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"A Study on Financial Efficiency of Selected FMCG Companies in India"

Abstract

Products which are having a quick turnover, and relatively low cost are known as Fast Moving Consumer Goods (F.M.C.G.). F.M.C.G. products are those that get replaced within a year. India's F.M.C.G. sector is the fourth largest sector in the economy and creates employment for more than three million people in downstream activities. Its principal constituents are Household Care, Personal Care and Food & Beverages. The total F.M.C.G. market is in excess of Rs. 85,000 Crores. It is currently growing at double digit growth rate and is expected to maintain a high growth rate. F.M.C.G. Fast moving consumer goods will become Rs 4, 00,000-crore industry by 2020. Financial Efficiency refers to the act of performing financial activity efficiently. In broader sense, financial efficiency refers to the degree to which financial objectives being or has been accomplished. It is the process of measuring the results of a firm's policies and operations in monetary terms. It is used to measure firm's overall financial health over a given period of time and can also be used to compare similar firms across the same industry or to compare industries or sectors in aggregation. Financial efficiency is the process of measuring the results of a firm's policies and operations in monetary terms. It is used to measure firm's overall financial health over a given period of time and can also be used to compare similar firms across the same industry or to compare industries or sectors in aggregation. In the present study the overall financial efficiency of selected seven FMCG Companies of India is analyzed using Ratio Analysis. The study made to suggest ways to improve the financial efficiency of the selected units to come up to the desired standards. The study will be helpful to the top level management of the selected FMCG Companies, Policy makers, academicians and scholars who are undertaking research in the area of financial accounting.

(Keywords: *Financial Efficiency, NSE Nifty, BSE, Fast Moving Consumer Goods, Ratio Analysis, ANOVA F Test)*

Introduction: India is one of the fast developing economies in the world and its population and territory are big also. Various industries are playing important role and FMCG sector is also one of them. Now-a-days in India, FMCG sector plays a very important role in the growth of Indian economy. It has been estimated that the FMCG industry will grow at least 12% annually to become Rs. 4, 00,000 crores in size by 2020. Products which are having a quick turnover, and relatively low cost are known as Fast Moving Consumer Goods (F.M.C.G.). F.M.C.G. products are those that get replaced within a year. India's F.M.C.G. sector is the fourth largest sector in the economy and creates employment for more than three million people in downstream activities. Its principal constituents are Household Care, Personal Care and Food & Beverages. The total F.M.C.G. market is in excess of Rs. 85,000 Crores. It is currently growing at double digit growth rate and is expected to maintain a high growth rate. The firm itself as well as stake holders such as, shareholders, managers, creditors, tax authorities, and others seeks answers to the important questions like; what is the financial position of the firm at a particular point of time? and how is the Financial Efficiency of the firm over a particular period of time? Through present research study, the researcher tries to measure Financial Efficiency through Ratio Analysis of Selected Indian FMCG Companies. This research work is based on secondary data and information which has been collected from the published annual reports of the selected units. The other secondary data collected from Books, Journals related to subject matter – Ratio Analysis and related to FMCG sector.

Review of literature: Nagarajan and Burthwal (1990): In their research work entitled "profitability and structure: A firm level study of Indian Pharmaceutical Industry", intensively examined the relationship between profitability and structure, using a sample of thirty-eight pharmaceutical firms in India for the period1970-1982. Two measures of profitability i.e., ratio of net profit to total sales revenue and the ratio of net profits to total assets have been used to find out the determination of profitability. The coefficient of growth rate of sales was positive and significant, suggesting that factors on the demand side of a firm had greater impact of profitability than on the supply side. Jackson, Fethi and Inal (2009): They have presented research paper on "Data Envelopment Analysis for Performance Measurement of Bank Branches", In which they measured the efficiency and productivity growth in the Turkish banking system using the DEA-based Malmquist TFP index. They investigated the efficiency and productivity changes of each bank over the 1992–1996 periods. The value-added method was used to model the bank operations. They used the number of employees and total non-labor operating expenses as inputs. Total loans, total demand deposits and total time deposits were used as outputs. The empirical results showed that except during the financial crisis period of 1993–1994, foreign and private banks were more efficient than their state counterparts owing to the developments in competition and technological advancements.

Lakhani Uday (2016): Lakhani Uday carried out a research work entitled "A Study on Performance Measurement of Selected Indian FMCG Companies (with Reference to EVA and MVA)" for his M.phil. The Empirical findings of this study have been useful to financial analysis in Indian FMCG companies. Through this study manager has been obtain better information – and has been more motivated – to make decision that has create the greatest shareholder wealth in corporate sectors. It is universally accepted that the goal of financial management is to maximize the shareholder's value. EVA as per CAPM Model is modern performance evaluation technique which has help to the shareholder in evaluating the company's ability for creating shareholder's wealth.

Title of the problem: After going through existing literature in the library as well as internet, the researcher has found the research gap. This topic has been selected after considering the availability of the time, information, existing literature, tools and techniques and other related sources. The title of this research paper is, **"A Study on Financial Efficiency of Selected FMCG Companies in India"**

Nature of the study: The study is analytical in nature with certain evidence has been used through proving hypothesis. The study is based on secondary data.

Scope of the study: Functional scope of this study is to analyze financial performance of Indian FMCG Companies through Ratio Analysis. For this study researcher has selected seven Indian FMCG Companies, which are listed in NSE Nifty. So, whole India is geographical criteria for this research study.

Importance of the study: The performance evaluation through financial efficiency and analysis of overall performance of FMCG Sector is necessary to identify their healthy financial condition. In the present study the overall performance of selected seven FMCG Companies of India is analyzed using Ratio Analysis. The study made to suggest ways to improve the performance of the selected units to come up to the desired standards. The study will be helpful to the top level management of the selected FMCG Companies, Policy makers, academicians and scholars who are undertaking research in the area of financial accounting. Hence, the outcome of the study will be an important asset for all stakeholders of the FMGC Sector. The study will be an addition of the subject literature in the area of Financial Accounting.

