

# Performance of Textile Industry in Tamil Nadu: Perspectives of Finance Managers

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**Abstract**---Indian Textile industry is playing an essential role in the world after China and it is contributing growth towards GDP, employment, exchange reserves, exports, total production etc. It investigates the investment decision factors, risk, and growth factors of CMIE registered Indian Textile companies from the state of Tamil Nadu. The study has used regression analysis to know which investment factor is highly impacting on the financial performance and which risk factors are highly impacting on the textile finance companies. Factor analysis used to explore the growth factors of textile companies and have identified four factors from pilot study using SPSS. The study finds management outlook is the highest impact factor on the performance of textile companies from the investment factors, it also find that the competitor risk is the highest impact among the risk factors of textile companies. Further the study suggests that the companies first emphasize on utilizing the resources efficiently to improve the performance through up-gradation of new technology, make changes in the textile policy by the local government, generate quality products with less cost, focusing on sustainability in order to boost the overall efficiency.

**Keywords**---Investment Decisions, Risk factors, Finance Struggle and Textile Barriers

## I. INTRODUCTION

INDIAN textile industry is the second largest industry in the world after China and it is self-reliant and independent and has greater diversification and versatility. As per Apparel Export Promotion Council (AEPC), it accounts for around 4% of GDP next to agriculture sector, 14% of the industrial production, and 17% of the country's total export earnings. About 27% of the country's foreign exchange comes from the textile exports. Besides, the sector employs nearly 35mn employees in both rural and urban areas. In the international market, India is the largest exporter of yarn and has 25% share in the world cotton yarn export market besides contributing to more than 12% of the world's production of textile fibers and yarn. While the Europe continues to be the India's major export market with 22% share in textiles and 43% in apparel, the US is the single largest buyer of Indian textiles and apparel with 10% and 32.6% share respectively. Other countries in the export list include the China, UAE, Saudi Arabia, Canada, Bangladesh, Turkey, and Japan.

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Spindle-age has 23% share in the world spindle capacity, including handlooms with 61% in the world loom age. Garment/Apparel industry holds 12% of the country's total export and it is one of the largest foreign revenue contributors. India's eleventh largest state is Tamil Nadu in terms of area and third largest contributor of GDP as well as the seventh most populous (Porter and Niels). Census-2005 states that economy largely depends on industries and agriculture. Tamil Nadu has the highest number of business enterprises (10.56%) and stands second in total employment (9.97%) in India (Marimuthu, 2012). Two-third of India's textile garment exports occur from Erode and more than a half of India's knitwear are exported out of Tirupur (Tex-City or Loom-City of India). Coimbatore, Erode and Karur together raise \$1000mn every year in foreign exchange. Coimbatore is contributing large number of textile companies' establishments and running very well with highest exports on both domestic and international market (Marimuthu & Jessica, 2012).

## II. REVIEW OF LITERATURE

**Sushil Kharna** (1989) concentrated on the technological development of textile industry from the year 1950s to 1980s. As a result of the second five year plan, bulk quantities of new generation modern machines have been imported. The major reason for this import was to meet the competition from the international market, which was based on high quality of research and innovation. **Venu & Haesun** (2009) concentrated mainly on technology adoption (**Anupkumar & Ray** 2011), Indian apparel manufacturing firms influence and the affect of various technological level of organizational factors like firm size, export orientation, top management commitment, cost of capital, technical skills and competitive advantage, etc. **Krishnamurthy** (2005) analyzed the factors contribution growth of foreign trade and it threats as a challenge and opportunities for the promotion of trading in Indian silk industry in abroad. **Sanjay & Soma** (2009) discussed the factor analysis revealed six measures of capacity building which affect the export intensity of Indian apparel exporters. It conducted survey among 200 classified apparel exporters, it found lack of working model, skilled workforce, IT and distribution networks which strongly affect the export performance using factor analysis. **Parvinder & Sandip** (2012) investigated the factor influencing investment decision making of private equity mangers from the 36 Singapore firms used factor analysis. **Polpi & Rao** (2009) discussed the requirement in technological up gradation, financial support system, policy procedure and practices of Indian government. Short and long term financial institution provides credit to the Indian textile SME unit. **Alessandra & Amelia** (2008)

