CHAPTER 2

RESEARCH METHODOLOGY
2. RESEARCH METHODOLOGY

2.1 Introduction

Research is considered as an endeavor to arrive at answers to intellectual and practical problems through the application of scientific methods to the knowable universe. It is a “systematic, controlled empirical and critical investigation of hypothetical propositions about the presumed relations among natural phenomena”. *1 Research is the process of a systematic and in depth study or search of any particular topic, subject or area of investigation, backed by the collection, compilation, presentation and interpretation of relevant details or data.

Research methodology is a way to systematically solve the research problem. It may be understood as a science of studying how research is done scientifically. In it various steps are adopted, in studying research problem along with logic behind them. It is necessary for the researcher to design his methodology for his problem as the same differ from problem to problem; and has to expose the research decisions to evaluate before they are implemented. When we talk about research methodology we not only talk of the research methods but also consider the logic behind the methods with context of research study and explain why we are using a particular method or technique and why we are not using others so that research results are capable of being evaluated either by the researcher himself or others.

2.2 Formation of Hypothesis

Hypothesis arises as a result of a priori thinking about the subject, examination of available data and material including related studies and the counsel of experts and interested parties. Hypothesis is more useful when stated in precise and clearly defined terms.

After extensive literature survey, researcher has developed tentative assumptions in order to draw out and test its logical or empirical consequences. As such manner research hypotheses are developed are particularly important since they provide the focal point for research. The importance role of hypothesis was to guide the researcher by delimiting area of research and to keep him on the right track.
The study proposed to test the following hypothesis

1. There is no significant difference between rural and urban marketing mix of essential commodities marketing companies.
2. There is a significant association between marketing mix attributes and satisfaction level of rural consumer household.
3. The rural consumers are having special attributes.
5. Rural Consumers are aware of rural market for essential commodities.
6. There is significant association between family size and annual consumptions of rural households.
7. Rural Market is a Homogeneous Mass.
8. Individuals decide about purchases in rural households.

2.3 Objectives of study

Unlike urban markets, rural markets are difficult to predict and possess special characteristics. The featured population is predominantly illiterate, have low income, characterized by irregular income, lack of monthly income and flow of income fluctuating with the monsoon winds. In the light of hypothesis formulated for the study, following objectives are selected for study

Primary objective of research study is-

To study of Rural Marketing Mix with respect to essential commodities Ahmednagar District.

Secondary objectives of this study are

1. To study the attributes of rural consumer.
2. To study the factors of buying decision making of rural consumers for essential commodities.
3. To study consumers market awareness.
4. To study the factors affecting consumption pattern of rural household.
2.4 Scope of Study

Marketing mix is a very vast subject. Similarly rural market is equally vast in size and diverse in culture. In above personal view of researcher the study limits its scope to selected rural markets in Ahmednagar District for essential commodities. The study data will be helpful in developing marketing mix which shall be best suitable to rural market. The study of rural consumers’ attributes, market awareness, buying decision making, buying and consumption patterns helpful in framing four P’s of marketing i.e. marketing mix. This study has wide scope to develop marketing strategies in different segments of rural market. In view of the objectives mentioned earlier the present study limits its scope to selected commodities of essential goods only.

The logic behind the selection of commodities, selection of the villages, sample household and retailers is explained in later part of this chapter.

2.5 Research Methodology

The research will be based on a systematic collection; analysis, interpretation and reporting of data related to the topic - “A study of Rural Marketing Mix with respect to essential commodities Ahmednagar District’.

2.5.1 Research Design

“Research Design” is defined as the plan, Structure and Strategy of investigation conceived as to obtain answers to research question. The plain is the overall program of research. The Structure of research is, the outline the scheme, and paradigm of the operations of the data. 

Any type of research is a systematic progress. It requires a considerable planning in advanced. The plan should include the exact sequence of the research activities, data collection techniques, etc. it is important to formulate a strategy of data collection.

Research design will include the exact sequence of the research activities, data collection techniques, etc. it is important to formulate a strategy of data collection. The design adopted is primarily of descriptive type with support from exploration of literature, websites, Case studies and opinions of some resource persons.
Descriptive Research Design

Descriptive Research type of research is used to portray the characteristics and determine the frequency of occurrence of a rural consumer at retail store in Ahmednagar District. The descriptive type research design is adopted, with support from exploration of literature, websites, Case studies and opinions of some resource persons. Exploratory Research type of research is undertaken to dig out the information as a secondary data. Exploration is done at very early stage of the research work to study of Rural Marketing Mix and to identify rural consumer attributes.