Objectives of the study: The present research work has been under taken keeping in view the following objectives:

1) To study the important metric of financial performance of selected FMCG companies of India.
2) To study Financial Efficiency of selected FMCG companies of India.
3) To compare financial performance of the of selected FMCG companies of India using various ratios.
4) To offer the suggestions in the light of findings based on the study to improve the financial efficiency of selected FMCG Companies.

Hypothesis of the study: In the present study two hypotheses Null (H0) and Alternative (H1) have been framed keeping in view the various variables which affects the financial efficiency and tested with the help of ANOVA Single Factor.
Null Hypothesis (H0) = There is no significant differences in selected Ratios among the selected FMCG Companies.
Alternative Hypothesis (H_1) = There is significant differences in Selected Ratios among the selected FMCG Companies.

Population of the study: The population of the study is all FMCG companies of India registered under the NSE and or BSE Stock Exchange of India.

Sample of the study: The number of FMCG companies in India is very large; it is not easy to collect data of all such FMCG companies. So, the researcher has decided to take sample of selected NSE Nifty Indian FMCG companies for the study. The researcher has selected TOP Seven FMCG Companies like; Britannia India Ltd (BIL), Colgate Palmolive Ltd. (CPL), Dabur India Ltd. (DIL), Godrej Consumer Ltd. (GIL), Hindustan Unilever Ltd. (HUL), Indian Tobacco Company (ITC) and Marico Ltd. (ML) on the basis of revenue and profit (as on 31st March, 2016) of companies in India.

Period of the study: This research study covered the data of ten years of the functioning of the selected FMCG companies. The study period is 10 years, starting from year 2006-07 to 2015-16.

Data collection: This study is based on secondary data. The data has been collected from published annual report of selected FMCG companies in India. Other information related to selected FMCG companies has been collected from official website and net sources, journals, books, and other printed materials etc.

Tools & techniques: For the study, accounting tool; Ratio Analysis and Statistical Tools like; Average, ANOVA- F Test have been used.

Data analysis & hypothesis testing: The following table no:1 shows the calculation of various fifteen ration measuring financial efficiency of selected seven FMCG Companies under study. It also shows the calculated as well as table value of ANOVA F Test.

Table No: 1: Calculation of Various Rations & ANOVA F Test:

	(1). Current Ratio (CR)										
(1). CR	**Mar '07**	**Mar '08**	**Mar '09**	**Mar '10**	**Mar '11**	**Mar '12**	**Mar '13**	**Mar '14**	**Mar '15**	**Mar '16**	**AR**
BIL	1.18	1.56	1.27	1.08	1.04	0.7	0.97	0.84	1	1.07	1.07
CPL	0.91	0.81	1.01	1.1	1.13	1.09	1.07	0.85	0.8	0.89	0.96
DIL	1.05	0.94	1.4	1.03	1.31	1.49	1.48	1.13	0.99	0.88	1.17
GCL	0.84	0.92	2.19	1.38	1.01	1.46	1.29	0.73	0.9	1.02	1.17
HUL	0.74	***0.69***	1.01	0.84	0.86	0.83	0.76	0.74	0.75	0.75	0.8
ITC	1.37	1.39	1.44	0.92	1.09	1.12	1.22	1.25	1.45	1.21	1.25
ML	1.5	2.34	2.72	2.7	***3.1***	2.9	2.63	1.68	1.99	1.74	2.33
AR	1.08	1.24	1.58	1.29	1.36	1.37	1.35	1.03	1.13	1.08	1.25

ANOVA F Test: F_c = 26.18, F_T = 2.25 @ 5 % Level of Significance where degree of freedom is V1= 6 and V2 = 63,
H_0 = Rejected and H_1 = Accepted.

	(2). Quick Ratio (QR)										
(2). QR	**Mar '07**	**Mar '08**	**Mar '09**	**Mar '10**	**Mar '11**	**Mar '12**	**Mar '13**	**Mar '14**	**Mar '15**	**Mar '16**	**AR**
BIL	0.52	0.75	0.69	0.56	0.52	0.36	0.58	0.47	0.72	0.79	0.59
CPL	0.72	0.67	0.86	0.91	0.89	0.78	0.85	0.59	0.53	0.58	0.73
DIL	0.63	0.62	1.02	0.71	0.88	0.88	0.97	0.66	0.54	0.47	0.73
GCL	***0.34***	0.35	1.73	0.96	0.58	0.93	0.78	0.39	0.58	0.55	0.72
HUL	0.42	0.33	0.59	0.52	0.48	0.49	0.47	0.45	0.49	0.51	0.48
ITC	0.64	0.62	0.66	0.43	0.53	0.56	0.66	0.68	0.87	0.69	0.63
ML	0.91	1.46	1.55	1.44	***1.65***	1.52	1.27	0.81	0.87	0.86	1.23
AR	0.60	0.69	1.01	0.79	0.79	0.79	0.80	0.58	0.66	0.64	0.73

ANOVA F Test: F_c = 10.64, F_T = 2.25 @ 5 % Level of Significance where degree of freedom is V1= 6 and V2 = 63,
H_0 = Rejected and H_1 = Accepted.

	(3). Working Capital Ratio (WCR)										
(3).WCR	**Mar '07**	**Mar '08**	**Mar '09**	**Mar '10**	**Mar '11**	**Mar '12**	**Mar '13**	**Mar '14**	**Mar '15**	**Mar '16**	**AR**
BIL	36.91	12.49	26.81	80.89	196.72	-14.65	-211.51	-39.97	**1523.56**	83.89	169.51
CPL	-32.84	-14.51	432.29	35.62	27.85	41.77	52.85	-26.57	-21	-42.83	45.26
DIL	94.23	-62.02	8.71	95.77	9.89	8.8	9.19	30.86	**-715.58**	-31.58	-55.17
GCL	-21.16	-41.39	3.32	8.41	653.15	7.96	11.74	-10.33	-28.43	254.04	83.73
HUL	-9.9	-8.56	284.82	-15.91	-18.64	-17.17	-11.92	-10.95	-12.37	-12.4	16.7
ITC	7.26	6.87	5.79	-26.29	26.54	21.36	11.51	10.45	6.01	10.84	8.03
ML	**8.28**	4.73	4.78	4.01	**3.58**	4.07	4.01	7.1	6.67	7.7	5.49
AR	11.83	-14.63	109.50	26.07	128.44	7.45	-19.16	-5.63	108.41	38.52	39.08

ANOVA F Test: F_c = 0.96, F_T = 2.25 @ 5 % Level of Significance where degree of freedom is V1= 6 and V2 = 63,
H_0 = Accepted and H_1 = Rejected.

