	70.50	80.50	49.45
2019-20	29.29	52.77	36.15	51.94	47.23	45.32	50.87	43.67	35.28	39.15	53.88	82.86	27.77	70.37	79.62	49.74
2020-21	30.77	55.71	36.30	53.00	44.30	43.73	47.00	42.70	32.10	38.78	58.95	85.02	23.92	71.09	80.64	49.60
2021-22	26.98	54.94	34.74	52.23	40.58	42.18	44.85	45.00	28.45	35.94	51.39	84.50	26.25	69.44	79.72	47.81
CV (in %)	8.70	5.48	3.14	5.27	7.14	9.32	12.49	3.99	8.68	5.10	6.09	35.57	7.80	26.40	40.71	12.39
RFYA	29.29	54.07	35.97	52.66	45.37	43.78	49.06	43.74	32.59	39.01	53.53	83.15	27.54	70.42	80.16	49.36
TYA	29.06	52.50	36.69	51.63	44.27	41.03	51.26	42.06	34.02	38.60	51.74	62.76	26.71	57.74	59.50	45.30
TYCAGR(in %)	1.05	1.03	-1.16	0.70	-0.88	1.29	-0.72	0.81	-1.16	0.04	0.09	7.27	0.78	4.84	7.82	1.45

CV: *Co-efficient of Variation;* ***RFYA:*** *Recent Five Year Average;* ***TYA:*** *Twelve Year Average;*
TYCAGR: *Twelve Year Compound Annual Growth Rate.*

Table 12: Net profit ratios of FMCG companies

(in per cent)

	Britannia Industries Limited	Colgate-Palmolive India Limited	Dabur India Limited	Emami Limited	Godrej Consumer Products Limited	Hindustan Unilever Limited	ITC Limited	Jubilant Foodworks Limited	Marico Limited	Nestle India Limited	P & G Hygiene and Health Care Limited	RadicoKhaitan Limited	Tata Consumer Products Limited	United Breweries Limited	United Spirits Limited	Industry Average Ratio Value
2010-11	3.44	17.61	14.37	18.92	17.05	11.68	23.24	10.62	13.42	12.80	15.04	7.69	9.97	4.81	6.05	12.45
2011-12	3.75	16.58	12.33	18.48	15.59	12.17	24.50	10.38	11.35	12.81	13.97	5.57	14.87	3.55	4.52	12.03
2012-13	4.16	15.70	13.59	19.90	14.27	14.71	24.81	9.60	12.59	12.27	12.05	6.14	11.12	4.41	3.83	11.94
2013-14	5.86	15.09	13.80	23.36	13.84	13.80	26.43	7.30	15.67	12.02	14.73	4.91	16.66	5.33	-59.92	8.59
2014-15	8.67	14.04	14.04	23.23	14.77	14.01	26.32	5.94	11.65	6.89	14.83	4.54	10.02	5.53	-24.31	10.01
2015-16	9.59	13.36	17.28	15.17	14.80	12.35	17.96	4.42	14.20	10.57	17.99	1.72	7.58	3.09	0.52	10.71
2016-17	9.72	12.77	18.59	14.79	16.66	13.02	18.40	2.64	17.31	12.02	17.89	1.64	9.01	2.24	0.67	11.16
2017-18	10.11	15.56	19.11	13.09	18.67	14.87	25.32	6.93	13.86	14.23	15.26	1.97	16.61	3.17	2.15	12.73
2018-19	10.71	17.38	20.15	12.27	30.90	15.79	27.22	9.14	18.91	15.91	14.22	2.33	11.98	3.98	2.31	14.21
2019-20	13.51	18.04	18.55	12.10	21.55	17.37	32.34	7.09	17.20	15.60	14.43	2.42	9.20	2.92	2.46	13.65
2020-21	14.22	21.39	19.23	18.40	19.58	17.29	26.86	7.15	17.45	14.58	18.24	2.61	8.66	1.11	1.14	13.86
2021-22	11.99	21.14	17.52	29.67	21.28	17.23	25.20	10.10	15.51	14.15	14.76	2.02	11.17	2.78	2.50	14.47
CV (in %)	42.30	16.60	16.46	28.86	26.25	14.11	15.45	32.65	16.53	19.10	12.11	56.42	26.95	36.37	-393.95	-2.25
RFYA	12.11	18.70	18.91	17.11	22.40	16.51	27.39	8.08	16.59	14.89	15.38	2.27	11.52	2.79	2.12	13.78
TYA	8.81	16.55	16.55	18.28	18.25	14.52	24.88	7.61	14.93	12.82	15.28	3.63	11.40	3.58	-4.84	12.15
TYCAGR (in %)	12.02	1.68	1.82	4.18	2.03	3.59	0.74	-0.45	1.33	0.92	-0.17	-11.44	1.03	-4.86	-7.71	0.31

