

## *METHODOLOGY*

## **CHAPTER 3**

### **METHODOLOGY**

Methods and procedures adopted to carry out the investigation are presented in this chapter. For systematic presentation, the chapter is divided into seven sections:

- 3.1 Research design
- 3.2 Conceptual framework
- 3.3 Variables
- 3.4 Operational definitions
- 3.5 Development of the tool
- 3.6 Sampling procedure
- 3.7 Data collection and analysis

#### **3.1 Research Design**

The main objective of the present investigation was to study consumer rights and related social dimensions. Descriptive research includes surveys, fact-finding inquiries and discovering relationships between certain variables. This research design was considered the most

By Majmudar, A.

suitable for the present study because; it was exploratory in nature and it was an attempt to establish relationship between various influencing variables and knowledge, problems faced and utilization of consumer rights and benefits.

### **3.2 Conceptual Framework**

The conceptual framework to study the extent of utilization of consumer rights and benefits by disabled was developed to give direction to the study (Fig.3).

#### **3.2.1 The components**

The components of the framework are:

- i) Personal variables
- ii) Family variables
- iii) Disability related variables
- iv)
  - a) Knowledge regarding consumer rights
  - b) Knowledge regarding benefits provided by the government
- v) Attitude towards disability
- vi)
  - a) Problems faced in utilizing consumer rights
  - b) Problems faced in utilizing benefits provided by the government.

- vii) a) Utilization of consumer rights
- b) Utilization of benefits provided by the government

Everyone is a consumer. The consumer is protected by several rights and is expected to know and utilize these while purchasing in the market. Disability to an extent restricts a person to act as consumer. It is hypothesized that person's extent of utilization of consumer rights and benefits provided by the government, are facilitated or restricted by some factors. It was hypothesised that certain personal, family and disability related variables affect a person's knowledge, attitude and problems as well as directly affect the utilization of consumer rights and benefits. The intervening variables viz. knowledge, problems and attitude in turn affect the utilization of consumer rights and benefits.

It was further felt that giving knowledge input about consumer rights and benefits would help to improve the utilization of consumer rights and benefits.

The conceptual representation of hypothetical relationship between the variables under consideration is shown below.

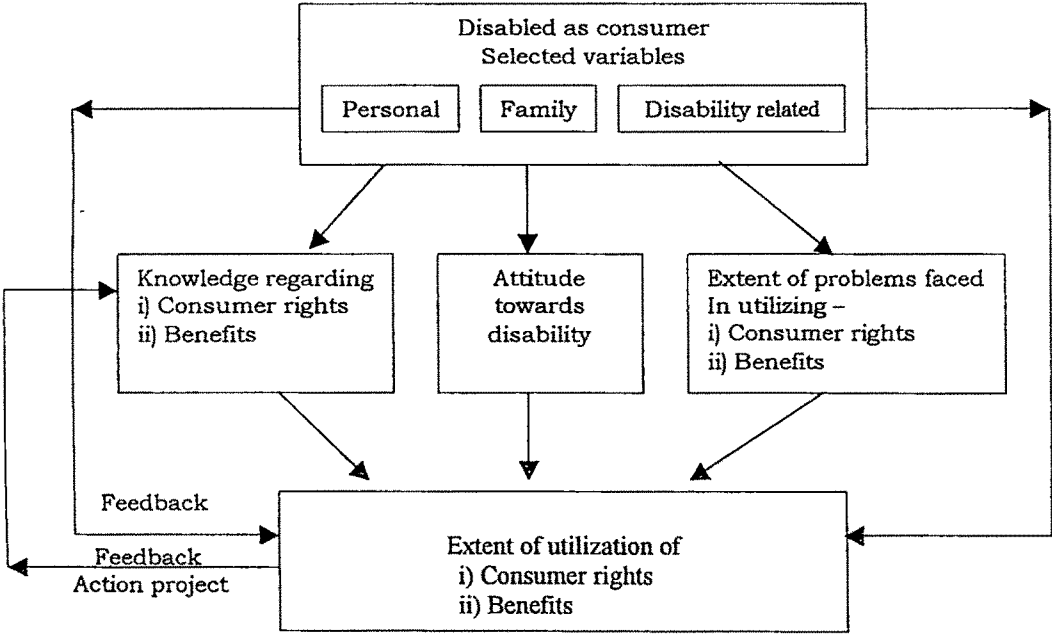


Fig. 3 A conceptual framework of hypothetical relationship between the variables.

**3.3 Variables**

The variables under study are categorized into three categories depending upon their nature. They are independent variables, intervening variables and dependent variables. The independent variables affect the dependent variables directly as well as through By Majmudar, A.

intervening variables. The intervening variables act as independent variables as far as the dependent variables are concerned and the intervening variables are treated as dependent variables in presence of independent variables. Both – the independent and intervening variables, affect the dependent variables.