analyzed the link between export productivity, economic growth and financial development indicators with the help of 139 countries panel data from the period of 1992-2003. It highlights the main reason for the country's growth and productivity, not only volume of volume of exports favoured by products with higher value-added and more technologically developed products. **Young-A Le, et.al (2002)** identified the characteristic strategies, specific perceived needs and internal/external challenges of Michigan apparel and textile industry. **Vivekanandan** investigated on World Wide Web export marketing and the empirical analyses of Tirupur knitwear apparel exporter's barriers with 5 factor analysis. **Abhijit** analyzed the investment behaviour in the knitted garment industry in the south Indian town of Tirupur and focused on large and systematic differences in both levels of capital stock and the capital intensity of production in firms owned by two different community groups. It identified the research gap through various literatures on textile industry as improper administration, growth, micro and macro factors, investment decision and technological factors.

III. OBJECTIVES OF THE STUDY

- To find out the factors influencing investment decisions of the textile companies
- To identify the various growth and risk factors of the textile companies

IV. METHODOLOGY

The study is broadly based on primary data, which have been collected from different districts of Tamil Nadu. There are 244 CMIE registered textile companies in Tamil Nadu. Out of 244, the present study has taken 40 as the sample size. The researcher has collected the data from the finance managers of these 40 companies.

V. ANALYSIS AND INTERPRETATIONS

A. Demographical Factors of the Respondents:

Out of 40 companies, large scale companies are around 5 (12.5%) and majorities are from medium scale i.e., around 35 companies (87.5%). Out of 40 companies, 9 companies are public limited and 31 companies are private limited companies.

Each company is having the different type of investment structures. Out of 40, majority of the companies are owned by sole entrepreneur. It's proved that, the highest investment level invested above 80% and in between 60-80% of the company capital.

Plus one company is investing between the percentages of 40-60 and one company investing below 20%. Partnership companies are getting highest investment invested below 20% by 36 companies follow by the percentages between 20-40 investing by 2 companies and above 80% also by 2 companies. Many medium textile companies are also receiving the finance from institutional, with the return including interest of short and long term period; Out of these 40 companies, 38 companies are receiving the loan from bank, mortgaging their own assets, gold and ornaments etc. below 20% of the capital

structure, follow by 2 companies are investing between 20-40% levels. Meanwhile, few companies are collecting the required funds through distributing different type of shares with the return payment of dividend. Only five companies are collecting the capital through shares issuing below 20%. Further, rest of the company owners are borrowing money from unknown person or money lender with the particular time should return huge amount of interest as usury.

DEMOGRAPHICAL FACTORS OF FINANCE MANAGERS

Industry Type				Business-Type of Organization			
Industry	Frequency	Percentage	Cumulative %		Frequency	Percentage	Cumulative %
Large	5	12.5	12.5	Private	31	77.5	77.5
Medium	35	87.5	100.0	Public	9	22.5	100.0
Total	40	100.0		Total	40	100.0	
Designation				Education			
Assistant Manager & Other	10	25.0	25.0	Below UG	2	5.0	5.0
Senior A/C	2	5.0	30.0	UG Level	4	10.0	15.0
CEO	9	22.5	52.5	PG Level	32	80.0	95.0
Finance Manager	19	47.5	100.0	Professional	2	5.0	100.0
Total	40	100		Total	40	100.0	

TYPE OF FINANCIAL SOURCES

Sources (Percentages)	Below 20	20-40	40-60	60-80	Above 80
Own Finance	1(5)	-	1(2.5)	17(42.5)	20(50)
Partnership with colleagues/friends	36(90)	2(5)	-	-	2(5)
Institutional Finance (Term Loan)	35(87.5)	4(10)	-	-	1(2.5)
Bank Loans	38(95)	2(5)	-	-	-
IPO, FPO	5(12.5)	-	-	-	-
Textile Industry using the Technological Type					
Technology	Large	Medium	Total(40)		
Semi-Automatic Machines	0	28	28(70)		
Automatic Machines	5	4	9(22.5)		
Manually Operating	0	3	3(7.5)		

B. Reasons of Textile companies "struggle on the financial sources":

Indian textile companies are not investing always with its own financial sources; it may collect or receive funds from external sources at sometimes. Surrendering companies documents, certificates and stock report etc. Apart from that, company is facing the challenges to repay those funds from the earning profits.

