Measurement of Performance of Indian Textile Companies –A study of relationship between financial and market parameters of selected companies.

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Abstract

Indian Textile industry has played a pioneered role in growth and upliftment of country. It is the sector that contributes approx 14 per cent to industrial production, 4 per cent to GDP and Approx 13 Percent of total exports of the country. The sector has offered employment to around 45 million people, by acting as one of the biggest employment generator sector. In spite of having such a remarkable records, listed companies in textile industry had shown erratic stock price movements leading to a varied market capitalizations for the companies which are not in line with the financial indicators.

This has led to confusion among investors and increased more speculations in the capital market for the textile companies which are defying its fundamentals. In this study, we aim to find out the association between some of the important financial indicators like MARGIN RATIOS (PBDITA, PAT, CPM, NPM) AND RETURN RATIOS (RNW, RCE, RTA) on market capitalization. Once the degree of association is found out then only we will be in a position to explain the fluctuations in the market capitalization of the companies.

Keywords: *Performance, capitalization, margin ratio, return ratio, textile.*

I. Introduction

India's textiles sector is one of the oldest and largest industries in Indian economy dating back several centuries. Even today, textiles sector is one of the largest contributors to India's exports with approximately 13 per cent of total exports. The textiles industry is also labour intensive and is one of the largest employers to the population. The textile industry employs about 40 million workers and 60 million indirectly. The textile and apparel industry can be broadly divided into two segments:

▢ Yarn and fibre (include natural and man-made)

▢ Processed fabrics (including woolen textiles, silk textiles, jute textiles, cotton textiles and technical textiles), Readymade Garments (RMGs) and apparel.

In this study we shall try to understand the financial and market performance of some selected listed Indian textile companies and also the nature of relationship between the two. Generally we know that if the financial parameters of a company are good then we can say that the company is fundamentally strong. For such a strong fundamental company, there should be robust movements in its share prices and as a result the market capitaltalization increases. But in the past decade if we observe, we can notice a trend across many sectors that in spite of being a fundamentally strong company, the market capitalization had failed to justify the same, and textile being one such sector. So we took different margin ratios and return ratios as independent variables and market capitalization as dependent variable to check the nature of their association. We had considered three segments namely Cotton & blended yarn, Cloth and readymade garments for our study.

II. Literature Review

1. Nusrat and Assocham (2008) analyzed the performance of sector analysis on 28 textiles

Companies from Mumbai Stock Exchange with the variables of net sales, net profit, interest cost, raw material, power and fuel cost.

2. Marimuthu, K.N analyzed the performance of textile industry in the selected companies from Tamil Nadu. This study took five-textile companies, based on highly engaged net worth in the year 2011. The sample companies having the good performance in the current and quick ratio expect interest coverage ratio.

3. Rakesh and Kulkarni (2012) analyzed the Gujarat textile industry working capital evaluation on selected five company for the eleven years and performed ratio analysis, descriptive statistics etc. The study concluded with all the company financial performance with sound effective as well as current and quick ratio, current asset on total asset, sales, turnover etc. are analyzed with the help of hypothesis and used ANOVA.

4. Indhumathi, C and Palanivelu, P. (2013) stated in their study the correlation coefficient matrices of the selected variables with the dependent variable, i.e., return on total assets of selected companies' state that most of the companies had creditors turnover ratio, inventory turnover ratio and fixed asset turnover ratio were positively correlated with profitability of the company. They further concluded that there was a close association between the financial performances of the selected textiles companies in India and the proportion of changes in return on total assets.

5. Md. Helal and conducted research to evaluate the financial performance of Textile industries in Bangladesh. For this study population was thirty six (36) Textile industries listed under the stock exchanges of Bangladesh. For this research, ten (10) listed Textile industries were taken as the sample. For this study, the financial statements from 2009 to 2014 considered. To evaluate performance of Bangladesh listed Textile Company some financial ratios like ROA, PE, ROI, EPS are used. Statistical tools like Square of correlation coefficient, Least Square are used.

III. Research Gap

After going through the literature, we find that not much studies had been performed to understand the nature of association of margin and return ratios with market capitalization. So we undertake this study to understand that in order to increase the market share (through market capitalization) for a company, how does margin ratios and return ratios contribute to it.

IV. Objectives of Study

1) To study the effects of margin ratios like PBDITA, PAT, CPM, NPM on market capitalization.