### **3.3 Variables**

#### **3.3.1 Independent variables**

##### **3.3.1.1 Personal variables**

- i) Sex of the respondent
- ii) Age of the respondent
- iii) Education of the respondent
- iv) Occupation of the respondent
- v) Marital status

##### **3.3.1.2 Family variables**

- vi) Type of family
- vii) Family income

##### **3.3.1.3 Disability related variables**

- viii) Type of school
- ix) Acquisition of training
- x) Age at onset of disability
- xi) Extent of disability

### **3.3.2 Intervening variables**

- 3.3.2.1 Knowledge regarding consumer rights
- 3.3.2.2 Knowledge regarding benefits
- 3.3.2.3 Attitude towards disability
- 3.3.2.4 Problems faced in utilizing consumer rights
- 3.3.2.5 Problems faced in utilizing benefits

### **3.3.3 Dependent variables**

- 3.3.3.1 Utilization of consumer rights
- 3.3.3.2 Utilization of benefits

### **3.3.1 INDEPENDENT VARIABLES**

The independent variables were classified into three categories (1) Personal variables (2) Family variables and (3) Disability related variables.

**3.3.1.1 Personal variables:** These included sex, age, education and occupation of the respondents. These variables were expected to have influence on respondents' knowledge regarding consumer rights and benefits, attitude towards self, problems faced in utilizing consumer rights and benefits and extent of utilization of consumer rights and benefits provided by the government.

**i) Sex of the respondent.** Females usually shop more for the family rather than males hence; it was assumed that they might be utilizing

their rights as consumers more than males. Disability hampers more in the social and economic activities of women (Susan 1990 and Divatia 2000). Sex was therefore considered as one of the influential independent variable.

**ii) Age of the respondent.** In her study, John (1974) found that age had significant relationship with awareness of the consumers regarding consumer responsibilities. Consumers at younger age might be more inclined and energetic as well to shop around and to utilize consumer rights as well as benefits. Therefore, it was thought appropriate to consider age as one of the independent variable.

**iii) Education of the respondent.** Formal education provides knowledge and exposure for consumer rights and benefits provided by the government. But according to Harper and Momm (1992), disabled people are less likely than others to have received an adequate formal education. Education was therefore selected as an independent variable affecting the extent of utilization of consumer rights and benefits.

**iv) Occupation of the respondent.** Occupation adds to the knowledge of the person as it provides an exposure to various sources of information. It was presumed that by wider exposure the knowledge regarding consumer rights and benefits is increased leading to higher extent of utilization of consumer rights and benefits.



**v) Marital Status.** It was assumed that married respondents may find it difficult to utilize the consumer rights as well as benefits due to lack of time.

**3.2.2.2 Family variables:** This included type of family and family income per month.

**vi) Type of family.** It was assumed that joint family structure might encourage utilization whereas, on the other hand nuclear family structure may discourage the utilization as less number of people would be available to help the disabled, consequently facing more problems, leading to less utilization.

**vii) Family income.** Disabled people are more likely to be poor than others, because they have had few opportunities for earnings and savings (Harper and Momm, 1992). In a study of consumers, John (1974) found significant relationship between income and degree of awareness of consumers towards consumer responsibilities. Hence, income was included in the present investigation as an independent variable.

**3.3.1.3 Disability related variables:** These included type of school, acquisition of training, age at onset of disability and extent of disability.

**viii) Type of school.** Person with disability who study in school for disabled are more exposed to the world of disability and are usually more aware about benefits provided to them through the school. They have

better acceptance level and therefore more prepared to face problems and utilize their rights.

According to Ramamani (1988), a disabled child often receives his education in a special school along with the children suffering from the same handicap. This considerably hinders his social integration from the very beginning because he learns to identify himself with a special class of children virtually isolated from society. Abraham (1996) opined that all disabled persons must be sent to regular school. This would help instil confidence in them and make it easier for the rest of the students to accept the disabled as one among them.

Thus, it was assumed that type of school might influence the extent of utilization and also person's attitude towards self, hence, selected as an independent variable.

**viii) Acquisition of training.** Persons with disability get more aware about the benefits provided to them and consumer rights as they are exposed to other people at training centres. It was presumed that acquisition of training might increase their extent of utilization of benefits and consumer rights.

**ix) Extent of disability.** The more severe the disability less might be the utilization as his movement is restricted and he has to depend on others to help him. Based on this assumption, person's extent of disability was considered as one of the influencing independent variable.

***x) Age at onset of disability.*** Persons who got disability at very young age might have learnt to adjust and therefore might utilize the benefits to greater extent but on the other hand, they might utilize the consumer rights to lower extent because their needs might be taken care of by someone else. It was therefore planned to study the relationship between age at onset of disability and extent of utilization of consumer rights and benefits.

### **3.3.2 Intervening variables**

Mainly there were three intervening variables–Knowledge, Attitude and Problems. The details of each is given as follows:

3.3.2.1 Knowledge regarding consumer rights

3.3.2.2 Knowledge regarding benefits

3.3.2.3 Attitude of the respondents towards disability

3.3.2.4 Problems in utilizing consumer rights

3.3.2.5 Problems in utilizing benefits

These intervening variables act as independent variables in relation with the dependent variables but on the other hand, they become dependent variables when seen in relation to the independent variables as they are influenced by these variables.

### **3.3.3 Dependent Variables**

The extent of utilization of consumer rights and benefits provided by the government were considered as dependent variables in the present investigation. Utilization of each of the dependent variable was considered separately as dependent when testing their relationship with intervening as well as independent variables.

