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A REPERCUSSION OF THE PANDEMIC ON SELECTED FMCG COMPANIES IN INDIA

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Abstract

The phase which has shattered the entire economy, and how much it has affected the FMCG industry, the researcher has attempted to find out to what extent the profit of the FMCG sector gets affected. And, it was found that despite all the adversities of Covid-19 this industry found fresh, innovative, and creative strategies to reach out to consumers. Different strategies adopted by the FMCG companies were proven effective during the period of the pandemic. In this paper, a researcher has attempted to determine the repercussion of pandemics on the financial performance of the selected FMCG companies. All the companies were chosen by using purposive sampling method. The Profitability Ratio, Leverage Ratio, Margin Ratio, and Turnover Ratio were used to measure the financial performance of Britannia, HUL, ITC, Dabur & Nestle. The result of the ANOVA test has found that the pandemic has affected this industry.

Keywords: *Pandemic, Profitability Ratio, Liquidity Ratio, Leverage Ratio*

INTRODUCTION

The financial year 2019-2020 has left an unforgettable impact on the economy, the human mind, and the world. 24th March 2020, and thereafter days when the word 'Janta Karfyu', 'Lockdown', 'work from home (WFH)', 'Social distancing', 'need of essential items' has been heard by all of us for the first time. On one side we all have blamed technology but during this phase, it proved a lifeline for the people who were forced to live in their homes. During this, the mother earth was rejuvenated but the economic world has undergone significant changes. For the first time, all the busy bees got quality time from their routine schedule to spend with their beloved ones, some were stuck up, some were migrated, some had sharpened their hidden skills & developed new skills; in the same line during the same phase some businesses were shut downed also, many have lost their jobs, were forced to work with half salary. It has not only affected the common man, but the past year had taken a toll on every Indian industry from construction to manufacturing. As reported by Deloitte it was anticipated that this pandemic has put a downward thrust of approximately 16% on the FMCG sector[1]. It has affected the consumers buying behavior, at one side people had purchased and stored the essentials items in a fear of shortage, on the other side due to restricted movement order the supply chain got disturbed. During this phase of uncertainty, the major challenges were, the loyalty of customers towards brands had been reduced due to a disrupted supply chain or shortage of production of essential items.

The racks were going off due to the panic purchasing of FMCG products like salt, rice, sugar, ghee, edible oils, pulses, snacks, spices, detergents, soaps, cleaning tools, sanitizers, biscuits, and many other items from the retail outlets and malls. The companies had found a business model which can cater to the need during the dark phase.

As reported by CNBC TV 18[2] that FMCG companies are operating at 30 to 40 % capacity of Labor. The first phase of lockdown was quite difficult for the FMCG companies to handle but in the second phase, it was improved. The challenges faced by the FMCG companies are during this phase of lockdown were;

1. Shortage of labor ------ Impact on manufacturing and supply ……. Companies exploring longer shifts to utilize a smaller workforce.
2. Local administration issues
3. Lack of available logistics

During the initial phase of the lockdown, there was a significant decrease in consumption due to a disrupted supply chain. The demand for the product which has high-profit margin like beauty and grooming went down because of WFH (work from home) policy, whereas the demand for edible items, hygiene products has been increased at rocket speed because of the same policy.

[1] https://www.fieldassist.in/blog/coronavirus-impact-fmcg/
[2] https://www.facebook.com/cnbctv18india/videos/206962980729425/

To overcome these companies had adopted different operating models, some companies had increased the working hours for the employee for better utilization of the available employee.
As per the report of KPMG-2020, the FMCG sector covers most of the brands of routine life. This sector has faced many challenges, the continuation, survival, and existence of many brands were difficult.
The present research has been undertaken to find out the impact of the COVID 19 pandemic on the financial performance of selected NIFTY FMCG companies and to measure its impact on sales, liquidity, profitability, and solvency of the selected companies.

Impact of the pandemic on the FMCG sector[3]: This industry is different from all the other industries because everyone is a customer of this industry. To survive in the cutthroat competition all the FMCG giants had taken care the changing consumer preference. Mr. Anil Garg, Head of Finance and IT of the Personal Care Products Business (PCPB) at ITC Ltd. said from the investor point of view that this is the sector that has the capabilities *to survive even in the chaotic environment and that continuously offers and delivering innovated products to its consumers*. Further, these would be the companies who truly believes that 'let the crisis do not go to waste'. This pandemic has brought a paradigm shift to the FMCG industry from a different perspective;

1) From the Business perspective: When the people were forcefully locked in their homes due to the nationwide lockdown of COVID-19 many FMCG companies have had found different alternatives to reach out to the consumers, like tying up with e-commerce platforms such as DUNZO, Flipkart, Grofers, Big-basket, Zometo, Swiggy, etc. to deliver the goods at the doorstep of the consumers'. Despite the lockdown FMCG sector has shown a growth of 36.9% during the April-June quarter of 2021[4]. As we talked this phase of the pandemic had opened new opportunities for the FMCG sector the big FMCG giants like HUL, ITC, Lakme and Johnson & Johnson are now competing with D2C start-ups like Mama earth, The Mom Co. Bey Bee, Azah, Nua, and Pee Safe.