CV: *Co-efficient of Variation;* ***RFYA:*** *Recent Five Year Average;* ***TYA****: Twelve Year Average;*
TYCAGR: *Twelve Year Compound Annual Growth Rate.*

Table 13: Operating profit ratios of FMCG companies

(in per cent)

	Britannia Industries Limited	Colgate-Palmolive India Limited	Dabur India Limited	Emami Limited	Godrej Consumer Products Limited	Hindustan Unilever Limited	ITC Limited	Jubilant Foodworks Limited	Marico Limited	Nestle India Limited	P & G Hygiene and Health Care Limited	RadicoKhaitan Limited	Tata Consumer Products Limited	United Breweries Limited	United Spirits Limited	Industry Average Ratio Value
2010-11	15.67	31.02	24.81	21.75	30.71	19.57	38.81	17.66	21.39	27.43	36.41	25.61	16.32	18.85	28.63	24.98
2011-12	16.96	30.44	23.11	22.81	27.75	20.69	39.73	19.29	19.49	27.54	34.87	25.52	18.24	19.29	26.73	24.83
2012-13	18.13	29.83	22.91	23.96	23.91	21.49	38.77	17.95	22.37	27.43	34.56	27.78	16.77	19.11	27.52	24.83
2013-14	19.93	28.14	23.13	30.31	25.25	22.29	40.49	14.81	21.31	26.90	40.11	30.70	16.81	20.36	24.37	25.66
2014-15	20.32	30.09	23.28	34.01	25.99	23.32	39.91	12.76	19.40	26.06	39.37	28.44	16.59	18.79	22.04	25.36
2015-16	25.72	33.48	25.82	27.07	34.20	31.31	58.42	11.38	23.61	31.29	41.21	70.42	20.96	60.41	72.60	37.86
2016-17	25.17	40.06	26.81	28.19	35.73	32.33	57.55	8.71	26.80	30.07	42.48	73.00	20.38	62.14	74.29	38.91
2017-18	23.07	36.03	25.81	24.17	33.23	29.71	45.72	25.20	23.88	31.35	39.59	77.84	22.15	63.47	75.93	38.48
2018-19	23.72	35.17	25.40	22.02	33.47	29.30	41.71	27.67	22.11	30.80	36.59	80.18	20.39	63.84	75.87	37.88
2019-20	23.82	33.65	25.14	21.90	33.60	30.35	42.78	24.97	24.45	31.09	41.83	79.82	18.62	63.41	75.37	38.05
2020-21	26.28	37.95	24.36	24.90	32.13	30.92	39.34	21.34	23.37	31.52	43.15	81.86	16.21	63.72	76.60	38.24
2021-22	23.16	37.78	24.39	25.42	29.81	30.63	38.39	25.04	20.59	29.57	38.22	81.57	17.57	62.45	75.62	37.35
CV (in %)	16.24	11.32	5.19	14.75	12.86	18.12	16.30	32.48	9.63	6.96	7.49	45.86	11.21	50.21	46.62	20.35
RFYA	24.01	36.12	25.02	23.69	32.45	30.18	41.59	24.84	22.88	30.87	39.88	80.25	18.99	63.38	75.88	38.00
TYA	21.83	33.64	24.58	25.54	30.48	26.83	43.47	18.90	22.40	29.25	39.03	56.90	18.42	44.65	54.63	32.70
TYCAGR(in %)	3.62	1.81	-0.16	1.43	-0.27	4.15	-0.10	3.23	-0.35	0.69	0.44	11.11	0.67	11.51	9.23	3.13

CV: *Co-efficient of Variation;* ***RFYA:*** *Recent Five Year Average;* ***TYA:*** *Twelve Year Average;*
TYCAGR: *Twelve Year Compound Annual Growth Rate.*

Table 14: Operating cost ratios of FMCG companies

(in per cent)