	(4). Debtor Turnover Ratio (DTR)										
(4). DTR	**Mar '07**	**Mar '08**	**Mar '09**	**Mar '10**	**Mar '11**	**Mar '12**	**Mar '13**	**Mar '14**	**Mar '15**	**Mar '16**	**AR**
BIL	76.87	55.86	62.74	86.22	73.76	95.4	72.81	117.48	101.1	74.49	81.67
CPL	142.76	165.28	157.3	**206.23**	30.36	30.86	38.96	65.39	57.18	40.99	93.53
DIL	28.62	20.84	21.43	21.98	16.2	16.76	17.04	15.07	16.03	13.67	18.76
GCL	77.64	73.11	**111.14**	38.44	23.9	31.61	29.32	29.3	30.99	**17.37**	46.28
HUL	27.8	31.31	38.19	26.19	20.92	32.57	30.97	34.32	39.35	**11.59**	29.32
ITC	19.34	19.04	22.41	21.62	24.24	25.53	25.7	15.35	21.2	21.84	21.63
ML	33.26	37.81	31.48	21.18	19.75	29.35	27.51	24.81	35.86	25.75	28.68
AR	58.04	57.61	63.53	60.27	29.88	37.44	34.62	43.10	43.10	29.39	45.70

ANOVA F Test: F_c = 10.84, F_T = 2.25 @ 5 % Level of Significance where degree of freedom is V1= 6 and V2 = 63,
H_0 = Rejected and H_1 = Accepted.

	(5). Inventory Turnover Ratio (ITR)										
(5). ITR	**Mar '07**	**Mar '08**	**Mar '09**	**Mar '10**	**Mar '11**	**Mar '12**	**Mar '13**	**Mar '14**	**Mar '15**	**Mar '16**	**AR**
BIL	10.23	8.58	12.27	12.69	13.57	13.01	16.94	17.19	20.76	20.7	14.59
CPL	16.58	20.08	**21.24**	18.23	14.87	12.37	17.07	15.85	15.79	14.22	16.63
DIL	11.09	10.41	9.2	9.61	7.12	7.11	8.7	8.72	9.86	9.34	9.12
GCL	6.49	5.41	8.65	7.58	8.06	6.88	6.68	8.27	9.05	8.66	7.57
HUL	7.91	7.11	8.11	8.15	**7.02**	8.79	10.21	10.2	11.84	**12.65**	9.2
ITC	3.67	3.46	**3.26**	4.08	4.07	4.47	4.53	4.52	4.66	4.32	4.1
ML	7	7.21	7.02	5.41	5.17	5.59	4.81	5.55	5.91	6.45	6.01
AR	9.00	8.89	9.96	9.39	8.55	8.32	9.85	10.04	11.12	10.91	9.60

ANOVA F Test: F_c = 44.21, F_T = 2.25 @ 5 % Level of Significance where degree of freedom is V1= 6 and V2 = 63,

H_0 = Rejected and **H_1** = Accepted.

	(6). Assets Turnover Ratio (ATR)										
(6). ATR	**Mar '07**	**Mar '08**	**Mar '09**	**Mar '10**	**Mar '11**	**Mar '12**	**Mar '13**	**Mar '14**	**Mar '15**	**Mar '16**	**AR**
BIL	3.55	3	3.66	4.12	4.79	9.07	6.74	7.35	5.79	4.67	5.27
CPL	4.68	Io (	7.92	6.09	5.95	6.19	6.46	5.97	5.17	4.08	6.16
DIL	**11.09**	10.41	9.2	9.61	7.12	7.11	8.7	8.72	9.86	9.34	9.12
GCL	3.4	3.13	1.83	1.52	1.54	**1.08**	1.19	1.35	1.31	1.26	1.76
HUL	4.38	9.09	8.26	6.88	7.42	6.3	9.65	8.55	8.27	8.68	7.75
ITC	1.16	1.15	**1.08**	1.32	1.34	1.34	1.34	1.27	1.19	1.12	1.23
ML	**3.92**	2.69	2.84	2.11	1.71	1.77	**1.29**	1.55	1.86	1.89	2.16
AR	4.60	5.51	4.97	4.52	4.27	4.69	5.05	4.97	4.78	4.43	4.78

ANOVA F Test: F_c = 60.37, F_T = 2.25 @ 5 % Level of Significance where degree of freedom is V1= 6 and V2 = 63,
H_0 = Rejected and **H_1** = Accepted.

	(7). Collection Period Ratio (CPR)										
(7). CPR	**Mar '07**	**Mar '08**	**Mar '09**	**Mar '10**	**Mar '11**	**Mar '12**	**Mar '13**	**Mar '14**	**Mar '15**	**Mar '16**	**AR**
BIL	3.9	5.37	4.78	3.48	4.07	3.14	4.12	2.55	2.97	4.03	3.84
CPL	2.1	1.82	1.91	**1.45**	**9.88**	9.72	7.7	4.59	5.25	7.32	5.17
DIL	10.48	14.4	14	13.65	18.51	17.9	17.61	19.9	18.71	21.95	16.71
GCL	3.86	4.1	2.7	7.8	12.55	9.49	10.23	10.24	9.68	17.27	8.79
HUL	10.79	9.58	7.86	11.45	14.34	9.21	9.69	8.74	7.62	**25.87**	11.52
ITC	15.51	15.76	13.39	13.88	12.37	11.75	11.67	19.54	14.15	13.73	14.18
ML	9.02	7.93	9.53	14.17	15.19	10.22	10.91	12.09	8.37	11.65	10.91
AR	7.95	8.42	7.74	9.41	12.42	10.20	10.28	11.09	9.54	14.55	10.16

ANOVA F Test: F_c = 17.83, F_T = 2.25 @ 5 % Level of Significance where degree of freedom is V1= 6 and V2 = 63,
H_0 = Accepted and **H_1** = Rejected.

