

IMPACT OF FINANCIAL MANAGEMENT ON PROFITABILITY: EVIDENCES FROM TEXTILE SECTOR OF INDIA

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ABSTRACT

This research paper aims to examine the relationship between financial management and profitability of domestically listed companies in the Indian textile sector. The variables considered are Long Term Debt To Equity Ratio, Current Ratio, Inventory Ratio, Debtors Ratio and Profit After Tax To Sales Ratio. The observations were analyzed using statistical techniques including multiple regression analysis. The results suggest that Long Term Debt to Equity, though negative, has moderate influence on the Profit after tax to Sales of the enterprise. However, Current ratio and Debtors Ratio have positive association with Profit after Tax to Sales but not statistically significant. Similarly Inventory Ratio having negative association with Profit after tax to Sales is not found to be relevant. This research may help the corporate managers and research scholars to improve their understanding of financial management in their pursuit to find ways to optimize profits of the enterprise.

Keywords: Financial Management, Profitability, Textile, Multiple Regression Analysis.

Introduction:

Financial Management is gaining importance both from business managers and research scholars primarily because its all-pervading presence in business activities and its potential to influence profitability of the enterprise. Naturally both the aspects of Financial Management viz. mobilization of funds and deployment of funds have considerable potential to affect the profitability of the business enterprise. Mobilization of funds on whatever scale and when ever undertaken shall necessarily invite some costs. Deployment of funds has to be carefully done so that the enterprise generates adequate returns to ensure the survival of the enterprise both in short run and long run. This process in the modern business world is complex, highly dynamic and multi-dimensional. It involves several variables such as equity share capital, reserves, share premium, debentures, short term borrowings, creditors, bank advances in various forms, fixed assets, investments, inventory, cash holdings, marketable securities, debtors etc. Each of these variables has varying degree of effect on the profitability of the enterprise. The task of harnessing full potential of all these variables is not

easy. A research based approach, instead of intuition based treatment to the variables, will be better in the present day dynamic business world.

Literature Review:

The academicians and researchers have widely visited various aspects of financial management to improve the understanding of the association financial management has with profitability of the business enterprise. A league of authors such as (Ross, 1977), (Thies & Klock, 1992), (Fama & French, 2002) and (Voulgaris, Asteriou, & Agiomirgianakis, 2002) investigated capital structure of various enterprises from different viewpoints. (Pandey, 1985) and (Bhat, 1980) critically examined the association between the size of firm, profitability, risk, growth and the capital structure while (Liow K. H., 2010) looked into firm's value, growth, profitability and capital structure. Author like (Teixeira & Parreira, 2014) examined business risk, size, collateral guarantees, cost of financing, reputation and profitability. On the other end (Lazaridis & Tryfonidis, 2006), (Vishnani & Shah, 2007), (Imeokparia, 2013), (Mehta, 2014) analyzed different aspects of working capital to

improve the understanding of their association with profitability of the business enterprise. The research works done by different authors is briefly described below:

(Ross, 1977) in his research observed that the managers get penalized for bankruptcy and also are rewarded for improvement in valuation of securities. The study suggests that the capital structure and the value of the firm have positive relationship. According to (Leyland & Pyle, 1977) the promoters' stake can be treated as a signal of quality and the choice of capital structure by the company gives a signal to the outside investors regarding the presence of asymmetric information in favour of the insiders. (Bhat, 1980) examined the impact of size, growth, business risk, payout policy, debt-service capacity, profitability and degree of operating leverage on the capital structure decisions of the firm using a sample of 62 companies from engineering industry and observed that business risk, dividend policy, profitability and debt service capacity of the firm had significant effect on debt-equity choice. (Titman, 1984) investigated capital structure and financial distress through the product market route. If the product or service is durable in nature, the customers might get interested in financial health of the company. Higher debt component in the company's capital structure sends a negative signal in the product market and adversely affects product's competitive advantage. Hence, companies with larger debt component in capital structure are likely to go through financial difficulties leading to bankruptcy. He found that profitability of the firm is critically influenced by its capital structure. (Pandey, 1985) in his study of 743 companies from 18 industrial groups critically examined the impact of industrial patterns, trend and volatility of leverage, size, profitability and growth on the debt equity mix of the business enterprise. However, the study observed that any significant structural relationship between leverage, profitability and growth was not present. (Stulz, 1988) and (Harris & Raviv, 1991) studied linkages between managerial control, voting rights and firm's capital structure. They observed that the optimal capital structure is determined by the strategic role of the debt in providing the manager with critical resources to acquire voting rights, particularly when the managers are liquidity constrained to buy necessary votes in large firms. The managers may use the capital structure as an anti-take-over measure by exploiting the fact that common stock carries voting rights but debt does not carry voting rights. For a given level of investment in shares, the managerial control over voting rights increases with the increase in the debt component in the capital structure the firm. (Thies & Klock, 1992) noticed that risk bears have negative relationship with long term debt. However, risk bears positive relationship with short term debt as high variability transfers financing from long term debt to

short term debt and equity. (Voulgaris, Asteriou, & Agiomirgianakis, 2002) in their study of 75 large manufacturing companies in Greece noticed that the profitability of sales, productivity of total assets, assets growth and size were major determinants of capital structure.