## **3.4 Operational Definitions**

The following concepts were operationally defined for their technical use in the investigation.

### **3.4.1 Consumer rights**

Consumer rights have evolved since President John F Kennedy introduced the term in 1962 and outlined the first four: The right to safety, to be informed, to choose and to be heard. This was expanded to eight over the years. The additional ones were, the right to redress, the right to consumer education and the right to satisfaction of basic needs ([www.cgsiindia.org](http://www.cgsiindia.org))

Five rights of these were selected for the present study-Right to safety, Right to be informed, Right to choose, Right to be heard and right to seek redressal.

#### **3.4.2 Right to safety**

Right to safety means right to be protected against the marketing of goods that are hazardous to life and property. The purchased goods should not only meet their immediate needs, but also fulfil long term interests.

Before purchasing, consumers should insist on the quality of the products and services. They should preferably purchase quality marked products such as ISI and AGMARK.

#### **3.4.3 Right to be informed**

Right to be informed means right to be informed about the quality, quantity, potency, purity, standard and price of goods so as to protect the consumers against unfair trade practices.

Consumers should insist on getting all information about the product or service before making any choice or a decision. This will enable him to act wisely and responsibly and enable him to desist from falling prey to high-pressure selling techniques.

#### **3.4.4 Right to choose**

Right to choose means right to be assured of access to a variety of goods at competitive price. In case of monopolies, it means right to be assured of satisfactory quality and service at fair price.

It also includes right to basic goods and services. This right can be better exercised in a competitive market where varieties of goods are available at competitive prices.

#### **3.4.5 Right to be heard**

Right to be heard means that consumer's interests will receive due consideration at appropriate forums. It also includes right to be represented at various forums formed to consider the consumer's welfare.

The consumers should form non-political and non-commercial consumer organizations that can be given representation in various committees formed by the government and other bodies in matters relating to consumers.

#### **3.4.6 Right to seek redressal**

Right to seek redressal means right to seek redressal against unfair trade practices or unscrupulous exploitation of consumers. It also

includes right to fair settlement of the genuine grievances of the consumers.

Consumers must make complaint for their genuine grievances. Many times their complaint may be of small value but its impact on the society as a whole may be very large. They can also take the help of consumer organizations in seeking redressal of their grievances.

#### **3.4.7 Disability**

Disability is any restriction or lack (resulting from an impairment) of ability to perform an activity in the manner or within the range considered normal for human being (WHO). The present investigation deals with persons of loco motor disability only.

#### **3.4.8 Loco motor disability**

Loco motor disability means disability of bones, joints or muscles leading to substantial restriction of the movement of limbs.

#### **3.4.9 Consumer**

Any person is a consumer who destroys the utility of the good or service for the satisfaction of his wants.

#### **3.4.10 Facilitators and Constraints**

Facilitators are those characteristics which encourage the utilization where as, constraints are those characteristics which restrict the utilization of consumer rights and benefits provided by the government.

### **3.5 Development of Tool**

Questionnaire was used to collect data mainly because; large sample could be contacted within a short period of time. It provides enough time to respond and hence was appropriate with reference to present study, where respondent's knowledge was tested. Also questionnaire as a tool is free from interviewer's bias, thus, respondents could express their views freely regarding problems they face and their attitude towards disability.

#### **3.5.1 Description of the tool**

Keeping in mind the objectives of the study, the questionnaire was prepared. It was divided into four sections.

Section I was structured to know the baseline characteristics of the respondents. It gathered information regarding respondents' personal features, family features and disability related features.



Section II collected information on various aspects of benefits provided by the government to disabled people. It comprised of three different rating scales-first, to assess knowledge about benefits provided by the government, second, to measure the extent of utilization of these benefits, and third, to know the extent of problems faced in utilizing these benefits.

In section, III three different rating scales were developed to gather information about consumer rights. First, to assess knowledge regarding consumer rights, second, to measure extent of utilization of consumer rights and third to know the extent of problems faced by the respondents in utilizing consumer rights. This section also contained open-end questions to explore the respondents' knowledge regarding consumer rights and to know their sources of information from where they obtained consumer education.

Respondents' attitude towards disability in general was measured in section IV with the help of Likert type attitude scale.

All the scales except the attitude scale had open-end statement for mentioning "any other" option than those listed.

### **3.5.2 Development of knowledge scale**

To measure the level of knowledge of the respondents, two scales were developed, depending upon the content to be tested. One to

measure the level of knowledge regarding consumer rights and the other to measure the level of knowledge regarding benefits provided by the government.

**3.5.2.1 Item collection:** The scale to measure knowledge regarding consumer rights comprised of statements regarding five selected consumer rights namely, Right to choose, Right to safety, Right to be informed, Right to be heard and Right to seek redressal. Based on thorough review of literature, each item (statement) was selected. Selected items were edited and modified to suit the target sample. Equal number of items were selected for each of these consumer rights. Care was taken to make each statement clear, meaningful and complete. Total 25 statements representing various consumer rights were selected for inclusion in the scale.