- The Gurugram based personal care D2C startup Mama earth (2016) had earned a revenue of Rs.112 crore and a profit of Rs, 5.9 crores (Bhallla, 2022) during this phase of the pandemic when we compared it with giants Revlon (1995) and Lotus (1993) took ~20 years to reach this level[5].
- Majority of the companies had started online mode for selling the goods. Businesses of frozen foods done a selling of 94% during the phase of lockdown, household cleaning has observed growth (Rajamani, 2020)
- **Some adverse effects:** According to Institute for Supply Management Research report, disrupted supply chain management has adversely affected the business. There has been a reduction in the average revenue of 76% of businesses by 23%. (Rajamani, 2020)
- Every problem has a solution, as per the SOP introduced by the government for maintaining a safe distance even at workplace the HUL had launched a program like 'Together We Can'-Kaun Banega Champion (KBC) to have smoother functioning at the workplace, Marico had launched a program named wise 'Immunity at your Doorsteps' to provide goods to the consumer. Further, Dabur the face of the Ayurveda had used predictive analytics for its dispersed manpower by using the tableau tool to modernize its web-based PULSE (Platform Used for Learning, Sharing and Engaging) with new launched RAMCO Magna 2.3 version, also extensively provided a facility of e-learning to train its employees. (Iyengar, 2022)

2) From the Consumer perspective: Skyrocketing in the use of mobile, had boosted the growth of this sector. Consumer behavior had been changed due to the pandemic. Consumers have started focusing more on health and hygiene products. Consumers have adopted new mantras of cleanliness and hygiene and increased spending on the products such as soaps, handwashes, sanitizers, disinfectants, wipes, masks, home cleaning products such as floor cleaners, kitchen cleaners, toilet cleanses are more in demand and will continue in the future. The no contact delivery trend is emerging gradually.

- Most Indians have started online shopping rather than stepping outside of their homes. Reported by the IBEF in Indian E-Commerce Industry Analysis, September 2021 the E-commerce market industry will surpass the US and get the second largest E-commerce marketplace in the world by 2034. During the pandemic in the last quarter of 2020 the personal care, beauty, and wellness (PCB&W) segment of FMCG rose by 7-8%. By 2025, the number of online consumers will reach by 220 million.
- Every day is offering some new challenges and solutions to these challenges. Despite, all the limitations of the lockdown the manufacturing units of the FMCG sector have launched around 9600 products, which proves that the effective and efficient supply chain of any firm is depending upon the resilience and ability to face the internal and external challenges of the economy. (Iyengar, 2022)

[3] https://www.smallcase.com/blog/impact-of-covid-19-on-the-fmcg-sector-in-india/
[4] https://www.ibef.org/download/FMCG-November-2021.pdf
[5] https://www.ibef.org/download/FMCG-November-2021.pdf

REVIEW OF RELATED LITERATURE

(Shafique Ul Rehman Memon, 2021) had investigated in their article titled Investigation of COVID-19 Impact on the Food and Beverages Industry: China and India Perspective about the effect of SARS-CoV-2 on Food and Beverages Industry by observing the scenario of ongoing pandemic in China and India, and what is the effect of COVID-19 on the food and beverage industry of China and India. The source from which the information was collected were secondary. The study was both quantitative as well as quantitative. The data of five years have been analyzed i.e., 2016 to 2020. The researcher had used GraphPad Prism Version 8.4.3 (Graphing and Statistics Software) which is mostly used for graphical representation in social science. The research has concluded that during this period of COVID-19 the important components of food and beverages segment like availability, accessibility, utility and stability were highly affected. The identifiable reasons were disruption of supply chain distribution and delivery. The food stock availability was also affected due to prevailing tariff and trade affairs in both the countries. In India the reasons for disruption were shortage of skilled manpower, logistics and the income of people were decrease which had directly impacted the food supply and availability. The incidence of Karnataka's had portraited how the disrupted transportation problem resulted in the loss of income. The grape farmers of Chikkaballapur and Bengaluru rural districts earned a loss of Rs. 500-600 crores by dumping their ready to harvest crop. The milk seller of Karnataka's Belagavi district had drained their 1500L milk during the lock down due to lack of transportation services. The roll of Robotics, drones and AI in China and India's food and Beverages Industry, how it had supported this industry to grow during this period were explained with illustration. The researcher had also collected how the government had supported this industry to survive by launching different strategies.

