

Analysing Financial Performance of Indian Consumer Goods Sector Firms Listed on BSE 500

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ABSTRACT

Manufacturing Sector is very important and crucial sector for the economic development of the country. Consumer goods sector is also showing good growth prospects due to development of the infrastructure sector development in India. Moreover, the concept of self-reliant also paved way for Make in India and increased focus on manufacturing Sector. In this paper, researcher have analysed 24 consumer goods sector firms Financial Performance for the last 5 years so as to understand the contribution of consumer goods sector in the economic growth and development of the country. The data of the Consumer goods sector has been taken from CMIE Prowess. Various ratios such as ROA, ROE & ROCE has been taken up and the capital structure variables such as liquidity, tangibility, profitability, NDTs, Operating Liability and ETR has been assessed in relation to financial Performance of the Consumer Goods Sector. The analysis found the impact of Tangibility, liquidity Profitability, NDTs and ETR on ROA. Operating Liability and ICR were not impacting on ROA. Variables Tangibility, liquidity Profitability, NDTs and ETR were impacting on ROCE. Thus, Operating Liability and ICR were not impacting on ROCE.

Keywords: Financial Performance, Capital Structure, Consumer Goods Sector, Manufacturing Sector.

Introduction

The concept of Capital structure and its impact on firm's performance can be traced back to the MM Theory 1958, which states that decisions about capital structure are irrelevant. The choice between equity and debt doesn't impact value of firm. The decisions about capital structure are not affected by either the cost or capital or the value of firm. The capital structure is among one of crucial factor in firm's success. Optimal capital structure is one which helps the firm in maximizing its value. Debt financing is done by issuing long term and short term debts, bonds, short & long duration loans & debentures. Financial leverage is expressed as ratio of debt and equity that explains relationship between borrowed funds and owners fund in the firm's capital structure. Firms having only equity are called unlevered firms whereas firms having both debt and equity capital are called Levered Firms.

Review of Literature

Authors and Year	Objective	Methodology and years of study	Findings
Titman, Sheridan, and Roberto	To estimate the impact of unobservable attributes on the choice of corporate	Factor Analytic Technique (1974-1982)	The results depict that firms with specialized products have low debt ratios and supported

Wessels (1988)	debt ratios of 469 firms by extending empirical work on theories of the capital structure.		the proposition that profitable firms have relatively less amount of debt compared to equity market value. The transaction cost may be important factor for choosing capital structure. It was found that smaller firms generally use more short-term debt when compared with larger firms.
Abor (2005)	To analyse the impact of capital structure of 22 listed firms on profitability in Ghana.	Multiple regression Model (1999-2004)	The results shows that 80% of total debt of company were representing short-term debt. More the profitability, more the debt used by firms in Ghana. It was observed that long term debt has negative impact on ROE whereas TD and STD ratio have positively impacted profitability.
Babu and chalam (2016)	Examined the capital structure of 58 Indian Automobile Industries listed in BSE.	Panel regression (1998-2014)	The findings are that risk and liquidity are positively related with leverage and other variables like profitability, size and growth were negative related to leverage.
Yadav (2018)	To investigate the relationship between profitability and borrowing for 8 Indian automobiles companies.	Regression, Panel data analysis	It was concluded that the relationship between debt financing and capital structure is inverse in nature. ROA, ROE, ROCE, and EPS were taken as performance measures while debt equity ratio and long term debt ratio were taken as proxy for capital structure variables.
Shobha Panchal and Subhash Chand (2023)	To investigate the impact of capital structure of 51 selected manufacturing firms listed on NIFTY	Correlation and Panel data regression. (2013-2022)	The conclusion of the study shows negative effect of DER on financial performance calculated through ROA. Control variable Size depicts negative relation with firm performance.

Significance of Study and Research Gap

Objectives

- To study the growth pattern of Consumer goods Sector for last 5 years.
- To explain the relationship between profitability and determinants of Capital Structure in the Consumer goods Sector firms.

