Factors Affecting the Profitability of Selected Public Limited Textile Mills – A Study of Textile Hub of India (Surat)

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***Abstract*: The Indian textile industry has a significant presence in the Indian economy as well as in the International textile economy. Its contribution to the Indian economy is revealed in terms of its contribution to the industrial production, employment generation and foreign exchange earnings. The industry also contributes significantly to the world production of textile fibres and yarns including jute. India's textiles sector is one of the oldest industries in Indian economy dating back several centuries. Profits are the ultimate test of any management's effectiveness. Profitability means ability to make profit from all the business activities of an organization, company, firm, or an enterprise.**

Surat, an emerging city in the state of Gujarat, is known as Textile City of Gujarat. The textile industry is the oldest industry in Surat. A major part of this City is associated with Textile Industry. The Textile industry in Surat is mainly engaged in the activities of Yarn Production, Weaving, Processing as well as Embroidery. Surat is well known for its Synthetic Market. It is mainly engaged in the production of synthetics textile product. The present study is aimed to study the factors influencing the Profitability position of selected Surat textile Industries.

***Keywords*: Profitability, Long Term Solvency, Fixed Asset Management, Short Term Liquidity, Stock Turnover Ratio, Public Limited Textile Mills.**

1. Introduction

Lord Keynes remarked that 'Profit is the engine that drives the business enterprise'. It is the drive to the economic progress, improved National Income and rising Standard of living. Maximization of profit is the ultimate aim of the management, keeping in mind the welfare of the society. Profit is the yardstick for measuring not just the economic efficiency, but the managerial efficiency also. Profitability is the ability to make profit from all the business activities of an organization, company, firm, or an enterprise. Profit shows how efficiently the management can make profit by using all the resources available in the market. Sometimes satisfactory profits can mark inefficiency and conversely, a proper degree of efficiency can be accompanied by an absence of profit. The change in operational efficiency is merely one of the factors on which profitability of an enterprise largely depends. Moreover, there are many other factors besides efficiency, which affect the profitability.

The Indian textile industry has a significant presence in the Indian economy as well as in the international textile economy. In the world textile scenario, it is the Largest producer of Jute, Second largest producer of Silk, Third largest producer of Cotton and Cellulosic fibre\yarn and fifth largest producer of Synthetic fibre\yarn (Balkumar, S.R. 2017).

The Textile Sector in India ranks next to Agriculture. The textiles and clothing sector contributes about 14% to the industrial production and 3% to the gross domestic product of the country. About 27% of the foreign exchange earnings are on account of export of textiles and clothing alone. Around 8% of the total excise revenue collection is contributed by the textile industry. So much so, the textile industry accounts for as large as 21% of the total employment generated in the economy. Around 35 million people are directly employed in the textile manufacturing activities. Unlike other major textile-producing countries, India's textile industry is comprised mostly of small-scale, non-integrated spinning, weaving, finishing, and apparel-making enterprises. This unique industry structure is primarily a legacy of government policies that have promoted labour-intensive, small- scale operations. Statement of the Problem: Textile industry is one of the major industries contributing to the development of the Indian economy. India's textiles sector is one of the oldest industries in Indian economy dating back several centuries. India's overall textile exports during FY 2017-18 stood at US$ 39.2 billion in FY18 and is expected to increase to US$ 82.00 billion by 2021 from US$ 31.65 billion in FY19 (up to Jan 19).

The Textile industry consists of both Private and Public Limited Companies. In case of public limited companies there are large numbers of stakeholders from all over the world. So, it is necessary to identify the exact financial performance of public limited textile companies by analysing their profitability trends and solvency position. Surat alone accounts for 40% exports of fabrics generating revenue of more than ₹ 500 crores. It produces cheap fabrics affordable to poor people. Surat Textile city deals in exporting Yarn, Fabrics and made ups mainly. Hence, this study involves a study on factors affecting the profitability of selected Public Limited Textile mills in Surat district.

