Chapter 3

RESEARCH METHODOLOGY

3.1.1. Introduction

This chapter deals with the research methodology used in this study. It explains the objectives of the research and the appropriate methodology used to achieve those objectives.

The objective of this study was to understand the impact of marketing communications media in reaching out to the poor rural consumers in India with special reference to Uttar Pradesh (U.P), the Northern state in India. Firstly, it involved a thorough study on the impact of mass marketing communications media in reaching out to the poor rural consumers in Uttar Pradesh. This was done by taking two of the most relevant mass media available to consumers in U.P- a.) Print media and b.) television media. A study on the impact of print media in reaching out to the poor rural consumers was carried out by identifying few product categories each from FMCG and consumer durables and also telecommunications brands that were commonly in use among the poor consumers in these rural areas of the country.

At the outset, advertisements for brands of various product categories across different sectors or industries that occurred on local television channels in the rural regions of U.P were identified. The frequently occurring brands of products were noted down. This was later used in designing the instrument for data collection. Similarly local newspapers were scanned to identify the advertisements of various brands of products frequently featuring there. This information again was used in the instrument design.

Similarly the most commonly used traditional marketing communication media vehicles in rural U.P were identified and later used in this study to understand their impact.
The various product categories identified through the above measures in FMCG sector were: bathing bars/soap, shampoo, hair oil, biscuits, talcum powder, and detergent powder. The product categories chosen in consumer durables were bicycles, wrist watches, television-sets and pressure cookers.

**Reasons for choosing specific products**

The basic products or the core products are those that focus on the purpose for which they are intended (Kotler, 2013). Poor rural consumers prefer such products which serve the main purpose for which the products were bought. For example, from a shampoo brand, the poor rural consumer would want it to serve the basic purpose of cleaning their hair for which the product was intended. So the basic products under the FMCG category that were considered for this study are soap, shampoo, detergent, talcum powder, hair oil, biscuits, toothpaste, tea

Other important criteria were that the advertisements of these products should have occurred recently in TV and Print media and that they shouldn’t be gender specific. The reason for the former was that the names of the brands would be fresh in the memories of the customers who were exposed to the advertisements in the above two media. To check whether the advertisements appeared recently, the ones appearing in TV and print media were looked for, for two weeks and noted down, prior to collecting data.

To study the effects of an advertising campaign, a similar approach was used by James E Haefner in 1975 in a study titled “Television Advertising: a Study on Its Applicability for Promoting the Disadvantaged to Employers”. To understand the effectiveness of an advertisement campaign, it was shown to the respondents for six weeks and then responses were obtained.

The reason for taking products that were gender non-specific is because this study was not a gender specific one, so product categories used by both genders were considered.
The product categories in the FMCG sector that most of the poor rural consumers used are: Toothpaste, soap, shampoo, hair oil, talcum powder, detergent powder, cooking oil, tea, biscuits. (Badugu et al, 2011; YS Rauthan - 2014). The use of these products by poor rural consumers was reflected in the article “Marketing to rural India- Making ends meet”; published by Wharton, The University of Pennsylvania, (2007).

The “Rural Marketing” book by UC Mathur (2008) page 316, mentions that rural markets account for half the total market for consumer durables like TV sets, Bi-cycles, fans, pressure cookers, and FMCG products like tea, soap,

For the poor rural consumers, a consumer durable would be those items that they do not buy on a regular or repetitive basis and it should last for at least 2 to 3 years (Kahsyap, 2012). The rural poor use wristwatches and bi-cycles; in fact, there is even a craze for these items. 75% of the all India sales of these items was from rural areas (Suresh and Menon, 2008). During marriages in rural U.P wrist watches and bi-cycles are common gift items given to the groom in the Tilak ceremony (KT Hong - 2011).

TV sets and pressure cookers are also very much in use in rural household particularly those ones, when a family member has gone out to work in urban regions as labourers or small business people like fruit sellers, vegetable sellers etc ((Jetley, 1987; Srivastav, 1999; Paris et al., 2005; Korra, 2011; Rodgers and Rodgers, 2011). According to NSSO (2007-08 report on migration particulars in India), 29% rural male migrate for employment related reasons. These people were exposed to modern amenities like TV and Pressure cookers and sent remittances to improve their living condition in villages. (Shukla, Mishra, & Tripathi, 2006).

So, for studying the impact of mass media in the consumer durable category, the above mentioned four product categories viz. TV sets, bi-cycles, wrist watches and pressure cookers. There are other product categories as well under consumer durables like fans, mixer-grinders and other electronic items (Ramkishen,2002) but they were left out because they were not in use among the rural poor due to poor supply of electricity.
According to the Census 2011 data, a mobile handset, and therefore SIM card, was used in 2 of every 3 rural homes. So this was selected in the study.

The advertisements for all the above products appeared frequently on both TV and print media and this was examined by accessing these media and noting down the ads that appeared in them, two weeks prior to data collection. All these items were commonly in use in rural households (Mathur, 2008, kashyap & Raut, 2005). Another important criterion while selecting the product categories was that it shouldn’t be gender specific i.e. both men and women should be using such categories of products because this study was not a gender-specific study.

Secondly, in addition to the above, the study also focused on the impact of non-conventional media, also known as traditional media, in reaching out to the poor rural consumers in U.P. For this purpose three important traditional media like wall paintings, hoardings and audio-visual media were considered. Three of the ten villages chosen for the study were taken into account for collecting data for studying the impact of traditional media in reaching out to the poor rural consumers. The names of the villages were Bhatwalia, Kasia and Amauli. The traditional media wall paintings were used in the village Bhatwalia. Hoardings were used in the village Kasia and in the village Amauli audio-visual media was used. Two brands were selected for this purpose from two different product categories- one was a tea brand and the other was a brand for cooking oil. The selection of these two product categories was based on their frequent use in poor rural households. The entire study on the impact of traditional media was done in 3 steps. In the first step wall paintings for tea brand was put up in the village Bhatwalia and also wall painting for cooking oil was put up in Bhatwalia. This was done simultaneously. In Uttar Pradesh, the main source of irrigation is the canal. The wall painting of the Brooke Bond Tea brand was pasted on a small bridge over the canal in the village Bhatwalia. The wall painting for the cooking oil brand Bail Kolhu as placed nearby. The wall paintings were allowed to stay for a week. At the end of one week, data was collected from respondents of Bhatwalia by means of another survey to gauge the impact of wall painting for tea brand in Bhatwalia and wall painting for cooking oil in Bhatwalia.
In step 2, hoarding for tea brand was put up in village Kasia and also hoarding for cooking oil was put up in Kasia. The two hoardings were placed at different places near a temple in the village. This was done simultaneously and the hoardings were allowed to stay for a week. At the end of one week, data was collected from respondents of Kasia by means of another survey to gauge the impact of hoarding for tea brand and for cooking oil brand in Kasia.

