Chapter – 7  

Findings and Recommendations

It is apparent from the literature that the Indian textile industry has a significant presence in the economy as well as in the international textile trade. Its contribution to the Indian economy is manifested in terms of its contribution to the industrial production, employment generation and foreign exchange earnings. The review of literature on industrial/business clusters and Indian textile industry as a whole and Panipat textile cluster in particularly regarding growth, sustainability, problems, opportunities, threat and the benefits of industrial/business clusters evident that industrial/business cluster has been a topic of interest for long in European USA, Japan and few other countries since long. There are a very less number of studies on industries like textile, pharmaceutical, automobile, rubber, food and beverages, and agro-processing etc particularly in the context of India on the milieu of industrial/business clusters.

Although, the industry has been grossly researched on the parameters such as growth prospects, problems, opportunities, threats, competitiveness, and government policy etc., but very few studies investigated sustainable development along with impact of economic (Micro and Macro environmental) factors on the industry. Many studies on Indian textile industry and other countries are available now, but a few pertaining from specific region, only Jain and Madan (2012) studied the challenges and prospects of Textile Industries (MSMEs) from Panipat region in Haryana. Further, literature reveals that there are only few exploratory cross sectional studies on textile industry which considered large primary data with multiple dimensions.

The chapter has been divided into five sections. First section covers the major objectives and hypotheses of the present study. This section also discusses about the data and methodology used to achieve the desired objectives of the study. The major findings are citied in second, third, and fourth sections as: An analytical view present state of affairs of Panipat textile cluster using primary and secondary data on export from cluster, number of units registered, employment generated, and investment made from last several years. The third section covers the results and evidence related problems being faced by cluster (i.e. production means and their competitiveness). The fourth section provides the results related to environment challenges, threats and future initiatives of
Panipat textile cluster. The last section endows conclusion and recommendations for future research in the area of textile industry in general and in the backdrop of industrial/business cluster in particular.

7.1. OBJECTIVES, HYPOTHESES AND METHODOLOGY

7.1.1. Research Objectives: The study undertakes to provide greater insight on growth and sustainability of Panipat textile cluster considering large primary as well as secondary data on multiple parameters. This broad objective in mind, the present study intends to achieve the following specific objectives:

(i) To assess the existing state of affairs of Panipat textile industry in the milieu of cluster, (ii) to study the competitiveness of means of productions i.e. the problems being faced by Panipat textile cluster, (iii) to examine the impact (challenges and threats) of macro and micro environmental factors on the sustainable development of cluster, (iv) to investigate the important factors to attain the global competitiveness and future initiatives of Panipat textile cluster, (v) to make a comparative analysis of various segments, and exporting and non-exporting enterprises of Panipat textile cluster on multi-dimensional factors, and (vi) to suggest suitable policy measures required for facilitating the development of such cluster.

In synchronization with the above-mentioned objectives, the study intends to test the following null-hypotheses (H0s):

(H04.1) There is no differences in the initial investment, export, capital structure, and capacity utilization of various segments and exporting and non-exporting enterprises of Panipat textile cluster. (H04.2) There is no differences in the opinion on cooperation among firms in the cluster, and reasons for being in the business of textile of various segments and exporting and non-exporting enterprises. (H05.1) There is no differences in the opinion on problems being faced by Panipat textile cluster or competitiveness of means of production of various segments and exporting and non-exporting enterprises. (H06.1) There is no differences of the impact of macro and micro environmental factors on the various segments and exporting and non-exporting enterprises of the cluster. (H06.2) There are no differences in the environmental challenges and threats on the various segments and exporting and non-exporting enterprises of the cluster. (H06.3) There are no differences on the important factors to attain global competitiveness and future initiatives of various segments and exporting and non-exporting enterprises of the cluster.
7.1.2. **Scope of the Study**: The universe of the study is the number of textile firms in the Panipat region of Haryana including exporting and non-exporting; spinning/yarn, processing/dyeing/printing, handloom, and powerloom. For the purpose of study a sample of 218 firms has been taken on the basis of systematic judgment (non-probability) sampling.

7.1.3. **Data Source**: The present study is an empirical research based on the both primary and secondary data. The theory is basically developed from secondary sources of information and a thorough study of various academic and research works in the field has been attempted. Various sources used for the purpose are internet, books, research articles, working papers, and conferences papers which appeared in the journals and news papers, study reports etc. self-administered questionnaire was the main source of collecting the primary data. It is noteworthy that the information has been collected from those entrepreneurs who willing to share the information.

7.1.4. **Tools of Analysis**: The statistical tools applied to analyze the data include percentages, arithmetic mean, standard deviation, maximum and minimum, Compound Annual Growth Rate (CAGR), Chi-square Test, Analysis of Variance (ANOVA), and Principal Component Analysis (factor analysis).