	Britannia Industries Limited	Colgate-Palmolive India Limited	Dabur India Limited	Emami Limited	Godrej Consumer Products Limited	Hindustan Unilever Limited	ITC Limited	Jubilant Foodworks Limited	Marico Limited	Nestle India Limited	P & G Hygiene and Health Care Limited	RadicoKhaitan Limited	Tata Consumer Products Limited	United Breweries Limited	United Spirits Limited	Industry Average Ratio Value
2010-11	84.33	68.98	75.19	78.25	69.29	80.43	61.19	82.34	78.61	72.57	63.59	74.39	83.68	81.15	71.37	75.02
2011-12	83.04	69.56	76.89	77.19	72.25	79.31	60.27	80.71	80.51	72.46	65.13	74.48	81.76	80.71	73.27	75.17
2012-13	81.87	70.17	77.09	76.04	76.09	78.51	61.23	82.05	77.63	72.57	65.44	72.22	83.23	80.89	72.48	75.17
2013-14	80.07	71.86	76.87	69.69	74.75	77.71	59.51	85.19	78.69	73.10	59.89	69.30	83.19	79.64	75.63	74.34
2014-15	79.68	69.91	76.72	65.99	74.01	76.68	60.09	87.24	80.60	73.94	60.63	71.56	83.41	81.21	77.96	74.64
2015-16	74.28	66.52	74.18	72.93	65.80	68.69	41.58	88.62	76.39	68.71	58.79	29.58	79.04	39.59	27.40	62.14
2016-17	74.83	59.94	73.19	71.81	64.27	67.67	42.45	91.29	73.20	69.93	57.52	27.00	79.62	37.86	25.71	61.09
2017-18	76.93	63.97	74.19	75.83	66.77	70.29	54.28	74.80	76.12	68.65	60.41	22.16	77.85	36.53	24.07	61.52
2018-19	76.28	64.83	74.60	77.98	66.53	70.70	58.29	72.33	77.89	69.20	63.41	19.82	79.61	36.16	24.13	62.12
2019-20	76.18	66.35	74.86	78.10	66.40	69.65	57.22	75.03	75.55	68.91	58.17	20.18	81.38	36.59	24.63	61.95
2020-21	73.72	62.05	75.64	75.10	67.87	69.08	60.66	78.66	76.63	68.48	56.85	18.14	83.79	36.28	23.40	61.76
2021-22	76.84	62.22	75.61	74.58	70.19	69.37	61.61	74.96	79.41	70.43	61.78	18.43	82.43	37.55	24.38	62.65
CV (in %)	4.53	5.74	1.69	5.06	5.64	6.64	12.54	7.57	2.78	2.88	4.79	60.53	2.53	40.51	56.14	14.64
RFYA	75.99	63.88	74.98	76.31	67.55	69.82	58.41	75.16	77.12	69.13	60.12	19.75	81.01	36.62	24.12	62.00
TYA	78.17	66.36	75.42	74.46	69.52	73.17	56.53	81.10	77.60	70.75	60.97	43.10	81.58	55.35	45.37	67.30
TYCAGR (in %)	-0.84	-0.93	0.05	-0.44	0.12	-1.33	0.06	-0.85	0.09	-0.27	-0.26	-11.91	-0.14	-6.77	-9.30	-2.18

CV: *Co-efficient of Variation;* ***RFYA:*** *Recent Five Year Average;* ***TYA:*** *Twelve Year Average;*
TYCAGR: *Twelve Year Compound Annual Growth Rate.*

5. To analyse the profitability with regard to investment position of the FMCG companies

Profitability with regard to investment indicates how well the companies are utilising the capital in their day-to-day operations to generate profits. The most commonly used profitability ratios with regard to investment are return on capital employed (ROCE), return on equity (ROE), earning per share (EPS). ROCE indicates the profitability of a firm in relation to capital employed in the business. It measures the efficiency with which the company is managing the capital employed for generating the profits. For computation of return on capital employed (ROCE), operating profit (EBIT) was used rather than net income to account for actual efficiency of capital employed by netting off tax and interest differences across the firms. ROE indicates the profitability of a firm in relation to own funds employed in the business. It measures the efficiency with which the company uses the owners' funds for generating profits. The EPS indicates the profitability of a company on per share basis. To know the profitability position with regard to investment, return on capital employed (Table 24), return on equity (Table 25), earning per share (Table 26) was calculated and results are presented.