In step 3, audio visual traditional media for tea brand and for cooking oil brand were shown to the villagers of Amauli. The two presentations were shown with a 20 minutes gap in between. At the end of each audio visual presentation data was collected from respondents.

Thirdly, the study also focused on the impact of new media in reaching out to the poor rural consumers in Uttar Pradesh. Data was collected for this purpose by means of an experiment. The views of the respondents were taken both before the experiment and after the experiment to identify any difference in their opinion due to the impact of the new marketing communication media. The study was done in one of the villages under Tamkuhi Raj block, at a marriage event in a farmer’s house. The event took place during the period of visit to the area for data collection. It provided a splendid opportunity to carry out the experiment. Any other similar kind of event would also have served the purpose.

Fourthly, the study also focused on understanding and comparing the effectiveness of the three marketing communication media namely traditional, mass an new media in reaching out to the poor rural consumers in U.P. Data was collected by means of a structured interview and the responses were obtained on a five-point Likert scale. An analysis of the data obtained from this would help in understanding which of the three media would be better at reaching out to the poor rural consumers in Uttar Pradesh.

To make the research methodology robust, so that errors in data collection is minimized, different methodologies were chosen to collect data for this study, namely, surveys, experiment and interviews.
This chapter on research methodology will describe the sample for the study, instrument design, data collection and data analysis techniques used in the study.

3.1.2. Research Design

The descriptive research technique was used in this study owing to the nature of the research objective. Descriptive research is also referred to as statistical research. It is used to describe the data obtained, and the features and characteristics of the phenomenon being taken up for the study. Answers to questions like who, what when how and where can be obtained by means of descriptive research. Due to this fact, descriptive research design was found suitable for this study aimed at understanding the impact of marketing communications media in reaching out to the poor rural consumers in India, with emphasis being laid on the northern state in India, Uttar Pradesh.

3.1.3. Triangulation

According to Mills (2003), the desire to use multiple sources of data is referred to as Triangulation. Triangulation ensures entirety and confirmation of research findings. It also supports the validity with the help of one method completing and overcoming the margins of error of the other. Burns, (2000) stated that triangulation improves the internal validity. There are four types of triangulation- data triangulation, investigator triangulation, theory triangulation and methodological triangulation. In this study methodological triangulation has been used by means of three data collection instruments i.e. questionnaires, experiment and structured close-ended interview. All these instruments were used to measure the same phenomenon, i.e. the impact of marketing communication media in reaching out to the poor rural consumers in U.P.

3.1.4. Instrumentation

To make the data collection as error free and flawless as possible, a combination of different methods of data collection was used. They were:

a.) two surveys to study the impact of mass marketing communication media and traditional marketing communications media respectively
b.) experiment to study the impact of new media in reaching out to the poor rural consumers in Uttar Pradesh

c.) Interviews to make a comparative analysis of the impact of the above three kinds of media viz. mass marketing communications media, traditional marketing communications media and new marketing communications media in reaching out to the poor rural consumers in U.P.

The most widely used method of data collection is the survey method, mainly in the discipline of behavioural sciences. Interviews are thought to be suitable for collecting qualitative data. In this study the interest was in understanding the perspectives of the participants or respondents on a particular issue pertaining to the research problem.

The Experiment method of primary data collection is the most accurate, systematic and useful technique in research mainly in the discipline of social sciences. Through the employment of control and stimulus groups, this method allows for the maximum control over the irrelevant/extraneous variables. It seems that the experiment method is emulated by all of the remaining forms of data collection.

Some major requirements of the experiment method are:

-There should be absence of bias in selection of respondents. That is, there should be an equal chance for each respondent to be in either group. So there has to be an element of randomness in the process to control extraneous variables.

-The independent variable should be manipulated by systematically including or excluding it to the different groups.

-Data for the measurement of the dependent variable both in the presence and absence of the independent variable has to be noted.

-Apart from the experimental manipulation, the influence of any other extraneous variable should be excluded.
Therefore, the above three methods of data collection, viz. surveys, experiment and interviews had been employed to extract appropriate information for the study and accurate analysis of the data obtained for it.

A questionnaire was carefully developed so as to appropriately use the survey method of data collection. Considering the fact that majority of the respondents were illiterate or lowly educated, the questionnaire was kept as short and simple as possible so as to ensure easy comprehension by the respondents. Keeping the convenience of the respondents in mind, the questions were designed in such a way that the respondents were not required to write much in it but rather just tick the correct option applicable to them. For this a structured closed-ended questionnaire was used. Another important thing to be noted here is that the rural consumer could not understand and appreciate complicated issues. They had to be told in very simple and easy terms. So, the questionnaire was designed with utmost clarity and it was very short, precise and to-the-point to suit the poor rural respondents.

A field study was initiated in 2012 in Gorakhpur and Kushinagar districts of Uttar Pradesh to understand the impact of mass marketing communications media in reaching out to the rural poor. The impact of mass media was studied on the basis of the relationship between exposure to a marketing communication media and the preference for brands. The filled-in questionnaires were divided into 3 categories- one in which the respondents had ticked that they had access to print media; second in which the respondents had ticked that they had access to television media and third in which the respondents did not have access to any of the two conventional media i.e. print and television.

Apart from seeking the demographic details of the respondents like age, income, type of house, education, occupation etc; the questionnaire consisted of just a few questions.

The instrument consisted of three components-a.) Studying impact on FMCG brands, b.) Studying impact on consumer durables brands c.) studying the impact on telecommunication brands.
The respondents were asked whether they were exposed to mass marketing communication media. Then they were asked to state their preference for FMCG brands by ticking the appropriate option provided in the questionnaire for bathing bars, shampoos, hair oil, biscuits, detergent powder, and talcum powder.

Similarly to check their preference for consumer durables brands they were asked to tick the correct option of brands from the following product categories- bicycles, Television sets, wrist watches and pressure cookers. In the same manner, they were asked to tick their preference for brands from among the options provided for the telecommunication services.

