ORIGINAL RESEARCH PAPER

Commerce

LEVERAGE ANALYSIS OF SELECTED MANUFACTURING UNITS OF CONSUMER DURABLE PRODUCTS IN INDIA WITH REFERENCE TO HOME APPLIANCES

KEY WORDS: Leverage Ratios, Consumer Durable Products, Home Appliances, And Manufacturing Units.

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ABSTRACT

The purpose of the study was to find out that there was any relationship between leverage ratios of manufacturing units of consumer durable products or not. Therefore, for this research data has been collected secondary data from websites and also some information has been taken from reference books of financial analysis. Moreover, in depth data analysis has been done to get real idea about the topic. The collected data were statistically analyzed by using statistical technique ANOVA. From the analysis it was found that there was significance difference between two objectives of manufacturing units of consumer durable products.

Summary: The summary of present research paper is as under:

Introduction, Review of Literature, Objectives of the research, Research Methodology, Analysis of Leverage Ratios, Conclusion and References.

INTRODUCTION

A basic limitation of the traditional financial statement made up of the balance sheet and profit and loss account is that it does not show all the information related to the financial operations of a firm. In spite of that, it provides some useful information to the extent that the balance sheet reveals the financial position on a particular date in terms of the structure of assets, liabilities and owner's equity, and profit and loss account shows the result of operations during a certain period of time in terms of the revenue obtained and cost incurred during the year.

Consumer durable involves any type of products purchased by consumers that are manufactured for long – term use. Indian consumer durables market used to be dominated by a few domestic players like Godrej, Kelvinator and Voltas. But in post-liberalization many foreign industries entered in to India, like LG, Samsung etc., becomes leading industry in the Indian Market. The major categories in the market are refrigerators, air-conditioners and washing machines. Consumer durable industry plays a very crucial role in our Indian economy. It is very much competitive industry in such an extent that if it does not perform well, survival becomes difficult.

REVIEW OF LITERATURE

a. Robert J. Gorden published a book "The measurement of Durable goods prices", the university of Chicago press ltd., London in which study of individual products have been done on consumer durable sector about goods prices and overall indexes.
b. Ajit Singh presents an article on consumer durables. In his article he defines the concept, different segments of consumer durable products and overview of India's consumer durable market. It also shows performance of market in last 10 years as well as significant growth opportunities for future prospects.
c. Erich A. Helfert published a book on "Techniques of financial analysis". In this book he has written about various techniques of financial analysis.
d. C.R.Kothari represent a book on "Research Methodology – Methods and Techniques", second revised edition published by New age international publishers (2004). This book provides statistical tools and techniques.

OBJECTIVES OF RESEARCH

The study will be based on following objectives:

- To know the long term financial prospects of selected units.
- To evaluate the composition of share capital and debt capital of selected manufacturing units.

RESEARCH METHODOLOGY

Period of the study

The present study will be of six years i.e. 2012-13 to 2017-18.

Sample design

As having large units it is not possible for the researcher to conduct census study. Therefore, the researcher has taken total 8 units for the present problem.

The sample has been selected considering on following factors

1. The companies which are manufacturing white goods and home appliances.
2. The industries which have the leading position in the Indian Market as well as mostly preferable by the consumers.
3. The data which are available for the period of the study.

Scope of the study

The scope of the study is limited to the some selected leading manufacturing units. These units are:

Blue star, Bajaj, Godrej, Ifb, Mirc, Sharp India, Voltas and Whirlpool.

Source of data collection

This research study is mainly based on secondary data. The data will be collected from annual report of consumer durable units; other information related to consumer durable products and units will be collected from official website and net sources, annual report, books and Journals etc.

Tools and Techniques of analysis

For this study, following tools and techniques has been used for analyze comparison:

A. Accounting Techniques:

1. Ratio Analysis

B. Statistical Techniques:

1. ANOVA
2. Mean

Research Hypothesis

The hypotheses for the study are as follows:

- There is no significant difference between debt equity ratios of selected manufacturing units.
- There is no significant difference between shareholders equity ratios of selected manufacturing units.