The objective of “To study of Rural Marketing Mix with respect to essential commodities Ahmednagar District” and examining attributes, factors of buying decision making, consumers market awareness and consumption pattern required descriptive research technique and hence used to collect the primary data. In this design a number of family households are chosen and same set of questions are asked to them.

Exploratory Research Design

This type of research is undertaken to dig out the information as a secondary data. Exploration is done at very early stage of the research work to identify rural consumer behavior, characteristics attributes, to formulate the objectives of this study and to identify methods of undertaking this study.

a. Websites of the magazine ‘Consumer behaviour’ is explored, to locate information on (the factors that determines the buying decision making of rural consumers. and evaluate consumer awareness in rural market)
b. Various Journals and Literatures on Marketing Research are studied, to locate suitable marketing research techniques.
c. Opinions of some resource persons from Business, Industries and academics are sought on marketing strategies for rural marketing. So that suggestive and recommended provide guidelines for planning rural marketing. And to study the reasons changes in buying

2.5.2 Data Collection Method

The task of data collection begins after a research problem has been defined and research design chocked out. While deciding about the method of data collection to be used for the study, the researcher should keep in mind two types of data viz. primary and secondary.
The data collection methodology in this study consisted of

1. **Literature review**  To trace the evolution of the theories of marketing mix and rural marketing, in order to define the framework within which this construct has been studied, and also to establish hypothesis. (This has been discussed latter in Chapter 3)

2. **Sources of Data**  To obtain information for study, information has been collected from the various sources that are -

**A. Primary Data Sources**

The primary data are those which are collected afresh and for the first time, and thus happen to be original in character. Major sources of primary data include the respondents’ Family household in rural villages in Ahmednagar District and Retailers in rural villages in Ahmednagar District. There are various methods of collecting primary data; particularly for this study observation method and questionnaire survey is selected.

**Observation method**

The observation method is the most commonly used method specifically in studies related to behavioral sciences. As one of the objectives of the study is to study the attributes of rural consumer; observations of the rural respondent and rural retailer are also considered. Observations becomes a scientific tool and method of data collection for the researcher, when it serves a formulated research purposes, is systematically planned and recorded and is subjected to checks and d controls on validity and reliability. Under the observation method, the information is sought by way of investigators own direct observation without asking from the respondent.

**Questionnaire method**

After the selection of villages and households the task of preparing questionnaire was undertaken. Two surveys were conducted; one was of Family household in rural villages other of Village Retailers. Two separate questionnaires were prepared and pre tested. While preparing the final questionnaire utmost precaution was taken to make it simple and easily understandable. After understanding difficulty in communicating questions in questionnaire in English language, questionnaire were prepared in local language i.e. Marathi, so that respondents would not find any difficulty in answering questions in clear cut terms. In order to make the questionnaire effective and to ensure
quality to replies received, researcher had paid attention to the question sequence in preparing questionnaire. The question sequence must be clear and smooth moving, meaning thereby that the relation of one question to another should be readily apparent to the respondent, with questions that are easier to answer being put in the beginning. Both the questionnaires were divided into different sections. (Sample questionnaire is attached in Annexure no. 2.1 at the end of this chapter)

The outline of the questionnaires can be explained as under

**a. Questionnaire for Rural Family Household survey**  It is divided into following sections as

1. Identification of Respondents
2. Rural Market Information and market awareness
3. Advertisement Effectiveness
4. Purchase behaviour of essential commodities
5. Fashion attitude
6. Media Habit
7. Retail Marketing
8. Marketing mix

**b. Questionnaire for Village Retailers survey**  It is divided into following sections as

1. Identification of Respondents
2. Rural consumer and market information
3. Purchase behaviour of rural consumer.
4. Marketing mix offering

These structured questionnaires are simple to administer and relatively inexpensive to analyse. The provision of alternative replies, at times, helped to understand meaning of question clearly. Questionnaires consist of printed questions in a definite order on a form or set of forms. Questionnaires has a number of one-off questions (with 'yes' or 'no' answers) are known as closed questions and are acceptable to include in your questionnaire as long as they balance with the number of closed questions those that offer a short or multiple choice answer. The other types of questions that can be categorized are direct and indirect questions and will overlap with those above. Direct questions are those that the interviewee will answer with their own personal behaviour.
and indirect questions will be answered with the interviewee's opinions of other people's behaviour.