7.2. **MAJOR FINDINGS**

7.2.1. **Analyzing State of Affairs of Panipat Textile Cluster**

   i. It has been observed that there is an increasing trend in number of units registered, employment generated, and investment made in Panipat textile cluster especially after revoking trade quota since 2005.

   ii. It has been also observed that there was decline in the growth of cluster up to 2003 and thereafter it shows marginal rising trends in term of number of units registered. The significant difference in the trend pattern of number of unit registered, employment generated, and investment made may be because of enhanced operation due to increase in demand of textile products from Panipat region, consequently requires larger investment and labour force.

   iii. On the other hands, Asymptotic and Montecarlo exact (Fisher exact test) test reveals that there is significant difference across sectors as well exporting and
non-exporting enterprises for the requirement of initial investment for starting textile business, spinning/yarn, handloom and particularly exporting enterprises that requires large investment in the plant and machinery as compared to non-exporting enterprises.

iv. There is phenomenal increasing trend in exports from the cluster and the coefficient of determination ($R^2 = 0.915$) of export with time propose that the growth prospects of export from the cluster are very promising. Further, it may affirm that export and not export operation significantly different across sectors; handloom and Powerloom enterprises largely export their products.

v. The capital structure of Panipat textile cluster is dominated by borrowed fund and there is no significant difference across sectors as well in the exporting and non-exporting enterprises’ capital structure.

vi. The average capacity utilization of Panipat textile cluster shows decreasing trend over the period of last seven years, reason behind decrease in the installed capacity utilisation may be due to non-availability of labour after implementation of National Rural Employment Guarantee Act (NREGA) on Feb 2006 as revealed by most of the respondents during data collection. Moreover, results deciphered that exporters, spinning/yarn, and powerloom sector utilise better installed capacity as compared to others.

vii. The result shows higher degree of cooperation/collaboration among the sample enterprises of Panipat textile cluster and no significant difference in the opinion of classified sample enterprises regarding the cooperation/collaboration among the firms in the textile cluster.

viii. Majority of entrepreneurs are in the business because of family engaged in the textile business and because of availability of raw material, machinery and workers in the area.

7.2.2. Analyzing Production Means and their Competitiveness

ix. Panipat Textile cluster is competitive in term of price, as analysis of survey reveals that most of sample respondents agreed that prices charged for their
products are fair in textile market. Further, the cluster adopted ‘at par’ pricing policy vis-à-vis competing clusters in the domestic/global market.

x. Labour is incompetent in Panipat textile cluster in term of availability, turnover, and cost. This incompetitiveness may be attributed to National Rural Employment Guarantee Act (2006) as most of entrepreneurs divulge during data collection. But, it is found competitive in term of productivity. Further, all respondents (sector-wise, exporters and non-exporters) are having similar opinion on competitiveness of labour.

xi. Raw materials is competitive in terms of requirement wise, variety wise and quality wise, whereas, cost of raw materials not competitive as cost of raw materials is high in the region. Statistically, there is no significant difference in the opinion regarding raw materials competitiveness across sector, but exporters deciphered significant difference in the opinion on the variables from non-exporters and considered less competitiveness of raw material.

xii. Power supply in Panipat textile cluster is perceived to be incompetent on all parameters (availability-wise, quality-wise, and cost-wise) and all categorised sample respondents are presenting similar opinion on the competitiveness of power supply in the region, when it was tested statistically.

xiii. Finance is competitive on availability parameter in the cluster; but it is found incompetent on financing procedure and cost parameters. Moreover, there is similarity in opinion of across sectors respondents on all parameters of finance; but exporters registered significant difference in the opinion to non-exporters and perceived incompetitiveness of finance in the region.

xiv. Transportation facilities are competitive on all parameter except cost and all categories of sample respondents are having similar opinion on the same.

xv. Technology adopted by Panipat textile cluster is perceived to be competitive on modern and better than other textile industry, but cost-wise, it is incompetent due to high cost of technology in the region. Further, all categorised sample respondents are deciphered similar opinion on the competitiveness of technology, but newly established enterprises are having significant difference in the opinion
on technology over old established enterprises, asserts incompetitiveness of technology as endorsed by Turkey HSD post-hoc test results.

7.2.3. Analyzing Environmental Challenges of Panipat Textile Cluster

xvi. Quality of product, product awareness, and product design largely affect the competitiveness of Panipat textile cluster; whereas, outsourcing and dumping activities are not much affecting the business of textile. The micro-environment variables that cluster on same component suggest brand equity, capital investment (R&D), and profitability are the core of achieving competitiveness in the industry.

xvii. Export policy, foreign exchange, agriculture production, technological changes and inflation affect mainly the textile business in Panipat textile cluster. Further, especially government policies, market driven (Interest rate, foreign exchange and GDP) and government instigated macro-environmental factors determine the competitiveness of textile business. Moreover, all classified sample respondents opinions do not differ significantly on the findings.

xviii. Customers are demanding better quality products at lower prices (growing bargaining power of customers); whereas, the cost of raw materials are high as suppliers are demanding higher prices of their supplies (growing bargaining power of suppliers). Further, substitute product threat from jute and synthetic industry add worry along with intense segment rivalry threat.