(Fama & French, 2002) investigated how dividend decisions and debt decisions have influence on the value of firm. According to them such decisions convey information about firm's profitability. They observed negative association between firm's value and dividend payout. However, firm's value and debt were found to have positive association. (Liow, Firm value, growth, profitability and capital structure of listed real estate companies: An international perspective, 2010) in their study of firm's value, growth, profitability and capital structure of companies noticed that larger size firms performed better from view point of market valuation and were in a position to generate positive financial leverage effects for superior profitability. (Teixeira & Parreira, 2014) Investigated 500 Portuguese companies of the information technology industry with reference to the value of turnover, as a criterion. They observed that business risk, size and collateral guarantees were the important variables to influence the capital structure and they had positive association with level of debt while cost of financing, reputation and profitability were found to have negative association with level of debt. (Gupta, 2015) studied relationship between Capital Structure and Profitability of Foreign Promoter's holding companies in India for a period of five years and noticed that there exists a statistically significant but negative relationship between capital structure and profitability of firms.

(Lazaridis & Tryfonidis, 2006) Critically investigated the association between working capital management and profitability of different enterprises. They observed that account receivables, inventories and account payables had negative relationship with profitability. The association of accounts receivables and account payables with the profitability was statistically very significant but the association of inventory with the profitability was statistically not significant. They further suggested that account receivables and account payables are the areas deserving greater attention for carrying out improvements in the profitability of the enterprise. (Vishnani & Shah, 2007) in their study identified negative association between working capital management practices' indicators and profitability performance indicators. (Osama & Fatima, 2011) in critically examined 53 Jordanian companies listed on Amman Stock Exchange and noticed that account receivables, inventory and account payables had negative but significant association with profitability of the companies. Similarly (Khalaf, 2012) in his study of Jordanian companies listed on Aman Stock

Exchange found that investment in current assets and profitability are negatively related. (Imeokparia, 2013) also in his study of food and beverages companies of Nigeria observed a significant relationship inventory and performance of the company. (Mehta, 2014) in his research observed a significant negative association between length of cash cycle and profitability. (Mensah, 2014) in his study of manufacturing firms listed on Ghana Stock Exchange observed that debtors had significant negative association with profitability whereas the inventory had positive association with profitability of the enterprise.

Need for the Study:

As above stated literature review clearly brings out that some authors like (Ross, 1977) and (Thies & Klock, 1992) have critically investigated capital structure from different perspectives. While authors such as (Bhat, 1980) and (Pandey, 1985) (Liow, 2010) have examined other variables such as size of firm, growth and volatility of earnings. A league of authors (Lazaridis & Tryfonidis, 2006), (Vishnani & Shah, 2007), (Imeokparia, 2013), (Mehta, 2014) and (Mensah, 2014) has investigated the relationship of working capital and profitability. However, capital structure with long run time perspective and working capital with short run time perspective needs to be simultaneously examined with reference to their relationship with profitability and the extent of impact they have on the profitability of the enterprise. For this purpose in this research paper Long Term Debt to Equity Ratio (LTDER), Current Ratio (CR), Inventory Ratio, (IR) and Debtors Ratio (DR) and Profit after Tax to Sales (PATSR) are used as variables. The formula of each ratio is stated in Appendix- 1. From amongst the said variables, PATSR is a dependent variable while the remaining LTDER, CR, IR and DR are independent variables.

Hypotheses Development:

Based on the variables discussed above and aforementioned literature review the following hypotheses were developed:

Ho: LTDER has no significant impact on PATSR

H1: LTDER has significant impact on PATSR

Ho: CR has no significant impact on PATSR

H1: CR has significant impact on PATSR

Ho: IR has no significant impact on PATSR

H1: IR has significant impact on PATSR

Ho: DR has no significant impact on PATSR

H1: DR has significant impact on PATSR

Research Design:

Research Objectives

The research objectives derived from above are:

- (1) To develop better understanding of the association of LTDER, CR, IR and DR with PATSR and

extent of impact they have on profitability of the enterprise.

- (2) To develop better understanding of financial management practices and their impact on the profitability of the enterprise.

