An Analytical Study on Inventory Management of Selected Companies in Indian Paint Industry

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Abstract

Inventory means "the aggregate of tangible property which are sale in the ordinary course of business, process of production for such sale, and to be available for sale". Inventory constitutes a major component of working capital. Inadequate inventory adversely affects smooth running of business, whereas excess of it involves extra cost, thus reducing profits. To evaluate the practices and performances in inventory management in the Commercial Vehicle Industry in India, the present paper attempt has been made to analyse size, composition, circulation and growth of the inventory in the selected companies during the period under study.
KEYWORDS: Inventory Management, Ratios and Indian Paint Industry

1. INTRODUCTION

Inventory management is the ratio which indicates the number of times the stock is turned over (i.e. sold) during a year. A stock turnover of 8 times a year is considered ideal. A stock turnover of 8 times and more than 8 times indicates that more sales are effected i.e. the business is expanding and as such, there is effective inventory management. On the other hand, a stock turnover of less than 8 times means that the concern has accumulated unsalable goods i.e. the business is not prosperous[3]. It may be noted that a high stock turnover ratio may also be taken to mean that the concern buys and sells in small lots and a low stock turnover may be taken to mean that the concern buys in bulk and sold out only a few items during the year. But generally, a high stock turnover ratio means that the concern is efficient. Hence, an attempt has been made to analyse the inventory of selected companies in Indian paint industry during the study period.

2. OBJECTIVES OF THE STUDY

The study attempts to analyse the investment of the selected paint companies in terms of Raw material turnover ratio, Work-in-progress turnover ratio and finished goods turnover ratio.

3. RESEARCH METHODOLOGY
3.1 Types of Data

There are basically two types of data i.e. primary data and secondary data. Primary data are those data which are collected for the first time, to meet the objective of research only. Secondary data is data which has been already collected and used for any other purpose and can be used for this research also. This study is based on financial statements of companies, which is secondary data.

3.2 Methods of Data Collection

For collecting secondary data, annual reports of companies will be used as well as financial reports available on PROWESS database, which is the most reliable and empowered corporate database of CMIE. The study is entirely descriptive and

analytical. Secondary information is obtained by the medium of internet, journals, articles and magazines.

3.3 Data Analysis & Interpretation

Collected data is analysed and interpreted with the help of accounting and statistical tools and techniques which are follows:

Accounting Techniques: Ratio analysis is used as an accounting technique in which major profitability ratios are used for analysis and interpretation such as Operating Profit ratio (OP), Net Profit ratio (NP), Return on Capital Employed (ROCE), Return on Total Asset (RTA), Return on Networth (RNW).

Statistical Techniques: Statistical tools such as mean, standard deviation, variance and coefficient of variations are used to ascertain the average position of profitability ratios. Then techniques of ANOVA is used to test if there is any difference in the profitability position of different companies of the same industry during the study period.

3.4 Sample Design:

Sampling Technique: The convenient sampling technique is used for the study. The selection of sample companies is on the basis of consumer preference and their position in the market.

Sample Size: Following is the list of 6 paint companies which are chosen from top ten paint companies in India as sample size for the study.

1. Akzo Nobel India Ltd
2. Asian Paints Ltd
3. Berger Paints India Ltd
4. Jenson & Nicholson (India) Ltd
5. Kansai Nerolac Paints Ltd
6. Shalimar Paints Ltd

Period of the study: The study has been conducted from 2000-01 to 2012-13 i.e. for 13 years

4. ANALYSIS OF INVENTORY COMPONENT
4.1 Raw material Turnover Ratio

It is observed from Table 1 that among the selected companies in Indian paint industry Akzo Nobel India Ltd has the highest mean raw material turnover ratio of 12.13 times, followed by Kansai Nerolac Paints Ltd (11.35 times), Jenson & Nicholson (India) Ltd (10.61 times), Asian Paints Ltd (9.86 times), Berger Paints India Ltd (9.05 times) and Shalimar Paints Ltd (7.49 times). The average of Indian paint industry during the study period was 9.13 times. The analysis of co-efficient of variations reveals that raw material turnover ratio were consistent in the case of Asian Paints Ltd and Berger Paints India Ltd, Kansai Nerolac Paints Ltd and Shalimar Paints Ltd registered fluctuating trend and Akzo Nobel India Ltd registered fluctuating trend and Jenson & Nicholson (India) Ltd was erratically fluctuating trend. From the analysis of compound annual growth rate of raw material turnover ratio, it is observed that Asian Paints Ltd and Shalimar Paints Ltd had negative growth rate whereas the remaining selected companies registered positive growth rate during the study period. The analysis of t values describes that the raw material turnover ratio of Akzo Nobel India Ltd, Asian Paints Ltd, Kansai Nerolac Paints Ltd and Shalimar Paints Ltd are significantly different from the industry. It is evident from Table 2 that there were significant differences in raw material turnover ratio among the companies

