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Performance of Textile Industry in Tamil Nadu: Perspectives of General Manager

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Abstract:

Textile industry is playing a vital role in the Indian economic growth of the country through its contribution towards GDP, employment, exchange rate, exports, total production etc. The purpose of the study is to identify the difficulties of textile companies facing challenges from the general manager's point of view on financial sustainability of selected textile companies. The study has used factor analysis for exploring various dimensions of barrier as well as weighted average method and other tests for selected measurement analyzes using SPSS-17 version for different statistics. Overall, the large scale companies performing very well with automatic plant with modern innovation products, medium scale unable to produce due to various reasons and impacting the growth and technological factors as well as facing various difficulties. It reflects overall textile issues and challenges as general results towards the structured questionnaires.

Key words: Financial Performance, General Manager, Technological factors, and Textile Barriers

1. Introduction

Indian textile industry is the second largest industry in the world next to China. It generates employment for more than 35 million people and excises collections nearly 9% and it contributes nearly 16% share of the country's export. About 27% of the country's foreign exchange comes from the textile exports. As per Apparel Export Promotion Council, this industry contributes nearly 3 to 4 percentages to GDP; Next to agricultural sector. Plus, it contributes nearly 14 percentage of the total industrial production of the country. Tamil Nadu is the eleventh largest state in India in term of area and the seventh most populous as well as the third largest India's GDP contributor (Porter and Niels). As per Census-2005, this states' economy largely depends on industries and agriculture. It has the highest number of business enterprises (10.56%) and stands second in total employment (9.97%) in India. Coimbatore is well known as Manchester of South India. Tirupur cluster itself is exporting 56% knitwear and 76% (Tex-City or Loom-City of India) India's total textile market from Erode cluster (Marimuthu and Jessica). Out of that, Coimbatore is contributing large number of textile companies' establishments and running very well with highest exports on both domestic and international market.

2. Problem of The Study

Researcher has found a research gap through various literatures on textile industry facing many draw backs due to improper administration, growth factors, micro and macro factors that include investment decision and technological factors. In modern days, due to market fluctuation on the raw materials cost, import restrictions and less demand for export, unavailability of workers, highest cost yarn, cotton, lowest cost of competitor products with innovative, interest rate, exchange rate, etc. out of that external problems, there are many other internal problems that depend upon the company size, investment, plant location and machinery, infrastructure, innovative products etc.

3. Review of Literature

Palani and Yasodha analyzed the various ratios towards working capital management on the loyal textile mills limited using for the last five years of statements. The study identified the good performance on the company through current and short term solvency ratios. The study suggested implementing proper collection methods from increasing collection period year after year and brings the collection period down using the operating cycle. Sushil Kharna 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. Late 1970s has witnessed higher import by the technical innovations such as modern technology machines, speed, quality cloth, labor and capital intensive technique and the range of alternative techniques etc. Bashar Matarneh study concludes with the SSI units are always running with low capital plus it always facing problem with WCM, current asset, shortage of raw material etc. without the government help very difficult to run with competition through support of financial institution co-operation Govinda and Gopinath concentrates on the excise duty evasion on intersect oral classification of yarn and cloth, direct taxes of India and evasion of commodity taxes. Sarika et.al analyses the factors responsible for the crisis and inducts the impact of global recession on the world economy in the way of GDP growth rate, interest rate, stock market, unemployment rate and the export sector. Downturn due to the result of sluggish industrial growth, inflation, current account deficit, foreign exchange reserve, and depreciation of rupee. Polpi & Rao 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. Further it also discusses the suggestions for improving the financial system in the Indian SME units. Alessandra and Amelia 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. Further it investigated whether the links among China, India and Brazil systematically differ from other countries and highlights the main reason for the country's growth and productivity, not only volume of exports favoured by products with higher value-added and more technologically developed products. Venu & Haesun concentrate on technology adoption, influence on Indian apparel manufacturing firms and the affect of various technological (Anupkumar and Subhash) level of organizational factors like firm size, export orientation, top management commitment, cost of capital, technical skills and competitive advantage. The study found that there is a significant positive relation on various levels of firm size on technology adoption and negative relation on its export orientation. Young-A Le, et.al identified the characteristic strategies, specific perceived needs, and internal/external challenges of Michigan apparel and textile industry. It also identified six main needs of ratings scale on product development, organization development, technology, and communication, marketing and international trade, human resources and environmental issues and sustainability. Steve Toms found the rapid growth in the initial decade and terminal decline/end of twentieth century. Reason behind that; first given more preference on the variable like industry structure, profitability, capital accumulation, technological choice, associated wealth distributions etc. the study found that innovation are the main impact on the poor performance as well as wrong investment decisions, poor leadership, inappropriate industry structure of Lancashire entrepreneurs Vivekanandan & Rajendran investigated on World Wide Web export marketing and the empirical analyses of Tirupur knitwear apparel exporter's barriers. It could be said that psychological barriers are the biggest one among five types of factor analysis of export barriers. Abhijit and Kaivan 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 seems the two explanations based on imperfections in the credit market and in the market for second-hand machines fit the data much better. Parvinder and Sandip found the most influential factors as entrepreneur or managerial attributes on the Growth potential of the product's market, or projected returns and pricing or valuation of the portfolio company as well as found its strong correlation with regulatory and legal framework.