Research Methodology

In Consumer Good Sector, 1040 firms have been selected from CMIE PROWESS. Under that 24, firms have been selected for the sample which are listed on BSE 500. Secondary data related to financial performances of these companies has been collected from CMIE Prowess.

Manufacturing Sector Industry	Total Manufacturing firms	Manufacturing firms listed on BSE 500
Consumer Goods	1040	24

(Source: Compiled from CMIE PROWESS database)

Data Collection Methods

Data has been collected from secondary sources such as CMIE PROWESS, Newspapers, magazines, and journals etc.

Period of the Study

In order to examine the Capital structure impact on financial Performance of Cement Sector, the study has been conducted for the period of 5 years i.e., March 2018 to March 2022. This period of 5 years has been selected to know the latest trend of Consumer goods sector firms' financial performance.

Variables under Study

Profitability measures ROA, ROE and ROCE and Independent variables Tangibility, liquidity Profitability, Non-Debt Tax shield, ETR, Operating Liability and Interest Coverage Ratio have been taken up under study.

Data Analysis and Interpretation

Total Manufacturing firms available on CMIE prowess and from those selecting BSE 500 Manufacturing firms. Among the above BSE 500 manufacturing Sector Firms, Consumer goods Sector firms have been selected under study.

Total Manufacturing firms available on CMIE prowess and from those selecting BSE 500 Manufacturing firms. Among the above BSE 500 manufacturing Sector Firms, Transport Sector 24 companies have been selected under study.

To test the defined hypothesis, various statistical techniques have been used. In order to analyse and interpret the data along with findings, following statistical methods have been used in the research. Descriptive Statistics (Mean, Median, Frequency, Percentage, standard deviation, maximum, minimum, coefficient of variation), Correlation, Regression etc.

One-Sample Kolmogorov-Smirnov Test				
		RONW	ROCE	ROA
N		120	120	120
Normal Parameters ^{a,b}	Mean	24.5298	21.8644	12.6667
	Std. Deviation	18.76286	18.19397	9.07643
Most Extreme Differences	Absolute	.159	.177	.077
	Positive	.159	.177	.075
	Negative	-.098	-.111	-.077
Test Statistic		.159	.177	.077
Asymp. Sig. (2-tailed)		.000 ^c	.000 ^c	.076 ^c
a. Test distribution is Normal.				
b. Calculated from data.				
c. Lilliefors Significance Correction.				

ROA (RETURN ON ASSET)

Table 1: (Output computed by researcher from SPSS)

Descriptive Statistics			
	Mean	Std. Deviation	N
ROA	12.6667	9.07643	120
ROCE	21.86	18.19	120
RONW	24.52	18.76	120
TANGIBILITY	.4097	.16361	120
LIQUIDITY	1.8373	1.54235	120
PROFITABILITY	.2035	.12161	120
NON- DEBT TAX SHIELD	.0273	.02500	120
OPERATING LIABILITY	.3578	.75647	120
ETR	.2485	.08460	120
ICR	50.0368	111.47541	120

Interpretation: In the table 1, descriptive statistics of all variables have been computed. The mean of ROA is 12.66 and standard deviation is 9.07. The mean of ROCE is 21.86 and standard deviation is 18.19. The mean of RONW is 24.52 and standard deviation is 18.76. The mean of independent variable tangibility is .41 and standard deviation is .16. The mean of liquidity is 1.8 and standard deviation is 1.54. The mean of profitability is .20 and standard deviation is .12. The mean of NDTs is .02 and standard deviation is .02. The mean of operating liability is .35 and standard deviation is .75. The mean of ETR is .24 and standard deviation is .08. The mean of ICR is 50.03 and standard deviation is 111.47.