as the calculated value of F (4.27) is more than the table value of F (2.53). Thus, the null hypothesis is rejected. However, there are no significant differences in raw material turnover ratio between the years as the calculated value of F (1.33) is less than the table value of F (1.92) at 5 per cent level. Thus, the null hypothesis is accepted. Comparatively, the analysis of raw material turnover ratio showed that Akzo Nobel India Ltd, Kansai Nerolac Paints Ltd and Jenson & Nicholson (India) Ltd utilised their raw material effectively in profit earning process during the study period.

4.2 Work-in-progress Turnover Ratio

Table 1 show the position of work-in-progress turnover ratio selected companies during the study period. The average of ratio of work-in-progress turnover ratio varied from one company to another company. The mean work-in-progress of Indian paint industry turnover ratio was 6.19 times. The highest average was 7.12 times for Kansai Nerolac Paints Ltd followed by 6.73 times for Asian Paints Ltd, 5.80 times for Jenson & Nicholson (India) Ltd, 5.48 times for Akzo Nobel India Ltd, 5.23 times for Berger Paints India Ltd and 4.69 times for Shalimar Paints Ltd. The company with the lowest average ratio enjoys higher profitability. Co-efficient of variation of work-in-progress turnover ratio was consistent in the case of Akzo Nobel India Ltd, Asian Paints Ltd, Berger Paints (India) Ltd and Kansai Nerolac Paints Ltd. Jenson & Nicholson (India) Ltd and Shalimar Paints Ltd registered fluctuating trend during the study period. The compound annual growth rate of work-in-progress turnover ratio of Jenson & Nicholson (India) Ltd, Kansai Nerolac Paints Ltd and Shalimar Paints Ltd was negative while it was positive in other companies under study. The analysis of t values explains that the ratio of all the selected companies was found to be significantly different from the industry except for Jenson & Nicholson (India) Ltd. It is evident from the results of ANOVA that the differences in the work-in-progress turnover ratio among the companies was significant as the calculated value of F (26.49) is greater than the table value of F (2.53) at 5 per cent level of significance. So, the null hypothesis is rejected. However, these were insignificant between the years as the calculated value of F (1.40) is lower than the table value of F (1.92). Thus, the null hypothesis is accepted.

4.3 Finished Goods Turnover Ratio

Table 1 show the finished goods turnover ratio of selected companies in Indian paint industry during the study period. The highest average of finished goods turnover ratio is 9.27 times for Kansai Nerolac Paints Ltd, followed by Asian Paints Ltd (8.61 times), Jenson & Nicholson (India) Ltd (7.68 times), Akzo Nobel India Ltd (7.08 times), Berger Paints India Ltd (6.82 times) and lowest average is 5.70 times for Shalimar Paints, Ltd. The mean of finished goods turnover ratio is 7.88 times for whole industry during the study period. The CV value of finished goods ratio is consistent in the case of Akzo Nobel India Ltd, Asian Paints Ltd, Berger Paints India Ltd and Kansai Nerolac Paints Ltd. Whereas, Jenson & Nicholson (India) Ltd and Shalimar Paints Ltd fluctuate during the study period. The compound annual growth rate is positive in the case of Asian Paints Ltd and Berger Paints India Ltd, while the other companies have registered negative compound annual growth rate during the study period. The analysis of t values shows that mean finished goods turnover ratio of all the selected companies are significantly different from the industry except Jenson & Nicholson (India) Ltd. The analysis of variance results presented in Table 2 show that there are significant differences in finished goods turnover ratio among the

companies. Because, the calculated value of F (24.46) is more than the table value of F (2.53), the null hypothesis is ^{rejected}. However, there are insignificant differences between the years as the calculated value of F (1.19) is less than the table value of F (1.92). Thus, the null hypothesis is accepted.