(Vikas Kumar Singh, 2020) et. all have analyzed the impact of COVID-19 on FMCG sector. The author has identified various factors how COVID-19 has affected the FMCG industry like prices to remains stable, shift towards local production, cash to digitalization trend, single brand and luxury retailers at high risk. The study has identified different challenges faced by the big FMCG giants like HUL faced a problem of decline in average daily sales by 40%, ITC faced about 61% of factories were operated in hotspot regions, Parle faced the challenge of lack of manpower, GCPL faced challenge of permission to operate the plan. The study concluded that out of two model i.e., Consumer Packaged Goods (CPG) and Direct-To-Consumer which one would be more effective by stating that CPG model needs a more powerful asset distribution and noteworthy utilization of mergers.

(S. Rajamohan, 2021) The study has been done with a research objective of examining the stationarity of FMCG sector index during pre and post Covid-19, analyzing the volatility index price of FMCG sector during pandemic and measuring influence of Covid-19 in the price movements. The result of the research concluded that the Relative Strength Index (RSI) has shown direct impact of Covid-19 on the FMCG market. Increased RSI had shown the demand of certain product has been increased due to pandemic and the result of GARCH (Generalized Autoregressive Conditional Heteroskedasticity) has shown the volatility of FMCG sector. Further, significant changes have been observed in the FMCG sector due to pandemic.

(Husain, 2021) The objective of the study was measuring the financial performance of selected FMCG companies in terms of profitability. Researcher has used ratio analysis, Mean and ANOVA test to test the hypothesis for the study. All the margin ratio & rate of return ratio were measured to measure the financial performance.

(Khan, 2021) The research has been carried out to measure the impact of COVID-19 on financial performance of FMCG companies. The researcher has taken Liquidity ratios, Profitability ratio, Efficiency ratio, Margin Ratio, Leverage Ratio to measure the impact of covid-19. The average of all the ratios were find out and discussion has been done based on the average. Liquidity leverage wise majority of the companies have not performed well.

RATIONALE

The FMCG industry provides routine products to the consumer so, it is natural that consumers don't think much to purchase the FMCG product. The growth rate of the Indian FMCG industry was 27.9% CAGR i.e., US$ 103.7 billion at the end of 2020 whereas the rural sector was 14.6% CAGR i.e., US$100 billion. It will increase by US$ 220 by the end of 2025. As the last year was totally unpredictable in terms of growth & development due to the pandemic. It had changed the lifestyle of consumers but at the same time, it has opened new ways for people and for organizations. The FMCG sector had observed a diminishing trend in terms of growth during the past year from January-February 2020. All the FMCG companies have adopted different strategies to retain and maintain customer acquisition. The companies have practiced gaining the attention of customers by way of reducing the price, introducing great deals and offers on their products in a ray of hope of gaining the market share in the urban area.

In this paper, the researcher has attempted to find out what is the outcome of these adopted strategies during a pandemic situation. The researcher has come across a few studies which has been done in the same area. Therefore, the present research has been undertaken to find out the effect of pandemic on financial performance of five NIFTY FMCG companies.

STATEMENT OF THE PROBLEM

This industry is to be considered recession-free. The phase of COVID-19 has changed the entire economy, then to what extent the selected FMCG companies have been affected. Problems like labor migration, disruption in the supply chain, have affected the production continuity of this industry. Even there was a change in consumer behavior also. All these reasons affect the performance of the business. The operating capacity, working capital management has also affected due to this phase of the pandemic. Therefore, the researcher has attempted to measure the impact of a pandemic on the top five FMCG giants and titled the study.
"A Repercussion of the pandemic on selected FMCG companies in India"
Scope of the study: The present study has attempted to measure the financial position of the top five FMCG companies during the pandemic. The study had measured the profitability, liquidity, turnover, and leverage condition of the selected FMCG companies. Financial performance measures the strength and weakness of the industry which helps the management, investor, and outsiders.

RESEARCH METHODOLOGY

Research Objective:
1. To measure the impact of the pandemic on financial performance of the selected FMCG companies.
2. To measure the impact of the pandemic on sales.

