CHAPTER 3

RESEARCH OBJECTIVES

The principal objectives of the study were:

1. To investigate the effect of direction of twist in yarn, tightness factor of weft-knitted fabrics, types of yarns, types of fibre, blend composition and yarn treatments on spirality of weft knitted fabrics.

2. To study the handle of a series of laboratory made and commercial weft knitted fabrics by Kawabata Evaluation System.

3. To study the bagginess and tensile properties of a series of weft-knitted fabrics by a simple manually operated instrument.

4. To investigate the handle of weft knitted fabrics by extraction force method, and to examine the interrelation between the handle force and the mechanical properties.

5. To study the compressional properties of knitted fabrics by a new method of analysis.

6. To characterise the weft knitted fabrics by WD values which represent handle.

8. To recommend relatively a new standard for the interlock cotton fabrics for purchasing criteria.

9. To explore the possibilities of dyeing some selective weft knitted fabrics such as single jersey and pique by pad-batch method.

The above objectives have been set in the present work with a view to contributing to some of the areas, where published information is scanty. Fabric objective measurement has assumed greater importance and credibility, and as such the investigation on weft knitted fabrics by objective measurement occupies the central core of the work.

Bagginess of weft knitted fabrics arises from the lack of dimensional stability or recovery when repeated or when static multidirectional tension is exerted on a fabric, and this investigative work is concerned with a simple instrument for measuring this property.