xix. There is a large difference in the mean value (opinions) of 1st (China) and 2nd (Bangladesh) rank (4.41 and 2.81 respectively), compel to infer that most of the sample respondents form Panipat textile cluster agreed the China imposing greater threat to cluster. Hence, the findings are supporting the results of Teli (1994), Sampath (2002), Pal and Kundu (2005), Mohammad and Bhat (2006) etc. in relation Tewari (2006) asserts that China's unit costs are low, and its production scales enormous, and they are embedded within crucial abilities, key investments by the state, and access to world class distribution networks organized by locally rooted Hong Kong, Taiwanese and South Korean companies that have helped to lower the "costs" of large scales of operation.
xx. Raising raw materials prices, power, and skilled labour shortage are the main expected challenges. Further, as per the survey, raw materials shortage, limited customers, poor demand, taxes and duties, and obsolete machineries are the other future challenges before Panipat textile cluster.

xxi. Price, quality and design of products along with raw materials, and manpower are the important components; whereas, transportation and marketing of the textile product is considered less important to attain global competitiveness. Further, principal component analysis (PCA) aggregatedly proposes means of production, product, and marketing with value addition are the key to attain global competitiveness.

xxii. Increase in sales, adoption of modern technology, less cost of production, alternative of energy and opportunity of innovation are the important future initiatives on the card; whereas, product diversification, capacity expansion and acquisition are the last consideration factors for future initiatives. Further, principal component analysis (PCA) aggregatedly proposes cost reduction and expansion are broader future plan of Panipat textile cluster.

7.3. WORKABLE RECOMMENDATIONS

To compete globally, the findings of the study can be successfully utilized by the entrepreneurs, policy makers in general and textile sector particularly. For creating cordial environment for a sustainable growth and enhancing competitiveness in international market, the following recommendations can be considered for Panipat textile cluster:

i. As majority of entrepreneurs are dependent on the borrowed capital therefore, the procedures of making financial assistance need to be trouble-free and without delay for becoming more competitive in term of finance by way of organizing loan melas, conducting entrepreneur development programmes for the best management practices by allowing interest holidays and interest concessions, and by introducing new loan products.

ii. The policy makers and financial institutions should make aware and avail the government Schemes like Prime Minister's Rozgar Yojana (PMRY), Prime Minister's Employment Generation Programme (PMEGP), Artisan Credit Cards, Health Cards etc; cluster specific schemes like Micro & Small Enterprises -
Cluster Development Programme (MSE-CDP) of Development Commissioner - MSME, Ambedkar Hastashilp Vikas Yojana (AHVY) of Development Commissioner - Handicrafts or Integrated Handloom Cluster Development Programme (IHCDP) of Development Commissioner – Handlooms; and the exporters also be informed about the schemes like quality certification, technology delegations, Technology Upgradation Fund Scheme (TUFS) etc.

iii. Since the cluster is highly labour intensive, non-availability and migration of skilled labour (labour turnover) is one of the major issues plaguing the cluster after the introduction of National Rural Employment Guarantee Act (2006) as most of entrepreneurs divulge during data collection and the most of the labour/labour contractors are insisting on advance payments ranging from Rs. 3000 to 15000 per worker based on the skill. Even after paying the advance there is no guarantee for continuity of labour. This also leading to require the more extra working capital for labour advance payments, so, the bankers must finance for the same.

iv. Steps should be taken to ensure full utilization of installed capacity of cluster in general and of handloom sector particularly.

v. Though there are institutions/organizations that are providing training/courses in designing and dyeing, however there are no institutions providing training for base level operations like tufting, weaving, cutting and latexing in the region. So, there is needed to start some new vocational programme in Industrial Training Institutes (ITIs) to pursuit the need of cluster for skilled labour.

vi. The government and available training institutes should organize some short term training programmes to update the skills of labour to cope up with changing technological environment.

vii. Three should be interactive meets of the entrepreneurs to raw materials suppliers for pooled procurement and to curb up the growing bargaining power of suppliers.

viii. Spinning/yarn sector needs the support of high quality and cost effective manufacturing facilities.

ix. Stepping up power generation on priority basis and the cost of power also is brought down to the reasonable (international comparison) level.
x. Awaking cluster firms through awareness programmes on renewable energy systems and organizing workshops on energy efficiency.

xi. Interactive meets and exposure visits of entrepreneurs with machinery suppliers for the propagation of advanced technologies.

xii. E-commerce can be used to eliminate wastes, delays, and avoidable transaction cost.

xiii. Panipat textile cluster needs to invest in research and development (R&D) to develop more new products, reduce transactional cost, reduce per unit cost, and finally improve its raw materials base.

xiv. The government also needs to make a policy change like de-reserving the small scale sector so that it can achieve economies of scale and benefited with synergistic approach.

xv. A co-operative culture could be evolved for pooling of common services and functions such as quality testing, marketing, raw materials procurement, information dissimilation, and short-term financing etc.

7.4. REFERENCES