***Population*:** The population for the present study is 15 NIFTY FMCG companies.

Sample: For the present study ***five*** NIFTY FMCG companies have been selected based upon average total sales and average paid-up capital. For the present research, ***convenient sampling method*** has been used. All the selected companies are sharing high market share in the Indian FMCG market. The selected companies are;
- Hindustan Unilever Ltd.,
- ITC Ltd.
- Dabur India Ltd.
- Britannia
- Nestle

Table 1 List of Selected Companies

Sr. no.	Company	Average Sales	Average Paid-up capital
1	Britannia	10382.50	24.036
2	HUL	38542	220.158
3	Dabut	6149.32	176.476
4	ITC	48178.88	1224.226
5	Nestle	12382.56	94.42

Variables of the Study:

Independent Variables	
Gross Profit Ratio	Debt-Equity Ratio
Net Profit Ratio	Current Ratio
Inventory Turnover	Quick Ratio
Asset Turnover	

Description of the variables:
Table 2 Description of the Variables

Categories	**Variables**	**Formula**
Independent Variable	Profitability Ratio	1) Gross Profit Ratio: Sales -Cost of Goods sold/Sales 2) Net Profit Margin = PAT/Sales
	Liquidity Ratio	1) Current Ratio = Current Assets / Current Liabilities 2) Liquid Ratio = Liquid assets/ Quick Liabilities
	Leverage Ratio	1) Debt-Equity ratio = Long term Debt / Shareholders Equity

	Performance Ratio	1) Inventory turnover ratio = Sales / Average inventory at cost 3) Asset turnover ratio = Cost of sales / FA at cost - Depreciation

Data Collection: For the present study, data had been collected from the secondary source. The required data was collected from sources like Annual reports, journals, magazines, and newspapers. The time frame of the study was from 2016-17 to 2020-21. The Data result output was received through Microsoft Excel.

Limitations of the study:

- The present study is limited to five years i.e., 2016-17 to 2020-21.
- The present study is based on the secondary data which were collected from annual reports of the selected companies to measure the accuracy, reliability, and authenticity of data.
- The study was limited to the five FMCG companies i.e., Britannia, HUL, ITC, Nestle & Dabur which are listed on the Indian stock market NIFTY FMCG indexogram.

Objective wise analysis:

Financial performance can be measures by using financial ratio of the company. The present study has measured the financial position of the FMCG company by using the following ratio.

- Gross Profit Margin
- Operating Profit Margin
- Net Profit Margin
- Current Ratio
- Quick Ratio
- Debt equity ratio
- Asset Turnover Ratio
- Inventory Turnover Ratio

Data Analysis tools:Descriptive Statistics has been used to measure the overall performance of the FMCG companies. Financial tools like Ratio analysis, statistical tool to test the hypothesis ANOVA has been used to measure the financial performance of the selected FMCG companies.

Objective 1. To measure the overall impact of Covid-19 on financial performance of the FMCG companies.

1) Gross Profit Margin

Table 3 Gross Profit Margin Ratio (amount in %)

		2016-17	2017-18	2018-19	2019-20	2020-21	Mean	SD
Gross Profit Margin	Britannia	16.03	16.83	17.67	19.16	21.35	**18.21**	**2.104**
	ITC	41.31	43.4915	42.56	44.24	39.85	**42.29**	**1.749**
	HUL	20.61	22.72	24.33	26.64	25.73	**24.01**	**2.408**
	Dabur	23.73	24.89	23.9	24.15	24.38	**24.21**	**0.453**
	Nestle	22.71	25.47	25.65	25.07	25.23	**24.83**	**1.204**

- The Gross Profit Margin indicates the margin left after meeting manufacturing cost. It measures the efficiency of production as well as pricing. A high gross profit margin is positive sign of good management. It has fluctuation trend. The average gross profit margin of ITC was highest at 42.29% whereas Britannia had at 18.21%.
- Standard Deviation of Gross profit margin ratio of ITC was at 1.749% whereas Dabur had at 0.453%.
- It is observed that during the year of pandemic 2020-21 the Gross Profit Margin Ratio of Britannia at (2.19%), Dabur at (0.23%) & Nestle at (0.16%) where as it was decreased by (-4.39%) of ITC and (-0.91%) of HUL.

One Way ANOVA Analysis of Gross Profit Ratio: To test the hypothesis an ANOVA analysis has been done.

H0: There is no significant difference between mean score of the Gross Profit Ratio of selected FMCG companies.

H1: There is a significant difference between mean score of the Gross Profit Ratio of selected FMCG companies.

Table 3.1 ANOVA Analysis of Gross Profit Ratio

Source of Variation	*Sum of Square*	*Degree of freedom*	*Mean of Square*	*F*	*P-value*
Between Groups	1393.296	4	348.324	2.624754	0.051101
Within Groups	4644.754	35	132.7073		
Total	6038.05	39			
Level of Significance – 0.05					

Test Result:
The ANOVA table no. 3.1 of Gross Profit Margin ratio of selected FMCG companies implies that calculated probability value is 0.05 which is equal to the level of significance (0.05 = 0.05) indicates that there was a significant difference between mean scores of HUL, Dabur, Britannia, ITC & Dabur. Calculated P value was 0.05 which is equal to the level of significance which means that the null hypothesis cannot be not accepted, concluded that all populations mean are not equal.