Although there are various ways of measuring and estimating the impact of marketing communications media like increase in sales volume, level of awareness about brands communicated to the target audience etc., for this study the impact of marketing communications media in reaching out to the poor rural consumers in Uttar Pradesh was evaluated on the basis of the relationship between exposure to media and the preference of the poor rural consumers for various brand of different product categories across different sectors.

A separate set of questionnaire was prepared to study the impact of traditional marketing communications media in reaching out to the poor consumers in rural areas of Uttar Pradesh. The aim was to employ three of the traditional media viz. wall paintings, hoardings and audio-visual media and study their impact. One traditional media was administered in each of the three villages chosen out of the total of ten villages to understand their impact in reaching out to the poor consumers in rural regions of Uttar Pradesh. The names of the three villages chosen for this purpose were: Bhatwalia, Kasia and Amauli. Two brands were advertised through these three traditional media a.) Brooke Bond Taaza Tea and b.) Bail Kolu cooking oil.
In the village Bhatwalia, the above two brands were advertised through wall paintings. In the village Amauli, the two selected brands were advertised through audio-visuals shown on a laptop. In the village Kasia, hoardings were employed to communicate about the two brands.

Contact was established with a local school teacher in each of these three villages who helped immensely in the execution of two of these three exercises namely, wall paintings and hoardings. The school teachers took help from their students who helped greatly in organizing these activities.

The impact of traditional media was measured on the basis of the relationship between the preference for brands of tea and cooking oil and the poor rural consumers’ exposure to a particular traditional media (wall paintings, hoardings and audio-visual media).

Experiment method was employed to study the analysis of the impact of new media in reaching out to the poor rural consumers in Uttar Pradesh. Data was collected by means of an experiment. The experiment consisted of inserting an audio clipping of a commercial for a toothpaste brand, Babool, into the audio of a hit song from an album in the local language, that is, in Bhojpuri. the audio clipping of the Babool toothpaste advertisement of 37 seconds was inserted at two separate points in the above song which was of 5 minutes duration. Any difference in their opinion was used as a measure of the impact of this new media in reaching out to the poor rural consumers in Uttar Pradesh. The third method of data collection, the interviews, was conducted as they are one of the most important sources of information in research. The kind of interview followed in this research was a structured one. The interview comprised of specific questions in a specific order. This kind of interview was found suitable in this study as it involved interviewing respondents who were almost illiterate and, not exposed to many of the communication media used by marketers ever in their lives. So, interviewing them helped in gathering their opinions and views relevant to the objectives of this research study. The structured interview consisted of five questions in all. Except the first one, all the other four items were placed on a five point likert scale. The first question asked the respondents whether they were exposed to any marketing communication media. Further
interviewing was discontinued with those who were not exposed to any marketing communication media.

The Likert scale responses for the four items ranged from strongly agree to strongly disagree. The first question stated that mass media is better than traditional media in reaching out to the poor rural consumers in U.P. The second statement stated that mass media is better than new media and the third statement stated that new media was better than traditional media. The concept of new media was explained to them. The purpose of this was to understand which marketing communications media the respondents felt had better impact in reaching out to the target audience in rural parts of India. The statements in the structured interview were framed very carefully and in a conservative manner. It is but human nature to generally agree with statements. This is more applicable to the rural consumers who would not like to disagree with an idea unless they feel very strongly against it. So any slight disagreement in the statement meant strong views against it.

3.1.5. Testing the validity of the instrument

Jonathan, et al. (2005) defined validity as In this study, internal validity was obtained through Triangulation. Burns (2000) asserted that Content validity was ensured by consistency in the administration of the data collection instruments. All the data collection instruments - the two questionnaires, experiment and interviews were administered by the researcher. This was done to ensure the validity of the instruments used in the study.

The above definition meant that an instrument can be considered reliable if it gives the same results if it is replicated by another researcher. With respect to the present study, the reliability of the instrument is checked through whether all the respondents understood the items of the instrument in the same way. Therefore, the reliability for this study was achieved through the pilot study. Seliger and Shohamy (1989:187) opined that the designing many items in data collection increases the reliability. The questionnaire for mass media consisted of 11 items and for traditional media it consisted of 6 items measuring the same thing i.e. the impact of mass media and traditional media respectively. This in turn contributed to the reliability.
The use of Likert Scale for collecting data from the structured interview contributed to the reliability of the instrument because it is a widely used and reliable technique.

Sample size for the structured interview was 100. Of the 10 respondents 17 were not exposed to any marketing communications media. So they were excluded from further analysis. So the relevant data through the interviews were collected from a sample size of 83 respondents. The reason for downsizing the sample size was that the data was getting very repetitive and hence it was thought to be sufficient and exhaustive and no more new information seemed to be coming through interviewing more respondents.

The information sought from them was on what was effective as far as marketing communications media was concerned in reaching out to the rural poor consumers in their region and their responses were noted down in the space provided in the question-set prepared for collecting data from the structured interviews. These interviews provided information about the current scenario of the effectiveness of marketing communications media in terms of reaching out to the rural poor consumers in U.P.

3.1.6. The Pilot Study for questionnaires

Before administering the questionnaire to the stated number of respondents, a pilot study was conducted with 14 respondents for assessing the impact of mass media and 15 respondents for studying the impact of traditional media in reaching out to the poor rural consumers. These respondents were excluded from the main study. It was deemed necessary to conduct the pilot test to check the response time of the respondents, and also for including certain aspects that seemed important to make the instrument more precise and focused. Some aspects of the questionnaire that were problematic for the respondents to comprehend were excluding in the final questionnaire meant for the main study. Terms like FMCG, Consumer durables and Telecomm were found confusing and incomprehensible by the respondents. So these were removed from the questionnaire and it was made as simple as possible. The pilot study helped in improving the reliability and validity of the data.
3.1.7. The pilot study for interview

Before collecting data for the main study by means of structured interview, a small study was conducted with 10 respondents. Many of the unclear statements were rephrased and reworded to suit the respondents’ ability to understand them.

3.1.8. The Pilot study for experiment

A pilot study with 10 respondents was conducted for the audio advertisement experiment. The respondents were divided into two groups of 5 each. One group was exposed to the experiment while the other was not. Their responses were noted down separately.