4. Objectives of the Study

- To find out the factors influencing technological changes of the textile companies
- To identify the various growth and obstacles of the select textile companies

5. Methodology

The study is mainly based on a primary data analysis of the field study through its sample on different places from Tamil Nadu. Out of 244 population of the sample (CMIE registered companies), the researcher collected data as pilot study from 40 companies from Chief-Executive Officer, researcher explained in this study about the CEO opinions towards textile company financial performance and analyzed using SPSS-17 version with different statistics.

6. Analysis and Interpretations

6.1. Demographical Factors of the Respondents

The researcher has analyzed the educational qualification of Chief Executive Officers/General Managers/Managing Director respondents from the textile industry. The respondents are classified in terms of many categories in demographical such as qualification according to their literacy level, size of the company, business type of organization, employees working strength in each organization as well as membership of the companies.

	Qualification		
	Frequency	Percent	Cumulative Percent
Below UG	2	5.0	5.0
UG Level	6	15.0	20.0
PG Level	30	75.0	95.0
Professional	2	5.0	100.0
Total	40	100.0	

Industry Type								
	Frequency		Percent		Cumulative Percent			
Large Scale	5		12.5		12.5			
Above Medium	35		87.5		100.0			
Total	40		100.0					
Business-Type of Organization								
Private	31		77.5		77.5			
Public	9		22.5		100.0			
Total	40		100.0					
Employees Working in Organization								
Below 50	1		2.5		2.5			
Between 50-100	15		37.5		40.0			
Between 100-500	16		40.0		80.0			
More than 500	8		20.0		100.0			
Total	40		100					
Textile Industry Members of any Association								
Industry Type	Medium Scale		Large Scale		Total			
Textile Association	Yes	No	Yes	No	Yes	No	%	%
SIMA	28	7	5	0	33	7	82.5	17.5
AEPC	30	5	5	0	35	5	87.5	12.5
SITRA	21	14	5	0	26	14	65	35
SIHMA	6	29	4	1	10	30	25	75
TEXPROCIL	4	31	1	4	5	35	12.5	87.5
EEPC	4	31	1	4	5	35	12.5	87.5
TEA	15	20	4	1	19	21	47.5	52.5
MSA	0	35	1	5	4	36	10	90

Table 1: Demographical Factors of CEO

The above table-1 highlights the qualification status facts, 30 respondents are PG and Diploma holders (75%). 6 respondents are under graduate level (15%), 2 (5%) respondents are from professional level and 2 (5) respondents are belongs to higher school level.