2) Operating Profit Margin

Table - 4 Operating Profit Margin (amount in %)

		2016-17	2017-18	2018-19	2019-20	2020-21	Mean	SD
Operating Profit Margin	Britannia	14.88	15.54	16.38	17.78	20.01	**16.92**	**2.039931371**
	ITC	37.5	39.3	39.67	40.91	36.51	**38.78**	**1.760019886**
	HUL	19.36	21.33	22.96	24.22	23.53	**22.28**	**1.950474301**
	Dabur	21.86	22.79	21.83	21.61	21.86	**21.99**	**0.459292935**
	Nestle	19.29	22.5	22.65	22.29	22.58	**21.86**	**1.444115646**

- It indicates how much profit is made by the company after paying variable cost like labor, wages & raw materials etc. It is very important for the creditors and investors.
- In this case the average mean of the Britannia at 16.92% was lowest whereas, the average mean of the ITC was highest at 38.78%. In the above table, operating profit margin ratio of ITC was high which means company had well managed its operating cost and it was less risky whereas Britannia had a low operating profit margin ratio.
- The SD of Britannia was high at 2.0399% where Dabur has at 0.4592%.
- It is observed that during the year of pandemic 2020-21 there was decreasing in the operating profit margin ratio of all the five companies, which clearly says that, except Britannia remaining companies had high operating cost.

One Way ANOVA Analysis of Operating Profit Ratio: To test the hypothesis an ANOVA analysis has been done.

Ho: There is no significant difference between means of the Operating Profit Ratio of selected FMCG companies.
H1: There is a significant difference between means of the Operating Profit Ratio of selected FMCG companies.

Table 4.1 ANOVA Analysis of Operating Profit

Source of Variation	***Sum of Square***	***Degree of Freedom***	***Mean Square***	***F***	***P-value***
Between Groups	1172.951862	4	293.238	2.739618	0.0440
Within Groups	3746.263047	35	107.0361		
Total	4919.214909	39			
Level of Significance – 0.05					

Test Result:
The ANOVA table no. 4.1 of Operating Profit Margin ratio of selected FMCG companies indicates that there is a significant difference between mean scores of HUL, Dabur, Britannia, ITC & Dabur. The calculated P value is 0.0440 < 0.05, which means the formulated null hypothesis is not accepted. It is concluded that there is a significant difference in operating profit ratio of selected FMCG companies.

3) Net Profit Margin

Table 5 Net Profit Margin (amount in %)

		2016-17	2017-18	2018-19	2019-20	2020-21	Mean	SD
Net Profit Margin	Britannia	10.02	10.18	10.7	13.5	14.21	**11.72**	**1.979**
	ITC	24.47	26.43	26.52	31.54	27.17	**27.23**	**2.614**
	HUL	14.07	15.16	15.79	17.37	17.29	**15.94**	**1.414**
	Dabur	16.81	17.57	16.97	16.67	17.76	**17.16**	**0.481**
	Nestle	12.24	14.23	15.91	15.59	14.58	**14.51**	**1.446**

- The Net profit margin of company a measure an overall efficiency of the company. It shows the company's ability to turn each rupee sales into net profit.
- When the company has high NPM it is advantageous for the company to continue the business in case of falling selling price, increasing cost of production or decreasing the demand for the product and can make use of favorable conditions
- When it is low it is risky for the business to survive in the adversity.
- Here, the average mean of ITC was highest at 27.23% whereas the mean of Britannia was low i.e., 11.72%.

- Standard Deviation of Net Profit Margin ratio of ITC was at 2.614% whereas Dabur had 0.481%.
- It is observed that Net Profit Margin ratio of Britannia 0.71%, Dabur 1.09% is increasing but for the remaining companies ITC 4.37%, HUL -0.08% & Nestle -1.01% it is decreasing, which means that during the pandemic the company must have spent more on production efficiency, administration, selling and other exp.

One Way ANOVA Analysis of Net Profit Ratio: To test the hypothesis an ANOVA analysis has been done.

Ho: There is no significant difference between means of the Net Profit Ratio of Selected FMCG companies.
H1: There is a significant difference between means of the Net Profit Ratio of selected FMCG companies.

Table 5.1 ANOVA Analysis of Net Profit Ratio

Source of Variation	*Sum of Square*	*Degree of Freedom*	*Mean Square*	*F*	*P-value*
Between Groups	595.9919338	4	148.9979835	3.277007294	0.0221
Within Groups	1591.369488	35	45.46769967		
Total	2187.361422	39			
Level of Significance – 0.05					

Test Result: The ANOVA 5.1 table of Net Profit Margin ratio of selected FMCG companies represent that, there is a significant difference between mean scores of HUL, Dabur, Britannia, ITC & Dabur, as the calculated P value is 0.0221 < 0.05, which means the formulated null hypothesis is not accepted.