The pilot study revealed that it was quite difficult to collect data than what it was thought earlier. Data collection took a lot of time and effort with majority of the respondents seeming hostile to answer the questionnaire. Most of them doubted the intentions for collecting information from them. Many of the respondents simply walked away. Some respondents even asked whether the data was being collected for the Govt. or private company. It required a lot of convincing to get them to respond to the questions.

3.1.9. Sampling

Data collection was done though three ways- survey, experiment and interviews.

**Simple Random Sampling Process**

Simple random sampling method was used in this study. Simple random sampling is a probability sampling technique in which every unit of the population has an equal and independent chance of being included in the sample. This study attempted to understand the impact of marketing communication media in reaching out to the poor rural consumers in U.P.

Sampling was done in two phases:
Stage 1

A list of the total number of districts in UP was obtained which stood at 71 according to the Census 2011. Of these, a total of 20 districts were found to be marked as backward districts where the government was currently implementing various schemes to uplift the life of the people there. These 20 districts formed the population for the study. Each of the 20 districts is known as a unit. Simple random sampling process was used to select a sample of 2 districts from this population of 20 districts.

According to simple random sampling method, there would an equal chance that each of the 20 districts had equal chance of being included in the sample. The desired sample size was 2

Steps in Simple random sampling Process

Simple random sample was created by the following steps:

1. Clearly defining the population
2. Deciding the sample size
3. listing the population
4. assigning numbers to each unit
5. generating random numbers
6. selecting the sample

1. **Clearly defining the population**: In this phase the population is the 71 districts in U.P, out of which 20 districts were marked as backward. As our interest was in all the 20 backward districts in U.P, so our sampling frame was all these 20 backward districts in U.P.
2. **Deciding the sample size:** Out of the total 20 backward districts, the sample size chosen was 2 districts. This sample size mirrored the limitation of time in collecting data from respondents and also the budget constraints.

3. **Listing the population:** To select a sample of 2 from the list of 20 backward districts, a list was prepared consisting of the names of all the 20 backward districts in U.P. the list is given below:

   1. Gorakhpur 2 Banda 3 Barabanki 4 Chitrakoot 5 Fatehpur 6 Azamgarh
   7 Hamirpur 8 Hardoi 9 Jalaun 10 Jaunpur 11 Kaushambi 12 Mahoba
   13 Lalitpur 14 Mirzapur 15 Kushinagar 16 Pratapgarh 17 Raebareli 18 Sitapur
   19 Sonbhadra 20 Unnao

4. **Assigning numbers:** Each unit is assigned a consecutive number from 1 to 20 as shown in step 3 above as the total population N=20 and sample

5. **Generating random numbers:** Random numbers between 1 and 20 were generated by the computer program in excel.

6. **Choosing the sample:** Finally, 2 districts were selected out of the 20 districts for carrying out the research study. The first two random numbers generated by the RANDBETWEEN function in excel were 1 and 15 meaning that the 1\textsuperscript{st} and 15\textsuperscript{th} districts from the population list shown above could be selected for comprising the sample of the study. The names of the districts at serial number 1 and 15 are Gorakhpur and Kushinagar respectively. So these two districts were selected for the study. The random numbers were as follows: 1,15,19,17,8,1,12,19,9,11,2,7,12,4,13,4,19,14,12,9,

**Stage 2**

Selecting Blocks under the two districts: the following step were followed to select 5 blocks by means of simple random sampling process

Gorakhpur had 19 blocks:
1.) the population is 19:

   Jungle Kaudia, Chargawa, Bhathat, Khorabar, Pipraich, Sardarnagar, Brahmpur, Sahjanwa, Pali, Piprauli, Sahjanwa, Khajni, Belghat, Campierganj, Bansgaon, Kauriram, Gagaha, Gola, Uruwa

2.) sample size is 5 block
3.) listing the population as shown above
4.) assigning numbers to each block
5.) generating random numbers between 1 and 19 by using excel
6.) selecting the sample as described earlier

Kushinagar had 14 blocks

The following steps were followed to select the sample blocks

1. The population is 14:

   khadda, Nebua Naurangia, Vishnupura, Padrauna, Captainganj, Motichak, Sukrauli, Hata, Kasia, Fazilnagar

2. Sample size is 5 block
3. Listing the population : the names of all the 14 districts were listed as shown above.
4. Assigning numbers to each block
5. Generating random numbers between 1 and 14 by using excel and selecting the sample as described earlier.

Stage 3
For selecting villages, the following steps were followed to select the sample blocks.

The block Bansgaon under Gorakhpur district, had 191 villages. Out of these, one village was picked by lottery method. In this method, all the villages under Bansgaon were assigned a unique number. The numbers were placed in a bowl and thoroughly mixed. Then one number was picked from the bowl in a blind folded manner. The village having the selected number was included in the sample.

For selecting villages from Kushinagar district, a similar approach was followed. One village from each of the five blocks was selected by means of the lottery method as described above. The details of the blocks and the villages are given below:

<table>
<thead>
<tr>
<th>Gorakhpur</th>
<th></th>
<th>Total Inhabited Villages</th>
<th>Village selected by SRS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sl.no</td>
<td>Block</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Bansgaon</td>
<td>191</td>
<td>Baliya</td>
</tr>
<tr>
<td>2</td>
<td>Chargawa</td>
<td>53</td>
<td>Amwa</td>
</tr>
<tr>
<td>3</td>
<td>Pipraich</td>
<td>86</td>
<td>Bela</td>
</tr>
<tr>
<td>4</td>
<td>Piprauli</td>
<td>121</td>
<td>Bharwal</td>
</tr>
<tr>
<td>5</td>
<td>Sahjanwa</td>
<td>144</td>
<td>Amauli</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Kushinagar</th>
<th></th>
<th>Total Inhabited Villages</th>
<th>Village selected by SRS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sl.no</td>
<td>Block</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Tamkuhi Raj</td>
<td>155</td>
<td>Khudura</td>
</tr>
<tr>
<td>2</td>
<td>Padrauna</td>
<td>174</td>
<td>Kasia</td>
</tr>
<tr>
<td>3</td>
<td>Hata</td>
<td>110</td>
<td>Pipra</td>
</tr>
<tr>
<td>4</td>
<td>Fazilnagar</td>
<td>122</td>
<td>Bhatwalia</td>
</tr>
<tr>
<td>5</td>
<td>Sukrauli</td>
<td>91</td>
<td>Bhagwanpur</td>
</tr>
</tbody>
</table>

**Stage 4**

Selecting households

<table>
<thead>
<tr>
<th>Gorakhpur</th>
<th></th>
<th>Total Inhabited Villages</th>
<th>Village selected by SRS</th>
<th>Total Households</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sl.no</td>
<td>Block</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Bansgaon</td>
<td>191</td>
<td>Baliya</td>
<td>136</td>
</tr>
<tr>
<td>2</td>
<td>Chargawa</td>
<td>53</td>
<td>Amwa</td>
<td>402</td>
</tr>
</tbody>
</table>

54
Out of these total households, the poor households were identified with the help of the village Pradhan. Members of these households who were above the age of 18 and who volunteered to participate were included in the sample for collecting responses.