The other scale to measure the level of knowledge of the respondents regarding benefits provided by the government to disabled people was constructed with the help of literature on the benefits. Details of the benefits provided by the government were collected from the booklet published by the Ministry of Information, Government of Gujarat and from the Director, Social Welfare Department, Ahmedabad. All the benefits provided by the government were studied to select the items for the scale. The common 16 benefits, which were applicable to almost all, were short listed from about 80 announced by the government of

Gujarat. These benefits were presented in a clear, easy to understand and meaningful way in the form of statements.

**3.5.2.2 Content validity:** The scales developed were distributed to the panel of 11 judges. The panel comprised of experts from Consumer Education and Research Centre, Ahmedabad; Consumer Protection Council, Ahmedabad; members of non-government organization for the disabled, Ahmedabad; experts from the Social welfare Department, Ahmedabad; Faculty of Social Work, and Faculty of Home Science, M.S.University of Baroda, Baroda. Judges were furnished with the objectives of the study and relevant operational definitions. They were requested to judge the clarity and relevance of the item. They were also asked to mark whether the statement is positive or negative and whether the statement belongs to particular consumer right or not, especially for the knowledge scale for consumer rights. Responses of the judges were analysed and items were extracted based on following criteria.

Items having agreement of 80% of judges for the clarity and relevance were included in the scale. Items have 80% agreement for relevance but not clarity, were reframed and again given to three judges. If approved, then included in the scale. Similarly, agreement of 80% judges was considered for placing the item under a particular consumer right.

Twenty-four items out of 35 originally selected were included in the knowledge scale for consumer rights, based on above-mentioned criteria. Knowledge scale for benefits provided by the government comprised of 16 items considering the above-mentioned criteria.

**3.5.2.3 Reliability of the knowledge scales:** The method pursued to establish reliability of the scales is described below.

**i) Scoring of the knowledge scales.** A pilot study for pre testing of scales was carried out and the questionnaire was administered to 35 non-sample respondents. The responses on the knowledge scale were quantified by assigning scores to the responses. Both the knowledge scales were dichotomous and therefore the respondents were given two options for their response. They were asked to indicate whether they “know” or “Do not know” about a particular benefit on a knowledge scale for benefits. For the knowledge scale for consumer rights, respondents were supposed to indicate the correctness of the statement and mark whether the given statement was “Correct” or “Incorrect”. One point was given for each correct answer and zero for every incorrect answer for both the scales. Thus, the optimum score ranged from 0 to 16 for knowledge scale for benefit and from 0 to 24 for knowledge scale for consumer rights.

**ii) Item analysis of knowledge scales.** The item analysis of the knowledge scales was carried out to find out the degree of discrimination

and difficulty of the items, which helps in selecting high-quality items and thus improving the reliability of the scale. The degree of difficulty and discrimination of each item of the scales were calculated with the help of upper group-lower group ratio (Explained in Eble and Frisbie, 1991). Items having discrimination value above 0.40 were included in the scales on the basis of Index of Discrimination (Eble and Frisbie, 1991).

**iii) Reliability Coefficient of knowledge scales.** Split-half technique was applied to find out the reliability co-efficient of the scales. For this the scale was divided into two halves, one having even numbered items and the other having odd numbered items. Each half was then treated as separate scale. The assumption underlying this method is that the respondents scoring high on even numbered items should score high on odd numbered items as well. The coefficient of correlation was then calculated for the scale by using the Pearson product moment formula.

$$r_{XY} = \frac{n\sum XY - (\sum X)(\sum Y)}{\sqrt{[n\sum X^2 - (\sum X)^2][n\sum Y^2 - (\sum Y)^2]}}$$

Where,  $r_{XY}$  = Reliability coefficient  
 $n$  = Number of respondents  
 $X$  = Score on even numbered items  
 $Y$  = Score on odd numbered items

The reliability coefficient of the full test was then found with the help of Spearman-Brown formula given below.

$$r_2 = \frac{2(r)}{r+1}$$

where,

$r_2$  = Reliability coefficient of the full test

$r$  = Reliability coefficient of half test

The reliability coefficient thus obtained are reported below, which found significant at 0.01 level (Best and Kahn 1989).

<u>Knowledge scales</u>	<u>Reliability coefficient</u>
Knowledge regarding consumer rights	0.635
Knowledge regarding benefits	0.864

### **3.5.3 Development of problem scales**

As one of the objectives of the study was to find out the extent of problems faced in utilizing consumer rights and benefits provided by the government, two separate scales were prepared. Likert's method of Summated Rating was used to score the responses.

**3.5.3.1 Item collection:** By reviewing the available literature, personal talks with experts from the concerned fields and also with the disabled people, the investigator framed the statements regarding problems faced. Care was taken to make the statements clear, brief and

meaningful. Primarily 18 statements for problems faced in utilizing consumer rights and 20 statements for problems faced in utilizing benefits were constructed for the scales.

**3.5.3.2 Content validity:** The scales thus developed were then submitted to a panel to 11 judges from the field of Consumer Education and Research Studies, Ahmedabad; Consumer Protection Council, Ahmedabad; members of non-government organization for the disabled, Ahmedabad; experts from the Social welfare Department, Ahmedabad; Faculty of Social Work, and Faculty of Home Science, M.S.University of Baroda, Baroda with the objectives of the study and relevant operational definitions. They were requested to judge the clarity and relevance of the statements.