2) To study the effects of return ratios like RNW , RCE , RTA on market capitalization.

3) To study the effects of margin ratios and return ratios on market capitalization

V. Data & Methodology

This study is based on secondary data. In our study, we had taken 255 listed textile firms. As we know there are different divisions in the textile sector, we had considered three segments namely Cotton & blended yarn, Cloth and readymade garments.

The data set for this study had been collected from prowess database where we have considered three segments namely Cotton & blended yarn, Cloth and readymade garments for our study. After that we have constructed a cross-section data set containing 255 textile companies from 2012 to 2022 i.e. for 10 years. Missing data envelopment analysis using pooled data random panel GLS regression had been performed. For this, statistical software STATA 15 had been used. Multicollinearity diagnostics has been performed using Pearson's two tailed multicollinearity test in order to check whether any multicollinearity exists amongst independent variables so that the model specification for regression doesn't become spurious. Hausman test statistics has been conducted to determine the fixed effect or random effect model specification under panel regression.

In our study, we had considered the following dependent and independent variables:

Dependent Variable-

Market Capitalization- Market capitalization refers to the market value of a company's equity. It is a simple but important measure that is calculated by multiplying a company's shares outstanding by its price per share.

Independent Variable-

Profit before depreciation interest and tax (PBDITA)- Profit before interest, taxes, depreciation, and amortization (PBITDA) is a widely used measure of core corporate profitability.

Profit After Tax (PAT)- Profit After Tax refers to the amount that remains after a company has paid off all of its operating and non-operating expenses, other liabilities and taxes. This profit is distributed by the entity to its shareholders as dividends or is kept as retained earnings in reserves.

Cash Profit Margin (CPM)-It is the amount or part of the profit which has been realized in cash.

Net Profit Margin (NPM)- Net Profit Margin is a financial ratio used to calculate the percentage of profit a company produces from its total revenue.

Return on Net worth (RNW) - Return on Net Worth shows a company's profitability by calculating how much shareholders earn from their investment in the firm.

Return on Capital Employed (RCE)- Return on Capital Employed measures how efficiently a firm generates profit from the capital utilized.

Return on Total Assets (RTA)- It refers to a financial ratio that indicates how profitable a firm is in relation to its total assets. Corporate management, analysts, and investors uses RTA to determine how efficiently a company uses its assets to generate a profit.

Model

$$f(Market\ Capitalization)_{ij} = \beta1PBDITA_{ij} + \beta2PAT_{ij} + \beta3CPM_{ij} + \beta3NPM_{ij} + \beta4RNW_{ij} + \beta5\beta6RTA_{ij} + C$$

Where,

$\beta1$=Coefficient of PBDITA;$\beta2$=Coefficient of PAT;$\beta3$=Coefficient of CPM;$\beta4$=Coefficient of NPM;$\beta5$=Coefficient of RNW;$\beta6$=Coefficient of RCE;$\beta7$=Coefficient of RTA.

i=Number of Firms; j=number of years.

Variable	Mean	Std. Deviation	Min	Max
Mkt cap	21.15	19.43	22.55	222.20
PBDITA	46.41	23.88	0	75
PAT	7.69	17.65	0	75
CPM	23.00	12.96	0.01	71.32
NPM	21.80	11.91	5.96	82.06
RNW	35.47	22.27	2	91
RCE	3.08	0.45	1.78	4.01
RTA	0.63	0.64	0	3.47

VI. ANALYSIS & FINDINGS *Summary Statistics* (N= 255)Table-1

Summary statistics of all the variables employed in the empirical analysis are displayed in Table 1. It indicates the mean, standard deviation, minimum and maximum values of variables for 255 firm year observations. The analysis of mean value clearly depicts that the stake of **PBDITA** was high (46.41%) during the study period. It means that on an average, the sampled textile companies in India were dominated by PBDITA. While the average PAT was just 7.69% during the study period, the average Cash Profit Margins (CPM) was at 23% and the share of Net Profit Margin (NPM) was 21.80%.