Out of 40 companies, 9 companies are public limited and accounts for 22.5 percent. 31 companies are private limited companies and accounts for 77.5 percent. The textile companies in Tamil Nadu are divided into large and medium scale industry. Out of 40 companies, large scale companies are around 5 (12.5 percent) and majority are from medium scale around 35 companies (87.5 percent). Textile industry depends on the machinery and modern innovations. Therefore, the number of employees have been reduced in the textile companies as they are replaced by machinery from the table-1, the above mentioned fact is very clear as below 50 employees are working in one company (2.5%), between 50 to 100 employees are working in 15 companies (37.5%), followed by 16 companies' (40%) employees are working between 100 to 500 plus, more than 500 employees are working in 8 companies (20%).

Every textile company is voluntarily joining as a member company in anyone of the associations or many associations regardless of size or market to promote their own products through information sharing and networking, research and bench marking etc. Out of 40, more than 33 companies are members in South Indian Mills Association[SIMA] (82.5%); out of these 33 companies, 28 companies are from medium scale and 5 companies are from large scale industry. 35 majority companies are members in Apparel Export Promotion Council[AEPC] (87.5%), out of 35 companies, 30 companies are from medium scale and 5 companies are from large scale companies, followed by 26 companies which are members in the South Indian Textile Research Association [SITRA] (65%), out of 26 companies, 21 companies are from medium scale and 14 companies are from large scale company category, followed by 19 companies are members under Tirupur Exporters Association[TEA] (47.5%) out of 19 companies, 15 companies are from medium scale and 4 companies are in large scale company, followed by 5 companies are members under The Cotton Textiles Export Promotion Council of India[TEXPROCIL] (12.5%) out of 5 companies, 4 companies are from medium scale and one company is from large scale company category, followed by 10 companies are members under the South Indian Hosiery Manufactures Association[SIHMA] as 25% includes 6 companies from medium scale and 4 companies from large scale company, continue by 12.5 percentages members in Engineering Export Promotion Council[EEPC] includes 4 companies from medium scale and one company from large scale and 10% are members in Madurai Spinners Association[MSA]. Further there are many other associations such as; Tamil Nadu Spinning Mills Association, Indian Textile Accessories & Machinery Manufacturer's Association, Indian Woolen Mill's Federation, The Textile Associations, Tamil Nadu Textile Merchants Associations Limited, The Clothing Manufacturers' Association of India etc.

6.2. Textile Industry Using the Technological Type

Textile industry manufacturers are producing the textile products without any machinery or technology. Year by year the changes happened through the entry of British, European and others introduced their own technology in India using the available Indian resources at various places. Textile manufacturing involves various processes- weaving, knitting, spinning, and dyeing machines. In

modern days, these textile materials were drawn from four main sources such as animal (wool, silk), plant (cotton, flax, jute), mineral (asbestos, glass fiber) and synthetics (nylon, polyester, acrylic).

Industry Type	Textile Technology			Total
	Semi-Automatic Machines	Automatic Machines	Manually Operating	
Large	0	5	0	5(12.5)
Medium	28	4	3	35(87.5)
	28 (70)	9 (22.5)	3 (7.5)	40(100)

Table 2: Textile Industry Using the Technological Type

These textile products are manufactured from different types of technology that includes technical textiles (industrial textiles, functional textiles, performance textiles, engineering textiles, invisible textiles and hi-tech textiles). From the above table-2, the semi-automatic machines are using majority of the textile industry (70 percent), because traditionally textile products are getting manufactured manually for many decades. Automatic machines (22.5%) are used by large scale company (around 5) and followed by 4 medium scales. 3 medium scale companies are still producing manually due to huge capital machine, infrastructure, and large amount of raw materials.

6.3. Financial Return Changes From Company Website

If once business is started in the market, it is essential to plan and tightly manage its financial performance. Meanwhile creating a budgeting process is the most successful way to keep business and its funds on track. At the same time, outside competitive market, compulsory to play a role better than other company should change the strategy and its communication growth and development, so it is easy to attract our order men's or buyers to collect all those details about company possess manufacturing products quality, price, materials, packaging etc. It is all as per marketing and advertisement playing a crucial role in foreign trade. But in financial management, through the contribution of communication development through website it is getting back high return on its financial changes.