Correlation

Table 2: Output Computed by researcher from SPSS)

		Roa	Tangibility	Liquidity	Profitability	Non Debt Tax Shield	Operating Leverage	ETR	ICR
Pearson Correlation	ROA	1.000	.108	.181	.933	.092	.454	-.020	.269
	TANGIBILITY	.108	1.000	-.044	.114	.479	-.165	-.221	.242
	LIQUIDITY	.181	-.044	1.000	.043	-.130	.066	-.064	.165
	PROFITABILITY	.933	.114	.043	1.000	.297	.461	.124	.256
	NON DEBT TAX SHIELD	.092	.479	-.130	.297	1.000	.072	-.026	.078
	OPERATING LIABILITY	.454	-.165	.066	.461	.072	1.000	.119	.071
	ETR	-.020	-.221	-.064	.124	-.026	.119	1.000	.068
	ICR	.269	.242	.165	.256	.078	.071	.068	1.000

Interpretation Table 3: Coefficient correlation shows that No Independent variable is highly correlated with Dependent Variable that is Return on Assets.

Table 3: (Output Computed by researcher from SPSS)

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	9295.532	7	1327.933	292.847	.000 ^b
	Residual	507.872	112	4.535		
	Total	9803.403	119			
a. Dependent Variable: ROA						
b. Predictors: (Constant), ICR, ETR, NON DEBT TAX SHIELD, OPERATING LEVERAGE, LIQUIDITY, PROFITABILITY, TANGIBILITY						

Interpretation: In Table 3, As P value is less than 0.05 which shows that overall model is fit and data is significantly predicting our model.

Table 4: (Output Computed by researcher from SPSS)

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.974 ^a	.948	.945	2.12945
a. Predictors: (Constant), ICR, ETR, NON-DEBT TAX SHIELD, OPERATING LIABILITY, LIQUIDITY, PROFITABILITY, TANGIBILITY				

Interpretation: In Table 4, Adjusted R2 shows that 94.5 % of variation in Return on Assets is reflected by ICR, ETR, Operating liability, NDTs, Liquidity, Tangibility & Profitability.

Coefficients								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	.049	.973		.050	.960		
	Tangibility	5.182	1.490	.093	3.477	.001	.641	1.560

	Liquidity	.596	.131	.101	4.561	.000	.939	1.065
	Profitability	73.623	1.963	.986	37.511	.000	.669	1.495
	Non debt tax shield	-86.702	9.430	-.239	-9.194	.000	.686	1.458
	Operating liability	.479	.301	.040	1.593	.114	.736	1.359
	ETR	-13.649	2.422	-.127	-5.635	.000	.907	1.102
	ICR	.000	.002	.001	.063	.950	.842	1.188

Interpretation: In Table 5, As P value is less than 0.05 in variables Tangibility, liquidity Profitability, NDTs and ETR which means that these variables were impacting on ROA. Thus, Operating Liability and ICR were not impacting on ROA.

ROCE (RETURN ON CAPITAL EMPLOYED)

Table 6: Output Computed by researcher from SPSS)