For the sample, ROCE ranges between -40.77 per cent and 58.80 per cent. Twelve year average ratio value and five year average ratio value are 28.88 per cent and 30.96 per cent for Britannia Industries Limited, 45.30 per cent and 43.61 per cent for Colgate-Palmolive India Limited, 25.38 per cent and 23.95 per cent for Dabur India Limited, 24.43 per cent and 19.39 per cent for Emami Limited, 19.62 per cent and 21.06 per cent for Godrej Consumer Products Limited, 37.05 per cent and 33.98 per cent for Hindustan Unilever Limited, 28.42 per cent and 25.81 per cent for ITC Limited, 20.08 per cent and 18.07 per cent for Jubilant Foodworks Limited, 25.92 per cent and 28.49 per cent for Marico Limited, 30.63 per cent and 36.75 per cent for Nestle India Limited, 35.16 per cent and 42.64 per cent for P & G Hygiene and Health Care Limited, 10.67 per cent and 12.98 per cent for Radicokhaitan Limited, 10.28 per cent and 9.57 per cent for Tata Consumer Products Limited, 10.21 per cent and 10.68 per cent for United Breweries Limited, 4.33 per cent and 12.61 per cent for United Spirits Limited respectively. For the industry, twelve year and five year average ratio values are 23.76 per cent and 24.70 per cent respectively.

Dabur India Limited was more consistent with a CV of 8.17 per cent with a minimum and maximum value of 22.29 per cent and 28.21 per cent respectively followed by ITC Limited with a CV of 9.34 per cent and with a minimum and maximum value of 24.05 per cent and 32.28 per cent respectively. Whereas, United Spirits Limited was least consistent with a CV of 374.27 per cent and with a minimum and maximum value of -40.77 per cent and 15.49 per cent respectively. While, industry as a whole has shown a CV of 47.00 per cent and with a minimum and maximum value of 22.06 per cent and 26.68 per cent respectively.

For the study period, ROCE has shown a declining trend with the highest fall being Jubilant Foodworks Limited with a CAGR of -5.73 per cent followed by Hindustan Unilever Limited (-4.70 %) and United Breweries Limited (-2.15 %). However, other companies have shown an increasing trend with the highest rise being P & G Hygiene and Health Care Limited with a CAGR of 8.15 per cent.

For the sample, ROE ranges between -133.77 per cent and 141.98 per cent. Twelve year average ratio values and five year average ratio value are 39.36 per cent and 42.31 per cent for Britannia Industries Limited, 72.68 per cent and 59.99 per cent for Colgate-Palmolive India Limited, 31.02 per cent and 26.57 per cent for Dabur India Limited, 28.87 per cent and 22.86 per cent for Emami Limited, 21.73 per cent and 23.65 per cent for Godrej Consumer Products Limited, 78.82 per cent and 54.32 per cent for Hindustan Unilever Limited, 26.71 per cent and 22.72 per cent for ITC Limited, 22.41 per cent and 20.77 per cent for Jubilant Foodworks Limited, 30.13 per cent and 33.08 per cent for Marico Limited, 63.30 per cent and 89.91 per cent for Nestle India Limited, 45.15 per cent and 59.87 per cent for P & G Hygiene and Health Care Limited, 11.01 per cent and 13.62 per cent for RadicoKhaitan Limited, 9.41 per cent and 7.96 per cent for Tata Consumer Products Limited, 11.66 per cent and 11.38 per cent for United Breweries Limited, -9.59 per cent and 17.04 per cent for United Spirits Limited respectively. For the industry, twelve year and five year average ratio values are 32.18 per cent and 33.74 per cent respectively.

Marico Limited was more consistent with a CV of 18.49 per cent and with a minimum and maximum value of 21.55 per cent and 38.14 per cent respectively followed by Dabur India Limited with a CV of 18.77 per cent and with a minimum and maximum value of 24.05 per cent and 32.28 per cent respectively. Whereas, United Spirits Limited was least consistent with a CV of -533.49 per cent and with a minimum and maximum value of -133.77 per cent and 22.43 per cent respectively. While, industry as a whole has shown a CV of -4.64 per cent and with a minimum and maximum value of 24.35 per cent and 38.29 per cent respectively.

ROE for the sample FMCGs has reported a declining trend with the highest fall being Hindustan Unilever Limited with a CAGR of -13.28 per cent followed by Jubilant Foodworks Limited (-5.23 %). The P & G Hygiene and Health Care Limited registered the highest CAGR of 10.86 per cent followed by United Spirits Limited (6.88 %), which is a positive sign indicating an increase in the net profit after tax available to the owner.

For the sample, the earnings per share (EPS) ranged between -356.60 and 222.46. Only Nestle India Limited and P & G Hygiene and Health Care Limited registered twelve years and five years average EPS of more than Rs.100. For the industry, twelve year and five year averages were Rs.28.46 and Rs.39.48 respectively.