Research Techniques:

Here we have considered only companies in textile sector and listed on Bombay Stock Exchange and/or National Stock Exchange. Data for the variables LTDER, CR, IR, DR and PATSR were collected for a period of 10 years to neutralize cyclical effects of the economy. The companies for which full data for the complete time frame of 10 full years each of 12 months was not available were dropped in order to avoid statistical inaccuracies in the analysis of data. The data required was historical and voluminous in nature. Audited annual reports, data bases such as CAPITALine, and of Bombay Stock Exchange Ltd. and National Stock Exchange Ltd were the sources of data collection. The data so collected was processed using various statistical techniques to examine the relationship of independent variables with dependent variable and to know the extent of impact independent variables have on the dependent variable. F test was conducted and multi co linearity amongst independent variables was checked using matrix of co-efficients of correlations to provide better reliability to the results.

Results and Discussions:

- (1) The standardized β of the independent variables with their respective direction, values and significance level are given in the Table 1. As mentioned in the said table, LTDER has a negative association with PATSR as β (LTDER) is - 3.463, The significance level of 0.174 renders β (LTDER) moderately significant. Thus the weight of the evidence suggests that null hypothesis H_0 (LTDER) be rejected and the alternate hypothesis H_a (LTDER) be accepted. This means LTDER does have moderately significant impact over PATSR. A change in LTDER is likely bring about a moderate change in the profitability.
- (2) The Table - 1 further shows that standardized β (CR) stands at +3.088 indicating that β (CR) has a positive relationship with PATSR. However, its significance level of 0.541 does not allow the said regression co-efficient to be statistically significant. The weight of the evidence, therefore, suggests that null hypothesis H_0 (CR) be accepted and the alternate hypothesis H_a (CR) be rejected. This means CR does not have any significant impact on PATSR. A change in CR is not likely to bring about any change in PATSR. This means CR does not significantly influence the behavior of PATSR and hence a change in CR is very unlikely to bring about a change in PATSR.

- (3) As shown in the Table 1, the standardized β (IR) stands at -0.795 which means IR is negatively related with PATSR. However, the significance level of 0.537 does not allow this low value regression co-efficient to be even statistically significant. The weight of the evidence, therefore, suggests that null hypothesis H_0 (IR) be accepted and the alternate hypothesis H_a (IR) be rejected. This means a change in IR practically does not have any impact on PATSR.
- (4) The table - 1 further show that the standardized β (DR) stands at $+0.431$ indicating that standardized β (DR) has positive but weak relationship with PATSR. The significance level of 0.505 does not allow this low value regression co-efficient to be statistically significant. Thus the weight of the evidence suggests that null hypothesis H_0 (DR) be accepted and the alternate hypothesis H_a (DR) be rejected. This means DR does not have any significant impact on PATSR. Hence a change in DR is not very likely to bring about significant change in PATSR.
- (5) As shown by the results of variance analysis given in the Table - 2, $F = 1.043$ at a significance level of 0.507 with $df (4, 3)$. This indicates that all regression co-efficients may not be non-zero.
- (6) The Matrix of Co-efficients of Correlations given in the Table - 3 indicates that none of the four independent variables has the value of its co-efficient of correlation larger than ± 0.70 except IR and DR having the value of their co-efficient of correlation marginally higher at -0.771 . However, the regression co-efficients of IR and DR have very low values and are statistically not significant. As a result, there is no cause of serious concern from the viewpoint of multi co linearity amongst the independent variables.
- (7) From the test output provided above, The Multiple Regression Equation emerges as under:

$$\text{PATSR} = (+ 2.576) - 3.463 (\text{LTDER}) + 3.088 (\text{CR}) - 0.795 (\text{IR}) + 0.431 (\text{DR})$$
 The R^2 i.e. the co-efficient of determination for the equation stands at 0.582 indicating that 58.2% of variations in PATSR can be explained by the variables in the above stated equation. For the remaining unexplained variations in PATSR, some other variables may be responsible.
- (8) The descriptive statistics pertinent to the above stated analysis are given in Table -4. The predictive value of the analysis will be of higher order if the data set of the companies to be studied closely resemble to the pattern of descriptive statistics given in the said table.

Findings:

Capital Structure:

The long-term debt to equity ratio is an indicator of the capital structure of the company. In this research it is found to have negative association with profit to

after tax to sales ratio. The significance level of β (LTDER) makes it moderately relevant. This leads us to believe that the corporate in this sector consider capital structure as a variable having moderate impact on the profitability of the enterprise. The research findings of (Titman, 1984) confirmed the presence of negative association between the capital structure and profitability. However, (Ross, 1977) and (Leyland & Pyle, 1977) noticed significant but positive relationship between capital structure and profitability. In sharp contrast (Pandey, 1985) noticed the absence of significant association between the two variables. On the other hand (Bhat, 1980) observed that profitability of the firm has significant role to play in the choice of capital structure.