		correlations							
		ROCE	Tangibility	Liquidity	Profitability	Non Debt tax Shield	Operating Leverage	ETR	ICR
Pearson Correlation	ROCE	1.000	.077	-.020	.869	.073	.402	.123	.362
	TANGIBILITY	.077	1.000	-.044	.114	.479	-.165	-.221	.242
	LIQUIDITY	-.020	-.044	1.000	.043	-.130	.066	-.064	.165
	PROFITABILITY	.869	.114	.043	1.000	.297	.461	.124	.256
	NON DEBT TAX SHIELD	.073	.479	-.130	.297	1.000	.072	-.026	.078
	OPERATING LEVERAGE	.402	-.165	.066	.461	.072	1.000	.119	.071
	ETR	.123	-.221	-.064	.124	-.026	.119	1.000	.068
	ICR	.362	.242	.165	.256	.078	.071	.068	1.000
Sig. (1-tailed)	ROCE		.200	.412	.000	.213	.000	.091	.000
	TANGIBILITY	.200		.317	.108	.000	.036	.008	.004
	LIQUIDITY	.412	.317		.322	.078	.237	.245	.036
	PROFITABILITY	.000	.108	.322		.000	.000	.088	.002
	NON DEBT TAX SHIELD	.213	.000	.078	.000		.217	.387	.198
	OPERATING LEVERAGE	.000	.036	.237	.000	.217		.098	.219
	ETR	.091	.008	.245	.088	.387	.098		.229
	ICR	.000	.004	.036	.002	.198	.219	.229	
N	ROCE	120	120	120	120	120	120	120	120
	TANGIBILITY	120	120	120	120	120	120	120	120
	LIQUIDITY	120	120	120	120	120	120	120	120
	PROFITABILITY	120	120	120	120	120	120	120	120
	NON DEBT TAX SHIELD	120	120	120	120	120	120	120	120
	OPERATING LEVERAGE	120	120	120	120	120	120	120	120
	ETR	120	120	120	120	120	120	120	120
	ICR	120	120	120	120	120	120	120	120

Interpretation Table 6: Coefficient correlation shows that No Independent variable is highly correlated with Dependent Variable that is Return on Assets.

ANOVA ^a						
	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	32652.528	7	4664.647	77.526	.000 ^b
	Residual	6738.903	112	60.169		
	Total	39391.431	119			
a. Dependent Variable: ROCE						
b. Predictors: (Constant), ICR, ETR, NON- DEBT TAX SHIELD, OPERATING LEVERAGE, LIQUIDITY, PROFITABILITY, TANGIBILITY						

Interpretation: In Table 7, As P value is less than 0.05 which shows that overall model is fit and data is significantly predicting our model.

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.910 ^a	.829	.818	7.75685
a. Predictors: (Constant), ICR, ETR, NON DEBT TAX SHIELD, OPERATING LEVERAGE, LIQUIDITY, PROFITABILITY, TANGIBILITY				

Interpretation: In Table 8, Adjusted R2 shows that 81.8 % of variation in Return on Capital employed is reflected by ICR, ETR, Operating liability, NDTs, Liquidity, Tangibility & Profitability.

Coefficients ^a								
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	-1.589	3.545		-.448	.655		
	TANGIBILITY	5.752	5.429	.052	1.060	.292	.641	1.560
	LIQUIDITY	-1.361	.476	-.115	####	.005	.939	1.065
	PROFITABILITY	134.062	7.150	.896	####	.000	.669	1.495
	NON- DEBT TAX SHIELD	-179.212	34.351	-.246	####	.000	.686	1.458
	OPERATING LIABILITY	.289	1.096	.012	.264	.793	.736	1.359
	ETR	-.729	8.824	-.003	-.083	.934	.907	1.102
	ICR	.026	.007	.158	3.702	.000	.842	1.188
a. Dependent Variable: ROCE Interpretation: In Table 9, As P value is less than 0.05 in variables Tangibility, liquidity Profitability, NDTs and ETR which means that these variables were impacting on ROCE. Thus, Operating Liability and ICR were not impacting on ROCE.								

RONW (RETURN ON NET WORTH)

Table 10: Output Computed by researcher from SPSS)

		RONW	TANGIBILITY	Liquidity	profitability	NON DEBT TAX SHIELD	Operating Leverage	ETR	ICR
Pearson Correlation	RONW	1.000	.039	-.057	.850	.037	.424	.123	.320
	TANGIBILITY	.039	1.000	-.044	.114	.479	-.165	-.221	.242
	LIQUIDITY	-.057	-.044	1.000	.043	-.130	.066	-.064	.165
	PROFITABILITY	.850	.114	.043	1.000	.297	.461	.124	.256
	NON DEBT TAX SHIELD	.037	.479	-.130	.297	1.000	.072	-.026	.078
	OPERATING LEVERAGE	.424	-.165	.066	.461	.072	1.000	.119	.071
	ETR	.123	-.221	-.064	.124	-.026	.119	1.000	.068
	ICR	.320	.242	.165	.256	.078	.071	.068	1.000

Interpretation Table 10: Coefficient correlation shows that No Independent variable is highly correlated with Dependent Variable that is Return on Net Worth.

