CHAPTER – III

METHODOLOGY

3.0 ‘An Economic Study of Handloom Weavers Welfare Schemes in Kanyakumari district’ is a miniature replica of exhaustive studies of the theories of firm as such as it seeks to examine the employment, income, socio economic conditions and welfare conditions of Handloom weavers and its bearings on the economy in a small district in Tamilnadu which is an integral part of India. The study has been undertaken with a number of objectives.

3.1. OBJECTIVES OF THE STUDY

Handloom industry is one of the most prominent rural non-factory sectors in Kanyakumari district. On the basis of its employment, income growth, welfare improvement, new training programmes and various other contributions to the economic development of the nation in general and Kanyakumari district in particular, the following objectives are found worth considering:
1. To study whether the climate prevailing in Kanyakumari District is favourable for the effective working conditions of the handloom weavers in Kanyakumari District.

2. To assess the recent trends of the handloom weavers welfare schemes in Kanyakumari District.

3. To analyze the impact of weavers welfare schemes on the social and economic status of the handloom weavers in Kanyakumari District.

4. To examine the extent of the implementation of the welfare scheme.

5. To find the effect of the implementation of the Liberalization, Privatization and Globalization on the handloom weaving in Kanyakumari District.

6. To evaluate the various handloom weaver problems and to highlight the major problems of handloom weaver in Kanyakumari District.

7. To study the overall economic development of handloom weavers in the district after the implementation of the various welfare schemes.

The objectives stated above would be instrumental in rendering the analysis through going in every respect.
3.2. HYPOTHESES

Forming hypotheses in research studies are highly useful for getting validity and usefulness of the studies made. Conclusions made on the already framed hypotheses are greatly beneficial for future purpose of analysis and policy implications. The following are the important hypotheses of the present research study:

1. The handloom weavers welfare schemes introduced by the Government act as a tool for kick starting the economic conditions of handloom weavers in Kanyakumari District.

2. The continuous effective functioning of the handloom weavers co-operative societies have resulted in the improvement of socio-economic conditions of handloom weavers in Kanyakumari District.

3. The Environmental Factors are conducive for the continuous development of Handloom weaving and weavers in Kanyakumari District.

The hypotheses chosen above are intended to bring out clearly the socio-economic conditions, effective functioning of the handloom weavers co-operative societies of the handloom industry with reference to its employment creation, income generation, the benefits of welfare schemes and the continuous economic development of the district.
3.3. NEED FOR THE STUDY

An economic study of handloom weavers welfare schemes in Kanyakumari district has gained significances for a number of reasons. They can be explained as follows:

3.3.1. Conceptualisation Need

In applied economics, concept formulation or conceptualization is a task of paramount significance. As far as rural industrialization in India is concerned, what is absolutely essential is a conceptualization about the variety of industries a village should seek to foster. In Kanyakumari district the attempts of industrialization made higher to by the Government and the non-governmental agencies have been far from satisfactory. The main reason for this state of affair is that a suitable concept of industrialization in Kanyakumari district has not yet been formulated. ‘An economic study of the handloom weavers welfare schemes in Kanyakumari district the handloom weavers in co-operative societies will be of considerable use in formulating a clear concept of rural industrialization. The present research study is based on one of the basic and very important Classical Theory of Economics, known as ‘Industrial Economics’. And, this is followed by another important it’s related concept known as ‘Cottage Industrial Economics’. Besides, the present research study is also based on another very famous Economic
Theory, ‘Welfare Economics’ and ‘Prof. Engel’s Law of Family Expenditure’. Thereby, the present research study has a very strong theoretical underpinnings, which is a must for any authentic research study. Thus, it is clear that the process of conceptualization about rural industrialization suited for Kanyakumari district will be accomplished perfectly with the help of an ‘explorative research’ on the weavers co-operative societies of the handloom industry in Kanyakumari district.

3.3.2. Need for fact finding

A fact finding research on economics of co-operative societies of the handloom industry is necessary to find out the nexus between the ecological factors and the localization of handloom industry in Kanyakumari district. Ecological factors such as climate, availability of steady supply of labour, transportation, markets, finance generally influence the growth of this industry and a host of other cottage and village industries. Identification of the ecological factors stimulating the growth of the co-operative societies of handloom industry through a systematic and scientific method will be of help to the government in designing weavers welfare schemes intended to nurture the growth of such weavers co-operative societies.
3.3.3. Need for Measuring the Employment and Income Generating Potentials of the Co-operative societies of the Handloom weavers

The co-operative societies of the handloom industry has contributed sizeable to the growth of employment opportunities and increasing export potential in Kanyakumari district. Hence, it would be quite appropriate to find out the employment potentials and export of this industry.