Working Capital:

The Current Ratio, an indicator of working capital of the company, is found to have positive relationship with profit to after tax to sales ratio. However the significance level of β (CR) renders it even statistically irrelevant. This propels us to believe that the corporate in this sector do not consider working capital as an important variable affecting the profitability. This is diagonally opposite to the findings of (Osama & Fatima, 2011) where working capital components had negative but significant association with profitability of the companies.

Inventory:

The Inventory Turnover Ratio bears a negative relationship with the profitability of the enterprise. However, the significance level is unacceptable and hence this ratio is not found to be important. It means that the corporate do not consider inventory turnover as a significant determinant of profitability in this sector. For the corporate inventory holdings probably do not have any importance. The research findings of (Lazaridis & Tryfonidis, 2006) confirm negative but insignificant association between inventory and profitability. In sharp contrast (Mensah, 2014) who found inventory to have positive and significant association with profitability. It is also partially in contrast to the findings of (Vishnani & Shah, 2007). They found inventory having negative relationship with profitability but the relationship was significant.

Debtors:

The Debtors Turnover Ratio bears positive association with the profitability of the enterprise. However, its unacceptable significance level does not allow it to be relevant. This indicates that the corporate do not consider Debtors as a significant factor affecting the profitability of the enterprise. The corporate do not give much importance to the credit to be extended to customers. This is contrary to the research findings of (Lazaridis & Tryfonidis, 2006), (Vishnani & Shah, 2007) and (Mensah, 2014) who identified debtors as significant variable having negative association with profitability

Recommendations & Managerial Implications:

The results, discussions and findings stated above direct us to the following recommendations and implications:

- (1) The corporate managers in the textile sector need to give more importance to long term debt to equity ratio to improve the profitability of the enterprise. The long term debt needs to be kept as low as possible. In other words equity will have to be given greater weight. It means equity providers shall gradually replace providers of debt capital as Performance Appraisers. The long-term interests of shareholders will have to be paid more attention by corporate managers. This in turn will ask for better transparency and reliability in financial reporting besides higher levels of corporate objectives oriented performance. This would impart a very valuable support in the development of performance-oriented culture.
- (2) It provides a good base to academicians for further research in areas like financial restructuring to improve profitability, management of funds in medium and small size companies, comparison of practices for financial management adopted by the companies in developed nations and developing nations.

Future Research Directions:

This research study analyses on companies in the textile sector listed on Bombay Stock Exchange and/or National Stock Exchange in India. The impact of financial management on profitability of business enterprises in other sectors of economy such as banking, insurance, engineering, infrastructure, information technology, petrochemical, telecommunication, etc. can be critically investigated by carrying out replication studies, before generalizing the results. A global research study to compare relationship of financial management with profitability in developed nations and developing nations can also be carried out. Further research can also be undertaken by considering more variables such as foreign exchange reserve, growth rate of economy, inflation, participation in international trade etc.

Table 1: Regression Co-efficient

	Regression Co-efficient		t	Significance Level
	Direction	Value		
Constant	+	2.576	0.275	0.801
LTDER	-	3.463	-1.774	0.174
CR	+	3.088	0.689	0.541
IR	-	0.795	0.695	0.537
DR	+	0.431	0.755	0.505

Dependent Variable: PATSR
R2 =0.582

Independent Variables: LTDER, CR, IR, DR
N= 8

Table 2: Variance Analysis

	Sum of Squares	df	Mean Square	F	Significance Level
Regression	31.162	4	7.791	1.043	0.507
Residual	22.413	3			
Total	53.578	7			

Table 3: Matrix of Co-efficients of Correlations

	LTDER	CR	IR	DR
LTDER	1.000	-0.155	0.501	-0.560
CR	-0.155	1.000	-0.298	0.668
IR	0.501	-0.298	1.000	-0.771
DR	-0.560	0.668	-0.771	1.000

Table 4: Descriptive Statistics

Variables→	PATSR	LTDER	CR	IR	DR
Mean	3.80	0.91	1.47	5.76	10.27
Minimum	0.62	0.36	0.93	3.81	4.85
Median	3.80	0.64	1.51	5.52	9.41
Maximum	7.30	2.37	2.07	8.90	18.06
Std. Deviation	2.77	0.68	0.37	1.60	4.59

Appendix 1: Details of Variables

Particulars	Abbreviation Used	Formula
Profit After Tax to Sales Ratio	PATSR	$\frac{\text{Profit After Tax}}{\text{Sales}} \times 100$
Long term Debt to Equity Ratio	LTDER	$\frac{\text{Long term Debts}}{\text{Equity}}$
Current Ratio	CR	$\frac{\text{Current Assets}}{\text{Current Liabilities}}$
Inventory to Sales Ratio	IR	$\frac{\text{Sales}}{\text{Inventory}}$
Debtors to Sales Ratio	DR	$\frac{\text{Sales}}{\text{Debtors}}$

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