4) Current Ratio:

Table 6 Current Ratio (amount in %)

		2016-17	2017-18	2018-19	2019-20	2020-21	Mean	SD
Current Ratio	Britannia	1.84	2.03	1.94	1.45	1.21	**1.694**	**0.349471**
	ITC	3.69	2.85	3.17	4.13	3.27	**3.422**	**0.496709**
	HUL	1.3	1.29	1.36	1.31	1.26	**1.304**	**0.036469**
	Dabur	1.4	1.41	1.35	1.98	1.63	**1.554**	**0.2614**
	Nestle	2.64	2.55	1.74	1.68	1.05	**1.932**	**0.663604**

- This ratio measures the short-term solvency. It indicates availability of current assets in rupees for everyone rupee of current liability. Higher current ratio indicates that firm has more current assets than current liabilities. When the current ratio is less than one that means companies have improper or don't have enough liquid assets to repay the liabilities.
- In the above table the average mean scores of Current ratios of ITC were highest at 3.422%, whereas HUL has lowest at 1.304%.
- Standard Deviation of Current Ratio of NESLTE was at 0.663% whereas HUL has at 0.036%.
- It is observed that there was a reduction in the current ratio of all the five selected during the year of pandemic 2020-21, which means that during the pandemic year it was not easy for all the companies to manage inventory, inappropriate cash receivables.

One Way ANOVA Analysis of Current Ratio: To test the hypothesis an ANOVA analysis has been done.

Ho: There is no significant difference between means of the Current Ratio of Selected FMCG companies.
H1: There is a significant difference between means of the Current Ratio of selected FMCG companies.

Table 6.1 ANOVA Analysis Current Ratio

Source of Variation	*Sum of Square*	*Degree of Freedom*	*Mean Square*	*F*	*P-value*
Between Groups	86.8443	4	21.7110	0.476	0.75
Within Groups	1593.7957	35	45.5370		
Total	1680.6401	39			
Level of Significance – 0.05					

Test Result:
The above ANOVA table no.6.1 of Current ratio of selected FMCG companies represents that there is no significant difference between mean scores of HUL, Dabur, Britannia, ITC & Dabur, as the calculated P value is 0.7525 > 0.05, which means the formulated null hypothesis is accepted.

5) Liquid Ratio:

Table 7 Liquid Ratio (amount in %)

		2016-17	2017-18	2018-19	2019-20	2020-21	Mean	SD
Liquid Ratio	Britannia	1.2900	1.5900	1.4900	1.1600	0.9100	**1.2880**	**0.2699**
	ITC	2.54	2.03	2.38	3.19	2.29	**2.486**	**0.435**

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	HUL	0.97	1.02	1.07	1.02	0.95	**1.006**	**0.047**
	Dabur	0.9	0.9	0.86	1.42	1.04	**1.024**	**0.232**
	Nestle	2.03	2.03	1.16	1.11	0.45	**1.356**	**0.676**

- This ratio indicates liquidity condition of the company. How much liquid assets companies are having to pay its obligations on time.
- The above table indicates that the average mean of liquid ratio of ITC was at 2.486%, whereas HUL has lowest at 1.006%, however the ideal liquid ratio of 1:1 is satisfactory.
- Standard Deviation of Liquid Ratio of Britannia was at 0.676% whereas HUL has at 0.047%.
- It is observed that the Liquid Ratio during the year of pandemic 2020-21 of Britannia, ITC, HUL & Dabur was decreased which means it was not so easy for all the companies to maintain liquidity during that year.

One Way ANOVA Analysis of Liquid Ratio: To test the hypothesis an ANOVA analysis has been done.

H0: There is no significant difference between means of the Liquid Ratio of Selected FMCG companies.
H1: There is a significant difference between means of the Liquid Ratio of selected FMCG companies.

Table 7.1 ANOVA Analysis of Liquid Ratio

Source of Variation	*Sum of Square*	*Degree of Freedom*	*Mean Square*	*F*	*P-value*
Between Groups	147.5869	4	36.8967	0.4234	0.7906
Within Groups	3049.4356	35	87.1267		
Total	3197.0226	39			
Level of Significance – 0.05					

Test Result:
The above ANOVA table no.7.1 analysis of Liquid ratio of selected FMCG companies represents that there is no significant difference between mean scores of HUL, Dabur, Britannia, ITC & Dabur. The calculated P value is 0.7906 > 0.05, which means the formulated null hypothesis is accepted and alternative hypothesis is rejected.
6) Debt to Equity Ratio:

Table 8 Debt-to-Equity Ratio (amount in %)

		2016-17	2017-18	2018-19	2019-20	2020-21	Mean	SD
Debt to Equity Ratio	Britannia	0	0	0	0.28	0.54	**0.164**	**0.243**
	ITC	0	0	0	0	0	**0**	**0**
	HUL	0	0	0	0	0	**0**	**0**
	Dabur	0.08	0.07	0.03	0.02	0.03	**0.046**	**0.027**
	Nestle	0.01	0.01	0.03	0.02	0.02	**0.018**	**0.008**