	Frequency	Percent	Cumulative %
Didn't Expect	32	80.0	80.0
Expected next 2 years	2	5.0	85.0
Disappeared	1	2.5	87.5
Financial Return gained	5	12.5	100.0
Total	40	100.0	

Table 3: Financial Return of CEO Respondents

The above table-3 reflects the respondents, changes the financial return through operating website for the textile company future growth and development. Most of the companies (80%) did not expect the return from operating the website for the company. out of that, 12.5% of the companies are gained fully through operating company website and frequents update manners. Meanwhile, 5% of the companies are expecting good return/yield in the future from its recent operated company website as well as 2.5% of the companies are disappeared while modifying the company website for the better return and order.

6.4. Cross Tabulation between Industry Size and Technological Effect

The Indian textile industry intends to meet the domestic requirement, compounded with high cost raw material and investment pressure. Therefore, there is a need to upgrade the technology in times, replace old into new innovations etc.

Upgrading Technology in time in an organization						
	Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree	Total
Large	4	1	0	0	0	5
Medium	22	11	0	2	0	35
	26(65)	12(30)	0	2(5)	0	40
New Technologies Appearing						
Large	2	3	0	0	0	5
Medium	7	24	4	0	0	35
	9(22.5)	27(67.5)	4(10)	0	0	40
Transferring Technologies into flexible substrates						
Large	3	0	2	0	0	5
Medium	2	6	26	1	0	35
	5(12.5)	6(15)	28(70)	1(2.5)	0	40

Replacing of traditional materials to modern textiles						
Large	2	1	2	0	0	5
Medium	1	23	10	1	0	35
	3(7.5)	24(60)	12(30)	1(2.5)	0	40
Non-Textile Materials						
Large	4	0	1	0	0	5
Medium	19	2	14	0	0	35
	23(57.5)	2(5)	15(37.5)	0	0	40

Table 4: Cross Tabulation between Industry Size and Technological Effect

From the above table-4, textile industry up-grading its technology in time positively agreed by majority of the respondents (95%) has agreed and 22 companies are strongly in favor of the up-gradation timing. Only few respondents are negatively responded on disagree (5%). Introducing the new technology in the market frequently responded positively around 90% have strongly agreed. Transferring technologies into flexible substrates by positively agreed near 27.5% only and majority of them are given the uncertain (70%) responds reflecting that they could not able to introduce and upgrade new technologies from the downtrodden loss situation due to huge funds requirement, capital operation etc. Meanwhile, market products are fully occupied by synthetic fibers and the producers also concentrating on those products like petrochemical based synthetic fibers and penetration by synthetic with low price. Companies are facing enormous internal and external challenges with regard to technical production, innovation strategy (Vivekanadhan & Rajendran, 2006), marketing, management, inadequate credit finance operations and expansions (Young, et al; Popli & Rao). Replacing the old into modern textiles roughly 67.5% of them positively responded, whatever may be there is a negative reply about 2.5% and moderate near 30%. Modern textile products are introducing the non-textile materials such as; Non-Textile Fiber (A fiber which is not employed in the manufacture of textiles), nonwoven fabric (applications like medical, filters, geo-textiles and others). Out of that, non-textile materials usage gives a positive answer about 62.5% as well as 37.5% from uncertain reply shimmering that not using those non-textile materials for products.

6.5. Technological Changes Fulfillment of Textile Companies

Textile Company always should face/challenge or fulfill the innovation on technological products in the market demand, better quality, focusing on sustainability etc. Meanwhile should identity by the opportunity to launch their own technical products in this industry complex undergoing rapid market and global competitive changes.

Fulfilling on	Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree	Total Score	WAS (Rank)
Addressing the issues on Security and Privacy	7(17.5)	31(77.5)	2(5)	-	-	165	4.13(II)
Responding to the need to have qualified and competent personnel	1(2.5)	10(25)	20(50)	9(22.5)	-	123	3.08(III)
Responding to the need for up gradation new innovation	13(32.5)	20(50)	6(15)	1(2.5)	-	165	4.13(I)
By handling the New Organization well	-	13(32.5)	14(35)	12(30)	1(2.5)	119	2.98(IV)

Table 5: Weighted Average Method on Management Fulfillment for the Technological Changes