**Defining the Sample frame used in the research**

The sample frame consists of the list from which sample is selected.

**Stage I Sample frame for districts**

20 backward districts in U.P

The list is as follows:

1. Gorakhpur  
2. Banda  
3. Barabanki  
4. Chitrakoot  
5. Fatehpur  
6. Azamgarh  
7. Hamirpur  
8. Hardoi  
9. Jalaun  
10. Jaunpur  
11. Kaushambi  
12. Mahoba  
13. Lalitpur  
14. Mirzapur  
15. Kushinagar  
16. Pratapgarh  
17. Raebareli  
18. Sitapur  
19. Sonbhadra  
20. Unnao

**Stage II Sample frame for Blocks under the sampled districts**
For blocks under Gorakhpur district, all the 19 blocks in Gorakhpur district formed the sample frame. They are:

Jungle Kaudia, Chargawa, Bhatth, Khorabar, Pipraich, Sardarnagar, Brahmpur, Sahjanwa, Pali, Piprauli, Sahjanwa, Khajni, Belghat, Campierganj, Bansgaon, Kauriram, Gagaha, Gola, Uruwa

Out of these 19 blocks, 5 were selected by means of simple random sampling method.

For blocks under Kushinagar district, all the 14 blocks in Kushinagar district formed the sample frame. They are:

khadda, Nebua Naurangia, Vishnupura, Padrauna, Captaininganj, Motichak, Sukrauli, Hata, Kasia, Fazilnagar

Out of these 14 blocks, 5 were selected by means of simple random sampling method.

**Stage III Sample frame for villages under the sampled blocks**

**Gorakhpur District**

The block Bansgaon under Gorakhpur district, had 191 villages. Out of these, one village was picked by lottery method. So the sample frame for the village in block Bansgaon were the 191 villages under it.

Similarly the sample frame for the villages in Blocks Chargawa, Pipraich, Piprauli and Sahjanwa were 53, 86, 121, and 144 respective villages under them.

**Kushinagar District**

The block Tamkuhi Raj under Kushinagar district, had 155 villages. Out of these, one village was picked by lottery method. So the sample frame for the village in block Tamkuhi Raj were 155 villages under it.
Similarly the sample frame for the villages in Blocks Padrauna, Hata, Fazilnagar and Sukrauli were 174, 110, 122, and 91 respective villages under them.

**Stage IV Sample frame for households under the sampled villages**

A list of total poor households in each sampled village was prepared with the help of data obtained from the BDO offices of the respective blocks.

Help from local village residents was sought to identify poor households and excluded from the household list, those households who annual income was above poverty line.

**Sample Frame for individual respondents**

All those above the age of 18 who were residents of the sampled households formed the sample frame for individual respondents. Those individuals were selected who were willing to respond or who volunteered to participate in the study.

3. How the Sampling Unit was identified (the responded) identified?


Kushinagar District-14 blocks-5 sampled blocks- 5 sampled villages-poor households-household member
The sampling unit in this study is defined as the poor rural households in the backward districts of Uttar Pradesh. The annual income of these households was less than $27 \times 30 \times 12 = \text{Rs. 9,720}$. The sampling unit came from the 10 sampled villages from the 10 sampled blocks that in turn came from the two sampled backward districts of U.P.

This study involved simple random sampling in three phases: in the first phase the sampling unit was a district. In the second phase the sampling unit were the blocks under the selected districts. In the third phase the sampling unit were villages and finally in the fourth phase the sampling unit were the poor rural households in these villages. So the final sampling unit were the members of these households who chose to respond and participate in the research. The individuals above the age of 18 were asked to respond.

3.2.0. Justification for sample size

**Justification of using 548 sample size for studying the impact of mass media**

Survey 1 for studying the impact of mass media through Print and TV was carried out in 10 villages. The justification for sample size 548 for studying the impact of above two mass media was that this number of respondents volunteered or agreed to participate in the study. This number was sufficient for carrying out the statistical analysis to test the hypotheses.

**Justification for using 300 sample size for traditional media**

Survey 2 for studying the impact of traditional media consisted of 3 parts. Survey 2a, 2b and 2c for studying the impact of wall paintings, hoardings and audio-visual media respectively was studied in 3 different villages out of the above 10 villages. From each of the three villages, 100 respondents agreed to participate in the study. This number was sufficient for carrying out the statistical analysis to test the hypotheses.
Justification for using 50 respondents each before and after the experiment

For studying the impact of experiment, 50 responses were collected before the experiment and another 50 responses were collected after the experiment in one of the villages. The justification for this sample size is that these are the number of respondents who consented to participate in the study.

Justification for 83 sample size for the comparative analysis

For carrying out a comparative analysis on the effectiveness of the three marketing communication media viz. mass, traditional and new media, a sample size of 83 could be obtained. The reason was that only 83 respondents volunteered to be a part of it.

3.2.1. Sampling procedure

There was a total of 71 districts in Uttar Pradesh according to the census of 2011. However the website of the UP state government currently shows 75 districts in all. Of these there are a total of 20 districts which were (and still are) considered to be backward by the Government and schemes like the Rashtriya Sam Vikas Yojana are being implemented to alleviate Poverty, increase connectivity etc. A list of all the 20 districts was prepared and two of them were chosen by means of simple random sampling technique. The figure above shows the details of the number of blocks and villages in each of the two districts. Simple Random sampling technique was used in this study. Of the total 19 blocks in Gorakhpur district, 5 blocks were selected by simple random sampling method. From each of the 5 blocks, one village was picked randomly. Then the detailed lists of the households, its income were obtained from the Block development officer of the respective Block for each of the 5 villages separately. Another list was prepared of all those households which belonged to the poor segment, i.e. whose annual income was less than or equal to $27*30*12= Rs. 9,720$ pa.