3.3.4. Need for Assessing the Economic and Social Significances of the weavers Co-operative Societies of the Handloom Industry

The co-operative societies of the handloom industry has been responsible for the economic and social well-being of people in certain regions of the district. A careful study of the economic and social changes brought about by the co-operative societies of the handloom industry would be of great importance in assessing the significance of this industry. Therefore, an economic study of the handloom weavers welfare schemes is found to be quite indispensable.
3.3.5. The Need for a Critical Evaluation of the Industrial policy and the Evolution of the New industrial policy to the Towns and Rural Area of Study

It is a well known fact that Kanyakumari district constitutes one of the most industrially backward regions in the whole of Tamilnadu. The present research study on the co-operative sector of the handloom industry in this district will be of enormous use to the government in finding out its basic needs and problems as the handloom industry is considered to be one of the popular and flourishing cottage industries in Kanyakumari district. This would go along way in guiding the government to evolve a suitable economical welfare policy. The present research study takes into account the co-operative sector of the Handloom industry also because, of the fact that more than 90% of the handloom weavers belong to the co-operative sector in this district. Therefore, the present study is found to be quite imperative.

3.4. METHODS OF STUDY

Research is a tool of sound economic policy. It has three distant phases of operation. The first one is the investigation of economic structure-continuous collection and compilation of data regarding the size and nature of the industry or the economic phenomenon under
consideration. Without such data it is difficult to formulate economic policies on a sound basis. The second phase is diagnosis. It involves a description of the events that take place and the analysis of the forces underly in these events with the data available. Much of this is a description of the current developments may be changes in employment, Income, Prices, output, cost and Profits. Knowledge of these changes and their causes is indispensable to planners. The third phase which generally operates concurrently with the second is prognosis- the prediction of the future development, with respect to weavers welfare programmes. Techniques in this area are still rather primitive. As a result, research in this field is all more necessary because effective government policies depend on successful prognostication. It should, however, be noted that in actual practice the investigation economic structure, diagnosis and prognosis are rarely distinguished as three phases of research. Yet, from the point of view of research methodology and organization, these are highly useful distinctions.

A wide variety of method, techniques and procedures has been employed in economic researches for purpose of collection, processing, analysis and presentation of data. The analysis that ensures seeks to bringout in detail how this elaborate process in gone through in the economic study of the weavers co-operative societies of the handloom industry in Kanyakumari district.
3.4.1. Collection of data

This study was carried out by using the Secondary Data collected from Government publications, journals, periodicals and annual reports from the office of the Assistant Director of Handlooms and Textiles, Nagercoil, which implements weaves welfare schemes and other related agencies. Primary data was collected from the handloom weavers and used with the help of well prepared questionnaires,

3.4.1.1 Primary Data

Primary data are statistical information collected on an economic phenomenon or an industry through the methods of observation and personal interviews conducted with the help of carefully designed questionnaires. In the case of the weavers co-operative societies of the handloom industry, a detailed sample survey was made on handloom weavers who belong to different handloom co-operatives, producing the selected handloom products for understanding the structure, functioning the socio-economic conditions and the welfare conditions of the weavers of this industry and to collect statistical informations of the weavers of this industry and to collect statistical information about the growth potentials and the problem of the handloom industry.
3.4.1.2. Secondary Data

Secondary data are the statistical details concerning the co-operative societies of the handloom industry available in prestigious journals, standard books, Government bulletins and other periodicals associated with the handloom industry. As far as the co-operative societies of the handloom industry in Kanyakumari district is concerned, for the purpose of secondary data, reliance was made on the files of office of the Assistant Director of Handlooms and Textiles at Nagercoil, offices of the Handloom Co-operatives in Kanyakumari district, office of the Deputy Registrar of Co-operative Societies in Kanyakumari district, office of the Kanyakumari Central Co-operative Society Bank at Nagercoil, the publications of the Government of Tamilnadu on the co-operative societies of the handloom industry, the reports of the office of the Directorate of Handlooms and Textiles in Madras, Reports of the Office of Evaluation and applied Economic Research, Madras, Reports of Indian Over-seas Bank (Lead Band), Nagercoil, reports of the District Collector Office, Nagercoil and the articles appearing in economic journals such as The Tamil Nadu Journal of co-operation, Handlooms, Economic and Political Weekly, Kurukshtra, Southern Economist, and the English daily papers.
3.4.2. TECHNIQUES USED FOR THE ANALYSES AND PRESENTATION OF DATA

The following statistical techniques are used for purposes of collection and analysis of data, in the present study.