	(8). Debt to Total Assets Ratio (DTAR)										
(8). DTAR	**Mar '07**	**Mar '08**	**Mar '09**	**Mar '10**	**Mar '11**	**Mar '12**	**Mar '13**	**Mar '14**	**Mar '15**	**Mar '16**	**AR**
BIL	0.77	12.31	2.96	52.02	48.82	5.14	23.34	0.54	0.35	0.2	14.64
CPL	1.5	2.81	2.12	1.39	**0.01**	0	0	0	0	0	0.78
DIL	4.62	3.06	15.84	12.4	**18.62**	17.34	13.19	**2.28**	5.24	2.92	9.55
GCL	50.43	47.21	10.49	1.48	4.33	8.6	8.63	0.03	**0.01**	0.07	13.13
HUL	2.6	5.8	16.99	0	0	0	0	0	0	0	2.54
ITC	1.9	1.76	1.28	0.76	0.55	0.42	0.3	0.19	0.13	0.09	0.74
ML	47.68	**52.16**	45.63	39.74	36.42	32.98	24.78	17.14	7.04	0.98	30.46
AR	15.64	17.87	13.62	15.40	15.54	9.21	10.03	2.88	1.82	0.61	10.26

NOVA F Test: F_c = 6.81, F_T = 2.25 @ 5 % Level of Significance where degree of freedom is V1= 6 and V2 = 63,
H_0 = Rejected and **H_1** = Accepted.

	(9). Interest Coverage Ratio (ICR)										
(9). ICR	**Mar '07**	**Mar '08**	**Mar '09**	**Mar '10**	**Mar '11**	**Mar '12**	**Mar '13**	**Mar '14**	**Mar '15**	**Mar '16**	**AR**
BIL	14.04	22.96	13.87	14.9	**6.25**	7.63	9.8	100.75	730.43	906.25	182.68
CPL	40	193.67	49.43	65.36	323.95	390.67	0	0	0	0	106.3
DIL	65.16	34.46	30.55	40.81	50.69	42.63	41.74	45.51	99.74	124.37	57.57
GCL	20.04	17.3	22.08	82.73	96.61	57.69	41.86	19.51	23.4	26.76	40.8
HUL	203.93	92.8	120.31	403.07	12238.63	2798.6	198.13	140.56	368.86	**32615.39**	4918.02
ITC	245.4	183.96	100.71	67.22	107.29	115.19	124.56	4292.22	244.77	305.47	578.68
ML	8.59	9.73	**6.68**	17.78	12.73	15.2	13.17	25.09	46.3	**68.9**	22.42
AR	85.31	79.27	49.09	98.84	1833.74	489.66	61.32	660.52	216.21	4863.88	843.78

ANOVA F Test: F_c = 2.06, F_T = 2.25 @ 5 % Level of Significance where degree of freedom is V1= 6 and V2 = 63,
H_0 = Accepted and **H_1** = Rejected.

	(10). Equity to Total Assets Ratio (ETAR)										
(10).ETAR	**Mar '07**	**Mar '08**	**Mar '09**	**Mar '10**	**Mar '11**	**Mar '12**	**Mar '13**	**Mar '14**	**Mar '15**	**Mar '16**	**AR**
BIL	0.04	0.03	0.03	0.03	0.03	0.04	0.03	0.03	0.02	0.01	0.03
CPL	**0.48**	0.08	0.06	0.04	0.04	0.03	0.03	**0.02**	**0.02**	0.03	0.08
DIL	0.2	0.16	0.1	0.1	0.13	0.11	0.1	0.09	0.07	0.06	0.11
GCL	0.1	0.08	0.04	0.04	0.02	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	0.03
HUL	0.08	0.14	0.09	0.08	0.08	0.06	0.08	0.07	0.06	0.06	0.08
ITC	0.04	0.03	0.03	0.03	0.05	0.04	0.04	0.03	0.03	0.02	0.03
ML	**0.17**	**0.1**	0.09	0.06	0.04	0.04	0.02	0.03	0.03	0.05	0.06
AR	0.16	0.09	0.06	0.05	0.06	0.05	0.04	0.04	0.03	0.03	0.06

ANOVA F Test: F_c = 6.81, F_T = 2.25 @ 5 % Level of Significance where degree of freedom is V1= 6 and V2 = 63,
H_0 = Rejected and **H_1** = Accepted.

	(11). Return On Assets (ROA)										
(11).ROA	**Mar '07**	**Mar '08**	**Mar '09**	**Mar '10**	**Mar '11**	**Mar '12**	**Mar '13**	**Mar '14**	**Mar '15**	**Mar '16**	**AR**
BIL	20.17	25.91	26.14	**14.81**	26.74	52.98	44.4	63.87	71.28	66.5	41.28
CPL	72.61	167.09	157.03	146.45	135.79	135.49	135.42	121.35	101.31	81.24	125.37
DIL	68.28	**69.06**	50.39	63.35	44.95	**38.15**	41.93	45.24	40.01	41.33	50.27
GCL	67.97	63	32.47	36.05	34.35	27.97	21.46	24.84	25.54	25.56	35.92
HUL	78.28	154.96	122.69	108.93	110.47	98.8	**186.4**	154.57	166.6	159.25	134.09
ITC	37.2	37.06	34.63	42.99	45.89	47.7	48.3	48.22	45.75	45.61	43.33
ML	49.02	32.81	28.57	34.3	29.28	25.68	21.72	32.06	31.18	38.82	32.34
AR	56.22	78.56	64.56	63.84	61.07	60.97	71.38	70.02	68.81	65.47	66.09

ANOVA F Test: F_c = 43.03, F_T = 2.25 @ 5 % Level of Significance where degree of freedom is V1= 6 and V2 = 63,
H_0 = Rejected and H_1 = Accepted.