Judges responses were assessed and the statements having agreement of 80% of judges, for clarity and relevance were included in the scale. Statements on which less than 80% judges agreed for its clarity were modified and again given to three judges for its inclusion in the scale. Twelve statements for problems in utilizing consumer rights and 17 statements for problems in utilizing benefits finally formed the scales.

**3.5.3.3 Reliability of the problem scales:** For establishing reliability of the scales, first the item analysis was carried out to find out degree of discrimination and scrutinize the statements on this basis.

Reliability coefficient was then calculated for both the scales. Details are discussed below.

**i) Scoring of the problem scales.** A three point scales were developed to quantify the responses. Responses were categorized in terms of “Always”, “Sometimes” and “Never”. The respondents facing the problem “Always” were given the score of one point. Similarly, a score of two points was assigned to the response “Sometimes” and 3 points were given for the response “Never” on both the problem scales. Both these scales were then tested on a sample of 35 respondents of pilot study.

**ii) Item analysis of the problem scales.** Item analysis was performed using criterion group to find the discrimination value of each item. Items having high discrimination values according to discrimination index ( Eble and Frisbie 1991) were retained in the scale.

**iii) Reliability Coefficient of the problem scales.** The reliability coefficient for both the problem scales were found out by using the split-half method (The method and formulas described in 5.2.3.3). The values of reliability coefficient are given below.

<u>Problem scales</u>	<u>Reliability coefficient</u>
Problems faced in utilizing consumer rights	0.928
Problems faced in utilizing benefits	0.556



These values were found significant at 0.01 level (Best and Kahn 1989).

#### **3.5.4 Development of attitude scale**

To study the attitude of the respondents towards disability, an attitude scale was developed. Likert type five points summated rating scale was prepared for the purpose.

**3.5.4.1 Item collection:** With the help of available literature, the items were selected and framed for the scale. The scale measured the attitude towards disability in general, so, the entire scale was divided into five different categories to include various aspects of life in building general attitude. These aspects were, psychological aspect, social aspect, marital aspect, educational aspect and economic and employment aspect. Each aspect contained relevant items in either positive or negative statements.

Efforts were made to make the statement brief and meaningful. Total 46 items were collected initially.

**3.5.4.2 Scoring of the attitude scale:** This five points scale had response category of "Strongly Agree", "Agree", "Undecided", "Disagree" and "Strongly Disagree" for which 5, 4, 3, 2, and 1 points were assigned to each response category respectively for positive statements. Reverse

scoring was done for negative statements. The scale thus prepared was then administered on a sample of 35 respondents of pilot study.

**3.5.4.3 Content validity of the attitude scale:** The scale was given to panel of 11 judges to validate the items for their inclusion in the scale. The panel comprised of judges from the Faculty of Education and Psychology, M.S.U; Faculty of Social Work, M.S.U. and the Department of Human Development and Family Studies, Faculty of Home Science, M.S.U. Judges were asked to indicate whether the statement is clear or ambiguous, relevant or not relevant, positive or negative and falling in a particular category or not.

Only those statements were included in the scale, which had agreement of 80% judges or more. Ambiguous statements were edited and were again given to three judges. These were included in the scale after they were approved by the judges. Total 45 statements were retained in the scale.

**3.5.4.4 Reliability of the attitude scale:** To establish reliability of the scale, item analysis and coefficient of correlation were computed as described below.

**i) Item analysis of the attitude scale.** Item analysis was carried out by calculating discrimination values for each statement. The values were found out with the help of upper group and lower group ratio. Statements falling below 0.30 (Eble and Frisbie, index of discrimination,

1991) were rejected. Statements having discrimination value between 0.30 and 0.39 were modified and included in the scale with the agreement of three judges. Thus, the scale finally comprised of 42 statements.

**ii) Reliability Coefficient of the attitude scale.** Correlation was computed with the help of split-half method. The method followed was same as described in 5.2.3.3. The value of coefficient of correlation for the attitude scale was  $r = 0.823$ .

### **3.5.5 Development of utilization scale**

It was the prime objective of the study to measure the extent of utilization of consumer rights and benefits. In order to meet this objective two Likert type summated rating scales were developed; one to measure the extent of utilization of consumer rights and the other to measure the extent of utilization of benefits provided by the government.

**3.5.5.1 Item collection:** Thorough review of literature helped the investigator in collecting the items for the scales. The scale to measure extent of utilization of consumer rights comprised of statements regarding five selected consumer rights namely, Right to choose, Right to safety, Right to be informed, Right to be heard and Right to seek redressal. Care was taken that there are almost equal number of items under each right in order to facilitate the statistical analysis.

The scale to measure the extent of utilization of benefits contained the same items selected for testing the knowledge. The most commonly used benefits, which were applicable to almost all, were short listed out of many announced by the government of Gujarat (Sources of information as mentioned in 5.2.1).