- This ratio indicates the financial risk and the firm's ability how well the debt is managed to shareholders' advantage.
- The above table indicates that the average mean score of Britannia was at 0.164% whereas ITC has at 0%, which means that lenders have financed at 16.4% of Britannia's net assets and ITC has used its own funds.
- The SD value of Britannia was at 0.243% was higher while ITC has at 0%.
- It was observed that Debt-to-Equity ratio of selected FMCG companies during the year of pandemic 2020-21 of Britannia was increased by 0.26% Dabur by at 0.01% as compared with ITC & HUL which has at 0%.

One Way ANOVA Analysis of Debt-to-Equity Ratio: To test the hypothesis an ANOVA analysis has been done.
H0: There is no significant difference between means of the Liquid Ratio of Selected FMCG companies.
H1: There is a significant difference between means of the Liquid Ratio of selected FMCG companies.

Table 8.1 ANOVA Analysis of DE Ratio

Source of Variation	*Sum of Square*	*Degree of Freedom*	*Mean Square*	*F*	*P-value*
Between Groups	1865.7916	4	466.4479	0.6798	0.6106
Within Groups	24013.4621	35	686.0989		
Total	25879.2537	39			
Level of Significance – 0.05					

Test Result:

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The above ANOVA table no. 8.1 analysis of Debt-to-Equity ratio of selected FMCG companies showed that there is no significant difference between mean scores of HUL, Dabur, Britannia, ITC & Dabur. The calculated P value is 0.6106 > 0.05, which means the formulated null hypothesis is accepted and alternative hypothesis is rejected.

7) Asset Turnover Ratio:

Table 9 Asset Turnover Ratio (amount in %)

		2016-17	2017-18	2018-19	2019-20	2020-21	Mean	SD
Asset Turn over Ratio	Britannia	227.65	201.06	185.43	151.47	166.92	**186.506**	**29.65189**
	ITC	76.46	67.58	67.34	63.85	66.74	**68.394**	**4.749**
	HUL	216.18	201.32	213.96	197.86	67.52	**179.368**	**63.02**
	Dabur	98.46	88.74	100.92	92.84	88.01	**93.794**	**5.755**
	Nestle	135.95	139.61	172.43	168.99	179.16	**159.228**	**19.95999**

- This ratio indicates the relationship between sales and assets. It is calculated to evaluate the efficiency with which the firm manages and utilize its assets.
- The above table indicates the averages mean scores of Britannia was higher at 186.50% which implies that on an average Britannia generates at 186.50% for one rupee invested in fixed and current assets together whereas ITC has lowest average mean score of asset turnover ratio at 68.39%.
- The SD of Britannia is highest at 29.65% where ITC has lowest at 4.74%.
- It was observed that in the year 2020-21 the Asset Turnover Ratio of Nestle was increased at 10.17%, Britannia was at 15.45% as compared with HUL & Dabur which was decreased by -130.34% & -4.83%.

One Way ANOVA Analysis of Asset Turnover Ratio: To test the hypothesis an ANOVA analysis has been done.

H0: There is no significant difference between means of the Asset Turnover Ratio of Selected FMCG companies.
H1: There is a significant difference between means of the Asset Turnover Ratio of selected FMCG companies.

Table 9.1 ANOVA Analysis of Asset Turnover Ratio

Source of Variation	*Sum of Square*	*Degree of Freedom*	*Mean Square*	*F*	*P-value*
Between Groups	60131.33	4	15032.83	3.8825	0.0103
Within Groups	135517.2	35	3871.919		
Total	195648.5	39			
Level of Significance – 0.05					

Test Result:

The ANOVA table no. 9.1 of Asset Turnover ratio of selected FMCG companies showed that there is a significant difference between mean scores of HUL, Dabur, Britannia, ITC & Dabur. The calculated P value is 0.0103 < 0.05, which means the formulated null hypothesis is not accepted.