	(12). Return On Capital Employed (ROCE)										
(12).ROCE	**Mar '07**	**Mar '08**	**Mar '09**	**Mar '10**	**Mar '11**	**Mar '12**	**Mar '13**	**Mar '14**	**Mar '15**	**Mar '16**	**AR**
BIL	48.45	49.84	56.37	37.8	72.52	734.92	87.01	141.3	166.55	154.31	154.9
CPL	162.67	321.59	194.97	159.57	154.7	184.99	194.71	172.82	131.82	90.91	176.87
DIL	113.71	153.99	75.59	112.69	73.35	59.43	70.76	108.53	146.15	240.45	115.46
GCL	**135.59**	135.01	**38.99**	95.48	44.64	49.65	44.7	105.81	95.55	78.36	82.38
HUL	**1342.91**	-2381.68	181.53	269.27	264.76	404.18	3922.1	-3682.68	**-18898.08**	1757.19	-1682.1
ITC	61.67	55.52	48.94	82.21	80.62	87.78	78.31	83.62	69.57	85.51	73.38
ML	65.91	44.68	37.29	51.68	45.79	44.46	48.5	75.39	66.41	92.89	57.3
AR	275.84	-231.58	90.53	115.53	105.20	223.63	635.16	-427.89	-2603.15	357.09	-145.97

ANOVA F Test: F_c = 0.79, F_T = 2.25 @ 5 % Level of Significance where degree of freedom is V1= 6 and V2 = 63,
H_0 = Accepted and H_1 = Rejected.

	(13). Return On Current Assets (ROCA)										
(13).ROCA	**Mar '07**	**Mar '08**	**Mar '09**	**Mar '10**	**Mar '11**	**Mar '12**	**Mar '13**	**Mar '14**	**Mar '15**	**Mar '16**	**AR**
BIL	32.67	38.68	40.11	**22.15**	37.91	37.02	44.93	66.15	72.04	77.67	46.93
CPL	52.18	62.69	60.12	77.28	71.25	77.75	75.6	96.52	**105.17**	100.14	77.87
DIL	72.57	65.25	45.41	57.54	43.87	46.17	52.43	66.07	81.16	93	62.35
GCL	77.73	68.1	32.07	54.78	75.68	64.79	47.28	70.5	62.49	80.19	63.36
HUL	61.55	64.29	50.43	48.35	**45.58**	56.36	74.67	70.71	**83.62**	74.32	62.99
ITC	62.67	61.96	56.78	71.71	71.92	79.61	75.53	78.66	72.09	75.19	70.61
ML	34.79	33.01	30.4	41.05	41.54	38.73	41.94	59.62	55.64	67.38	44.41
AR	56.31	56.28	45.05	53.27	55.39	57.20	58.91	72.60	76.03	81.13	61.22

ANOVA F Test: F_c = 6.59, F_T = 2.25 @ 5 % Level of Significance where degree of freedom is V1= 6 and V2 = 63,
H_0 = Rejected and H_1 = Accepted.

	(14). Return On Equity Capital (ROEC)										
(14).ROEC	**Mar '07**	**Mar '08**	**Mar '09**	**Mar '10**	**Mar '11**	**Mar '12**	**Mar '13**	**Mar '14**	**Mar '15**	**Mar '16**	**AR**
BIL	523.15	934.95	929.59	**512.06**	987.07	1215.74	1547.14	2284.54	3684.12	**4720.04**	1733.83
CPL	152.06	2050.59	2551.54	3561.1	3835	4337.57	4875.22	5352.65	**5738.09**	3044.71	3549.85
DIL	334.52	435.59	510.97	624.6	349.43	345.06	440.69	505.03	561.58	695	480.25
GCL	673.65	795.39	757.74	982.48	1701.67	2269.91	1905.52	2207.73	2538.51	2871.51	1670.41
HUL	991.54	1086.77	1397.39	1289.54	1360.16	1605.49	2304.29	2341.71	2867.69	2713.05	1795.76
ITC	1046.25	1201.29	1271.41	1589.4	948.11	1147.99	1363.06	1592.07	1753.47	1864.94	1377.8
ML	282.33	**315.6**	317.21	533.92	654.57	700.55	891.94	1183.87	1218.28	789.3	688.76
AR	571.93	974.31	1105.12	1299.01	1405.14	1660.33	1903.98	2209.66	2623.11	2385.51	1613.81

ANOVA F Test: F_c = 11.24, F_T = 2.25 @ 5 % Level of Significance where degree of freedom is V1= 6 and V2 = 63,
H_0 = Rejected and H_1 = Accepted.

	(15). Operating Profit to Sales Ratio (OPSR)										
(15). OPSR	**Mar '07**	**Mar '08**	**Mar '09**	**Mar '10**	**Mar '11**	**Mar '12**	**Mar '13**	**Mar '14**	**Mar '15**	**Mar '16**	**AR**
BIL	5.85	8.98	7.2	6.09	**5.48**	5.61	6.62	9.46	10.75	14.24	8.02
CPL	18.8	18.09	19.13	24.14	22.51	21.48	20.76	18.55	20.65	22.37	20.64
DIL	17.46	18.62	18.44	19.23	19.81	17.48	17.35	16.95	17.28	19.11	18.17
GCL	20.01	22.27	15.55	21.47	20.06	18.6	17.59	18.31	18.96	20.42	19.32
HUL	14.75	14.96	14.46	15.74	**13.57**	14.88	15.51	15.97	16.91	**17.91**	15.47
ITC	32.67	31.71	32.84	33.03	34.54	35.15	35.54	37.47	36.91	**38.65**	34.45
ML	13.77	13.27	14.02	16.64	14.75	13.74	15.32	15.17	14.14	17.02	14.78
AR	17.62	18.27	17.38	19.48	18.67	18.13	18.38	18.84	19.37	21.39	18.69

ANOVA F Test: F_c = 186.2, F_T = 2.25 @ 5 % Level of Significance where degree of freedom is V1= 6 and V2 = 63,
H_0 = Rejected and H_1 = Accepted.