3.4.2.1. Sampling Technique

A sample study of individual co-operative handloom weavers who belong to the different handloom weaver’s co-operative societies of the district has been made to collect the details of the units producing the select handloom products, their production, employment potentials and their problems. For this purpose a simple random sample of 220 units has been taken for each of the four taluks of Kanyakumari district and the data on size of the weavers family, their income, expenditure and debt also have been collected with a carefully prepared Questionnaire.

After the tabulation of collected data, they were analyzed through suitable statistical techniques for further interpretation, generalisation and valid suggestions. The various tools used are:
3.4.2.1 **Trend Analysis**

This method determines the direction upwards or downwards and involves the computation of the percentage relationship that each item bears to the same item in the base year. The information for a number of years is taken up and one year, generally the first year, is taken as base year. The figures of the base year are taken as 100 and trend ratios for other years are calculated on the basis of base year. Thus,

\[
\text{Trend ratio} = \frac{\text{Current Period Figure}}{\text{Base Year Figure}} \times 100
\]

3.4.2.2 **Correlation**

Correlation is a statistical device which helps us in analysing the co variation of two or more variables. If two or more quantities vary in sympathy so that movements in one tend to be accompanied by corresponding movements in the other they are said to be correlated. The relationship may be positive or negative, and are interpreted accordingly. The formula used in this case is

\[
r = \frac{\Sigma xy}{\sqrt{\Sigma x^2 \times \Sigma y^2}}
\]

3.4.2.3 **Coefficient of Determination**

The coefficient of variation is a highly useful measure. This is used to find whether causality is present or not and which way it runs if
it is present, must be determined on the basis of evidence other than quantitative observations. This is obtained by the following formula.

\[
R^2 = \frac{\text{Explained Variance}}{\text{Total Variance}} \times 100
\]

### 3.4.2.4 Compound Growth Rate

Usually the growth in any period is not independent of the value of the variable in the previous period. Therefore, linear rate of growth is not appropriate for analysing phenomena. Hence, compound growth rate is preferred for calculation through regression least square technique with the help of the following formula.

\[
B = \frac{(\Sigma Y^* t) - (\Sigma Y)(\Sigma t)}{n}
\]

\[
\Sigma t^2 - (\Sigma t)^2
\]

### 3.4.2.5 Yule’s Coefficient of Association

The most popular method of studying association is the Yule’s Coefficient of association of attributes, because here not only one can determine the nature of association that is whether the attributes are positively associated, negatively associated or independent but also the degree or extent to which the two attributes are associated. The Yule’s Coefficient is denoted by the symbol Q and is obtained by applying the following formula.
\[ Q = \frac{(AB)(\alpha\beta) - (A\beta)(\alpha B)}{(AB)(\alpha\beta) + (A\beta)(\alpha B)} \]

The value of this coefficient lies between ±1. When the value of Q is +1, there is perfect positive association between the attributes. When Q is -1, there is perfect negative association between the attributes and when the value of Q is zero, the two attributes are independent. The coefficient of association can be used to compare the intensity of association between two attributes with the intensity of association between two other attributes.

3.4.2.6 The Man – Whitney or U test

This test helps us to determine whether the two samples have come from identical population. If it is true that the samples have come from the same population it is reasonable to assume that the means of the ranks assigned to the values of the two samples are more or less the same. The alternative hypothesis is that the means of the population is not equal and if this is the case, most of the smaller rank will go to the values of one sample, while most of the higher ranks will go to those of the other sample. Here, the scores should be arranged in ascending order and then ranked for the application of the following formula.

\[ U = n_1n_2 + \frac{n_1(n_1 + 1)}{2} - R \]
\[
Z = \frac{U - \frac{n_1n_2}{2}}{\sqrt{\frac{n_1n_2(n_1 + n_2)}{12}}}
\]

3.4.2.7 Levels of attitude

The levels as to low level, medium level and high level are estimated on the basis of mean and standard deviation. The low level is calculated by \( \bar{X} - \sigma \), high level by \( \bar{X} + \sigma \), and the medium level by \( \bar{X} \).