ANALYSIS OF LEVERAGE RATIOS

Besides the ratios which evaluate profitability and liquidity of business undertakings, one can find a number of accounting ratios which are used to evaluate the composition of capital of the business firm. It comprises of both the share capital and the debt capital. Leverage ratios lay emphasis on the long term financial prospects. In order to assess the long term financial soundness, it is necessary to find out whether the unit is able to meet its commitments or unit is able to maintain or increase the market value of its share.

Debt Equity Ratio

Debt equity ratio indicates the relationship between net worth and loan funds of the organization, which is known as 'gearing'. This ratio defines the relative proportions of debt and equity in financing the assets of the firm. Standard norm of this debt equity ratio which is accepted by financial institutions for financing of projects is 2:1. The formula of debt equity ratio is as follow:

$$\text{Debt Equity Ratio} = \frac{\text{Long term debt}}{\text{Share holders funds}}$$

Table No. 5.1 Debt Equity Ratio

MFG.UNIT / YEAR	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	AVG	VARI	MIN	MAX.
Blue Star	0.02	0.73	0.73	0.76	0.82	0.54	0.60	0.09	0.02	0.82
Bajaj	0.31	0.19	0.29	0.25	0.51	0.64	0.37	0.03	0.19	0.64
Godrej	0.54	0.51	0.41	0.56	0.97	1.10	0.68	0.08	0.41	1.10
Ifb	0.01	0.03	0.21	0.17	0.16	0.16	0.12	0.01	0.01	0.21
Mirc	0.52	0.58	0.68	0.57	1.93	1.28	0.93	0.32	0.52	1.93
Sharp India	-	0.37	0.30	0.41	0.75	0.64	0.41	0.07	-	0.75
Voltas	0.02	0.07	0.13	0.14	0.12	0.03	0.09	-	0.02	0.14
Whirlpool	-	0.05	0.16	0.14	0.12	0.09	0.09	-	-	0.16

(**Source:** Calculated from annual reports of selected manufacturing units)

As shown from the above table no. 5.1, the debt equity ratio of eight selected manufacturing units from the year 2012-13 to 2017-18. On the basis of above analysis it can be said that debt equity ratio of Mirc was highest in the year 2016-17 followed by Godrej, Blue star, Sharp India, Bajaj, Ifb, Voltas and Whirlpool . However, the debt equity ratios of all the selected units were changes with the study period. Godrej and Mirc unit has the highest fluctuation during the study period. In the year 2017-18, all the units has increasing debt equity ratio compared to the base year 2012-13.

Application of ANOVA Test

In order to test whether any difference exists between debt equity ratio of selected units, one way ANOVA test was applied at 5% level of significance.

Table no. 5.1 (A) Debt Equity Ratio (ANOVA Test)

Source of Variance	Sum of Squares	Degree of freedom (d.f.)	Mean Squares	F Value	Table Value
Between groups	4.0017	7	0.571671	7.586209	2.249024
Within groups	3.014267	40	0.075357		
Total	7.015967	47			

From the above table no. 5.1 (A), it is clear that there is significant difference in debt equity ratio of manufacturing units under study because the calculated value of 'F' (7.59) is higher than the table value of 'F' (2.25) at 5% level of significance, so the null hypothesis is rejected and alternative hypothesis is accepted. It can be concluded that there is significant difference in debt equity ratio of manufacturing units during the study period.

Shareholders Equity Ratio

Shareholders equity ratio is the supplement of the debt equity ratio. In this ratio the relationship is established between the shareholder's fund and the total assets. It is assumed that the larger the proportion of the shareholders equity, the stronger the financial position of the firm. Symbolically it is equal to:

$$\text{Shareholders Equity} = \frac{\text{Shareholders Equity}}{\text{Total Assets (Tangible)}}$$

Table 5.2 define shareholders equity ratio of selected eight manufacturing units from the year 2012-13 to 2017-18.