The above table-5 reveals that textile company requirement, in what way fulfilling by the management to meet the challenges through four options. An analysis of the responses shown in Table explains that agree plus strongly agree is positive and disagree plus strongly disagree is negative as well as uncertain will tell the neither positive nor negative responses. out of 40 respondents, a vast majority of respondents (82.5%) have responded positively for the up gradation of new innovation in textile industry with WAS of 4.13 (Score: 165), out of that 82.5%, 50% of them agreed and 32.5% of them strongly agreed, continue by 15% of them uncertain decision follow by 2.5% of them disagreed for this innovation of technological changes. 95% fulfillment through addressing the issues on security and privacy with weighted average score (WAS) of 4.13 (Score: 165), out of 95%, positively agreed by 77.5% and 17.5% of them strongly agreed and only 5% of the respondents found to be uncertain in the textile industry requirements. When asked about different opinion of company managers related to technological changes in the management i.e. 27.5% with WAS of 3.08 (Score: 123) found to appoint a new qualified and competent personnel for respond the managerial tackling issues. Out of which only 2.5% of the respondents have strongly agreed to new personnel to take care issues and 50% of the respondents have opted uncertain on the decision. 22.5% of the respondents have disagreed on this personnel competent appointment for the development of company technological changes. 32.5 of respondents have positively agreed to the technological changes of textile industry management through handling the new organization well with WAS of 2.98 (Score: 119), whereas 35% of respondents have given uncertain. 30% of them disagreed followed by 2.5% of them strongly disagreed on handling the new organization well.

6.6. Factors Determining the Growth of Textile Business

Industries experience cycles of economic growth and contraction based on many factors. Out of that, textile industrial factors are of two types- internal factors and external factors. Internal will discuss the variables related to factors impacting within

the industry and the factors impacting from the external reasons on industry growth called as external factors. Those external factors are through government side policy and programmes, providing business opportunities, export subsidies, support of financial institutions supporting from the textile associations in various types of prospect, government providing the opportunities to develop the new industry for that new organization many initiatives steps, meanwhile the industry agreement with the foreign orders with different contract and its changes negative or positive through volatility of currency between countries, simultaneously the competitions with our competitor products in the market includes the advance machinery information exchanges between the countries. Further research is also necessary to establish factors leading to lack of technological drive and the textile research journals and magazine to strategize in their marketing programmes for profit and growth

	Very Highly Influenced	Highly Influenced	Moderate	Low influenced	Very Low influenced	Total Score	WAS (Rank)
Government policy and programmes	4 (10)	13 (32.5)	22 (55)	1 (2.5)	-	140	3.50 (V)
Private Sector Initiatives	10 (25)	20 (50)	7 (17.5)	3 (7.5)	-	157	3.93 (III)
Level of Competition	32 (80)	8 (20)	-	-	-	192	4.80 (I)
Healthy Climate for Business Opportunities	8 (20)	31 (77.5)	-	1 (2.5)	-	166	4.15 (II)
Support from Financial Institutions	1 (2.5)	4 (10)	25 (62.5)	10 (25)	-	116	2.90 (VIII)
Export Opportunities	2 (5)	15 (37.5)	11 (27.5)	11 (27.5)	1 (2.5)	126	3.15 (VI)
Textile Organizations	2 (5)	4 (5)	17 (42.5)	10 (25)	2 (5)	99	2.83 (IX)
Textile related Journals Magazine CDs	3 (7.5)	14 (35)	5 (12.5)	14 (35)	4 (10)	118	2.95 (VII)
Textile Technology Information	11 (27.5)	9 (22.5)	16 (40)	3 (7.5)	1 (2.5)	146	3.65 (IV)
Nature of Contract	1 (2.5)	4 (10)	11 (27.5)	16 (40)	8 (20)	94	2.35 (X)

Table 6: Weighted Average Method of Factors Determining the Growth of Textile Industry