ITC Limited was more consistent with a CV of 19.63 per cent and with a minimum and maximum value of 6.49 per cent and 12.33 per cent followed by Colgate-Palmolive India Limited with a CV of 23.87 per cent and with a minimum and maximum value of 20.55 per cent and 39.70 per cent respectively. Whereas, United Spirits Limited was least consistent with a CV of -384.25 per cent and with a minimum and maximum value of -356.60 per cent and 29.47 per cent respectively. While, industry as a whole has shown a CV of 8.85 per cent and with a minimum and maximum value of 3.07 per cent and 46.10 per cent respectively.

For the study period, EPS has shown an increasing trend for most of the companies except Jubilant Foodworks Limited with a CAGR of -4.66 per cent and United Spirits Limited with -8.88 per cent. The highest rise in EPS being Britannia Industries Limited with a CAGR of 16.71 per cent followed by P & G Hygiene and Health Care Limited (12.95 %).

Thus, it can be inferred from profitability based on investment that companies can find consistent better investment avenues which gives better returns with a greater profitability to the capital invested.

Table 15: Return on capital employed ratios of FMCG companies

(in per cent)

	Britannia Industries Limited	Colgate-Palmolive India Limited	Dabur India Limited	Emami Limited	Godrej Consumer Products Limited	Hindustan Unilever Limited	ITC Limited	Jubilant Foodworks Limited	Marico Limited	Nestle India Limited	P & G Hygiene and Health Care Limited	RadicoKhaitan Limited	Tata Consumer Products Limited	United Breweries Limited	United Spirits Limited	Industry Average Ratio Value
2010-11	15.91	50.44	25.26	26.21	23.66	28.90	28.85	30.26	24.09	31.65	20.14	9.85	8.72	10.86	10.33	23.01
2011-12	17.37	52.22	24.52	26.93	18.20	31.67	29.76	32.90	20.75	30.58	20.30	8.89	12.54	9.63	9.08	23.02
2012-13	22.04	50.74	27.45	33.23	15.86	43.28	31.66	30.16	18.49	27.15	22.91	9.95	10.26	9.24	8.67	24.07
2013-14	29.78	48.74	28.21	36.15	16.75	38.96	32.28	21.53	23.79	30.73	30.88	9.49	16.91	10.63	-40.77	22.27
2014-15	35.67	44.91	26.69	36.64	17.56	45.51	31.80	15.73	23.15	13.42	26.01	8.48	8.57	11.62	-14.81	22.06
2015-16	37.11	41.70	27.53	17.43	19.56	42.82	28.95	12.67	27.65	24.03	29.62	7.94	8.70	8.07	9.31	22.87
2016-17	33.89	36.85	25.12	19.64	18.55	43.51	28.64	7.34	30.68	26.23	58.80	8.52	9.86	9.07	7.09	24.25
2017-18	31.26	38.34	24.00	16.26	20.24	42.60	26.35	19.98	23.93	31.42	41.19	11.45	15.07	13.87	12.82	24.59
2018-19	30.38	43.60	27.48	16.10	23.08	47.86	26.47	25.84	25.37	39.07	37.90	14.40	11.77	16.91	13.98	26.68
2019-20	27.21	40.44	23.41	14.65	21.00	46.92	25.73	16.39	31.29	37.68	32.81	12.37	6.27	10.80	15.49	24.16
2020-21	33.40	46.91	22.55	25.44	21.03	15.52	24.05	12.36	29.74	37.58	53.65	13.97	6.43	3.26	7.80	23.58
2021-22	32.54	48.76	22.29	24.51	19.93	17.02	26.46	15.81	32.10	37.98	47.66	12.71	8.30	8.55	12.94	24.50
CV (in %)	24.08	11.33	8.17	32.14	12.15	30.39	9.34	40.64	16.82	24.04	36.75	20.97	31.72	32.28	374.27	47.00
RFYA	30.96	43.61	23.95	19.39	21.06	33.98	25.81	18.07	28.49	36.75	42.64	12.98	9.57	10.68	12.61	24.70
TYA	28.88	45.30	25.38	24.43	19.62	37.05	28.42	20.08	25.92	30.63	35.16	10.67	10.28	10.21	4.33	23.76
TYCAGR(in %)	6.72	-0.31	-1.13	-0.61	-1.55	-4.70	-0.78	-5.73	2.64	1.67	8.15	2.34	-0.45	-2.15	2.07	0.41