3.4.2.8 Percentage, Ratios, averages, trend, and Tests of Significances

The above said statistical tools are also used in the present study to analyze the collected data in the most suitable methods to bring out the significance of the various aspects of the co-operatives societies of the handloom industry in Kanyakumari district. All these statistical instruments and their uses make the present study highly a significant and a perfect one.

3.5. STATEMENT OF THE RESEARCH PROBLEM:

The handloom industry in Kanyakumari District is noted for its very high employment potentials. Handloom weaving is one of the most important cottage industries in Kanyakumari District. But, because of the frequent discontinuity in employment and because of the low income, the handloom weavers find it difficult to maintain a better standard of living in the handloom industry. This results in the increasing of poverty and misery among the poor handloom weavers of the
Kanyakumari District. Hence, the present research study would concentrate on the factors resulting in such problems in details and would also try to solve these grave problems of the handloom weavers through various types of welfare schemes in Kanyakumari District.

Till date, no systematic research study has been made on the various welfare schemes in relation to handloom weavers Kanyakumari District. Therefore, “An Economic Study of Handloom Weavers Welfare Schemes in Kanyakumari District” becomes worth studying to increase the Socio- Economic conditions of handloom weavers in Kanyakumari District.

3.5.1. Interviews

The interview method was used to collect the primary data above the weavers co-operative societies of the handloom industry. Generally speaking it is rare to come across people who will be honest enough to give correct facts and figures about their wealth, monthly income their welfare benefits though weavers’ co-operative societies and the worth of weavers welfare scheme have been collected. Therefore, the investigator handled each informant according to his temperament and try to get as much information as possible through a policy of persuasion.

However, a high degree of logical consistency is getting facts and figures was maintained in the course of entire discussion on the
economic aspects of the weavers co-operative societies of the handloom industry.

**3.5.2. The Selected Welfare Schemes**

The present study has been confined to the welfare schemes introduced in the handloom industry alone. The independent sector, about 90 per cent of the handloom weavers are enveloped by the Co-operative societies. It becomes evident that the other sectors have not gained ground in this district and thus, the scope of a study on the independent, outside the co-operative fold and explicated by the master weavers, power-loom and Mill sector is very much limited. Hence, concentration has been focused on the weavers co-operative societies of the handloom industry in Kanyakumari District.

**3.5.3. Socio-Economic Conditions**

Trade union activities of the weavers co-operative societies of the handloom industry is not dealt with in the present study as it is found to be associations of political parties. So, the scope of this study confines itself to the socio-economic conditions and not the political aspects of the handloom industry in Kanyakumari district.
3.5.4. Selection of Handloom Products and Area of Analysis

While considering the employment of the welfare condition of weavers of the co-operative societies of handloom industry in Kanyakumari district, handloom items such as Kachai, Dothy, Lungy, Bedsheet and Saree alone are taken into account. The main reason for taking the above five handloom varieties only in the present study is that the production of these five selected varieties constitutes more than 90 percent of total products in the co-operative societies of the handloom industry.

In the same manner, in all the output composition, cost, ratio, percentage, value added analyses and such other similar analyses, and a variety wise was undertaken for the selected five handloom varieties, for making easy comparison and bringing out the relative significance of the different factors and products in the weavers co-operative societies of the handloom industry in Kanyakumari District.

3.5.5. Period of Study

A period of 10 years from 1997-98 to 2006-07 has been analysed in the present research study for the analyses relating to secondary data. The survey was conducted during the years of the research study.
3.6. LIMITATIONS OF THE STUDY

The investigator found the following problems at one stage or other in the course of the present research study. They include the followings:

(i) The primary data collected through questionnaire have their own basic errors. As most of the handloom weavers do not have sound educational background, the information collected from them may not be hundred percent correct.

(ii) Some handloom weavers did not give their opinion openly. In such cases further questions were asked and logical conclusions were drawn on the basis of their said opinions.

(iii) As some of the respondents were unaware of the benefits of some of the welfare schemes, the information regarding them were not obtained by the researcher.

(iv) As far as secondary data were concerned, the year of the time series data were not uniform. Because, there has been variation in the implementation and stoppage of the welfare schemes.

Thus, it is learnt that this Methodology chapter has given a perfect and scientific Research treatment to be adopted in the present research study, so that the entire research study gets a perfect, valid and precise approach and completeness in the selected study.