**3.5.5.2 Content validity of the utilization scales:** The scales thus prepared were then submitted to a panel of 11 judges for establishing the validity of the scales. The panel comprised of judges from Consumer Education and Research Centre, Ahmedabad; Consumer Protection Council, Ahmedabad; members of non-government organization for the disabled, Ahmedabad; experts from the Social welfare Department, Ahmedabad; Faculty of Social Work, and Faculty of Home Science, M.S.University of Baroda, Baroda. Objectives of the study and relevant operational definitions were provided along with the scales. Judges were asked to judge the clarity and relevance of the statements. Besides, they were also asked to indicate whether the statement is positive or negative and also whether the statement falls in the category of particular right or not exclusively for the scale of utilization of consumer rights. The inclusion of statements was based on these criteria.

i) Those statement where 80% of the judges have agreed for relevance, categorisation and positive or negative direction of the statement were included in the scale.

ii) Those statements where there was less than 80% agreement was found for their clarity, were reconstructed and again given to three judges for scrutiny, and included if approved.

In all, there were 22 statements selected for the utilization scale for consumer rights and 16 statements were finalized for the utilization scale for benefits.

**3.5.5.3 Reliability of the utilization scales:** The procedure followed to establish reliability of the scales is described below.

**i) Scoring of the utilization scores.** A three-point scale was developed for the utilization scale for consumer rights. Respondents were supposed to express their utilization in terms of “Always”, “Sometimes” and “Never”. The response of “Always” was given three points as it reflected that the respondent utilized the right always. In the same manner, responses of “Sometimes” and “Never” were assigned the scores of two and one points respectively for the utilization of consumer rights.

For the utilization scale for benefits, the responses were categorized in terms of “Utilized” or “Did not utilize”. Thus it was a two point scale having scoring pattern of one and zero for each category of response respectively. There were four such benefits, which were

important to be included in the study, but there was a possibility of them being not applicable to some of the respondents. Considering responses on these statements, one more category of “Not applicable” was also provided in the scale. The response “Not applicable” was scored zero, as it does not suggest any utilization. Later these benefits were analysed separately.

**ii) Item analysis of the utilization scales.** The total score on the utilization scale of the 35 respondents was arranged in order from highest to lowest. The upper group and the lower group were then identified separately. Upper group was the highest scoring one fourth of the group (10 respondents for present case) and the lower group was the lowest scoring one fourth of the group (10 respondents were taken in this group). The discrimination value for each item was then found out based on correct responses. The statements were judged for their discrimination based on index of discrimination (Eble and Frisbie, 1989). Only those items having discrimination values above 0.30 were included in the scale. Total 20 statements were selected for inclusion in the scale.

For the utilization scale for benefits, the item analysis procedure as described above was carried out and finally 16 statements were retained in the scale.

**iii) Reliability Coefficient of the utilization scale.** Using split-half method, reliability coefficients of the utilization scales were worked out in

the same manner as it was done for the knowledge scales (3.5.2.3,*iii*). The reliability correlation coefficient for the whole test for both the utilization scales are given below.

Utilization scales	Reliability Coefficient
Scale for utilization of consumer rights	0.681
Scale for utilization of benefits	0.556

The final questionnaire thus prepared was then translated in Gujarati as majority of the respondents were assumed to be comfortable with Gujarati language. The translated tool was given to panel of five judges who were experts of the language. Approval of 80% of judges was considered for finalization of the tool.

### **3.6 Selection of the Sample**

The study was carried out in Ahmedabad city as an investigator resided in the city; it was thought appropriate to collect the data if the sample was selected from the same city. More over, there are number of non-government and government organizations working for the disabled people in Ahmedabad city. It was thus a need of an hour to probe into the problems of number of disabled people approaching these organizations.

### **3.6.1 Criteria for selection of sample**

The population of the present study comprised all the loco motor disabled consumers residing in Ahmedabad city, from which a sample of 238 was drawn for the present investigation. The criteria for drawing the sample are listed below.

- i) They should reside in Ahmedabad city.
- ii) They should have only loco motor disability.
- iii) They should have 40% or more extent of disability as the government provides benefits to such disabled only.
- iv) They should preferably be of the age above 16 years so that they themselves purchase the things in the market.

### **3.6.2 Sampling procedure**

The respondents were selected through proportionate random sampling technique, from the three institutions, namely, I) Blind Persons' Association (Also working for other types of disabilities), II) Society for the Physically Handicapped and III) Apang Manav Mandal.

The respondents were selected on the basis of acquisition of formal training. So, two different groups were formed, one having acquired the training and the other not acquired any type of formal training. Respondents who were trained were selected from the above mentioned three institutions and respondents who did not acquire any type of

By Majmudar, A.



formal training were selected from only one institution-Society for the Physically Handicapped- as this was an institution having the largest list of disabled as the members of the institution. From this list, untrained respondents were selected randomly.

Then the proportion of the respondents to be selected from each institution was determined. The trained respondents were selected proportionately from the above-mentioned three institutions. About 50% respondents from the total respondents trained by each of these institutions were included in the sample. The procedure of sample selection is represented in the figure below.