5. FINDINGS

Turnover ratios reflected how efficiently the company is managing its resources. Turnover ratios affect the overall profitability of a company to a large extent. A study of turnover of various assets revealed the following observations. The operational efficiency of the selected companies in the Indian paint industry was evaluated by comparing the assets turnover such as total assets, fixed assets, working capital, inventory (raw material, work-in-progress and finished goods), receivables, payables and cash conversion cycle. The analysis showed that all the turnover ratios represent a fluctuating trend during the study period. Such fluctuations can be attributed to the difference in the growth rate of sales, because of the factors such as market conditions, pricing policy, government policy and competition. The overall analysis of assets utilization ratios reveals that the different assets were utilized effectively by the selected companies in the Indian paint industry during the study period. The result of F-test clearly reveals that there were significant differences in the entire asset utilization ratio between the companies. Similarly, there were significant differences between the years in all the asset utilization ratio except fixed assets turnover ratio during the study period.

6. SUGGESTIONS

It is obvious from the study that the Indian paint industry has not utilized its full plant capacity. It is therefore suggested that the management of the selected companies should concentrate on overcoming the problem of power cuts, implementing R & D programs, application of the latest technology and making industrial relations cordial to increase their capacity utilization.

7. CONCLUSIONS

Out of six sample companies Asian Paints Ltd scored the highest in the group getting the top most ranking. This is followed by Kansai Nerolac Paints Ltd which scored the second rank due to capacity utilisation and market share and return on investment. Indian paint industry is dominated by Asian Paints Ltd and Kansai Nerolac Paints Ltd. The paint manufacturers are using new and modern technology, they have a good market share in India. It is also imperative to initiate measures to make the presence of Indian paint industry felt in the global market. Based on the above-stated factors, it can be clearly concluded that the paints and coatings industry is facing challenges from almost all directions in the competitive landscape. Paint suppliers have to act aggressively and efficiently to stay atleast in this highly competitive market. The key to success in this market lies in building a strong brand image through aggressive marketing strategies and gaining customer loyalties. Paint manufacturers have to be very creative in the way they pack and sell their paints. This market, like many other markets, is moving towards being service-oriented rather than just being product-oriented. Companies need to sell more than just paint to flourish in this market. Companies have to understand their consumers' needs and preferences; and pack products accordingly. Companies which do so promptly and efficiently are sure to succeed in this market.

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Table 1
Statistical values of ratios relating to the Inventory component
(For the period 2000-2001 to 2012-2013)

Particulars	Statistics	Akzo Nobel India Ltd	Asian Paints Ltd	Berger Paints India Ltd	Jenson & Nicholson (India) Ltd	Kansai Nerolac Paints Ltd	Shalimar Paints Ltd	Whole Industry
Raw Material Turnover Ratio	**Mean**	12.13	9.86	9.05	10.61	11.35	7.49	9.13
	CV	0.34	0.09	0.10	0.52	0.16	0.19	0.07
	CAGR	0.03	-0.46	1.57	3.68	2.61	-0.12	1.62
	t value	2.84*	2.51*	-0.32	0.98	6.17*	-3.75*	
Work-in-Progress Turnover Ratio	**Mean**	5.48	6.73	5.23	5.80	7.12	4.69	6.19
	CV	0.09	0.10	0.09	0.16	0.09	0.18	0.08
	CAGR	0.77	1.46	0.78	-3.16	-0.93	-0.53	1.12
	t value	-3.75*	5.32*	-9.65*	-1.05	6.80*	-7.72*	
Finished Goods Turnover Ratop	**Mean**	7.08	8.61	6.82	7.68	9.27	5.70	7.88
	CV	0.07	0.10	0.08	0.25	0.09	0.19	0.07
	CAGR	-0.41	0.40	0.98	-5.14	-1.40	-0.28	0.51
	t value	-3.21*	4.99*	-9.51*	-0.31	7.04*	-9.58*	

* Significant at 0.01 level
Source: Computed from the Annual Reports of the respective companies

Table 2
ANOVA results – ratio relating to Inventory components – comparison

S. No.	Inventory Components	Between the Companies		Between the Years	
		F Ratio	H$_0$	F Ratio	H$_0$
1	Raw Material Turnover Ratio	4.27	Rejected	1.33	Accepted
2	Work-in-Progress Turnover Ratio	26.49	Rejected	1.40	Accepted
3	Finished Goods Turnover Ratio	24.46	Rejected	1.19	Accepted

Critical Value 'F' at 0.05 level (between company) = 2.53; (between year) = 1.92
Source: Computed