Weighted Average Method analysis shown in Table-6 explains that out of 40 respondents, a vast majority of the respondents (100%) are found that the level of competition to be influenced more on the factors determine the growth of textile companies with weighted average score (WAS-192) of 4.80. When asked different factor measures related textile growth, a considerable number of managers i.e. 97.5% with WAS of 4.15 found the second most positive influence factor of healthy climate for business opportunities, Only one respondent was found to be low influenced on growth due to healthy climate and it is not helped for the business opportunities. Followed by 75% of managers have agreed that the growth factor highly influenced through private sector initiatives with WAS of 3.93, whereas 17.5% given moderate answer, only 7.5% of the respondents found the low influence of private sector enterprise. Regarding Government policy and programmes factors 42.5% respondents with WAS of 3.50 were found to be the high influence on growth of textile business whereas 55% respondents have answered moderate like one side government policy frequent changes helping to their growth and opposite side drawback through export products and import raw materials plus in other ways also, only 2.5% respondents have given low influence of this measure on their business. Majority 50% respondents with WAS of 3.65 were considered to be high influence though this technology on growth factor measure, there is a positive as well as negative impact through technology up gradation information. But again there were 7.5% respondents are low influenced follow by 2.5% are very low influenced on this factor measures.

6.7. Modern Factors Influencing On Technology Adoption

Modern technological products are highly reflecting the foreign textile products and India is unable to compete with them in international products and struggling with that below machinery equipments showed in the table.

	Frequently	Often	Sometimes	Rarely	Never	Total Score	WAS
CAD	35(87.5)	5(12.5)	-	-	-	195	4.88 (VIII)
AI	35(87.5)	5(12.5)	-	-	-	195	4.88 (IX)
AMHD	38(95)	2(5)	-	-	-	198	4.95 (II)
NCMT	38(95)	1(2.5)	1(2.5)	-	-	197	4.93 (V)
SPC	39(97.5)	-	1(2.5)	-	-	198	4.95 (III)
PPIC	35(87.5)	5(12.5)	-	-	-	195	4.88 (X)
LAN	40(100)	-	-	-	-	200	5.00 (I)
PPR	31(77.5)	7(17.5)	2(5)	-	-	189	4.73 (XI)
HSSM	38(95)	1(2.5)	1(2.5)	-	-	197	4.93 (VI)
MFPM	39(97.5)	-	1(2.5)	-	-	198	4.95 (IV)
CUFF	38(95)	1(2.5)	1(2.5)	-	-	197	4.93 (VII)

Table 7: Weighted Average Method on Modern Factors Influencing On Technology Adoption

The above weighted average method analysis table-4.14 reflects that most of the modern factors are highly influencing on the technology adoption of a firm. The research found that 100% high influence of local area network on technology adoption with WAS of 5, followed by 97% of the respondents found that Automated Material Handling Devices frequent influences with WAS of 4.95, next most Statistical Process Control as 97.5% influencing frequently with the WAS of 4.95 followed by Modern Fusing and Processing Machine most influences around 97.5% as frequently with the WAS of 4.95. Out of that, 2.5% are said that sometimes only it is influencing. 97.5% told it is most influencing from Numerical Control Machine Tools as frequently (95%) and often (2.5%) with the WAS of 4.93. Only 2.5% found less influencing as sometimes. High Speed Sewing Machines is the next most influencing variable near 97.5% as frequently (95%) and often (2.5%). 2.5% are less influencing as sometimes with the WAS of 4.93, followed by Computers Used on Factory Floor (WAS-4.93), Computer Aided Design (WAS-4.88), Automated Inspection (WAS-4.88), Production Planning/Inventory Management Software (WAS-4.88), Pick/Place Robots (WAS-4.73).

6.8. Factor Analysis of Textile Industry Barriers

The KMO Measure of Sampling Adequacy (0.575) and the Bartlett's test of sphericity ($p < 0.000$) indicated that factor analysis could be useful. In total, there were 26 items in the data. Kaiser-Meyer-Olkin Measure of Sampling Adequacy varies between 0 and 1, and values closer to 1 are better. A value of 0.6 is suggested minimum. However, 4 items removed with higher cross loading as well as below 0.4 (more than 0.20) extracted and one variable is reproduced with rotated factor matrix and once again repeated one item with huge variance in that cross loading is extracted.