REASONS OF TEXTILE COMPANIES FINANCE STRUGGLE

Reasons (Percentages)	Never	Rarely	Sometimes	Usually	Always
Do you get sufficient finance (Credit Flows) for running the business?	1(2.5)	-	3(7.5)	29(72.5)	7(17.5)
Do you need any finance from the outside agencies?	2(5)	14(35)	22(55)	1(2.5)	1(2.5)
Do you think funds are provided without any hassle?	2(5)	27(67.5)	7(17.5)	3(7.5)	1(2.5)

Out of 40 companies, 29 companies are usually getting sufficient finance and 7 companies are always keeping certain cash balance to meet the challenges. 3 companies are getting

the sufficient finance at sometimes and one company is never getting sufficient finance to run the business and searching for the credit facilities; *any requirement of finance*; one company is usually require funds from the credit agencies, 22 companies are require at sometimes as well as 14 companies responded at rarely required, follow by 2 companies responded never require any funds at any time; *facing any hassle while receiving funds from the external source*; majority of the 27 companies responded facing the hassle at rarely, 7 are facing the hassle at sometimes.

C. Factors influencing Investment decisions of textile companies

Multiple Regression analysis has been applied to know which independent variables are highly impacting on the financial performance from the factors influencing investment decisions.

R	R <sup>2</sup>	Adjusted R <sup>2</sup>	SE	Change Statistics					Durban-Watson
				R <sup>2</sup> Change	F Change	df1	df2	Sig. F Change	
.876 <sup>a</sup>	.768	.688	.358	.768	9.597	10	29	.000	1.680

Dependent Variable: Financial Performance

Value of R is .876 has strong correlation between the all the predictors and the financial performance of the textile company (87.6%). R<sup>2</sup>-co-efficient of determination, which measure of how much of the variability in the outcome, is accounted for by the different predictors. 0.768=predictors account for 76.8% of the variation in financial performance. The value of adjusted R<sup>2</sup> means the shrinkage value from R<sup>2</sup> like 0.768-0.688=0.08. if the model were derived from the population rather than a sample it would account for approximately 8% less variance in the outcome. If the value is 1<x<3, it will be safe zone and more than 4 indicates negative correlation. The observed Durbin-Watson value in our case is less than 2 (1.680), which is not surprising since our data are not truly time-series having positive correlation.

COEFFICIENTS<sup>A</sup>

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error			
(Constant)	-1.385	.848		-1.633	.113
Management Outlook	1.315	.188	1.096	6.999	.000
Competitors Strategy	-.222	.178	-.195	-1.247	.222
Technology	-.055	.099	-.062	-.551	.586
Past Market Trends	.040	.117	.043	.340	.736
Market Forecast	.061	.140	.062	.438	.665
Fiscal Incentives	.176	.143	.131	1.237	.226
Cash Flow Budget	.140	.153	.120	.911	.370
Noneconomic Factors	-.142	.080	-.202	-1.772	.087
Risk and Return	.038	.086	.057	.443	.661
Demand and Supply	-.123	.115	-.144	-1.069	.294

We know that the regression equation is  $Y=b_0+b_1V_1+b_2V_2+b_3V_3+b_4V_4+b_5V_5+b_6V_6+b_7V_7+b_8V_8+b_9V_9+b_{10}V_{10}$ . Where  $b_0$  =Constant,  $b_i$ 's are co-efficient for  $i=1$  to 10 and  $V_i$ = variables for  $i=1$  to 10,  $b_0$ =-1.385, that means without the impact of any factors the financial performance of the company will be 1.39%. Other b-values indicate the individual contribution of each predictor to the model. This b- value states the relationship financial performance and each

independent variable. If the value is positive, then it is a positive co-relationship between the predictor and the outcome or negative.