Similarly, of the total 14 blocks in Kushinagar district, 5 blocks were selected by simple random sampling technique. From each of the 5 blocks, one village was picked randomly.
Then the detailed lists of the population, its income and other demographics were obtained from the Block development office of the respective Block for each village. Then the detailed lists of the households, its income were obtained from the Block development officer of the respective Block for each of the 5 villages separately. Another list was prepared of all those households which belonged to the poor segment, i.e. whose annual income was less than or equal to $27 \times 30 \times 12 = \text{Rs. 9,720 pa}$.

A total of 1048 relevant respondents participated for this study. Out of this total sample size, 548 volunteered for responding to the questionnaire for studying impact of Mass Media, 300 was used for studying impact of Traditional Media and 100 for obtaining data from experiment and 83 for the structural interview.

3.2.2. Sample Profiling

The demographic profiling of the sample was done in the following manner.

Age: 18 to 70

Gender i.) Male 48%  ii.) Female 52%

3.2.3. Data Collection

Data was collected by means of two surveys, one experiment and interviews. The instrument used for the surveys were structured questionnaires designed to understand the impact of marketing communications media used by companies belonging to the FMCG, consumer durables and telecomm sectors for reaching out to the poor rural consumers in India, especially in Uttar Pradesh. As most of the respondents were illiterate, the questions in the questionnaire were explained to them in the local language and their responses were noted down in the space provided in the questionnaire. 548 relevant filled in questionnaires were obtained from the first survey to study the impact of mass marketing communication media in reaching out to the poor rural consumers in India. This was done in November 2012. 300 questionnaires were administered in three of the 10 villages considered in the study for understanding the impact of traditional media. This was done in the month of March 2013. This required 1 week’s activity. Interviews were conducted with 100 people during mid-
March 2013. The data collection period spread over a 5 month time frame. Intense data collection was however done in two months only.

So in all a total of $548 + 300 + 100 + 100 = 1048$ respondents participated in this study.

3.2.4. Data Analysis Procedure/ Detailed explanation of Statistical Analysis

**CHI SQUARE** for independence of variables.

The chi square test for independence is applicable when there are two categorical variables from a single population. It helps in determining if there is a significant association between the two variables.

The Chi-square test for independence was found suitable for the study because of the following reasons:

- Simple random sampling method was used for collecting data.
- In this study, categorical variables are used
- The expected frequency count of each cell of the contingency table displaying the sample data is at least 5.

The approach to chi square test for independence consists of 4 steps: (1) stating the hypotheses, (2) formulating an analysis plan, (3) analysing sample data, and (4) interpreting results.

**Stating the Hypotheses**

In this study for analysing the impact of mass, traditional and new media, two categorical variables were used:

A.) The preference for brands and
B.) The exposure to a particular media

The first variable had 5 levels and the second variable had 2 levels.
The null hypothesis states that there is no relationship between A and B and the alternate hypothesis states that there is a relationship.

It is to be noted that the support for the alternate hypothesis means that the variables are related, but this relationship may not necessarily be causal, i.e. one variable does not cause the other.

**Formulating an Analysis Plan**

The analysis plan helps in determining whether to accept or reject the null hypothesis. It specifies the significance level and the test method.

- **Significance level:** any value between 0 and 1 can be used as the significance level. For the purpose of this study, a significance level of 0.05 was used.
- **Test method:** to determine if there is a significant relationship between exposure to a media and the preference for a specific product category, the chi-square test for independence was used.

**Analysing Sample Data**

Using sample data, the following are noted:

- **Degrees of freedom:** in case of chi square test for independence, the degrees of freedom (DF) = (r - 1) * (c - 1), where r is the number of levels for one variable, and c is the number of levels for the other variable.
- **Expected frequencies:** The expected frequencies are calculated separately for each level of one categorical variable at each level of the other categorical variable with the help of the following formula: \( E_{r,c} = \frac{n_r \times n_c}{n} \), where \( E_{r,c} \) is the expected frequency count for level \( r \) of Variable A and level \( c \) of Variable B, \( n_r \) is the total number of sample observations at level \( r \) of Variable A, \( n_c \) is the total number of sample observations at level \( c \) of Variable B, and \( n \) is the total sample size.
- **Test statistic:** Here the chi-square test statistic is defined by the equation:
$$X^2 = \Sigma \left[ \frac{(O_{rc} - E_{rc})^2}{E_{rc}} \right],$$

where \( O_{rc} \) is the observed frequency count at level \( r \) of Variable A and level \( c \) of Variable B, and \( E_{rc} \) is the expected frequency count at level \( r \) of Variable A and level \( c \) of Variable B.

**P-value.** The p value is the probability that any deviation of the observed from that of the expected is due to chance alone. The Chi-square probability distribution table was used to assess the probability associated with the test statistic. The degrees of freedom was used to compute above

**Interpreting Results**

If the p value was less than the significance level (0.05), the null hypothesis was rejected. If it was more then we failed to reject the null hypothesis

In chi square test it is determined whether the observed frequencies differ significantly from the expected frequencies. The expected frequencies in the Chi-square 'goodness of fit test' was determined on the basis of prior knowledge (obtained from the collected data) about the rural consumers' preference for various brands when they had no exposure to any marketing communication media. This was taken as a base for predicting the expected frequencies of the rural consumers who were exposed to different marketing communication media.

The observed frequencies for the preference of brands of the total number of respondents of the study who had no access to TV, print, wall paintings, hoardings, audio-visual presentation and new media was calculated. The expected frequencies of 107 respondents who had access to TV should have followed the same value as of all the respondents who had no access to TV (i.e. 548-107=441). Similarly, the expected frequencies of all 84 respondents having access to print should have followed the same value as of those who had no access to print (i.e. 548-84=464). In the same way, the expected frequencies of each of the respondents having access to wall paintings, hoardings, audio-visual presentation and new media experiment should have followed the same corresponding values as of those who had no access to each of these medium respectively.
The null hypothesis stated that there was no significant difference in the observed and expected frequencies. The alternate hypothesis stated that there was significant difference. The level of significance was set at 0.05. The level of significance is the point at which it could be said with 95% confidence that the difference was not due to chance alone.

\[ x^2 = \frac{(O-E)^2}{E} \]

where O- observed frequency in each category

E- the expected frequency in the corresponding category

\[ \text{df= degrees of freedom (i.e. n-1)} \]

\[ X^2 = \text{Chi-square} \]

The sum of all the Chi-square test statistic was calculated for testing a particular hypothesis. Then from the Chi-square distribution table, using the appropriate degrees of freedom, the value closest to the calculated chi-square is determined. Then the closest \( p \) (probability) value associated with the calculated chi-square and degrees of freedom is determined. If the \( p \) value is more than 0.05 then the null hypothesis was accepted, if otherwise then the null hypothesis was rejected.

