3 CHAPTER: RESEARCH METHODOLOGY

3.1 Introduction

This chapter intends to unfold the various research methods taken into account to develop the research methodology for the study. It will also introduce the objectives and hypotheses of the study and will present the research design. Along with this, researcher has also included results of pilot study, scope and limitations of the study.

3.2 Overview of research

This research was conducted in order to determine the practices followed by individuals in wealth creation stage for retirement financial planning, financial literacy, saving and spending attitude, awareness about retirement planning products and services in Pune city.

The study required to gather the information about the present conditions, so descriptive method of research was used for this study. The research required to study the population in an accurate way. It was mainly concerned with describing the degree in detail of the current situation with respect to its nature or condition. For study of this type descriptive research was the most appropriate method. Also this method is used to describe the type of a situation, as it exists at the time of the study and to explore the reasons behind a particular phenomenon. The main purpose of descriptive research is to acquire an accurate profile of the population, events or situations. This type of research puts a lot of emphasis on describing rather than on judging or interpreting. The objective of descriptive research is to confirm formulated hypotheses that are used to the present the current situation in order to explain it. The main characteristics of descriptive approach are that it is quick and flexible.

Considering the above mentioned characteristics of descriptive research, this method was employed in the study to understand practices followed by individuals in wealth creation stage for retirement financial planning, financial literacy, saving and spending attitude and awareness about retirement planning products and services.
This study has individuals in age group 25 years to 45 years with total annual income higher than 2.5 lakhs. Selected participants answered a survey questionnaire. The data collected using the research instrument was computed for interpretation. Researcher made use of both primary data gathered using questionnaire and secondary data obtained from various sources like books, journals, existing literatures, published papers, government reports and PhD thesis of researcher scholars etc. that were relevant to the study.

Considering the requirement of participation of human respondents i.e. individuals in the study, certain ethical issues were taken care off. To ensure the privacy and safety of the participants the consideration of these ethical issues was essential. The important ethical issues that were considered in the design of the research process include consent and confidentiality. To obtain the consent of the selected respondent, the researcher provided all the important details of the study like its aim and purpose. By providing this important information, the participants were able to appreciate the significance of their role in the completion of the research.

### 3.3 Objectives of the research

The following are the objectives of the study: -

- **a)** To examine retirement planning practices followed by individuals in wealth creation stage.
- **b)** To study the levels of awareness amongst the individuals in wealth creation stage with regard to financial planning for retirement, instruments for financial planning for retirement and about the institutions/intermediaries.
- **c)** To study the role played by financial intermediaries especially the Certified Financial Planners (CFP) in influencing the decisions of individuals in regard to their financial planning for retirement.
- **d)** To study the factors influencing individual’s actions towards investment for retirement planning.
3.4 Hypotheses

The following hypotheses have been framed for testing on the basis of available data.

- The level of awareness about retirement planning product / services varies with age, occupation, education of individuals in wealth creation stage.
- The extent of retirement planning activities followed by individuals is associated to saving – spending attitude.
- Funds allocation for retirement financial planning is associated with occupational and family factors.

3.5 Research Design

Fundamentally research design is a plan for collection, measurement and analysis of data. As this study was primarily focused on study of financial discipline, awareness and practices followed by individuals for retirement financial planning in Pune city, one might therefore think that individuals would be adequate for this purpose. As discussed earlier descriptive method of research was used for this study. Research design is covered under three parts as follows

- Sampling design (method of selection of respondents)
- Observational design (method of collection of data)
- Statistical design (method for analysis of the collected data).
3.5.1 Sampling Design

a) Population
All the individuals in age group 25 to 45 years of age with annual income greater than 2.5 lakhs staying in Pune city.

b) Estimating Sampling size
Estimating Pune City’s Population by the end of year 2014 - 15
By 2011, Pune City’s Population = 3124458

From 2001 to 2011, Pune district’s population has grown by 30.37 %. Assuming same growth rate continues in the current decade and growth is homogeneous across the district then,

Population growth (in percentage) in next 4 years = 30.37*4/10 = 12.14 % Pune city

Population’s estimation in year 2015 = 3124458 X (1.1214) = 3499393

For purpose of our study,
Estimated Population of Pune city = 3499393

As our Sampling Universe for the study are the individuals in age group 25 years to 45 years

Let researcher estimate number of elements in universe for the purpose of this study. This estimate is calculated,

As per census 2001, the percentage of individuals in age group 25-45 years is 27.6 % on national level. Since the age group 25 to 45 years is not available in census 2011, researcher has used the percentage of 2001 census assuming there will not be a huge variation in this percentage. Moreover small difference will not adversely affect the sample population. Also researcher has assumed that national percentage of people in this group will be applicable to people in Pune city.