There are several types of questionnaire and each is designed to explore different aspects or elicit different responses. Some of the more common include a) Dichotomous Multiple choice, b) Importance, c) Bipolar, d) Likert e) Rating scale 1 - 5 f) Buying propensity. These can be used in any combination as long as the questionnaire is not too long and it is focused. In the examples below from the questionnaire prepared by researcher; the data is illustrative.

**Dichotomous**

This is a fairly typical basic type of question, not too intrusive and merely asks you to answer yes or no. As such it cannot assess the degree of feelings in between the poles.

**Multiple choices**

This is a question offering three or more answers - and allows a greater breadth of response. In this type of question the respondent is asked to rate the importance of an issue to them on a scale of 1 to 10.

**Bipolar**

The question asks for a response to be marked between two opposite ends of the scale.

**Likert**

This question examines how strongly the respondent agrees with a statement and can help assess the feelings of customers towards issues.

**Rating scale**

This question type rates the replies in terms of a scale from e.g. poor to first class. As with all these types of questions it is sometimes necessary to have an even number of boxes (e.g. 4) to avoid the middle of the road response commonly taken by those trying to avoid making a stand.

**Buying propensity**

This type of question is trying to elicit a customer's future intentions by asking whether they might buy a product and can help assess the needs and likely take up of a
new product if developed. Care needs to be taken with these questions as they may reflect wants rather than needs.

All of the above are quantitative type questions. What researcher had asked was for a response within pre-defined parameters that allows input into spreadsheets and hard analysis.

Although this facilitates the input into data analysis sheets and subsequent number crunching - the respondent is not allowed to say what they think. They can only answer the question by marking the pre-designated boxes. This is of course of immense use - especially if the questionnaire has been well thought through and piloted. Sadly this is often not the case and many are rather poor! As a result you do not get the qualifying comment that can often express her real feelings.

Qualitative questions can allow more freedom for answers but are much harder to analyse as each respondent will use her own words. Often the question will be couched along the lines of. This has the advantage that the respondent can say what she likes, which can yield very interesting information that might not have been thought of at design phase; but on the other side, that she can also respond in an unlimited and often unconstructive manner, making analysis much harder.

Whichever question types are used they must always be designed with the express intention of i. inconveniencing the customer as little as possible; ii. Being aimed at an homogeneous segment; and iii. having been designed to elicit specific information that supports your marketing initiative.

(Sample questionnaire is attached in Annexure no. 10.1 and 10.2)

B. Secondary Data Sources

Secondary data are that which have already been collected by someone else and which has been passed through the statistical process. Secondary data is either published or not published. Published data comprises of a. various publication of the central, state and local governments, b. various publications of foreign governments or international bodies and their subsidiary organizations, c. technical and trade journals, d. books, magazines, newspaper, e. reports and publication of various associations connected with business and industry, banks, stock exchange etc., f. Reports prepared by research scholars, universities, economists etc., g. Public records and statistics, historical
documents and other sources of published information, h. Internet, etc.; which was helpful for initial planning of the sample. (All references of secondary data are in thesis mentioned time to time)

2.5.3 Sample Design

A complete enumeration of all the items in the ‘population’ is known as a census inquiry. It is presumed that in such an inquiry when all the items are covered no element of chance is left and highest accuracy is obtained. But in practice it may not be true and possible. Even the slightest element of bias in such an inquiry will get larger and larger as the number of observations increases. Moreover, there is no way of checking the element of bias or use of sample checks. Besides, this type of inquiry involves a great deal of time, money and energy. To overcome this issue few items from the universe are selected, that is technically called as sample.

The study was conducted in Ahmednagar District of Maharashtra State. The word Maharashtra, the land of the Marathi speaking people, appears to be derived from Maharashtri, an old form of Prakrit. Maharashtra located in the north center of Peninsular India, with a command of the Arabian Sea through its port of Mumbai, Maharashtra has a remarkable physical homogeneity, enforced by its underlying geology. Ahmednagar district is ‘population’ or ‘universe’ for this study. The study is concentrating on rural market so sample rural villages; rural households and rural retailers in it are to be selected.