**Analysis of data obtained from the structured interview**

The data obtained here was ordinal data which indicated that one score was more than the other. First a descriptive analysis was carried out which helped in simplifying large amount of quantitative data into easily understandable forms. The total sample size for the structured interview was 100. However out of these, the number of respondents who were not exposed to media was 17 and those who were exposed to media were 83. So these 83 respondents formed the relevant sample for this purpose.

Interview data was analysed by first coding the responses and entering them in excel sheet.

**Codification**

Q.1 had a nominal scale used for classifying the respondents into two categories

A. Exposure to media
B. No exposure to media.

The code yes=1 and no=0 had been used for classifying these two categories of respondents.

In the rest of the four questions, a 5 point Likert scale was used to obtain data. The data was first coded and then weights were assigned to it as follows:

<table>
<thead>
<tr>
<th>Response</th>
<th>Code</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly agree</td>
<td>1</td>
<td>10</td>
</tr>
<tr>
<td>Agree</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>Neither agree nor disagree</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>Disagree</td>
<td>4</td>
<td>-5</td>
</tr>
<tr>
<td>Strongly disagree</td>
<td>5</td>
<td>-10</td>
</tr>
</tbody>
</table>

Calculations for central tendency, standard deviation and dispersion were done after sorting the coded data in ascending order. That means, all the responses with code 5 along with the corresponding weight of -10 were entered first in excel sheet, followed by responses with codes 4, 3,2 and 1 along with their corresponding weights of -5, 0,5 and 10 respectively.

The median was used as a measure of central tendency and was calculated by the following formula:

\[
\text{Median} = \frac{\text{the weighted value at (the total number of data points +1) / 2}}{2}
\]

Therefore, the median was equal to the weight at the data point = \((83+1)/2 = 42\)

The inter quartile range (IQR) was used as a measure of dispersion. It is the difference between the upper and lower quartiles. The IQR is useful as it excludes the outliers. The interquartile range is defined as the difference between Q3 (i.e. third quartile having the upper 25% of the data) and the Q1 (i.e. the first quartile having the lowest 25% of the data) of a data set. Q2 is the second quartile diving the data set into two equal halves. It is also called the median. IQR=Q3-Q1
3.2.5. Formulations of Hypotheses

3.2.5.i Studying the impact of mass marketing communication media

This research study measured the impact of mass marketing communication media on the basis of the difference in the preference of brands for various products and services between respondents who had access to these media and those who did not have access to them. In the first step, the difference in preference of brands between those who had access to print and those who did not have access to print was analysed. The statistical tool used for this analysis was chi-square test.

I. For studying the impact of mass marketing communication media- PRINT in FMCG sector, three categories of FMCG products were chosen namely personal care (soap, shampoo, hair oil, talcum powder), household care (detergent powder) and food and beverages (biscuits)

**Hypothesis 1**

H0: there is no relationship between exposure to print media and the preference for FMCG brands under personal care category

H1: there is a relationship between exposure to print media and the preference for FMCG brands under personal care category

**Hypothesis 2**

H0: there is no relationship between exposure to print media and the preference for FMCG brands under household care category

H1: there is a relationship between exposure to print media and the preference for FMCG brands under household care category

**Hypothesis 3**

H0: there is no relationship between exposure to print media and the preference for FMCG brands under food and beverages category

H1: there is a relationship between exposure to print media and the preference for FMCG brands under food and beverages category
II. For studying the impact of mass marketing communication media- TV in FMCG sector, three categories of FMCG products were chosen namely personal care (soap, shampoo, hair oil, talcum powder), household care (detergent powder) and food and beverages (biscuits)

Hypothesis 4
H0: there is no relationship between exposure to TV media and the preference for FMCG brands under personal care category
H1: there is a relationship between exposure to TV media and the preference for FMCG brands under personal care category

Hypothesis 5
H0: there is no relationship between exposure to TV media and the preference for FMCG brands under household care category
H1: there is a relationship between exposure to TV media and the preference for FMCG brands under household care category

Hypothesis 6
H0: there is no relationship between exposure to TV media and the preference for FMCG brands under food and beverages category
H1: there is a relationship between exposure to TV media and the preference for FMCG brands under food and beverages category

III. For studying the impact of mass marketing communication media- Print in consumer durable sector, the products considered were wrist watches, pressure cookers, bicycles and TV sets. Hypothesis were formulated for studying impact of print media and hypothesis 8 was formulated for studying impact of TV media.

Hypothesis 7
H0: there is no relationship between exposure to print media and the preference for consumer durable brands
H1: there is relationship between exposure to print media and the preference for consumer durable brands

**Hypothesis 8**

H0: there is no relationship between exposure to print media and the preference for telecom brands

H1: there is relationship between exposure to print media and the preference for telecom brands

**IV.** For studying the impact of mass marketing communication media in the telecomm sector SIM cards were taken into consideration and the hypothesis 9 and hypothesis 10 were formulated to study the impact of print and TV in the telecomm sector respectively.

**Hypothesis 9**

H0: there is no relationship between exposure to print media and the preference for telecom brands

H1: there is relationship between exposure to print media and the preference for telecom brands

**Hypothesis 10**

H0: there is no relationship between exposure to TV media and the preference for telecom brands

H1: there is relationship between exposure to TV media and the preference for telecom brands

**V. Studying the impact of traditional marketing communication media**

A separate set of questionnaires was prepared to study the impact of traditional marketing communication media in reaching out to the poor consumers in rural areas of Uttar Pradesh. The aim was to employ three of the traditional media viz. wall paintings, hoardings and the audio-visuals one each in three of the ten villages selected for this study to understand their impact in reaching out to the poor consumers in rural regions of Uttar Pradesh. Two brands were chosen for this purpose namely “Brooke Bond Taaza tea” the famous brand of tea from BBIL and “bail kolhu” mustard oil for cooking. Bail kolhu, the
brand name of the mustard oil consists of two Hindi words- one means cow and the other means a traditional wooden tool used to extract oil from mustard grains etc. The cow was tied to the wooden frame and it was made to move around in a circle thereby helping to grind the grain placed at the centre in a wooden vessel at the centre with heavy piece of wood attached to it. Thus the brand name has rural connotations attached to it.

