CHAPTER III
RESEARCH AIM AND OBJECTIVES

3.1. AIM OF THE RESEARCH

The aim of the research is to determine the handle, comfort and performance properties of bamboo and modal fabrics with application of UV protection, water repellent, anti-microbial and moisture management finishes for beachwear and intimate wear. The design, development and commercialization of product under brand name ‘Green Route’.

3.2. OBJECTIVES OF THE RESEARCH

- To conduct a pilot survey to determine the trends in terms of fabrics used, design details and consumer requirements in the market for beachwear and intimate wear
- To source and develop knitted bamboo and modal fabrics for beachwear and intimate wear
- Application of dyes and special finishes- UV protection, anti-microbial, moisture management and water repellent finishes on the fabrics
- Subjective measurement of fabric handle for the bamboo and modal fabrics
- To determine the handle properties of the fabrics by using Kawabata Evaluation System for fabrics
- Comparison of subjective and objective assessment of fabric handle
- To test the fabrics for comfort, performance properties, UV protection, anti-microbial activity, moisture management and water repellent finishes.
- To design and develop a collection of beachwear and intimate wear along with accessories for women of the age group 18-22 years
- To study its acceptance among women consumers from textile and non-textile background
- Commercialization of the ecofriendly functional body wear collections under the brand name ‘Green Route’
3.3. **HYPOTHESIS OF THE STUDY**

- The selected bamboo and modal fabrics will be suitable for body wear
- The finishing application will improve the handle and mechanical properties of the selected bamboo and modal fabrics
- Non-textile respondents and textile experts will prefer beachwear and intimate wear in ecofriendly fabrics and accept the developed products with a new brand.

3.4. **SCOPE OF THE STUDY**

Today’s consumer is becoming eco-conscious. They are increasingly concerned with the carbon footprint involved with the production of apparels. Ecofriendly fabrics are known for their natural inherent characteristics. Bamboo is a natural bio-degradable fabric with UV and anti-microbial properties. Similarly modal is a regenerated cellulosic fabric with excellent hand and absorbency properties. In spite of these acclaimed inherent characteristics, their application in clothing close to the skin such as beachwear and intimate wear is negligible due to lack of research and efforts to make these fabrics suitable for specific end use. Not much attention has been given to make the ecofriendly fabrics functional and suitable for performance based garments by application of special finishes. Manufacturing of smart textiles is receiving new recognition today. Application of UV protection or anti-microbial finish enhances the handle, performance and appeal of the garment. The present research is to explore the new concept of developing body wear with ecofriendly fabrics that are given performance based finishes, determine the handle and mechanical properties of the controlled fabrics and commercialize the developed products.