CV: *Co-efficient of Variation;* ***RFYA:*** *Recent Five Year Average;* ***TYA:*** *Twelve Year Average;*
TYCAGR: *Twelve Year Compound Annual Growth Rate.*

Table 16: Return on equity ratios of FMCG companies

(in per cent)

	Britannia Industries Limited	Colgate-Palmolive India Limited	Dabur India Limited	Emami Limited	Godrej Consumer Products Limited	Hindustan Unilever Limited	ITC Limited	Jubilant Foodworks Limited	Marico Limited	Nestle India Limited	P & G Hygiene and Health Care Limited	RadicoKhaitan Limited	Tata Consumer Products Limited	United Breweries Limited	United Spirits Limited	Industry Average Ratio Value
2010-11	32.19	104.82	42.81	33.31	28.36	86.71	31.26	37.56	36.11	75.48	25.12	11.18	8.78	11.38	7.55	38.18
2011-12	35.91	102.55	35.54	36.83	19.15	76.61	32.79	35.27	29.94	59.38	26.01	9.52	13.70	9.26	5.83	35.22
2012-13	36.62	101.46	37.75	41.65	18.50	141.98	33.28	30.98	21.55	47.16	25.23	10.61	11.16	11.40	5.02	38.29
2013-14	43.33	90.00	35.33	42.88	18.68	118.02	33.45	22.32	29.25	41.76	30.11	9.12	17.37	13.23	-133.77	27.41
2014-15	42.13	71.64	30.31	35.90	19.34	115.85	31.26	17.70	23.27	19.99	28.17	8.16	8.21	14.03	-100.74	24.35
2015-16	37.86	56.37	30.29	21.30	19.10	65.89	22.39	13.37	27.23	30.51	25.58	7.63	6.59	13.88	7.11	25.67
2016-17	32.68	45.33	27.29	20.22	19.38	69.18	22.50	7.89	28.82	35.82	82.25	7.77	7.29	9.83	8.77	28.34
2017-18	29.30	44.17	25.36	15.70	21.54	74.02	21.84	19.77	23.61	43.74	46.50	10.81	12.68	14.65	22.43	28.41
2018-19	27.78	53.61	31.86	14.79	35.63	78.81	21.51	24.39	32.36	102.58	46.11	14.30	9.25	17.69	21.03	35.45
2019-20	34.72	51.22	25.59	16.04	23.01	83.90	23.64	23.29	34.87	103.12	37.40	14.96	4.83	12.14	18.50	33.82
2020-21	53.02	88.81	25.63	27.01	19.25	16.77	22.09	15.61	36.44	102.90	91.25	15.34	5.52	3.15	7.52	35.35
2021-22	66.73	62.16	24.44	40.78	18.84	18.08	24.52	20.80	38.14	97.21	78.06	12.69	7.53	9.28	15.70	35.67
CV (in %)	27.98	32.34	18.77	37.74	23.94	46.56	19.22	39.07	18.49	49.55	54.70	25.12	39.18	31.22	-533.49	-4.64
RFYA	42.31	59.99	26.57	22.86	23.65	54.32	22.72	20.77	33.08	89.91	59.87	13.62	7.96	11.38	17.04	33.74
TYA	39.36	72.68	31.02	28.87	21.73	78.82	26.71	22.41	30.13	63.30	45.15	11.01	9.41	11.66	-9.59	32.18
TYCAGR(in %)	6.85	-4.64	-4.97	1.86	-3.65	-13.28	-2.18	-5.23	0.50	2.33	10.86	1.16	-1.39	-1.84	6.88	-0.97

CV: *Co-efficient of Variation;* ***RFYA:*** *Recent Five Year Average;* ***TYA:*** *Twelve Year Average;*
TYCAGR: *Twelve Year Compound Annual Growth Rate.*

Table 17: Earnings per share ratios of FMCG companies

(in rupee)