2. Literature review

Isik, O., Unal, A.E., Unal, Y. (2017) conducted a study on the topic "The Effect of Firm Size on Profitability: Evidence from Turkish Manufacturing Sector". The objective of the study is to investigate the factors affecting profitability. Dynamic panel data approach (i.e. two-step system GMM estimator) is employed on 112 publically listed companies of Turkey to estimate the effect of alternative firm size indicators on firm profitability taking into account potential endogeneity of firm-level variables. The finding suggested that firm size tend to have a positive influence on the profitability of firm measured by operating return on assets.

Research is done by Ilaboya, J. A., Ohiokha, & F. I. in 2016 on the topic "Firm Age, Size and Profitability Dynamics: A Test of Learning by Doing and Structural Inertia Hypotheses". The objective of the paper is to investigate the relationship between company age, company size and profitability. Sample consists of 30 firms from the Nigerian Stock Exchange Market. The data is collected from the period 2006-2012. The panel data regression analysis is employed in the study. The study finds a significant positive relationship between firm age, firm size and profitability.

Hanitha, V., Sinthuja, M., Tharanika, R., Sivathaasan, N. (2013) done a case study on the topic "Factors determining Profitability: A Study of Selected Manufacturing Companies listed on Colombo Stock Exchange in Sri Lanka". The aim of the paper is to investigate whether factors such as capital structure, working capital, firm size, non-debt tax shield and growth rate, determining profitability have any impact on profitability of selected manufacturing companies listed on Colombo stock exchange, Sri Lanka over a period of five years from 2008 to 2012. The study employed multiple regression analysis to measure relationship among variables, individual and overall impact on profitability and to test the operational hypotheses. The results revealed that capital structure and non-debt tax shield have statistically significant impact on profitability ($P < 0.05$), the remaining working capital, growth rate and firm size have no significant effect on the profitability ($P > 0.05$).

Kouser, R. Bano, T., Azeem, M., Hassan, M. (2012) researched on the topic "Inter-Relationship between Profitability, Growth and Size: A Case of Non-Financial Companies from Pakistan". The purpose of the paper is to provide an in-depth description of the inter-relationship between firm size, growth, and profitability of non-financial companies listed at Karachi stock exchange. The study is based on the sample of 70 (seventy) non-financial companies listed at Karachi Stock Exchange of Pakistan, selected on the basis of their market capitalization. Panel data techniques are employed using 700 observations of each of the variables of study; size (log natural of total assets), growth (sustainable growth rate for firm) and profitability (return on assets). Observations were collected for ten years (2001-2010). The study concluded that profitability has strong positive relationship with the growth of the firm; however, size has less significant and negative impact on the profitability.

Coban, S. (2014) researched on the topic "The Interaction between Firm Growth and Profitability: Evidence from Turkish (Listed) Manufacturing Firms". The objective of the paper is to investigate the interaction between firm growth and profitability using panel data on 137 Turkish listed manufacturing firms over the period 1997-2012. According to results there is a statistically significant positive relation between current profits and current growth. The results suggested that lagged profits affect current profits positively and lagged profitability is a significant determinant of current profits. Moreover, the link between current profits and lagged profits is much stronger than the link between current growth and current profits.

Dang, N.H., Ngo, T.X., Hoang, V.T.H. (2019) researched on the topic "Study the Impact of Growth, Firm Size, Capital Structure, and Profitability on Enterprise Value: Evidence of Enterprises in Vietnam" The objective of the paper is to study the effect of growth, firm size, capital structure, and profitability on enterprise value (EV) in Vietnam. The study used a panel of 1070 observations at 214 companies listed on the Vietnamese stock market for the period of 2012–2016. According to regression results by generalized least squares and structural pathways analysis, the results detected that size and profitability are positively correlated with the enterprise value, while capital structure is a factor that negatively affects the enterprise value. On the other hand, growth factor does not have any impact on enterprise value.

Kawshala, H., Panditharathna, K. (2017), examined the effect of bank specific factors of profitability in Sri Lankan domestic commercial banks by conducting a study on the topic "The Factors Effecting on Bank Profitability". Strongly balanced panel data set including 60 observations of 12 Sri Lankan domestic commercial banks over the period 2011-2015 is framed for the study. Bank size, Capital, Deposits, and Liquidity had been identified as independent variables and Profitability as the dependent variable. The research used Return on assets to identify the profitability, logarithm of total assets - size, equity ratio- capital, deposit ratio- deposit, liquidity ratio- liquidity. Regression findings revealed that size, capital ratio and deposit ratio are significant bank specific determinants of bank profitability in Sri Lanka. There is a positive relationship between those factors and bank profitability. Liquidity is an insignificant determinant and it has a negative relationship.