Table No. 5.2 Shareholders Equity Ratio

MFG.UNIT/ YEAR	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	AVG	VARI	MIN	MAX
Blue Star	0.31	0.27	0.23	0.24	0.24	0.29	0.26	0.001	0.23	0.31
Bajaj	0.37	0.35	0.36	0.34	0.26	0.24	0.32	0.003	0.24	0.37
Godrej	0.54	0.52	0.47	0.51	0.40	0.39	0.47	0.004	0.39	0.54
Ifb	0.67	0.61	0.55	0.59	0.53	0.50	0.58	0.004	0.50	0.67
Mirc	0.35	0.30	0.29	0.27	0.21	0.25	0.28	0.002	0.21	0.35
Sharp India	0.51	0.40	0.49	0.36	0.23	0.29	0.38	0.012	0.23	0.51
Voltas	0.32	0.33	0.36	0.37	0.39	0.43	0.37	0.002	0.32	0.43
Whirlpool	0.32	0.32	0.41	0.45	0.47	0.50	0.41	0.006	0.32	0.50

(**Source:** Calculated from annual reports of selected manufacturing units)

Table no.5.2 shows shareholders equity ratio of eight selected manufacturing units from the year 2012-13 to 2017-18. As from the table, Ifb revealed quite good trend that identified stronger financial position of the unit. Comparison by year the overall ratio of all selected unit was good in 2012-13. From the analysis it concluded that Ifb has the highest strong financial position in the market which indicates the degree to which unsecured creditors are protected against loss in the event of liquidation. After Ifb, Godrej and Sharp India shows stronger position in the market.

Application of ANOVA Test

In order to test whether any difference exists between shareholders equity ratio of selected units, one way ANOVA test was applied at 5% level of significance.

Table no. 5.2 (A) Shareholders Equity Ratio (ANOVA Test)

Source of Variance	Sum of Squares	Degree of freedom (d.f.)	Mean Squares	F Value	Table Value
Between groups	0.4504	7	0.064343	15.2411	2.249024
Within groups	0.168867	40	0.004222		
Total	0.619267	47			

From the above table no.5.2(A), it is clear that there is significant difference in shareholders equity ratio of manufacturing units under study because the calculated value of 'F' (15.24) is higher than the table value of 'F' (2.25) at 5% level of significance, so the null hypothesis is rejected and alternative hypothesis is accepted. It can be concluded that there is differences in shareholders equity ratio of manufacturing units from the period 2012-13 to 2017-18.

CONCLUSION

From the study it can be concluded that debt equity ratio and shareholders equity ratio of selected manufacturing units shows significance differences during the study period. The debt equity ratio and shareholders equity ratio of most of manufacturing units' shows fluctuating trend from 2012-13 to 2017-18. Among all units, Godrej and Mirc has quite good debt equity ratio, but it shows fluctuations also. On the other hand, Ifb unit has maximum shareholders equity ratio compared to all other units.

REFERENCES

1. "MY Khan, P K Jain" Management Accounting- Third edition, Tata McGraw Hill Ch 28, p.882.
2. "C.R. Kothari" Research Methodology – Methods and techniques wishva prakashan New Delhi, second Edition - 2002.
3. "S.P. Gupta" method sultan chand & sons New Delhi.
4. "Dr. S.N. Maheshwary" – Management accounting and financial control, sultan chand sons, New Delhi.
5. "Diamond William T. (1963)", Distribution channels for Industrial goods. Bureau of Business Research.

JOURNAL AND PERIODICAL

- Industry financial aggregated & Ratios.
- The IUP Journal of public finance.
- The IUP Journal of applied economies.
- The Indian economy.
- Indian journal of accounting.

WEBSITES

- www.economictimes.com
- www.moneycontrol.com
- www.annualreportservice.com
- www.ibef.org
- www.info.shine.com
- www.wikipedia.org