	Britannia Industries Limited	Colgate-Palmolive India Limited	Dabur India Limited	Emami Limited	Godrej Consumer Products Limited	Hindustan Unilever Limited	ITC Limited	Jubilant Foodworks Limited	Marico Limited	Nestle India Limited	P & G Hygiene and Health Care Limited	RadicoKhaitan Limited	Tata Consumer Products Limited	United Breweries Limited	United Spirits Limited	Industry Average Ratio Value
2010-11	12.16	29.60	2.71	15.03	13.62	10.58	6.49	11.20	5.15	99.73	46.48	5.51	2.92	5.26	29.47	19.73
2011-12	15.63	32.83	2.66	16.97	18.58	12.46	7.93	16.31	5.48	110.76	55.85	4.8	4.89	4.68	26.21	22.40
2012-13	19.57	36.53	3.39	14.27	15.01	17.56	9.45	20.73	6.69	115.87	62.61	5.82	4.18	6.41	24.53	24.17
2013-14	30.87	39.70	3.86	17.55	16.60	17.88	11.09	19.25	8.95	122.87	93.04	5.36	7.23	8.43	-356.60	3.07
2014-15	51.90	20.55	4.35	20.78	19.22	19.95	12.05	18.82	4.23	58.42	106.63	5.08	4.58	9.71	-134.62	14.78
2015-16	63.63	21.37	5.33	14.63	21.22	19.12	7.74	16.23	5.37	103.86	130.16	5.52	3.59	11.27	8.39	29.16
2016-17	70.31	21.23	5.67	15.26	12.45	20.75	8.43	10.21	6.55	127.07	133.31	6.02	4.37	8.67	11.69	30.80
2017-18	39.48	24.76	6.09	6.82	9.78	24.20	9.22	15.64	5.58	166.67	115.40	9.26	8.47	14.90	7.73	30.93
2018-19	46.71	28.51	7.16	6.72	17.17	27.89	10.19	24.46	8.76	204.16	129.12	14.1	6.51	21.29	9.06	37.45
2019-20	61.75	30.02	6.62	6.37	11.54	31.13	12.33	20.87	7.79	215.98	133.42	17.05	5.68	16.16	9.70	39.09
2020-21	73.12	38.07	7.82	10.68	11.97	33.85	10.59	3.54	8.57	222.46	200.79	20.26	6.72	4.27	4.27	43.80
2021-22	66.56	39.65	8.11	19.15	14.47	37.53	12.23	6.63	9.02	247.94	177.37	18.87	9.61	13.81	10.59	46.10
CV (in %)	48.10	23.87	36.11	36.18	23.01	36.79	19.63	40.83	24.98	40.00	40.36	61.27	35.35	50.56	-384.25	8.85
RFYA	57.52	32.20	7.16	9.95	12.99	30.92	10.91	14.23	7.94	211.44	151.22	15.91	7.40	14.09	8.27	39.48
TYA	45.97	30.23	5.31	13.69	15.14	22.74	9.81	15.32	6.85	149.65	115.35	9.80	5.73	10.41	-29.13	28.46
TYCAGR(in %)	16.71	2.69	10.48	2.23	0.55	12.20	5.92	-4.66	5.23	8.63	12.95	11.84	11.44	9.17	-8.88	6.43

CV: *Co-efficient of Variation;* ***RFYA:*** *Recent Five Year Average;* ***TYA:*** *Twelve Year Average;*

TYCAGR: *Twelve Year Compound Annual Growth Rate*

5.To categoriseFast Moving Consumer Goods (FMCG)companies based on financial performance scores

Company wise, five year (2017-18 to 2021-22) and twelve year (2010-11 to 2021-22) average ratio values for each financial ratio is used for obtaining a performance score as per the scale developed. The respective scores against each financial measurement categories (liquidity, solvency, operating efficiency and profitability) were added and a cumulative overall performance scoreswere obtained. Ranking of companies is done based on overall performance score and the same is shown in Table 18 for recent five year (2017-18 to 2021-22) and Table 19 for twelve year (2010-11 to 2021-22).

It could be observed from the Table 18 that P & G Hygiene and Health Care Limited is in the first position with respect to the overall performance score of 62 followed by Nestle India Limited with 57 and Colgate-Palmolive India Limited with a performance score of 55. Other companies with a performance score of 50 and above were Hindustan Unilever Limited (52), RadicoKhaitan Limited (50) and United Spirits Limited (50). The higher performance is contributed through higher liquidity, solvency and operating efficiency of the firms. It is of interest to observe that P & G Hygiene and Health Care Limited obtained one first rank and 3 second rank out of five indicators viz., Profitability, Operating efficiency and liquidity. Similarly, Nestle India Limited got one first rank (Solvency) and two second ranks (Liquidity, Profitability with regard to investment). The performance of other indicators were also with 6th rank, thus pushing up the scores. In case of other companies, the scores extended upto 12th rank, thus pulling down the overall performance. Thus, it can be said that good performance in all the categories would contribute to overall performance.