So number of people in age group 25 to 45 years in Pune city = 3499393*0.267= 934338

1 Source: http://www.census2011.co.in/census/city/375-pune.html

2 http://www.census2011.co.in/district.php(census)
Total sample size of 385 individuals in Pune city is considered for the study. During data collection, proper care was taken to collect the data in such a way that it covers all age groups, various income groups, different occupation etc. The justification for sample size determination is given below.

Following formula can be used to determine sample size (Nargundkar, 2003).

\[ n = p (1 - p) \left( \frac{Z}{e} \right)^2 \]

\[ n = 0.50 (1 - 0.50) (1.96/0.05)^2 \]

\[ n = 385 \]

Where,

- \( N \) = Sample Size
- \( Z \) = Z value from the standard normal distribution for the confidence level desired by the researcher. For this study, the researcher has assumed 95 percent confidence level. Then from the standard distribution tables, the Z value is 1.96.
- \( p \) = Frequency of occurrence of something expressed as proportion (0.50).
- \( E \) = Tolerance error. This can be decided by the researcher.

For this study, the researcher has assumed tolerance error of 0.05.

Applying above formula, the sample size is computed as to 385.

Hence, researcher has collected the primary data from 385 respondents.

c) **Sampling Method**

The prime objective behind this study is to study the practices followed by individuals in wealth creation stage for retirement financial planning, financial literacy, saving and spending attitude and awareness about retirement planning products and service. To satisfy these conditions an individual must have some disposable income. So researcher has decided to study the individuals with age greater than 25 years and an annual income greater than 2.5 lakhs, which is the entry slab for income tax as per Income Tax Act 1961. As sampling frame of individuals in age group 25-45 years with income greater than 2.5 lakhs per annum is not readily available; employing random sampling method is not practical. Hence researcher has employed purposive sampling method. Purposive
sampling is also known as judgmental, selective or subjective sampling, is a type of non-probability sampling technique. So individuals fulfilling above age and income criteria as discussed above were only considered.

Further the purpose of the study is to study the variation of the practices followed by individuals for retirement planning with various social economic factors such as gender, age, occupation and education etc. To have comparable results adequate representation of individuals in various socio economic factors is required. For this, Quota Sampling method seems to be appropriate in a given context. Quotas are fixed on the basis of individuals investing for retirement planning and not investing for retirement planning. Quotas were fixed as follows as for analysis of three objectives requires data of individuals investing for retirement and one objective requires data of individuals not investing for retirement.

- Individuals investing for retirement planning : 70%
- Individuals not investing for retirement planning : 30%

3.5.2 Observational Design

Donald R. Cooper, Pamela S. Schindler (1999) has defined ‘Data’ as, the facts presented to the researcher from the study’s environment. The two types of data are primary data and secondary data. Survey questionnaire and structured interview methods are used for collecting Primary data from the selected sample population, whilst secondary data consists of the studies made by others for their own purposes such as relevant reports of earlier researches, books, articles, published documents, journals. Observational design covers the different aspects like the sources of data, methods of data collection and research instrument.

a) Sources of Primary Data

Primary data for this study was required from individuals in age group of 25 years to 45 years i.e. wealth creation stage. Data collection method employed was survey through questionnaire, so using a questionnaire the required information was gathered from the respondents. This questionnaire is available for reference in Appendix A.
b. Sources of secondary Data

During the course of the study, researcher put in a lot of efforts to collect various data and statistics pertaining to the study. Various books on the economy of India, Financial planning, Financial Services, Retirement planning, Pension funds etc. were accessed from various libraries and were studied and used in the presentation. Along with this a lot of published Ph.D. thesis available on UGC (shodhganga) and PROQUEST database was studied. Ph.D. thesis available in Tilak Maharashtra Vidyapeeth, Sav Savitribai Phule Pune University, National Insurance Academy and Research Center was also accessed. Data published by and available from Government reports, Central Statistical Organization, Planning Commission, Securities Exchange Board of India, Insurance Regulatory development Authority, Ministry of Finance, Reserve Bank of India, Centre for Monitoring Indian Economy (CMIE), National Stock Exchange, Bombay Stock Exchange, Census Reports, Securities Exchange Commission, World Bank, etc. was obtained, and used for study and analyses. Besides this number of newspaper clippings, web based articles; magazines relevant to study were also used.