AR = Average Ratio.

(1). The CR witnessed a fluctuating trend during the study period. The average Current Ratio was 1.07 during the study period. It was the higher of 1.56 in 2008-09 whereas it was the lowest of 0.7 in 2012-13. The average current ratio during the study period of all selected units was 1.25 considering this average ratio, as an ideal ratio, the performance of Marico (ML) was the best whereas the performance of HUL and CPL was not good, because in these two companies the average ratio was below than the average current ratio. The Current ratio was the highest among all selected units was in Marico Ltd (3.1) in the year 2010-11 whereas it was the lowest of 0.69 in HUL during 2007-08. Overall out of seven unit majority unit's (4 units) performance was up to expectation. The table value of F-Test (FT) is less than the calculated value of F-Test (FC). Therefore, the alternative hypothesis is accepted and null hypothesis is rejected. The results are not as per expectation.

(2). The QR witnessed a mix trend during the study period. The Average Quick Ratio was 0.73 during the study period. It was the highest of 0.91 in 2009-10 whereas it was the lowest of 0.53 in 2014-15. The Average Quick Ratio during the study period of all selected units was 0.73 considering this average ratio, as an ideal ratio, the performance of Marico (ML) was the best whereas the performance of HUL and BIL was not good, because in these two companies the average ratio was below than the Average Quick Ratio. The Quick Ratio was the highest among all selected units was in Marico Ltd (1.65) in the year 2010-11 whereas it was the lowest of 0.34 in HUL during 2006-07. Overall out of seven units' majority unit's (4 units) the performance was up to expectation. The table value of F-Test (FT) is less than the calculated value of F-Test (FC). Therefore, the alternative hypothesis is accepted and the null hypothesis is rejected. The results are not as per expectation.

(3). The WCR witnessed a mixed trend during the study period. The Average Working Capital Ratio was 5.49 during the study period. It was the highest of 8.28 in 2006-07 whereas it was the lowest of 3.58 in 2010-11. The Average Working Capital ratio during the study period of all selected units was 39.08 considering this average ratio, as an ideal ratio, the performance of BIL, GCL and CPL were the best whereas the performance of DIL and ML were not good, because in these three companies the average ratio was below than the Average Working Capital ratio. The Working Capital Ratio was the highest among all selected units was in BIL i.e. 1523.56 in the year 2015-16 whereas it was the lowest of -715.58 in DIL during the same year 2015-16. Overall out of seven units' majority unit's (4 units) the performance was up to expectation. The table value of F-Test (FT) is more than the calculated value of F-Test (FC). Therefore, the null hypothesis is accepted and alternative hypothesis is rejected. The results are as per expectation.

(4). The DTR witnessed a fluctuating trend during the study period. The Average Debtors Turnover Ratio was 46.28 during the study period. It was the highest of 111.54 in 2008-09 whereas it was the lowest of 17.37 in 2015-16. The Average Debtors Turnover ratio during the study period of all selected units was 45.70 considering this average ratio, as an ideal ratio, the performance of BIL and CPL were the best whereas the performance of ML and ITC were not good, because in these two companies the average ratio was below than the Average Debtors Turnover ratio. The Debtors Turnover ratio was the highest among all selected units was in CPL i.e. 93.53 in the year 2009-10 whereas it was the lowest of 11.59 in HUL during 2015-16. Overall out of seven units the performances of only two units were up to expectation. The table value of F-Test (FT) is less than the calculated value of F-Test (FC). Therefore, the alternative hypothesis is accepted and the null hypothesis is rejected. The results are not as per expectation.

(5). The ITR witnessed a mix trend during the study period. The Average Inventory Turnover Ratio was 9.2 during the study period. It was the highest of 12.65 in 2015-16 whereas it was the lowest of 7.02 in 2010-11. The Average Inventory Turnover ratio during the study period of all selected units was 9.60 considering this average ratio, as an ideal ratio, the performance of BIL, CPL and DIL were the best whereas the performance of ITC and ML were not good, because in these two companies the average ratio was below than the Average Inventory Turnover ratio. The Inventory Turnover ratio was the highest among all selected units was in CPL was 21.24 in the year 2008-09 whereas it was the lowest of 3.26 in ITC during the same year 2008-09. Overall out of seven units the performance of majority unit's (4 units) was not up to expectation. The table value of F-Test (FT) is less than the calculated value of F-Test (FC). Therefore, the alternative hypothesis is accepted and null hypothesis is rejected. The results are not as per expectation.

(6). The ATR witnessed a fluctuating trend during the study period. The Average Assets Turnover Ratio was 2.16 during the study period. It was the highest of 3.92 in 2006-07 whereas it was the lower of 1.29 in 2012-13. The Average Assets Turnover ratio during the study period of all selected units was 4.78 considering this average ratio, as an ideal ratio, the performance of BIL, CPL, DIL, HUL, were the best whereas the performance of ITC and ML were not good, because in these two companies the average ratio was below than the Average Assets Turnover ratio. The Assets Turnover ratio was the highest among all selected units was in DIL (11.09) in the year 2006-07 whereas it was the lower of 1.08 in both companies ITC and GCL during the year 2008-09 and 2011-12 respectively. Overall out of seven units the performances of majority unit's (5 units) were up to expectation. The table value of F-Test (FT) is less than the calculated value of F-Test (FC). Therefore, the alternative hypothesis is accepted and null hypothesis is rejected. The results are as per expectation.