2.5.3. a. Selection of Target rural villages

Selection of target area is important stage in research process was to select a wherein the study would be conducted. It was decided to select one district from the State of Maharashtra and for this purpose the following criteria were adopted

I. It should be rural district,

II. It should not be too advanced or too backward district.

Based on the above criteria it was decided to select Ahmednagar District for the purpose of study. According to available statistics as given in Table 5.6 Population as per census 2001, 80.34% of population residing in rural area of district. As the same time, statistics available in Industries (2003), the district has barely 2.22 percent of the total working factories. This implies that the district is neither industrially too advanced like
Pune and Thane district of Maharashtra or too backward like Chandrapur and Gadchiroli district in the State. It was therefore, thought that Ahmednagar district provides an ideal situation for the study and hence this choice. Ahmednagar district has fourteen tahasils, as pointed out earlier, one of the objectives of the study was to study rural consumer attributes, it is necessary to select only such tahasil which have rural places in their jurisdiction. Out of fourteen tahasil all tahasil satisfy these conditions. But in case of newly formed Rahata tahasil, it was found that all villages in the tahasil were in the radius of 20 to 22 kilometers from Rahata tahasil place, adjacent tahasil or sugar factory. So, it was felt that the comparison between village near town and village away from town may not be possible. Till as exceptional case tahasil Rahata is considered for survey. Naturally all the fourteen tahasils, i.e. Ahmednagar, Akole, Jamkhed, Karjat, Kopargaon, Nevasa, Parner, Pathardi, Rahata, Rahuri, Sangamner, Shevgaon, Shrigonda and Shrirampur were selected for the study.

In latter stage it was necessary to select villages from the above tahasils. In selecting villages the following norms were

I. Village Population

With a view to selecting representative villages, neither big village or nor a very small village were selected. Therefore, villages having population size between 1000 and 4900 were considered for selection.

II. Nearness and Distantness from Tahasil Headquarters

According to population census of 2001, including tahasil headquarters Ahmednagar, Kopargaon, Nevasa, Rahata, Rahuri, Sangamner, and Shrirampur nagarpalika and Municipal Corporation; there are eighteen towns. The selection of the five villages from each tahasil was made in such a manner that two villages should be near town while the other village should be away from town. The distance of nearby village was supposed to be less than five kilometers; whereas the other villages (away from town) were the distance of more than twenty kilometers from the respective headquarters. More specifically, it can be said that the distance from tahasil headquarters is considered the base for selecting five villages from each tahasil. Such nearness and farness of rural villages from town was considered very useful to observe the impact of urban proximity.
on consumption pattern of rural household. Accordingly seventy villages were selected. (Tahasil wise rural villages selected for survey is attached in Annexure 10.3)

III. Uniformity in other amenities

In order to eliminate impact of other facilities and amenities on consumption pattern and behavior villages having similar facilities were chosen. These facilities and amenities include drinking water, education, medical facilities, postal services and transport facilities. Table of annexure no. 2.1 summarizes the basic characteristics of selected villages. Annexure no. 2.1 Table shows that all villages avail themselves of minimum basic amenities as drinking water, education, medical facilities, postal, transport and communication services. The percentages of irrigation in these villages are more or less same. It means that except distance from town, villages from every district are equal in all respect.

2.5.3. b. Sample Frame

Random sampling method is used to select the households as well as rural retail stores in rural villages.

Non-probability Quota Sampling of the population is used as per the following process. A quota of 10 household respondents and 04 retailer respondents in rural village and 05 rural villages in every tahasil is selected. i. e. Total 700 rural household respondents and 280 rural retailer respondents are interviewed.

The entire process is depicted in the diagram given on subsequent page.
### Table No. 2.1 Process of sample selection

<table>
<thead>
<tr>
<th>Selection</th>
<th>Criteria or Norms for selection</th>
<th>Sample Finalized</th>
</tr>
</thead>
<tbody>
<tr>
<td>Selection of District</td>
<td>i. Rural population of district.</td>
<td>Ahmednagar District</td>
</tr>
<tr>
<td></td>
<td>ii. Industrialization of District.</td>
<td></td>
</tr>
<tr>
<td>Selection of Tahasil</td>
<td>i. Tahasil with town as a headquarters.</td>
<td>Ahmednagar, Akole, Jamkhed, Karjat, Kopargaon, Nevasa, Parner, Pathardi, Rahata, Rahuri, Sangamner, Shevgaon, Shrigonda, Shrirampur</td>
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<tr>
<td></td>
<td>ii. Tahasil with village at the distance more than 20 kms. From Hqrs.</td>
<td></td>
</tr>
<tr>
<td>Selection of Villages in Tahasils</td>
<td>i. Population size of village ranging from 1000-4999.</td>
<td>Tahasil wise rural villages selected for survey is attached in Annexure no. – Total villages 70 Nos.</td>
</tr>
<tr>
<td></td>
<td>ii. Urban Proximity.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>iii. Equal facilities and amenities.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>iv. Quota Sampling of five villages in a Tahasil.</td>
<td></td>
</tr>
<tr>
<td>Selection of Households from selected villages</td>
<td>i. Quota Sampling of ten rural households in a village.</td>
<td>Rural villages 70 Nos. X 10 rural households a village = 700 Nos.</td>
</tr>
<tr>
<td>Selection of rural retail store from selected villages</td>
<td>i. Quota Sampling of four rural retail stores in a village.</td>
<td>Rural villages 70 Nos. X 4 rural retail store a village = 280 Nos.</td>
</tr>
</tbody>
</table>
2.5.4 Selection of Commodity Group