That means it tells also to what degree each predictor affects the outcome if the effects of all other predictors are held constant. Suppose here,  $b_1=1.315$  this value indicates that as management outlook increases by one that means a single activity of management outlook, and implies financial performance will increases by 1.32 times. It is note that this interpretation is true only if the effects of other predictors are held constant. It is similar to the other predictors can be interpreted. So we can conclude from the above table that the contribution of management outlook is 132%, Fiscal Incentives is 17.6%, Cash flow budget is 14% and so on. Follow by Market forecast, past market trends and least contribution is proper risk and return. Whereas other variables like competitor strategy, technological change, non-economic factors and demand and supply are having negative impact. Each of the **beta**-values associated with standard error indicating to what extent these values vary across different samples, and these standard errors are used to determine whether or not the b- values differs significantly from zero. For the t-column; that means t-test measures of whether the predictor is making significant contribution to the model or not. So the smaller value of **Sig.** (the larger value of t) then the greater contribution of the predictor. The management outlook's  $t=1.32$ ,  $p<0.05$  and fiscal incentives  $t=.176$ ,  $p<0.05$  and cash flow budget  $t=0.14$ , etc are all significant predictors of financial performance. Hence from the magnitude point of view the t statistics, the study can get that the management outlook, competitive strategy and cash flow budget had similar impact whereas the Market forecast ( $t=.061$ ), Past Market Trends ( $t=.040$ ) and Risk and Return ( $t=.038$ ) have the less impact to the financial performance.

D. Types of risk face by the textile organization

Multiple Regression analysis has been applied to know which types of risks (independent variable) are highly impacting on the financial performance. Risk may be at any time without any expectation or there is no business risk free or changes in government laws and policy, accidental fire in plant and machinery etc.

R	R <sup>2</sup>	Adjusted R <sup>2</sup>	SE	Change Statistics					Durban-Watson
				R <sup>2</sup> Change	F Change	df1	df2	Sig. F Change	
.853 <sup>a</sup>	.728	.669	.369	.728	12.252	7	32	.000	1.942

Dependent Variable: Financial Performance

Value of R is .853 has strong correlation between the all the risk predictors and the financial performance of the company (85.3%). R<sup>2</sup>-co-efficient of determination, which measure of how much of the variability in the outcome, is accounted for by the different predictors. 0.728=predictors account for 72.8% of the variation in financial performance. The value of adjusted R<sup>2</sup> means the shrinkage value from R<sup>2</sup> like 0.728-0.669=0.059. If the model were derived from the population rather than a sample it would account for approximately 5.9% less variance in the outcome. If the value is 1<x<3, it will be

safe zone and more than 4 indicates negative correlation. The observed Durbin-Watson value in this case is less than 2 (1.942), which is not surprising since the data are not truly time-series is having positive correlation.

COEFFICIENTS<sup>a</sup>

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	-3.465	.959		-3.615	.001
Competitors Risk	2.273	.328	1.242	6.921	.000
Financial Risk	.020	.148	.016	.132	.896
Manufacturing Risk	1.029	.384	.955	2.677	.012
Exporting Risk	.121	.133	.109	.905	.372
Technological Risk	-1.791	.440	-1.621	-4.067	.000
Environmental Risk	-.080	.134	-.064	-.594	.557
Regulatory Risk	-.076	.084	-.101	-.904	.373

We know that the regression equation is  $Y = b_0 + b_1V_1 + b_2V_2 + b_3V_3 + b_4V_4 + b_5V_5 + b_6V_6 + b_7V_7$ ,  $b_0$  =Constant,  $b_i$ 's are co-efficient for  $i=1$  to 7 and  $V_i$ = variables for  $i=1$  to 7.  $b_0 = -3.465$ , that means without the impact of any factors the financial performance of the company will be 3.47%. Other  $b$ -values indicate the individual contribution of each predictor to the model. This  $B$ -value tells about the relationship of financial performance and each risk independent variable

