Chapter 4 – Research Methodology

This chapter presents the methodology adopted for research on merchandisers’ performance in improving supply chain competitiveness of apparel export units. The chapter is divided into three parts:

i. Objectives of research with proposed hypothesis
ii. Sampling methodology
iii. Data collection methodology

4.1 Objectives of Research

This study is a piece of descriptive-cum-diagnostic research work. It aims to explore various factors of merchandiser’s performance at organisation level and supply chain competitiveness factors that affect the apparel industry. It further aims to establish the relationship between the ‘merchandiser performance’ parameters which are likely to impact ‘supply chain competitiveness’ of apparel export units. The objectives of this specified research are:

i. To study the current supply chain dynamics of Indian apparel industry
ii. To assess the existent parameters on which the merchandisers’ performance is measured in various apparel export units.
iii. To identify the key factors for assessing merchandisers’ performance.
iv. To identify key factors of apparel export supply chain competitiveness.
v. To analyse the relationship between ‘merchandisers’ performance’ factors and ‘supply chain competitiveness’ factors for apparel export units.
vi. To suggest ways to enhance supply chain competitiveness of apparel export units by managing key merchandiser performance factors.

4.2 Proposed Hypothesis of Research

The hypotheses formulated for the present study are as follows:

H1. Merchandiser’s performance affects the business results of apparel export units.
H2. Understanding needs of the end-customer helps enhance merchandiser performance.
H3. Capability for collaborative forecasting is crucial for performance of merchandisers.

H4. Proactive product and market research is a pre-requisite for a merchandiser’s performance.

H5. Enhancing use of Information and Communication Technology (ICT) tools is critical to the overall functioning of the merchandisers.


H8. Knowledge and understanding of trade terms (including import regulations) helps merchandisers in planning, configuring and styling orders in a better way.

H9. Appropriate and timely information sharing with all internal departments and buyers is crucial for performance of merchandisers.

H10. Constant feedback from buyer impacts merchandiser’s performance.


H13. Capability to help plan and schedule production capacity and resources is crucial in improving merchandiser performance.

H14. Ability to maintain requisite information and documentation is important to enhance overall performance of a merchandiser.

H15. Strong knowledge of garment manufacturing is expected to improve performance of the merchandiser.


H17. Organization and communication skills help enhance merchandisers’ performance.

H18. Ambiguous/unclear job order description and performance standards may hamper the performance of the merchandiser.

H19. Thorough raw material and product knowledge enables better merchandiser performance.
H.20. Pre-emptive capability to solve production and logistics problems enhances merchandisers’ performance.

4.3 Sampling Methodology

4.3.1 Sampling Plan

The study focussed on apparel export companies located in NCR of Delhi. A random sample of 128 units out a population frame of 2300 companies was initially taken for the study followed by selection of 92 units on executive/judgment and convenience basis. Finally, 80 companies responded to participate in the research.

The study takes into consideration apparel export manufacturing units, apparel buying agencies/liaison offices and apparel buyers.
4.3.2. Size of Sample

Out of an initial population frame of 2300 apparel export companies located in National Capital Region of Delhi, 128 companies were selected on random basis out of which 92 were selected on judgement cum convenience basis. Consequent upon the response rate, 80 companies agreed to participate in the research study on merchandiser performance and supply chain competitiveness of apparel export units. The response rate was 87%.

4.3.3 Sampling Criteria

The following criteria was adopted in selecting sample companies

i. The company should have a manufacturing/processing/assembly unit or head office/sourcing office in NCR of Delhi.

ii. The sample company must have annual turnover of at least Rs 20 crore.

iii. The companies could be apparel export manufacturing units, buying agencies and international apparel buyers.

iv. The merchandising department of participants should have minimum staff strength of 5 merchandisers.

4.3.4 Profile of the Sample

The research covered 80 companies. 33 of the 80 organisations were in the annual turnover bracket of Rs 20-50 Crore, 14 companies in Rs.50-90 Crore and 33 in above Rs 90 Crore turnover per year slot.