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.899 ^a	.808	.797	8.46375
a. Predictors: (Constant), ICR, ETR, NON-DEBT TAX SHIELD, OPERATING LEVERAGE, LIQUIDITY, PROFITABILITY, TANGIBILITY				

Interpretation: In Table 11, Adjusted R2 shows that 79.7% % of variation in Return on Net Worth is reflected by ICR, ETR, Operating liability, NDTs, Liquidity, Tangibility & Profitability.

Table 12: Output Computed by researcher from SPSS)

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	3.208	3.868		.829	.409		
	TANGIBILITY	4.498	5.923	.039	.759	.449	.641	1.560
	LIQUIDITY	-1.876	.519	-.154	-3.614	.000	.939	1.065
	PROFITABILITY	135.981	7.801	.881	17.431	.000	.669	1.495
	NON DEBT TAX SHIELD	-208.552	37.481	-.278	-5.564	.000	.686	1.458
	OPERATING LEVERAGE	1.142	1.196	.046	.955	.342	.736	1.359
	ETR	-2.187	9.628	-.010	-.227	.821	.907	1.102
	ICR	.022	.008	.129	2.857	.005	.842	1.188

Interpretation Table 12: Coefficient correlation shows that No Independent variable is highly correlated with Dependent Variable that is Return on Assets.

Interpretations

- Coefficient correlation shows that No Independent variable is highly correlated with Dependent Variable that is Return on Assets, ROCE and RONW.
- As P value is less than 0.05 which shows that overall model is fit and data is significantly predicting our model in case of ROA, ROCE AND RONW.
- Adjusted R2 shows that 94.5 % of variation in Return on Assets is reflected by ICR, ETR, Operating liability, NDTs, Liquidity, Tangibility & Profitability.
- Adjusted R2 shows that 81.8 % of variation in Return on Capital employed is reflected by ICR, ETR, Operating liability, NDTs, Liquidity, Tangibility & Profitability.
- Adjusted R2 shows that 79.7% % of variation in Return on Net Worth is reflected by ICR, ETR, Operating liability, NDTs, Liquidity, Tangibility & Profitability.
- As P value is less than 0.05 in variables Tangibility, liquidity Profitability, NDTs and ETR which means that these variables were impacting on ROA. Thus, Operating Liability and ICR were not impacting on ROA.
- As P value is less than 0.05 in variables Tangibility, liquidity Profitability, NDTs and ETR which means that these variables were impacting on ROCE. Thus, Operating Liability and ICR were not impacting on ROCE.

Conclusion

Thus, Coefficient correlation shows that No Independent variable is highly correlated with Dependent Variable that is Return on Assets, ROCE and RONW. As P value is less than 0.05 which shows that overall model is fit and data is significantly predicting our model in case of ROA, ROCE AND RONW. 94.5 % of variation in Return on Assets is reflected by ICR, ETR, Operating liability, NDTs, Liquidity, Tangibility & Profitability. 81.8 % of variation in Return on Capital employed is reflected by ICR, ETR, Operating liability, NDTs, Liquidity, Tangibility & Profitability. 79.7% % of variation in Return on Net Worth is reflected by ICR, ETR, Operating liability, NDTs, Liquidity, Tangibility & Profitability. The analysis found the impact of Tangibility, liquidity Profitability, NDTs and ETR on ROA. Operating Liability and ICR were not impacting on ROA. Variables Tangibility, liquidity Profitability, NDTs and ETR were impacting on ROCE. Thus, Operating Liability and ICR were not impacting on ROCE.

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