(7). The CPR witnessed a fluctuating trend during the study period. The Average Collection Period Ratio was 5.17 during the study period. It was the highest of 9.88 in 2008-09 whereas it was the lowest of 1.45 in 2010-11. The Average Collection Period Ratio during the study period of all selected units was 10.16 considering this average ratio, as an ideal ratio, the performance of DIL, HUL and ITC were the best whereas the performance of BIL, CPL and GCL were not good, because in these three companies the average ratio was below than the Average Collection Period Ratio. The Average Collection Period Ratio was the highest among all selected units was in HUL i.e. 25.87 in the year 2015-16 whereas it was the lowest of 1.45 in CPL during 2009-10.Overall out of seven units the performances of majority units (4 units) were up to expectation. The table value of F-Test (FT) is less than the calculated value of F-Test (FC). Therefore, the alternative hypothesis is accepted and null hypothesis is rejected. The results are not as per expectation.

(8). The DTAR witnessed a fluctuating trend during the study period. The Average Debt Ratio was 9.55 during the study period. It was the highest of 18.62 in 2010-11 whereas it was the lower of 2.28 in 2013-14. The Average Debt Ratio during the study period of all selected units was 10.26 considering this average ratio, as an ideal ratio, the performance of BIL and GCL were best whereas the performance of CPL and ITC were not good, because in these two companies the average ratio was much lower than the Average Debt Ratio. The Debt Ratio was the highest among all selected units was in ML i.e. 52.16 in the year 2007-08 whereas it was the lowest of 0.01 in HUL during 2010-11. Overall out of seven units the performance of majority unit's (4 units) was not up to expectation. The table value of F-Test (FT) is less than the calculated value of F-Test (FC). Therefore, the alternative hypothesis is accepted and null hypothesis is rejected. The results are not as per expectation.

(9). The ICR witnessed a fluctuating trend during the study period. The Average Interest Coverage Ratio was 22.42 during the study period. It was the highest of 68.9 in 2015-16 whereas it was the lowest of 6.68 in 2008-09. The Average Interest Coverage Ratio during the study period of all selected units was 843.78 considering this average ratio, as an ideal ratio, the performance HUL was the best whereas the performance of GCL and ML was not good, because in these two companies the average ratio was below than the Average Interest Coverage Ratio. The Interest Coverage was the highest among all selected units was in HUL 32615.39 in the year 2015-16 whereas it was the lowest of 6.68 in ML during 2008-09. Overall out of seven units the performances of majority unit's (4 units) were not up to expectation. The table value of F-Test (FT) is more than the calculated value of F-Test (FC). Therefore, the null hypothesis is accepted and alternative hypothesis is rejected. The results are as per expectation.

(10). The ETAR witnessed a mix trend during the study period. The Average Equity Ratio was 0.06 during the study period. It was the highest of 0.17 in 2006-07 whereas it was the lowest of 0.1 in 2007-08. The Average Equity Ratio during the study period of all selected units was 0.06 considering this average ratio, as an ideal ratio, the performance of DIL was the best whereas the performance of BIL, GCL and ITC were not good, because in these three companies the average ratio was below than the Average Equity Ratio. The equity ratio was the highest among all selected units was in CPL i.e. 0.48 in the year 2006-07 whereas it was the lowest of 0.01 in GCL during the five consecutive years which were 2011-12, 2012-13, 2013-14, and 2014-15. Overall out of seven units the performances of majority unit's (4 units) were not up to expectation. The table value of F-Test (FT) is less than the calculated value of F-Test (FC). Therefore, the alternative hypothesis is accepted and null hypothesis is rejected. The results are not as per expectation.

(11). The ROAR witnessed a fluctuating trend during the study period. The Average Return on Assets was 50.27 during the study period. It was the highest of 69.06 in 2007-08 whereas it was the lowest of 38.15 in 2011-12. The Average Return on Assets Ratio during the study period of all selected units was 66.09 considering this average ratio, as an ideal ratio, the performance of HUL was the best whereas the performance of ML, BIL and ITC were not good, because in these three companies the average ratio was below than the Average Return on Assets. The Return on Assets Ratio was the highest among all selected units was in HUL i.e. 186.40 in the year 2012-13 whereas it was the lowest of 14.81 in BIL during 2009-10. Overall out of seven units the performances of majority unit's (4 units) were not up to expectation. The table value of F-Test (FT) is less than the calculated value of F-Test (FC). Therefore, the alternative hypothesis is accepted and hypothesis null is rejected. The results are not as per expectation.

(12). The ROCE witnessed a mix trend during the study period. The Average Return on Capital Employed Ratio was 82.38 during the study period. It was the highest of 135.59 in 2006-07 whereas it was the lowest of 38.99 in 2008-09. The Average Return on Capital Employed Ratio during the study period of all selected units was -145.97 considering this average ratio, as an ideal ratio, the performance of CPL was the best whereas the performance of HUL was not good, because in this company the average ratio was below than the average return on capital employed ratio. The Return on Capital Employed was the highest among all selected units was in HUL i.e. 1342.91 in the year 2006-07 whereas it was the lowest of -18898.08 in the same company HUL during 2015-16. Overall out of seven units the performances of majority unit's (5 units) were not up to expectation. The table value of F-Test (FT) is more than the calculated value of F-Test (FC). Therefore, the null hypothesis is accepted and alternative hypothesis is rejected. The results are as per expectation.

(13). The ROCA witnessed a fluctuating trend during the study period. The Average Return on Current Assets Ratio was 62.99 during the study period. It was the highest of 83.62 in 2014-15 whereas it was the lowest of 45.58 in 2010-11. The Average Return on Current Assets Ratio during the study period of all selected units was 61.22 considering this average ratio, as an ideal ratio, the performance of CPL and ITC were the best whereas the performance of ML and BIL were not good, because in these two companies

the average ratio was below than the average return on current assets ratio. The Return on Current Assets Ratio was the highest among all selected units was in CPL i.e. 105.17 in the year 2014-15 whereas it was the lowest of 22.15 in BIL during 2009-10. Overall out of seven unit majority unit's (5 units) the performance was up to expectation. The table value of F-Test (FT) is less than the calculated value of F-Test (FC). Therefore, the null hypothesis is rejected and alternative hypothesis is accepted. The results are not as per expectations.