Kripa, D., Ajasllari, D. (2016) researched on the topic "Factors Affecting the Profitability of Insurance Companies in Albania". The objective of the paper is to study the impact of growth rate, liabilities, liquidity, fixed assets, volume of capital and company size on the profitability of insurance companies. The study is based on sample of 7 companies, including non-life and life insurance companies, from 2008- 2013. With the regression analysis the result of the paper showed that factors such as growth rate, liabilities, liquidity and fixed assets are the main factors affecting the profitability of insurers, where the growth rate is positively associated with profitability, while liabilities, liquidity and fixed assets are negatively correlated. Company size and the volume of capital are positively correlated with the profitability of insurance companies', but their impact is statistically insignificant.'

Shah, H.M. (2017) researched on the topic "Factors Affecting Commercial Banks Profitability in Pakistan". The research has been carried out to analyse the possible effect of different relevant factors on the profitability of commercial banks in the country. Profitability is measured by return on assets (ROA). Using pooled regression analysis on yearly data collected from the annual reports for a panel of 14 commercial banks for eight years from 2007 to 2014, it was found that equity to assets, debts to assets, deposits to assets, bank size and assets management have a significant influence on the commercial banks profitability in Pakistan.

Seissiana, A.L., Awad, B.A. (2018) researched on the topic "Structural and market-related factors impacting profitability: A cross sectional study of listed companies". The paper aimed to identify whether several factors such as credit rating, liquidity, financial leverage, sales growth, company size, and average tax rates participate in determining the profitability of listed companies. The results have shown that the precedent variables explain 26.4% and 31.4% of ROA and ROE variations, respectively at a 5% significance level.

3. Objectives of the Study

The objectives of the present study include the following:

- To measure the relationship between Net Sales and Net Profit of selected Public Limited Textile Mills of Surat.
- To find the association between various factors that affect profitability of selected Public Limited Textile Mills of Surat.
- To analyze the factors having an impact on the Profitability of selected Public Limited Textile Mills of Surat.

A. Scope of the Study

The present study covers the relation between sales and profitability and factors affecting the profitability of selected textile mills only. The financial performance, investment pattern etc., are not included in this study and the present study covers the profitability of public sector mills only.

4. Methodology

The present study is an analytical research based on secondary data only. The required data were collected from the profit and loss account, balance sheet and annual reports (2014-15 to 2018-19) of selected six public limited textile mills in the Surat district and the other relevant data were collected from books, journals, magazines, and e-journals available in the various websites.

A. Sampling Design

A sample of six public limited textile mills such Surat Textile Mills Limited, Garden Silk Mills Limited, Meera Industries Limited, Sumeet Industries Limited, Fair Deal Filament Limited, and Madhusudan Industries Limited Has Been Selected. The sample technique used for the study is purposive sampling in which the samples are purposively selected based on the judgement of the researchers

B. Framework of Analysis

The data were analysed with the help of statistical tools like Multiple Regression Analysis, T-test which are available in IBM SPSS Statistics 20 and MS Excel.

C. Period of the Study

The study covers the period of five years from 2014-15 to 2018-19.

D. Hypotheses of the Study

The Hypotheses of the present study includes the following.

- Hypothesis H01: There is no significant relationship between Net Sales and Net Profit.
- Hypothesis H02: There is no significant Association between Short Term Liquidity and Profitability.
- Hypothesis H03: There is no significant Association between Long Term Solvency and Profitability.
- Hypothesis H04: There is no significant Association between Stock Turnover Ratio and Profitability.
- Hypothesis H05: There is no significant Association between Fixed Asset Management Ratio and Profitability.
- Hypothesis H06: There is no significant impact of Short Term Liquidity on Profitability.
- Hypothesis H07: There is no significant impact of Long Term Solvency on Profitability.
- Hypothesis H08: There is no significant impact of Stock Turnover Ratio on Profitability.
- Hypothesis H09: There is no significant impact of Fixed Asset Management Ratio on Profitability.