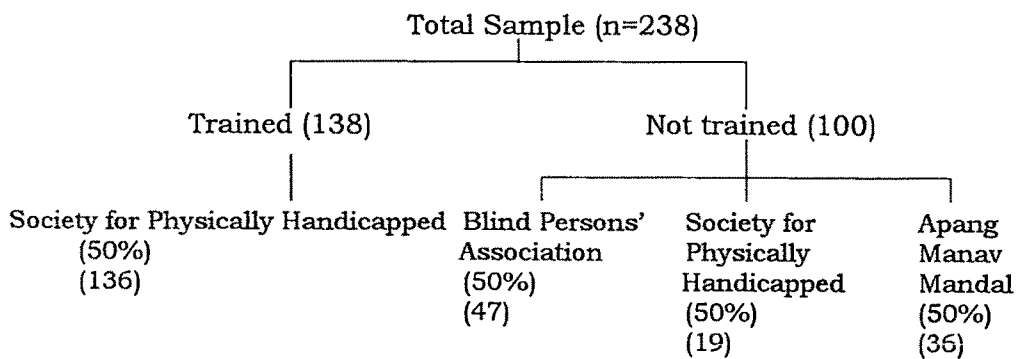


Fig. 4 Sampling procedure

### **3.6.3 Collection of data**

The questionnaires were administered and collected by the investigator herself by approaching each respondent personally. It was checked that the questionnaire was filled up completely. Out of 250 questionnaires administered, total 238 were returned, thus the rate of return was 95.2 percentage. The period of data collection was from January 2000 to July 2000.

## **3.7 Analysis of Data**

The data were collected and coded according to coded and tabulated. Statistical analysis was carried out to present the data in a systematic manner.

### **3.7.1 Categorization of variables**

There were three sets of variables under study, Independent variables, Intervening variables and Dependent variables.

**3.7.1.1 Independent variables:** Independent variables were categorized into three categories that is, Personal variables, Family variables and Disability related variables.

#### ***i) Personal variables.***

i) Sex of the respondents. Male and Female respondents were categorized under this.

ii) Age of the respondents. Age was measured in terms of actual years. This was classified as

- (i) Below 20 years
- (ii) 20 – 29 years
- (iii) 30 – 39 years
- (iv) Above 39 years

iii) Education of the respondents. Education of the respondents was categorized as

- (i) Below SSC
- (ii) Up to HSC
- (iii) Graduate and above

iv) Occupation of the respondents. Occupation of the respondents was categorized as

- (i) Employed
- (ii) Self-employed
- (iii) Unemployed

ii) **Family variables.** This included monthly family income and type of family.

i) Family income. This means total income of the family, including personal income of all the family members, per month. This was categorized as-

- (i) Below Rs. 5000
- (ii) Rs. 5001 – Rs. 10,000
- (iii) Above Rs. 10,000

ii) Type of family. Type of family was categorized as

- (i) Joint family
- (ii) Nuclear family

**iii) Disability related variables.** This included Type of school, Acquisition of training, Age at onset of disability and Extent of disability.

i) Type of school. There were two categories formed for this variable.

- (i) School for disabled
- (ii) School for normal children

ii) Acquisition of training. Categories for this variable was

- (i) Acquired training
- (ii) Did not acquire training

iii) Age at onset of disability. Respondents were asked their actual age in years when they acquired disability. This was categorized as (i) Below one year

- (ii) 1 – 5 years
- (iii) Above 5 years

iv) Extent of disability. Respondents were asked to report their extent of disability in terms of percentage of disability, as this was the criterion

followed by the government. The percentage of disability is given in the identity cards. Percentage of disability were categorized as

(i) 40% - 74%

(ii) 75% and above

**3.7.1.2 Intervening variables:** Knowledge of the respondents regarding consumer rights and benefits, problems faced by the respondents in utilizing consumer rights and benefits and attitude of the respondents towards disability were the intervening variables of the study.

**i) Knowledge regarding consumer rights.** Knowledge of the respondents was measured in terms of “Know” and “Do not know”. A score of one was given to the response of “Know” and a score of zero was given to the response of “Do not know”. The total score of each respondent was calculated and categories were formulated with the help of equal intervals of the optimum score. The range of possible score was 0 – 24 as there were total 24 items in the scale. The categories of the score are given below.

Level of knowledge	Range of scores
(i) Poor knowledge	0 – 8
(ii) Average knowledge	9 – 17
(iii) Good knowledge	18 – 24

**ii) Knowledge regarding benefits.** Respondents' knowledge regarding benefits provided by the government was measured in terms of "Know" and "Do not know". A score of one and zero was given to each response respectively. After calculating total score of the knowledge scale for each respondent, the score was divided based on equal intervals of the possible scores.

The range of possible score was 0 – 16. Categories made on this are given below.

Level of knowledge	Range of scores
(i) Poor knowledge	0 – 5
(ii) Average knowledge	6 –11
(iii) Good knowledge	12 –16

**iii) Problems faced in utilizing consumer rights.** Problem scale for consumer rights was a three-point scale having categories of "Always", "Sometimes" and "Never" for which 1, 2, and 3 points were assigned to each category respectively. The total score for each respondent was calculated and following categories were formed based on range of possible scores, which ranged from 17 to 51 as there, were total 17 items in the scale.

Extent of problems faced in utilizing consumer rights.	Range of scores
(i) Less extent	27 – 33
(ii) Some extent	19 – 26
(iii) Great extent	11 – 18

**iv) Problems faced in utilizing benefits.** Problems faced by the respondents in utilizing benefits were scored under the categories of “Always”, “Sometimes” and “Never”. The scores of 1, 2, and 3 were given to these categories respectively. Total for each respondent was calculated and extent of problems faced was determined on the basis of following categories. These categories were formed on the basis of equal intervals of the possible range of scores.