Selection of commodities was major work in the research process. It is guided by the primary objective of the research, i.e. to study of Rural Marketing Mix with respect to essential commodities in Ahmednagar District. As consumption basket of any household includes a large number of items, which can be classified as food grains non-food items. Though food grains dominate consumption expenditure, food grain consumption is to a large extent influence by tradition and local availability. Economic development may not have significant impact on food grain consumption of rural people. Moreover, most of the villagers consume food grains and related item produces by item selves, they do not appear in their consumption expenditure.

It was therefore, decided to concentrate on manufactured essential commodities. Consumption of such goods, it is believed, is facilitates economic progress. It would be in tune with the research objective to identify whether these goods have reached rural market and whether their consumption is increasing. Mainly for these reasons manufactured essential commodities have been selected for the study, which include in addition to items of daily consumption, clothing goods also.

This would also help in examining whether rural markets still represent markets for essential commodities only or some non-traditional items have found place in rural market.

Based on this following essential commodity group were selected for the study.

a. **Packed food articles**
   Biscuits, Vegetables oil, Milk, Chilly powder and Pickle.

b. **Hygienic commodity group**
   Toilet Soap, Washing Soap / Detergent, Tooth paste/powder, mosquito repellant and Hair oil.

c. **Cosmetic Commodity group**
   Face powder, snow/ cream (beauty, cold winter, summer), Nail polish, Lip stick and Kajal.
2.5.5. Method for Conducting Survey

From a market research point of view a few important locations in a village are the retail shop, tea stall, open ground and chavadi because they are caste-neutral places of the village, they are easy to locate, and it is easier to find people here. Villagers generally gather here to discuss various issues. So initiating a conversation is easy.

Retail Shops/STD Booths

The retailer is well informed about the market and he can understand the objectives of the research. It is very easy to develop a rapport with the retailer One cold drink could do the job and buy the researcher the time to initiate a talk with him. He is generally well informed about the village and can be a good source of information about the village. A wide variety of people visit his shop since; it is a one-stop shop for the daily need items including vegetables and stationery (especially in small villages). It is the best place to locate women who may not be otherwise found at tea stalls, open grounds or chavadi. He can use his influence to request the customers to respond.

Tea Stalls

Tea stall is the one place where you can find people (especially middle aged and old) at any time of the day. The researcher can drink tea; this will give him time with the villagers. He can gradually build up the conversation and involve the villagers in the interview.

Playgrounds

It is the best place to locate youth during morning and evening hours. Many of them may be busy playing but there are always some who have gathered to spend time or just watch the games. They can be easily targeted for the interview.

Chavadies

This is a very good place to find middle aged and old people in the evenings. It is an important village gathering point where most of the influential people meet. A marketing researcher was very careful in understanding the psyche of rural customer.
2.5.6. Reference Period

The fieldwork of “A Study of Rural Marketing Mix with respect to essential Commodities in Ahmednagar District” started from last week of January, 2009 and continued till end of July, 2009. i.e. January 23, 2009 to July 22, 2009. An equal number of sample villages in a tahasil were selected for survey.

2.5.7. Method of analysis and Statistical Tools Used

All completed questionnaires were scrutinized carefully; the list of required tables and output was prepared. After thorough discussion with computer experts, programme for computerization was prepared and finally all data were computerized with great precaution to avoid errors in computerization. After getting data computerized they were presented in different tables with the help of SPSS software. Ratios are calculated. The statistical tools like tabulation, average, percentage are used for analyzing the data.

2.5.8. Limitations of research methodology

Every possible effort has been made by the researcher to complete the present research work in all its aspects but because of number of uncontrollable factors the research has following limitations.