__Pair wise correlation matrix__ **(N = 255)** Table-2

	PBDITA	PAT	CPM	NPM	RNW	RCE	RTA
PBDITA	1.0000						
PAT	-0.7589	1.0000					
CPM	-0.4444	0.0325	1.0000				
NPM	-0.3222	0.0413	-0.3457	1.0000			
RNW	-0.6454	0.6784	0.2334	0.0784	1.0000		
RCE	-0.1347	0.0790	0.5415	-0.5267	0.2827	1.0000	
RTA	0.3269	-0.3726	-0.1751	0.1521	-0.4237	-0.2057	1.0000

Pair wise correlations are reported in Table 2. Pair wise correlations among the explanatory variables can serve as a warning regarding multi-collinearity and against simultaneous inclusion of heavily correlated variables in the same regression. The highest pair wise correlation is that between PBDITA and PAT at 0.7589, so problems arising from multi-collinearity are not envisaged[1].

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[1] Rule of thumb is that if the pair-wise correlation coefficient between two regressors is in excess of 0.8, then multicollinearity is a serious problem (Gujarati, 1995).
*means at 5% level of significance
** means at 10% level of significance

Results of GLS Random Effect Panel Regression

Table-3

Variables	**Mkt cap**
PBDITA	1.56 (0.119)
PAT	1.94** (0.053)
CPM	1.78* (0.075)
NPM	1.25 (0.211)
RNW	0.67 (0.506)
RCE	-0.60 (0.546)
RTA	-3.95 (0.000)
Constant	-0.52 (0.602)
Wald chi2	Wald chi2(7) = 46.94 Prob > chi2 = 0.0000
R-sq: within between overall	0.0604 0.7920 0.1597
N =	255

As per the objectives undertaken and the model specification, we have considered a robust causal model that tries to measure the impact of certain performance parameters on market capitalization. As a measure of performance, the ratios have been classified under the margin and return ratios. Subsequently a GLS pooled regression has been conducted and thereby the robustness of the model is about 79.2% which is considered as a holistic model to capture the objectives undertaken. The model can explain near about 80% of the variation in the independent variables on the dependent variables.

The model specification states that the independent variables are reasonably non collinear and so GLS pooled regression is best suited. Further Hausman test specification test score indicates that the random effects model is better suited than the fixed effects model.

Based on the model specification we observe that PAT has large impact on market capitalization. It is significant at 10% level and 1% change impact brings about 1.94% changes in market capitalization. This indicates that a favourable earning propensity of the firm has favourable impact on overall market capitalization.

Cash Flow margins also have a favourable impact on market capitalization at 5% level of significance whereby 1% change in Cash Flow margin will bring about 1.78% change in market capitalization. This means that cash profits directly effects market value per share and is estimated to have favourable impact on same.

So overall the margin ratios have a favourable and positive impact on market capitalization. Generally in textile industry, the operating margin is considered to be high due to lower requirement of skilled workforce and availability of raw materials from the agricultural sector at low rates.

On the other hand when we observe the return ratios, return on capital employed and return on total assets seems to have a negative impact on the market value per share. Return ratios are primarily based on the fact that the returns are indicative from the point of view of the investments undertaken with respect to capital employed and assets. A negative impact suggests that there is either a problem of overcapitalization among the textile firms or the cost of capital being high.It is advisable in this respect that the debt to equity margin be checked so that the impact of weighted average cost of capital on the return ratios be analyzed.

A variation of 1% in return on capital employed would bring about a fall in market capitalization by 0.60% which is indicative of the fact the cost of debt with the textile firms on an average is high. On the other hand, rise in return in total assets by 1% will lead to reduction of market capitalization of about 4% due to insufficient investments on operating assets.

VII. Limitations of the Study

In conducting the study, we came across the following limitations:-

1) We could not take all the textile companies in our study as they were not listed.

2) We could have taken other financial parameters like dividend payouts, Earnings per share, etc.

3) Not much literature was available on the study area.

VIII. Scope for Further Study

1) More financial parameters can be used to understand their association with market capitalization.

2) Although most of the Indian sectors enjoyed a stock market rally in the last decade why the textile sector could not live upto the expectations.

IX. CONCLUSION

According to the objectives set for this study, we see that margin ratios are having a strong association with the market capitalization i.e. we can say that if the company is doing well financially in terms of PAT and CPM then the company may have a an increased market capitalization resulting in increased market share and shareholder's wealth.

On the contrary, in case of return ratios, we concluded mostly negative impacts on market capitalization i.e. the association is weak or negative. This means the rise in these ratios does not augment the company's market share or shareholders wealth.

Finally we conclude that when taken together, both margin ratios and return ratios has got a significant positive impact on market capitalization since a part of the profits is channelised towards wealth maximization and another part is utilized to generate shareholder's payout in terms of dividend, bonus shares and ESOPS.

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