Kaiser-Meyer-Olkin Measure Of Sampling Adequacy.		.575
Bartlett's Test of Sphericity	Approx. Chi-Square	704.726
	df	231
	Sig.	.000

Table 8: KMO and Bartlett's Test

Using the Principal Component Analysis five factors have been extracted based on the variance (Eigen Value greater than 1). The variance explained by the initial solution, extracted components, next used varimax rotation and rotated components are displayed in table.

Total	% of Variance	Cumulative %
4.510	20.499	20.499
4.190	19.047	39.546
3.517	15.987	55.533
1.997	9.076	64.609
1.407	6.397	71.006

Table 9: Extraction Sums of Squared Loadings

Extraction Method: Principal Component Analysis

The five factors extracted together account for 71.006% of the total variance (information contained in the last rotation with 22 variables). On the extraction initially, factor one is able to explain 20.499% of variance, factor two explains 19.047%, follow by factor three 15.987%, follow by factor four 9.076% and five explains 6.397%.

Factors	Variables	Component				
		1	2	3	4	5
Regulatory / Fiscal Policy Factors	Lack of assistance from Govt. and agencies	.949				
	Lack of Govt. policy issues and regulatory bodies	.947				
	Lack of Clear Regulations	.828				
	Lack of Sources of Technical Assistance	.814				
	Lack of Guidance and Council	.670				
Power and Material Risk	Price Volatility of Raw material		.894			
	Power Problem		.847			
	Unreliable Suppliers		.643			
Internal Barriers	Workers Shortage			.910		
	Too Many Competitors			.734		
	Lack of Distribution Channels			.675		
	Entry level financial requirements			.596		
	Bearing the Entire Risk			.503		
External Barriers	Extension of Credit from Suppliers				.850	
	Global Competition				.716	
	Low demand due to high prices textile products				.689	
	Lack of Entrepreneurial understanding				.661	
	Manufacturing Costs				.573	
	Location of the Firm				.499	
Export Barriers	Identification of Export Opportunities					.722
	Textile Insurance Scheme					.640
	Obtaining a Loan, Insufficient facilities and subsidies					.494

Table 10: Textile Barriers

Factor analysis technique helps to reduce the number of variables and to detect structure in the relationships between variables. The above 22 variables have high loadings on factor one. This suggests that factor 1 is a combination of 5 variables in the name of "regulation fiscal policy factor," Second factor is the combination of 3 variables with the medium loadings; the factor can be called as "Power and Material Risk Factor." Third factor is the combination of 5 variables with the high loadings; the factor can be called as "Internal Barriers." Fourth factor is combination of 6 variables with the medium loadings and factor can be called as "External Barriers." The last factor is the combination of 3 three variables and factor can be called as "Export Barriers." Results show that from the 26 variables extracted into 22 variables in the data have been reduced to five factors and each factor has given a name.

7. Findings and Conclusion

From the demographical factors, out of 40 respondents, 75% of the respondents are qualified at PG level; most of the companies belong to private ownership and member in AEPC, SIMA, SITRA, and TEA. 28% of the companies are still following the semi-automatic machines plus 7.5% of them manually operating and not fully established as modern machinery. Due to this reason, Textile Company is unable to meet foreign competitors in the market. 32% of the companies didn't expect company website to enlarge company performance. The contribution of communication development through website it is getting back high return on its financial changes. So, company must concentrate many other way also. It is found that companies should more consider the fulfillment of the innovation on technological products in the market demand, better quality, focusing on sustainability etc. Weighted average method suggests that competition is the main important factor on the growth of textile companies as well as Local Area Network is modern main impact factor of the textile technological factors. 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 organization performance. So that, the state and central government should make changes on regulations as per textile industry requirements to overtake those barriers as well as provide the proper fiscal monetary funds, improve the technical assistance, increase technological up-gradation fund scheme etc. Overall, the large scale companies are performing very well with automatic plant with modern innovation products, medium scale unable to produce due to many above reasons and impacting the growth and technological factors as well as facing various difficulties. So, Indian government should make changes as per the requirement of the textile companies association research output plus provide the low price materials, control the import and export favorable to the domestic market.

8. References

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