Graph 4.1- Annual turnover of participating companies
Of these 80 companies 50 were export manufacturing companies and 30 were apparel buying agencies/liaison offices. 58% of the sample i.e. companies represented private limited companies where as proprietary firms accounted for 25% of the total sample, followed by 80% of public limited companies balance being joint ventures.

![Graph 4.2-Ownership Type of Sample Companies](image)

As stated earlier, the final selection of 80 companies is attributed to screening based on sampling criteria, response rate and executive judgement.

To refer to the initial broader population frame, Apparel Exporter’s Directory-2009 published by Apparel Export Promotion Council (AEPC) has been used.

### 4.4 Data Collection Methodology

The data collection methodology for the research was planned in such a manner so that the details of merchandiser performance and supply chain competitiveness are collected in a structured manner.

#### 4.4.1 Data Collection Tools

The following tools were used in data collection for the research work:

**Secondary Data:** The secondary data has been searched to have insights into the Indian apparel export sector and various supply chain practices in the fashion industry the world over. Some of the key sources were:

1. Apparel Export Promotion Council(AEPC), Gurgaon
3. WTO Trade Statistics, Year 2010

v. Resource Centre of National Institute of Fashion Technology (NIFT), New Delhi and Library of Faculty of Management Studies, University of Delhi.

**Primary Data:** The primary data has been collected through questionnaire, which was administered through one of the following means-

iv. Individual in-depth personal interviews
v. Structured telephone interview
vi. E-mail.

In the case of e-mail responses, the responses were validated by telephonic queries.

Average duration of personal interviews was between 30-35 minutes and telephonic interviews were 40-45 minutes.

4.4.2. The Questionnaire

**Pre-testing of Questionnaire:** A tentative questionnaire comprising of about 40 questions was developed for pre testing purpose. The questionnaire was then administered to 10 conveniently selected samples of apparel export companies and personal interviews were conducted. Protocol analysis was also undertaken to help the respondents in answering the questions, assess their problem in understanding some questions and incorporate modifications suggested by them.

Pre-tested questionnaire was also discussed with senior members/merchandisers of the industry to ensure that all facets of merchandising and supply chain were included in the questionnaire.

**Content Items of the Questionnaire:** As a result of pre testing and feedback from respondents and experts of the apparel industry, questions were edited, re-designed, consolidated, simplified and in few cases some parts were even deleted for the purpose of objective assessment of response and ease of analysis. The final questionnaire consisted of 45 questions. The areas covered in questionnaire encompassed virtually all aspects of merchandiser job responsibilities and apparel supply chain competitiveness factors as relevant to apparel industry.
**Key Areas in the Questionnaire:** The questionnaire was divided into two sections A and B. Section A covered questions with information directly related to the research problem. Section B had questions pertaining to company profile, the business and market functions of the companies.

The key areas covered in the final questionnaire were:

i. Merchandisers’ Education and Training  
ii. Contribution of merchandiser in business  
iii. Merchandiser assessment-current parameters  
iv. The merchandiser performance parameters  
v. Organisation’s supply chain strength  
vi. Activities and tasks undertaken by merchandisers  
vii. Organizational support required to improve merchandiser performance  
viii. Parameters to be ‘preferred’ supplier for an international apparel buyer  
ix. Importance of buyers’ feedback  
x. Factors of supply chain performance related to merchandisers work performance

The detailed questionnaire used in the study is given in Appendix Q.

**Measurement Scale:** With relation to above aspects, 44 are closed ended questions of which 12 questions are on a five point Likert Scale, others are based on simple category scale and multiple choice response scale. However, there was one question in Section A which was an open ended question. There were 3 ranking questions as well. In all total number of questions are 45.

**Response Mechanism:** As mentioned earlier, responses were sought on questionnaire in three different ways viz- in-depth personal interviews, structured telephonic interviews and emails.  
70% of interviews were in-depth personal interviews, 20% were structured telephonic personal interviews and balance 10% responses were received on email. No matter what the mode of administration, all respondents were first e-mailed the questionnaire.
Those answering the questionnaire were top management of the apparel export company-the owner/CEO, General Manager or Merchandising manager of the apparel export unit/company selected.

Graph 4.3- Questionnaire Administration Mechanism