1. The study is proposed in Ahmednagar district only; result and conclusion may not be same in other districts.
2. The study is confined to manufactured essential goods; results may not be fit suitable for other commodity group.
3. Outcomes and results can’t applicable with other rural base environment.

2.5. 9. Organization of the Thesis

The thesis in hand is organized in the following chapters

Chapter One – Introduction

This introductory chapter gives idea about aspect of the study. It also discusses the need and justification to select the study.

Chapter Two- Research Methodology

This chapter explains the scientific research procedures followed to obtain the required information.
Chapter Three - Review of Literature
This chapter develops the idea about different theoretical concepts used in the study.

Chapter Four - Research Study conducted on the Topic
This chapter clears the concept about rural consumer psychology and market with help of various studies done on the topic.

Chapter Five - Profile of Target Area
The location, demography, culture and socio-economic factors of Nation, Maharashtra State, Ahmednagar district and selected villages are discussed in this chapter.

Chapter Six - Hypothesis Testing
Hypothesis testing helps the researcher to clarify the logics and concept with help of statistical methods.

Chapter Seven - Data Interpretation and Analysis
This chapter depicts data interpretation and analysis of questionnaire survey of rural household and rural retailers.

Chapter Eight - Findings and Observations
This chapter is the gist of the research study. It presents finding and observation.

Chapter Nine - Conclusions and Suggestions
This chapter presents conclusion and suggestion to solve the problems and issues of rural markets.

Chapter Ten - Annexure
Questionnaire used for survey of rural household and rural retailer; Tahasil wise list of Villages selected for survey with their characteristics for the purpose of survey is attached in annexure.
2.5.10 Concepts and Terms

Different terms are used to explain the subject under research. Some important terms are discussed below.

1. Urban and Rural Areas in Ahmednagar District

According to population census of 2001, all places with municipal bureaus and non-municipal area of sugar factories at Shivajinagar, Pravaranagar, Amrutnagar, Bhenda Factory, Ashoknagar, Gautamnagar, Sangivaninagar and Ahmednagar M.I.D.C. are considered as urban areas; while the rest of the Ahmednagar is treated as the rural area.

2. Urban Proximity of Village

A village within the periphery of five kilometers from town, tahsil headquarters, is taken as village near town. The village outside the radius of twenty kilometers From town is taken as the village away from town.

3. Household

An household is defined as group of person related to one another, who live together and share a common kitchen. A single person maintaining a kitchen is also considered as a household.

4. Head of Household

A person responsible for taking financial decisions for himself and on behalf of his family member (member of household) and managing the affairs of his family is treated as the head or ‘Karta’ of the household.

5. Age of the Head of the Household

The age of the household is taken as number of completed years at the time of survey.
6. **Educational Level**

   To determine education level of head and member of these household, four major categories are formed as under

   a. **Illiterate** - No education, i.e., unable to read and write.

   b. **Primary Education** - Upon vernacular i.e., primary school.

   c. **Secondary Education** - Upon secondary school certificate.

   d. **Higher Education** - Beyond secondary school certificate including technical and Professional education.

7. **Occupation of the Head**

   The occupation of head of the household is recorded to be that one from which he derives more than fifty percent of his annual income. For the purpose of survey four major occupations have been considered i) farming, ii) agricultural wages, iii) business and iv) service.

8. **Agricultural labour**

   A person was considered as engaged as agricultural labour, if he/she followed one or more of the following agricultural occupations in the capacity of a wage paid manual labour, whether paid in cash or kind or both (i) farming, (ii) dairy farming, (iii) production of any horticultural commodity or (iv) raising of livestock, bees or poultry.

9. **Wage and salary earnings**

   Information on wage and salary earnings was collected separately for each of the wage/salaried work recorded for a person in a day. Here, earnings refer to the wage/salary income. The wage/ salary received or receivable may be in cash or kind or partly in cash and partly in kind.
10. Consumption Expenditure

It means expenditure uncured on purchase of that particular commodity group. Expenditure on single item of that commodity group is treated as expenditure on that commodity group. Expenditure is calculated by multiplying quality purchased by price in respective period, i.e.

\[ \text{Consumption Expenditure} = \text{Quality} \times \text{Price} \]
\[ = q \times q \]
\[ = pq \]

The sum total of monthly expenditure gives yearly expenditure on that particular commodity group.

2.6 Reference

*2 F. Erlanger- Research Methodology, page 64