P & G Hygiene and Health Care Limited has maintained its position in long term performance ranking (2010-11 to 2021-22) also with an overall score of 60 points. Colgate-Palmolive India Limited is in the 2nd position. While, Nestle India Limited is pulled down to 3rd position. It can be observed that there is an improvement in the performance for some companies like United Spirits Limited in the recent past as compared to long term performance. United Breweries Limited, Tata Consumer Products Limited have maintained their positions in both the periods.

Table 18: Categorisation of FMCG companies based on financial performance scores (2017-18 to 2021-22)

Sl. No.	Company name	Performance score					
		Liquidity	Solvency	Operating efficiency	Profitability with regard to sales	Profitability with regard to investment	Overall
1	P & G Hygiene and Health Care Limited	12	9	10	16	15	62 (I)
2	Nestle India Limited	12	11	7	13	14	57 (II)
3	Colgate-palmolive India Limited	12	8	6	16	13	55 (III)
4	Hindustan Unilever Limited	10	8	7	15	12	52 (IV)
5	RadicoKhaitan Limited	10	7	11	16	6	50 (V)
6	United Spirits Limited	7	10	11	16	6	50 (V)
7	Britannia Industries Limited	8	8	9	10	13	48 (VI)
8	ITC Limited	11	5	4	19	8	47 (VII)
9	United Breweries Limited	9	7	8	16	6	46 (VIII)
10	Jubilant Foodworks Limited	10	8	9	11	7	45 (IX)
11	Marico Limited	10	6	8	12	8	44 (X)
12	Dabur India Limited	8	7	7	12	8	42 (XI)
13	Godrej Consumer Products Limited	7	5	6	16	8	42 (XI)
14	Emami Limited	8	7	5	14	7	41 (XII)
15	Tata Consumer Products Limited	13	5	6	8	5	37 (XIII)

- I Rank; - II Rank; - III Rank; - IV Rank; - V Rank; - VI Rank;
- VII Rank; - VIII Rank; - IX Rank; - X Rank; - XI Rank; - XII Rank;
- XIII Rank.

Table 19: Categorisation of FMCG companies based on financial performance scores (2010-11 to 2021-22)

Sl. No.	Company name	Performance score					
		Liquidity	Solvency	Operating efficiency	Profitability with regard to sales	Profitability with regard to investment	Overall
1	P & G Hygiene and Health Care Limited	12	10	9	16	13	60 (I)
2	Colgate-palmolive India Limited	9	12	8	16	13	58 (II)
3	Nestle India Limited	12	11	6	11	14	54 (III)
4	RadicoKhaitan Limited	10	12	8	16	6	52 (IV)
5	Britannia Industries Limited	7	12	11	9	11	50 (V)
6	Hindustan Unilever Limited	9	9	8	12	12	50 (V)
7	ITC Limited	12	7	4	19	8	50 (V)
8	Emami Limited	12	8	6	14	8	48 (VI)
9	United Breweries Limited	8	11	6	16	6	47 (VII)
10	Dabur India Limited	7	8	8	12	8	43 (VIII)
11	Jubilant Foodworks Limited	7	10	9	9	8	43 (VIII)
12	Marico Limited	8	8	8	11	8	43 (VIII)
13	United Spirits Limited	6	8	10	16	3	43 (VIII)
14	Godrej Consumer Products Limited	6	7	5	15	7	40 (IX)
15	Tata Consumer Products Limited	11	7	8	8	6	40 (IX)

- I Rank; - II Rank; - III Rank; - IV Rank; - V Rank; - VI Rank;
- VII Rank; - VIII Rank; - IX Rank.

Only a few nifty FMCG companies' overall financial performance scores are same. Thus, overall financial performance scores of most of the nifty FMCG companies were different, the null hypothesis that the overall financial performance scores of all the nifty FMCG companies are the same is rejected.

CONCLUSION

- P & G Hygiene and Health Care Limited is in the first position with respectto the overall performance score.
- Financial ratios are the best tool for finding the bottle-necks in different categories such that appropriate corrective measures can be taken for better performance.
- It is important to consider overall performance indicators to evaluate FMCG entities for investment decisions.
- With the increase in working population and increased awareness for healthy food, the purchasing power also increased for healthy and ready to eat food. So, there is a huge scope for FMCG industry to grab the opportunities in both rural and urban India.

FUTURE SCOPE OF THE STUDY

Financial performance studies can be extended to valuation studies wherein assets can be valued by discounted free-cash flows with sensitivity analysis for incorporating all possible rates.

CONFLICT OF INTEREST

Authors have declared that no competing interests exist.

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