CHAPTER – III

RESEARCH METHODOLOGY
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INTRODUCTION
The research study is concerned with assessment of the effect of social media strategies and its influence among college students in Thanjavur district. This chapter therefore explains the techniques and strategies used to achieve the purpose of the study as stated. The methodology adopted in the realization of the research objectives are the main focus of the following sub heads to be presented. These include sources of data and the instruments for data collection. The methods of data analysis that led to the findings, conclusion and recommendations were also discussed.

SOURCES OF DATA
For the purpose of this study, primary and secondary data sources were adopted by the researcher.

PRIMARY DATA
The study made use of an exploratory survey method which allows for both observatory method and interviews to obtain the data. The interview consists of both personal interviews and questionnaires.

OBSERVATORY METHOD
One of the instruments used for data collection is personal observation. The researcher personally visited the study locations to observe the consumption pattern of the college students of the various social media sites.

THE INTERVIEW SCHEDULE
First, a pilot study was conducted using an unstructured interview schedule with 100 students in various arts, engineering and medical students aspiring their
under graduation and from post graduation. The results of the pilot study helped in constructing the interview schedule.

The Cronbachs Alpha Criterion was applied to test the reliability. The value was determined as 0.925 for the interview schedule collected from the students. This also explains that the statements in the interview schedule are understood by the customers at 92.5 percent level. The quality of the interview schedule was ascertained and the test showed high reliability. The variables considered for the analysis are satisfying the normal probability distribution. Based on the pilot study, the interview schedules were modified suitably to elicit response from the sample group.

**NON-RESPONSE BIAS CHECKS**

The non-response bias was checked by both a field and data (Churchill Jr: 1983). There ought to be non-response in any study. The initial non-response, from the survey carried out by the researcher was deemed as acceptable as the calculated final response rate was high (94%). The main reason given for non-response was refusal to answer the survey and the lack of time for enumerators to obtain responses. It is worth noting that there is no statistical basis for accepting a response rate. What is important is that the sample is appropriate to the study.

During pilot survey a total of 11 interview schedule were found to contain item omissions. This was initially coded in as “0” in the first coding in SPSS. There are three methods to deal with item omission. The first is to treat the missing data as a separate category, the second is to conduct a multiple regression to determine the missing values, and the third is to calculate a figure based on the average for that item (Churchill Jr: 1987). The third option was chosen and carried out on all the missing items.
RELIABILITY EVALUATION

Reliability refers to the similarity of results provided by independent but comparable measures of the same object, trait, or construct (Churchill Jr: 1987). A similar definition, noting the amount of agreement between independent attempts to measure the same theoretical concept, was proposed by (Bagozzi: 1994). In essence, it is a method that describes the degree to which observations or measures are consistent or stable (Rosenthal and Rosnow: 1991) or accurate and precise (Thorndike, Cunningham, and Hagen: 1991).

The Cronbach Alpha reflects both the number of items and their average correlations. Thus, when a Cronbach Alpha value is small, the test is either too short or the items have very little in common and vice versa (Nunnally and Bernstein: 1994).

This method has been recommended by (Churchill Jr: 1979, 1987) and (Nunnally and Bernstein: 1994), and used in numerous other studies (Crook and Booth: 1997). Other factors that could not be assessed using Alpha were determined. It was determined through correlations that the higher the Cronbach Alpha value, the greater is the internal consistency, and therefore the greater is the reliability of the measure (Bagozzi: 1994).

VALIDITY EVALUATION

Validity is synonymous with the accuracy of the measuring instrument. It is defined as the degree to which what is observed or measured, is the same as what was purported to be measured (Rosenthal and Rosnow: 1991). External validity relates to the degree of generalizing ability and internal validity which relates to the degree of validity of statements made about whether X causes Y (Rosenthal and Rosnow: 1991).
Determining validity is considered as the most important consideration in interview schedule evaluation and involves content-related validity, criterion-related validity and construct-related validity (American Psychological Association: 1985). Construct-related validity refers to the question of what the instrument is, in fact, measuring (Churchill Jr: 1983). It addresses the psychological qualities contributing to the relation between X and Y (Rosenthaland Rosnow: 1991). There is no direct measure of construct-validity, but it can be discovered via the emergence of meaningful factors through factor analysis.

In the case of the scales used in this thesis, construct-validity is shown through exploratory or confirmatory factor analysis and the fact is that the scales have been validated in previous research contexts. Constant-related validity focuses on the adequacy of the domain of the characteristics captured by the measure and is also known as face validity (Churchiill Jr: 1983). It refers to whether the test adequately samples the relevant material it purports to cover (Rosenthal and Rosnow: 1991).