8) Inventory Turnover Ratio:

		2016-17	2017-18	2018-19	2019-20	2020-21	Mean	SD
Inventory Turnover Ratio	Britannia	13.96	15.65	14.58	17.34	12.49	**14.804**	**1.8209**
	ITC	5.23	5.73	6.09	5.51	4.69	**5.45**	**0.529**
	HUL	13.5	14.64	15.78	14.71	13.6	**14.446**	**0.935**
	Dabur	6.88	6.15	6.55	6.3	5.5	**6.276**	**0.514**
	Nestle	11.09	11.7	9.64	9.42	9.31	**10.232**	**1.089849**

Table 10 Inventory Turnover Ratio (amount in %)

- This ratio indicates how speedily the inventory is turning in to receivables through sales. A high inventory turnover represents good inventory management & vice-a-versa. To have a clear idea about the management of inventory it should be compared with past and expected ratio as well as with the other similar companies' ratio.
- The above table indicates that average mean scores of inventories turnover ratio of selected FMCG companies of India. The average mean score of inventory turnover ratio of Britannia was highest at 14.80% whereas ITC has lowest at 5.45%. This means that Britannia is turning its inventory of finished goods into sales at 14.80 times in a year.
- The SD of Britannia was highest 1.8209 whereas lowest of Dabur at 0.5144%.
- It is observed that during the year of pandemic 2020-21 Inventory Turnover Ratio of all the selected FMCG companies was decreased.

One Way ANOVA Analysis of Inventory Turnover Ratio: To test the hypothesis an ANOVA analysis has been done.

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H0: There is no significant difference between means of the Inventory Turnover Ratio of selected FMCG companies.
H1: There is a significant difference between means of the Inventory Turnover Ratio of selected FMCG companies.

Table 10.1 ANOVA Analysis of IT Ratio

Source of Variation	*Sum of Square*	*Degree of Freedom*	*Mean Square*	*F*	*P-value*
Between Groups	368.6040	4	92.1510	6.3433	0.0006
Within Groups	508.4551	35	14.5272		
Total	877.0592	39			
Level of Significance – 0.05					

Test Result:
The ANOVA analysis of table no. 10.1 Inventory Turnover ratio of selected FMCG companies represents that there is a significant difference between mean scores of HUL, Dabur, Britannia, ITC & Dabur. The calculated P value is 0.0006 < 0.05, which means the formulated null hypothesis is not accepted.

Summary of Hypothesis Testing
Table 11 Summary of Hypothesis Testing

Ratio	Level of Significance	P Value	Status
Gross Profit Ratio	0.05	0.051101	Not Accepted
Operating Profit Ratio		0.0440	Not Accepted
Net Profit Ratio		0.0221	Not Accepted
Current Ratio		0.7525	Accepted
Quick Ratio		0.790601	Not Accepted
Debt to Equity Ratio		0.6106	Accepted
Asset Turnover Ratio		0.0103	Not Accepted
Inventory Turnover Ratio		0.0006	Not Accepted

2. To measure the impact of COVID-19 pandemic on sales.

Table -12 Pandemic impact on Sales

SALES					
Year	**Britannia**	**HUL**	**Dabur**	**ITC**	**Nestle**
2016-17	8684.39	34487	5369.84	55448.46	10192.18
2017-18	9380.17	35218	5609.06	44329.77	11292.27
2018-19	10482.45	38224	6273.19	45784.3	12368.9
2019-20	10986.68	38785	6309.8	46807.34	13350.03
2020-21	12378.83	45996	7184.73	48524.54	14709.41
Total	51912.52	192710	30746.62	240894.4	61912.79
Average	**10382.5**	**38542**	**6149.324**	**48178.88**	**12382.56**

Source: (www.moneycontrol.com & Annual reports of the Company)

RESULT

From the above table no. 12 it was observed that the though pandemic has affected negatively to the other sector of the economy, but it has proven from the data that it has affected positively to the FMCG sector. The sales of the ITC were increased by Rs. 1,717.2 crore during the year of the pandemic whereas the sales of the Britannia increased by Rs. 1,392.15 crores, HUL by Rs. 7,211 crores, Dabur by 874.83 crores and Nestle by Rs. 1,359.38 crores. The data of the previous year is also in the growing numbers which says that FMCG sector is recession free sector.

CONCLUSION

From the above analysis it can be concluded that though the FMCG industry is a recession free still the pandemic has affected in various ways;

- The Gross profit Margin ratio of ITC & Britannia which was increasing till 2019-20 but during the pandemic year 2020-21 it was fall by 0.16% & 2.19%, whereas sales of the other companies Like HUL, Nestle & Dabur has observed fractional growth.
- The Net Profit Margin has also been decreased due to the pandemic.
- The Current Ratio of all the companies was also fall down due to the pandemic effect.
- The Liquid Ratio of all the companies was also observed to be fall down due to the pandemic effect.

- The Debt-to-Equity Ratio of all the selected companies was under 1, which means that performance wise all the companies has underperformed.
- In case of Asset Turnover Ratio except HUL & Dabur all the remaining companies has utilized their assets to generate a revenue it an appropriate way.
- The Inventory Turnover Ratio of except Nestle, Britannia, ITC, HUL & Dabur was decreased due to the pandemic effect.

Though it was a tough day for the whole world we all have got the FMCG products within our reach, we have adjusted the sail, an overall FMCG industry have adjust its sails to reach the destination, now the industry is again back to normal with new strategies.

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