(14). The ROEC witnessed a fluctuating trend during the study period. The Average Return on Equity Ratio was 1733.83 during the study period. It was the highest of 4720.04 in 2015-16 whereas it was the lowest of 512.06 in 2009-10. The Average Return on Equity Ratio during the study period of all selected units was 1613.81 considering this average ratio, as an ideal ratio, the performance of CPL and HUL were the best whereas the performance of ML and DIL were not good, because in these two companies the average ratio was below than the average return on equity ratio. The Return on Equity Ratio was the highest among all selected units was in CPL i.e. 5738.09 in the year 2014-15 whereas it was the lowest of 152.06 in the same company CPL during 2006-07. Overall out of seven unit majority unit's (5 units), the performance was up to expectation. The table value of F-Test (FT) is less than the calculated value of F-Test (FC). Therefore, the null hypothesis is rejected and alternative hypothesis is accepted. The results are as per expectation.

(15). The OPSR witnessed a fluctuating trend during the study period. The Average Operating Profit to Sales Ratio was 15.47 during the study period. It was the highest of 17.91 in 2015-16 whereas it was the lowest of 13.57 in 2010-11. The Average Operating Profit to Sales Ratio during the study period of all selected units was 18.69 considering this average ratio, as an ideal ratio, the performance of ITC was the best whereas the performance of HUL and ML were not good, because in these two companies the average ratio was below than the average operating profit to sales ratio. The Operating Profit to Sales Ratio was the highest among all selected units was in ITC i.e. 38.65 in the year 2015-16 whereas it was the lowest of 5.48 in BIL during 2010-11. Overall out of seven units the performances of majority units (4 units) were up to expectation. The table value of F-Test (FT) is less than the calculated value of F-Test (FC). Therefore, the alternative hypothesis is accepted and null hypothesis is rejected. The results are not as per expectation.

Findings of the study: The Average Current Ratio was 1.25. It was highest 2.33 in ML whereas it was the lowest 0.08 in HUL. The Average Quick Ratio was 0.73. It was highest 1.23 in ML whereas it was the lowest 0.48 in HUL. The Average Working Capital Ratio was 39.08. It was highest 169.51 in CPL whereas it was the lowest -55.17 in HUL. The Average Debtor Turnover Ratio was 45.70. It was highest 93.53 in CPL whereas it was the lowest 18.76 in DIL. The Average Inventory Ratio was 9.60. It was highest 16.63 in CPL whereas it was the lowest 3.26 in ITC. The Average Assets Turnover Ratio was 4.78. It was highest 9.12 in DIL whereas it was the lowest 1.23 in two companies which are ITC and GSL. The Average Collection Period Ratio was 10.16. It was highest 16.71 in DIL whereas it was the lowest 3.84 in BIL. The Average Debt Ratio was 10.26. It was highest 30.46 in ML whereas it was the lowest 0.74 in ITC. The Average Interest Coverage Ratio was 843.78. It was highest 4918.02 in HUL whereas it was the lowest 22.42 in ML. The Average Equity Ratio was 0.06. It was highest 0.11 in DIL whereas it was the lowest 0.03 in three companies which are BIL, GCL and ITC. The Average Return on Assets Ratio was 66.09. It was highest 134.09 in HUL whereas it was the lowest 32.34 in ML. The Average Return on Capital Employed Ratio was -145.97. It was highest 176.87 in CPL whereas it was the lowest -1682.10 in HUL. The Average Return on Current Assets Ratio was 61.22. It was highest 77.87 in CPL whereas it was the lowest 44.41 in ML. The Average Return in Equity Ratio was 1613.81. It was highest 3549.85 in CPL whereas it was the lowest 480.25 in DIL. The Average Operating Profit to Sales Ratio was18.69. It was highest 34.45 in ITC whereas it was the lowest 8.02 in BIL.

Suggestions: CPL and HUL needs to improve its current financial position to meet its current obligation by improving its current ratio. It can be done either by increasing current assets or decreasing current liabilities. HUL and BIL should improve its quick ratio by investing in long term finance, improving inventory turnover ratio, or by discarding unproductive assets. DIL and ML needs to improve its working capital ratio by earning more profits, issuing common stock, replacing short term debt with long term debt, or by selling long term assets for cash. ML, ITC and HUL needs to improve its debtors turnover ratio either by improving collection efficiency or by offering discounts for early payments. ITC and ML needs to improve its inventory turnover ratio either by forecast the demand of the customers correctly or improving sales by focusing on top selling products. ITC and GCL needs to improve its assets turnover ratio either by increasing revenue or by obsolete assets should be liquidate quickly. BIL and CPL needs to improve its collection period ratio either by improving collection efficiency or by offering discount for early payments. ITC and CPL needs to improve its debt ratio. Companies can issue new or additional shares to increase the cash flow. GCL and ML needs to improve its interest coverage ratio by making timely payment to outstanding debt. BIL, GCL and ITC needs to improve equity ratio by issuing equity capital in the form of bonus share or Flown Public Offer. ML and GCL needs to improve its return on assets ratio either by reducing assets costs or by increasing revenue without increasing assets cost. HUL and ML needs to improve its return on capital employed either by selling off unprofitable or unnecessary assets or by paying off debt. BIL and ML needs to improve return on current assets either by reducing current assets cost or by increasing revenue. DIL and ML needs to improve return on equity by increasing profit margins, improving assets turnover ratio or by distributing idle cash.

BIL, HUL and ML needs to improve operating profit to sales ratio by reducing cost of goods sold, increasing sales revenues or reducing labour and operation costs.

Limitations of the study: The main limitations of the study are as follows:

I. The study is related to FMCG Sector of India only.
II. The study is based on secondary data derived from annual reports as well as web-sites of selected FMCG units.
III. This study is restricted to 10 years and only seven units as compared to population the sample size is too small. Hence results of the study cannot be generalized.
IV. The ratio analysis has its own limitations. The same also applies to the present study.
V. The limitations of the various statistical tools like; average, Single Factor ANOVA etc. apply to the study.

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