One of the best ways to determine face validity is by the researcher defining what the variable is and what is not and then to take a large sample to be measured and refined. Criterion-related validity refers to the degree to which the test correlates with one or more outcome criteria (Rosenthal and Rosnow: 1991). Criterion-related validity is characterized by prediction of an outside criterion and checking the instrument against some outcome. In the case of this thesis, this can be seen by the expected changes in respondent’s reactions depending on the age, gender, type of study, and the place of residence.
SCALE DEVELOPMENT

This thesis employs the Likerts five point scale and bipolar scale (e.g. Yes / No type). The interview schedule used comprises both optional type and statements in Likerts five points scale. The responses of these sections are obtained from the respondents in the five point scale, which ranges as follows: 5 – Strongly Agree, 4- Agree, 3 – Neutral, 2 – Disagree, 1- Strongly Disagree. This allowed for the standardization of results as well as making it easier for respondents to complete the interview schedule.

INTERVIEW SCHEDULE DESIGN

In the questionnaire, the researcher has taken various dimensions like the gadget details, the general use of social media, activeness over the social media site by the respondents, time spent on the applications, activities involved in the social media site, importance of the sites, values derived, selection of course, preference, perceived ease of use and perceived advantage.

POPULATION OF THE STUDY

The population of the study comprises of the various colleges available in the Thanjavur district. (Annexure – II). The researcher has planned in such a way that there is every possibility of including the both the gender, various major (Arts, science, engineering) geographical location (Rural, Semi urban, and Urban). Finally the researcher was able to collect the registered list of the various colleges and made a table pertaining to it.

<table>
<thead>
<tr>
<th>S.NO</th>
<th>CATEGORIES OF COLLEGES</th>
<th>NO. OF COLLEGES</th>
<th>NO. OF STUDENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>GOVT</td>
<td>GOVT AIDED</td>
</tr>
<tr>
<td>1</td>
<td>Medical</td>
<td>1</td>
<td>750</td>
</tr>
<tr>
<td>2</td>
<td>Engineering</td>
<td>1</td>
<td>9</td>
</tr>
<tr>
<td>3</td>
<td>Arts &amp; Science</td>
<td>4</td>
<td>24</td>
</tr>
<tr>
<td></td>
<td>Total No. Students</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

[Source: Compilation by research scholar from various search]
By applying the leavens formulae the researcher was able to make a consolidated sample number of 385 students.

SECONDARY DATA

The study actually recognized the importance of primary data, the reliability of such data which ensured result validity. However, the study also relied on secondary data to provide meaningful information. The secondary data were collected from the various websites of Brand India, chamber of commerce, ministry of information and technology and so on.

FRAME WORK OF ANALYSIS

The following tools of analysis were used in the study. The Statistical Package for Social Sciences (SPSS) was used to analyze the data and draw the inference.

- Percentage Analysis

The frequency distribution (Descriptive/percentage analysis) of the variables were calculated with help of simple percentage, by writing the formula \( fd = \frac{f}{n} \times 100 \). Where \( f \) denotes the number of respondents, and \( n \) denotes the total number of sample population.

- Anova

Analysis of variance (ANOVA) is a collection of statistical models used to analyze the differences among group means and their associated procedures (such as "variation" among and between groups), developed by statistician and evolutionary biologist Ronald Fisher. The entire hypothesis test in this study was carried out at 5 percent level of significance.

- Factor Analysis

To examine the various attributes influencing the various dimensions of youth opinion on social media sight in terms of users of SNS, were tested through factor
analysis. The principal component analysis of Factor analysis has been ascertainment through VARIMAX rotation in order to identify the influencing factors.

- **Multiple Regression Analysis**

Regression is a statistical relationship between two or more variables. When there are two or more independent variables, the analysis that describes such relationship is the multiple regressions. The main objective of using this technique is to predict the variability of the dependent variable, based on its covariance with all the independent variables.

- **Structural Equation Modeling**

The structural model or path analysis is employed to examine the casual relationship among constructs or variables. The structural model or path analysis is employed to estimate the strength of the casual relationship among unobserved or latent variables of dependent and independent variables.

**PERIOD OF THE STUDY**

The study was confined to a period of two and half years. Reviewing the relevant literature and the conceptual frame work took six months. Preparation of the questionnaire and conducting the pilot study consumed three months. The data collection from the primary sources consumed a period of nine months. Preparing the master table and data analysis took another six months period. The interpretation and the presentation of the data in the form of the report covered three months. The last three months were used for rough drafting and in making out the final form of the thesis.
CONCLUSION

It can be inferred from the above discussion that the research instrument used for this present research work is highly valid and reliable as it has passed all the tests needed to achieve the reliability of the data collected. Further, the research process used for conducting this study is also highlighted in this chapter and the results of the study is discussed elaborately in the next chapter on “Analysis and Interpretations”.