E. To measure the relationship between Net Sales and Net Profit of selected Public Limited Textile Mills

Relationship between Net Sales and Net Profit- interpretation The independent samples t-test is applied in order to analyse the relationship between Net sales and Net profit of selected public limited textile mills. It can be used to determine if two sets of data are significantly different from each other, and it is most commonly applied when the normal distribution if the value of a scaling term in the test is used in this study.

F. Hypothesis for the Study

Hypothesis H01: There is no significant Relationship between Net sales and Net profit

Table 1
Relationship between Net Sales and Net Profit – t test

Company	T value	Df	Sign(2 tailed)	Results
Surat Textile Mills Limited	7.874	8	0.000	Reject null hypothesis(H01)
Fair Deal Filament Limited	3.985	8	0.030	Reject null hypothesis(H01)
Madhusudan Industries Limited	1.114	8	0.038	Reject null hypothesis(H01)
Garden Silk Mills Limited	14.977	8	0.005	Reject null hypothesis(H01)
Meera Industries Limited	3.376	8	0.028	Reject null hypothesis(H01)
Sumeet Industries Limited	15.626	8	0.015	Reject null hypothesis(H01)

Note: t value is significant at 0.05 level (2 tail test)

Table 2
Correlation results

Correlation	Profitability (return on assets)		Results
	Pearson correlation	Significance (2 tailed)	
Short term liquidity	.654	0.031	Reject Null Hypothesis(H02)
Long term solvency	-.823	0.040	Reject Null Hypothesis(H03)
Stock turnover ratio	.881	0.021	Reject Null Hypothesis(H04)
Fixed asset management ratio	.336	**0.515**	**Accept Null Hypothesis(H05)**
Return on assets	1		

**. Correlation is significant at the 0.01 level (2-tailed)

The following Table 1 reveals the relationship between Net sales and Net profit of the six selected public limited textile mills in Surat district with the help of t test Table 1.

5. Results and Discussion

It is observed from the above table A.1 that all the six public limited textile mills taken for our study in the Surat district shows the highest positive relationship between Net sales and Net profit, because the significance value of t is less than 0.5. The null hypothesis is rejected and it is concluded that there is a relationship between Net sales and Net profit.

A. To find the association between various factors that affect profitability of selected Public Limited Textile Mills

Hypothesis for the Study:

- Hypothesis H02: There is no significant Association between Short Term Liquidity and Profitability.
- Hypothesis H03: There is no significant Association between Long Term Solvency and Profitability.
- Hypothesis H04: There is no significant Association between Stock Turnover Ratio and Profitability.
- Hypothesis H05: There is no significant Association between Fixed Asset Management Ratio and Profitability.

The following Table 2 reveals the Association between Profitability and other influencing Factors for all selected public limited textile mills in Surat district with the help of correlation Table 2: Association between Profitability and other influencing Factors.

B. Correlations

As per correlation matrix Table 2, of various factors affecting Profitability and Factor affecting profitability. It is interpreted that there is positive and significant correlation of profitability with short term liquidity, and stock turnover ratio. There is negative and significant correlation between long term solvency and profitability. The relationship of fixed asset management ration is not significant and there is no linear correlation between them.

C. To analyse the various factors that affect the Profitability of selected Public Limited Textile Mills

Factors Influencing Profitability – Interpretation. Multiple Regression Analysis is used to find the factors influencing the profitability of selected public limited textile mills. Instead of a single independent variable, two or more independent variables are used to estimate the values of the dependent variable. The multiple regression equation describes the average relationship between these variables and this relationship is used to predict or control the dependent variable. The formula for calculating Multiple Regression.

$Y = \alpha + \beta 1x1 + \beta 2x2 + \beta 3x3 + \beta 4x4 + \epsilon$

Where,
Y - Profitability (Dependent variable)
α- Constant
x1- Short term liquidity
x2- Long term solvency
x3 - Stock Turnover
x4 - Fixed Asset management
β1 to β 4- Regression coefficient

D. Multiple Regression

- Hypothesis H06: There is no significant impact of Short Term Liquidity on Profitability.
- Hypothesis H07: There is no significant impact of Long Term Solvency on Profitability.
- Hypothesis H08: There is no significant impact of Stock Turnover Ratio on Profitability.
- Hypothesis H09: There is no significant impact of Fixed Asset Management Ratio on Profitability.