The impact of traditional marketing media was measured with respect to the relationship between exposures to this media for these two categories of products and the preference for brands. The respondents who had exposure to the traditional medium viz. wall paintings, hoardings and saw the audio-visuals and those who did not have the exposure were asked to state their preference for brands of these two categories of products.

In the areas under consideration in this study, no research had been done on the reach-out of wall paintings in rural areas. So marketers employing wall paintings as a traditional media for marketing communication purposes do not have an estimate of its impact on the rural consumers. For studying the impact of traditional marketing communication media in the form of wall paintings, hoardings and audio-visual media in the food and beverages category (tea and cooking oil), the following hypothesis were formulated

**Hypothesis 11**

H0: there is no relationship between exposure to wall paintings and the preference for food and beverage brands

H1: there is relationship between exposure to wall paintings and the preference for food and beverage brands

**Hypothesis 12**

H0: there is no relationship between exposure to hoarding and the preference for food and beverage brands
H1: there is relationship between exposure to hoardings and the preference for food and beverage brands

Hypothesis 14

H0: there is no relationship between exposure to audio-visual media and the preference for food and beverage brands

H1: there is relationship between exposure to audio visual media and the preference for food and beverage brands

VI. For studying the impact of new marketing communication media

3.2.5.iii Studying the impact of new marketing communication media

In order to understand the impact of new media in reaching out to the poor rural consumers in U.P, data was collected by means of an experiment. The experiment consisted of inserting an audio clipping of a toothpaste brand, Babool Toothpaste, into the audio of a hit song from an album in the local language, that is, in Bhojpuri. The song title was the audio clipping of the Babool toothpaste advertisement of about 37 seconds was inserted at two separate points in the above song which was of 5 minutes duration.

There was a wedding ceremony going on at a farmer’s family in the village under Tamkuhi Raj block on January 7, 2013, when data was being collected for this research. This offered a splendid opportunity and the occasion was utilize to collect data from respondents on their preference for tooth paste brands by means of a close ended question with four options already given as mentioned below. The respondents were required to tick mark any one of them.

It is a rampant practice in India to play loud music from hit numbers of movies during wedding ceremonies. The local farmer whose daughter’s marriage ceremony was being organized was contacted through a common acquaintance and the idea of the “experiment”
was briefed to him. We requested him to ensure that our audio song along with the toothpaste advertisement was played on the occasion after the arrival of the baarat. A baarat is the hindi word for the groom’s side of family and friends arriving at the bride’s place on the marriage day for reception held by the bride’s family.

50 respondents were picked from amongst the people who arrived for reception before the baarat had reached the venue. Their preference was sought through the following question-

What is your preference for toothpaste brands?

a.) Colgate   b.) Babool
b.) c.) Pepsodent   d.) others

This was done between 6.30 to 7.30 pm. The baarat arrived at around 7.30 pm and the audio to be used for experiment in this research was sent across to the boy managing the music system. He was instructed to play it at least 5 times in the next 1 hour. This continued till 8.30 pm. At around 9 pm, 50 respondents were again selected and the same question was asked to them to check if there was any difference in their opinion as a result of the experiment.

Any relationship between exposures to new media and the preference for brands was used as a measure of the impact of new media in reaching out to the poor rural consumers in Uttar Pradesh.

The hypothesis framed to understand the impact of new media was as follows:

**Hypothesis 16**

H0: there is no relationship between exposure to new media and the preference for toothpaste brands

H1: there is relationship between exposure to new media and the preference for toothpaste brands

3.2.6. Data Coding and Analysis Plan
Data Analysis

1. Based on the data collected from the first question specified in the questionnaire i.e. Do you have access to (Please tick)
   a. Print  yes  no
   b. TV    yes  no
   the respondents were grouped into two categories where 1 signified that they had access to print and 2 signified that they had access to TV while 0 signified that they did not have access to any.

<table>
<thead>
<tr>
<th>Sl.No</th>
<th>Print</th>
<th>TV</th>
<th>Total for Print</th>
<th>Total for TV</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0</td>
<td>0</td>
<td>84</td>
<td>107</td>
</tr>
<tr>
<td>2</td>
<td>1</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>0</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>1</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>1</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>0</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>1</td>
<td>2</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The total number of respondents who had access to print was 84. This data was obtained by summing up all the “1”s in column. The total number of respondents who had access to TV was 107. This data was obtained by summing all the “2”s of column 3. Then data was analysed separately for each of these two media, i.e. Print and TV.
This research study measured the impact of mass marketing communication media on the relationship between exposure to a marketing communication media and the preference for brands of various product categories. The statistical tool used for this analysis was chi-square test for independence of variables.

The data was collected through survey instrument designed to study the impact of mass media in reaching out to the poor rural consumers in Uttar Pradesh. The first questionnaire helped in collecting data for studying the impact of print and TV as mass media.

The data used for testing the hypotheses was collected through another survey instrument i.e. the second structured questionnaire which was administered among respondents of three particular villages only where the wall paintings, hoardings and audio-visual media were used to communicate about brands to the poor rural consumers in Uttar Pradesh. This was done with the objective of understanding the impact of traditional media in reaching out to the poor rural consumers in Uttar Pradesh.

For hypothesis to test the impact of new media, data was collected by means of an experiment as described above. Responses before and after the experiment were noted to check if there was any significant difference between them. Any difference in their opinions was attributed to the impact of new marketing communication media. Chi-square tests were used to test all the above stated hypotheses.

3.2.7. Concluding remarks

This study has been based on data obtained from both primary and secondary sources. As a part of the secondary research, several websites like the website of the Ministry of Power (www.powermin.nic.in), Government of India, the Census of India (censusindia.gov.in), Government of Uttar Pradesh (upgov.nic.in) were browsed. Other sources of secondary data included referring to company websites, manuals and reports, books, research journals and newspaper articles on the related discipline. The literature survey provided a qualitative feel
and a broad understanding of the issues involved. Primary data was collected through two surveys by means of two separate closed-ended structured questionnaires, experiment and interviews.