Extent of problems faced in utilizing benefits	Range of scores
(i) Less extent	41 – 51
(ii) Some extent	29 – 40
(iii) Great extent	17 – 28

**v) Attitude of the respondents towards disability.** Respondents’ attitude towards disability was categorized as “Strongly Agree”, “Agree”, “Undecided”, “Disagree” and “Strongly Disagree”. Scores of 5, 4, 3, 2 and 1 were assigned to each positive statement and reverse for negative statements respectively. Summed up scores of each respondent were

categorized on the basis of range of optimum scores in equal intervals.

The range of possible score was 40 - 200

Attitude towards disability	Range of scores
(i) Unfavourable attitude	40 – 93
(ii) Neutral attitude	94 – 147
(iii) Favourable attitude	148 – 200

**3.7.1.3 Dependent variables:** Dependent variables of the present study included utilization of consumer rights and utilization of benefits.

**i) Utilization of consumer rights.** The scale containing items regarding utilization of consumer rights was scored on three points basis. Three points were given for the response “Always” on positive items. For the responses “Sometimes” and “Never” a score of 2 and 1 were assigned respectively. Total of the whole scale for each respondent was calculated and categorized. The categories of equal intervals of the total score were formed on the basis of range of optimum score. The possible score ranged from 25 to 75. The categories are given below.

Extent of utilization of consumer rights	Range of scores
(i) Low extent	25 – 41
(ii) Average extent	42 – 58
(iii) High extent	59 – 75

**ii) Utilization of benefits.** This scale comprised of two categories of response, where one point was given for the response “Utilized” and zero



point was given for the response “Did not utilize”. After obtaining the total score for each respondent, it was categorized. Categories were formed on the basis of equal intervals of the range of optimum score. The range of possible score was 1 to 12.

There were four such benefits, which were not applicable to all the respondents. For these statements, the category of “Not Applicable” was given. Zero point was given for this response. Scoring and categorization of these statements were done separately. However, the score on these statements was obtained only for those respondents for whom these statements were applicable.

Extent of utilization of benefits	Range of scores
(i) Low extent	0 – 4
(ii) Average extent	5 – 8
(iii) High extent	9 – 12

**3.7.2 Phase-II of the Study**

In the second phase of the study the knowledge input programme was planned. Those respondents who did not score well on the knowledge regarding consumer rights as well as on the knowledge regarding benefits were selected to impart knowledge in these areas.

There were 87 (Table 4.8, page no. 177) respondents who scored “average” on the knowledge scale for consumer rights. There were 132

(Table 4.26, page no. 222) respondents who scored either “poor” or “average” on the knowledge scale for benefits. The intersection of this suggested that there were 82 such respondents who scored either “poor” or “average” on the knowledge scale for consumer rights as well as for benefits. These 82 respondents were selected for the knowledge input programme.

The respondents were called by sending postal message. About 61 out of 82 selected respondents attended the knowledge input programme.

A videocassette of 25 minutes duration on consumer rights was shown to impart knowledge regarding consumer rights. The cassette was prepared by the Consumer Education and Research Centre, (CERC) Ahmedabad. To impart knowledge regarding benefits provided by the government, a lecture on the subject was given by the investigator (Appendix-D) along with the distribution of booklet published by the government containing all the necessary information on benefits. The content of the lecture was validated by three experts from the field of disability.

To observe the knowledge gained by the respondents, the knowledge scales were administered to them after an interval of 15 days from the date of programme. The knowledge scales were the same scales that the respondents had filled during data collection. Thus pre-



## KNOWLEDGE INPUT PROGRAMME



Plate-1 Respondents watching video cassette on consumer rights



Plate-2 Discussion

## KNOWLEDGE INPUT PROGRAMME



Plate-3,4 Distribution of booklet

programme and post-programme scores on knowledge scales were obtained. The post-programme scores obtained were then analysed by using student's t-test to observe the difference between the two.

Also a talk disseminating information regarding consumer rights and benefits was delivered by the investigator through All India Radio Ahmedabad, to reach a large mass to make them aware about consumer rights and benefits for the disabled.

### **3.7.3 Statistical analysis of the data**

Descriptive as well as inferential statistics were used to analyse the data. The analysis was carried out with the help of computer using Microsoft office 2000 and SPSS packages.

**3.7.2.1 Descriptive Statistics:** Descriptive statistics such as frequency, percentage, mean and standard deviation were used to present the following data.

- (i) All the independent variables and other background characteristics of the respondents.
- (ii) Data on knowledge of the respondents regarding consumer rights and benefits.
- (iii) Data on attitude of the respondents towards disability.
- (iv) Data on problems faced in utilizing consumer rights and benefits.
- (v) Data on utilization of consumer rights and benefits.

**3.7.2.2 Inferential statistics:** Inferential statistics were used to test the hypotheses. Hypotheses of the study were tested using product moment correlation, student's t-test and Analysis of Variance. The facilitators and constraints of the utilization of the consumer rights and benefits were identified using multiple regression analysis.