If the value is positive then, it is a positive co-relationship between the predictor and the outcome or negative. That means it tells also to what degree each risk predictor affects the outcome if the effects of all other risk predictors are held constant. Suppose here,  $b_1 = 2.273$  this value indicates that as competitors risk increases by one that means a single activity of competitors risk, and implies financial performance will increase by 2.273 times. So we can conclude from the above table that the contribution of competitors risk is 22.7%, manufacturing risk is 10.2% and so on. Whereas some other risk variables having negative impact on the performance company. Each of the **beta**-values has an associated with standard error indicating to what extent these values vary across different samples, and these standard errors are used to determine whether or not the  $b$ - values differs significantly from zero.

So if the  $t$ -test is associated to  $b$ - value is significant i.e. if the value in the column labeled- **Sig.** is less than 0.05 then the predictor is making a significant contribution to the model. So the smaller value of **Sig.** (and the larger value of  $t$ ) then the greater contribution of the predictor. In this table, the competitors risk  $t = 6.921$ ,  $p > 0.05$  and manufacturing risk  $t = 2.677$ ,  $p > 0.05$  etc are all significant predictors of financial performance. Hence from the magnitude point of view the  $t$  statistics, the study can get except competitor risk and manufacturing risk had positive impact follow by less positive impact is exporting (.121) and financial risk (.20), whereas other variable risk; had high impact with negative significant technological risk (-1.791), followed by environmental and social (-.080), regulatory risk (-.076) having the less impact of significant to the dependent factor of financial performance. From the regression analysis the researcher has find out that the highest impact risks faced by the textile organization are competitor and manufacturing risk among the various risks.

### E. Impact of Growth Factors on the Financial Performance of Textile Companies

The value of KMO, the Measure of Sampling Adequacy is 0.688 and the chi-square value of Bartlett's test of sphericity is 344.132 with 66 degrees of freedom and significance value of 0.000 ( $p < 0.000$ ). Based on the factor analysis, three factors/components emerged to explain 62% variation. The total variation explained by factor 1 is 23.049%, followed by factor 2 (19.344%) followed by factor 3 (18.975%) and factor 4 (16.612%). These four factors minimum factor loading observed was 0.619 and the maximum loading was seen to be 0.929.

ROTATED COMPONENT MATRIX<sup>a</sup>

Factors	Impact Variables	Component			
		1	2	3	4
Organization Targets	Experience	.920			
	Past Track Record	.906			
	Organization Vision & Mission	.769			
Management Risk and Return	Returns		.929		
	Cost		.843		
	Management Ability		.625		
Investment Resources	Personnel Assets			.877	
	Adequate resources			.835	
	Low Initial Investment			.745	
High-tech Material with Finance	Domestic Suppliers Clients				.788
	Internal Finance				.676
	Technology in Textile Machine				.619

## VI. FINDINGS AND CONCLUSIONS

From the demographical factors majority are qualified at PG level and able to run the business with successfully even at crisis time also; most of the companies belong to private ownership. 28% of the companies are still following the semi-automatic machines, 7.5% of them manually operating and not fully established as modern machinery reason that, it's unable to meet competitors in the market. It also considers the fulfillment of the innovation on technological products in the market demand, better quality, focusing on sustainability etc. Factor analysis has found five factors from the variables of textile barriers. Out of that, regulation fiscal policy factor is more impact factor through its high load variance on textile performance.

So that, both central and state government must provide changes on regulations as per textile requirements to overhaul its barriers and provide the suitable fiscal monitory funds, expand the technical assistance, rise technological up-gradation fund scheme etc. Overall, the large scale private companies are performing very well with automatic plant with innovation products, at the same time medium scale companies are unable to produce due to many above reasons and impacting of the growth and technological factors as well as facing various difficulties. So, Indian government must concentrates and makes changes as per the requirement of the textile companies association research output plus provide the low price materials, control the import and export auspicious to the domestic market. In addition it must break the community oriented companies running by the particular

group, getting lot of benefits from the higher officials both government and private by them using its own community.

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