The following tables reveals the factors affecting Profitability of all the six companies with the help of Multiple Regression Analysis.

Table 3
Table title comes here

Model	R	R Square	Adjusted R square	Std. Error of the Estimate	Durbin Watson
1	.798[a]	.637	.620	.44430	1.692

Predictors: (Constant), Short term liquidity ratio, Long term solvency ratio, Stock turnover ratio, Fixed assets turnover ratio.
Model Summary shows that the Independent factors explain 63.7 percent variation in the dependent variable.

Table 4
Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations			Collinearity Statistics	
		B	Std. Error	Beta			Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	.203	.009		22.834	.028					
	Short Term Liquidity	.041	.001	.733	33.917	.019	.154	1.000	.387	.279	3.585
	Long Term Solvency	-.179.	.012	.502	14.353	.044	-.832	.998	.164	.106	5.402
	Stock Turn Over Ratio	.049	.001	1.461	45.787	.014	.881	1.000	.522	.128	4.821
	Fixed Assets Management Ratio	.001	.000	.054	3.467	.179	.336	.961	.040	.535	1.870

Dependent Variable: Return on assets

Regression equation:
Return On Assets Ratio = 0.203 + 0.041 Short Term Liquidity – 0.179 Long Term Solvency + 0.049 Stock Turnover Ratio + 0.001 Fixed Assets Turnover Ratio

Table 4 shows that the Independent Variables Short Term Liquidity, Long Term Solvency, Stock Turnover Ratio are significantly affecting the Dependent Variable Profitability as their significance value is less than 0.05 whereas fixed asset management ratio are not significantly affecting the dependent variable.

Table 5
ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.034	4	.008	1919.775	.017[b]
	Residual	.008	1	.004		
	Total	.042	5			

a. **Dependent Variable**: Return on Assets
Predictors: (Constant), Fixed Assets Management Ratio, Stock Turn Over Ratio, Short Term Liquidity Ratio, Long Term Solvency.

Table 5 Shows that the model is Significant with the value **0.017** is less than 0.05 at 95% confidence level.

Multi collinearity intensifies the standard error of the beta coefficients in a model constructed on principle of multiple regression analysis and, therefore, the model becomes less reliable (Osborne, W.J., Waters, E. 2002). For identification of the severity of multi collinearity the VIF method is used. The VIF is an index that estimates amount of variance of a coefficient (Square of standard deviation) which is increased because of collinearity (Zikmund, 2016). A generally accepted cut off value in literature is a VIF < 10 (Field, 2010), in the current study there is no multi collinearity problem as all the variables Variance Inflation Factor (VIF) value is less than 10. To test assumption of no serial correlation, the Durbin-Watson test has been applied. The Durbin- Watson statistics shows value of 1.692. So, there is no serial correlation between independent variables and export performance. Hence, it fulfils the assumption of lack of autocorrelation.

6. Suggestions

Following suggestions are recommended by the researchers based on the observations made in the study. 1. Importance to Materials: It is suggested that the textile mills should well concentrate on stock management in order to reach a higher profitability. 2. Encourage Exports and Internal trade: The textile mills should increase their Sales by encouraging more exports as there is a positive correlation between net sales and net profit. 3. Better Fixed Assets and Investment Management: It is also suggested that the textile mills should concentrate on short term liquidity and long term solvency as they also influence the profitability.

7. Implications for further Research

This research is made to analyse the factors affecting the profitability of public limited textile mills in Surat district only. Similar research studies can be carried on in other districts of Gujarat to understand the factors determining the profitability of public limited textile mills and also the same study can be extended to other industry too.

8. Conclusion

The present study analyses the profitability trends and the factors which are affecting profitability of six public limited textile mills in Surat District. This study also forms the basis for other research studies such as working capital management analysis and inventory management analysis, investment analysis, risk and return analysis etc. The present study is done only for the textile mills and can also be done in the other business areas such as manufacturing, automobile and any other trading concerns etc.

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