c. Research Instruments

According to Mohammadi, to ensure accuracy of the research, within the limits of the study, the findings must be valid and reliable. Findings are only acceptable to the degree to which they are determined valid. Kelly defines validity as: “the degree to which the data support the inference that are made from the measurement”; i.e. validity refers to the accuracy of a measurement, and a measurement is valid when it measures what it is supposed to measure (Mohammadi, 2008).

Furthermore, the research findings must be consistent i.e. the degree of consistency within the measurement. Joppe (2000 as cited in Golafshani, 2003) defines reliability as: “the extent to which results are consistent over time and accurately represent the total population under study and if the results of a study can be reproduced under similar methodology, then the research instrument is considered to be reliable”. In order to deal with the issue of reliability it was imperative that the survey questionnaire should gather valid responses. It was essential to establish whether the same response was or would be given, if the respondent had answered the questionnaire earlier or later. The majority of the survey questions in this study had been structured to fall within the multiple choice
questions. Also there were Likert-like response categories. The questions included in the survey questionnaire are structured and standardized. The structure is anticipated to lessen bias. Standardization of question ensured reliability, generalization, and validation. All the participants were presented the same questions and in the same order as other participants. The questionnaire majorly contained closed-ended questions, restraining the possible answers to one’s identified. However, researcher understands that the closed questions may lead to bias because respondents are led by the options supplied for each question. This can be removed by using “other” option included which allow for any answer that has not been thought of.

Table 3.1 Types of Questions used in the questionnaire

<table>
<thead>
<tr>
<th>Type of questions</th>
<th>Number of questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Free Response Questions (Open ended questions)</td>
<td>1</td>
</tr>
<tr>
<td>Dichotomous Questions</td>
<td>4</td>
</tr>
<tr>
<td>Multiple Choice – Single Response</td>
<td>36</td>
</tr>
<tr>
<td>Checklist Questions (Multiple Response)</td>
<td>5</td>
</tr>
<tr>
<td>Rating Questions</td>
<td>4</td>
</tr>
<tr>
<td><strong>Total Number of Questions</strong></td>
<td><strong>50</strong></td>
</tr>
</tbody>
</table>

In designing the questionnaire, first, the study focuses on the research objectives and considers how the data is to be analyzed before collecting it. This is to ensure that the questions are in a format which is suitable for analysis by the statistical package chosen. The three main elements to consider are:

1. Decide the questions to be included
2. Select the appropriate type of question and phrasing for each question
3. The overall arrangement and question order.

The questions asked relate directly back to the research objectives. For example, in seeking answers relating to financial discipline, financial planning for post-retirement, awareness about retirement planning products and answers pertaining to the demographics of the sample population are particularly relevant. Therefore, questions included are:
1. Age group
2. Gender
3. Marital status
4. Education
5. Occupation

Ranked responses are also useful to indicate the strength of respondent’s preferences. For example, please: Rate the following financial goals on scale of 1 to 10 as per your current priorities (rating 1 – low priority to 10 being the highest priority):

Rated responses like the Likert scale are also a good complement to ranked responses. The respondent considers each option individually and can give a more accurate response. For example, before I buy something I carefully consider whether I can afford it (Select: “Strongly agree”; “Agree”; “Neither agree nor disagree”; “Disagree”; and “Strongly disagree”):

In order to ensure the interest of the participant while answering the questionnaire, variety of question formats were included. It also helped to avoid mechanically ticking of the same boxes for all questions. Along with the format, the wording of the questions had to be clear with no room for ambiguity. It is important to avoid asking too many questions as this will put respondents off and end up with a lot of (probably irrelevant) data to analyze.

Among the advantages of using questionnaires are:

Standardized data is gathered which helps to ease analysis of data with software packages such as Statistical Package for Social Scientists (SPSS);

- Relatively quick in gathering data can from a large number of participants
- Questionnaires are less invasive and lessen bias;
- Respondents can answer anonymously so ensure honest and reliable answers
As compared to face-to-face interviews, questionnaires are very cost effective, especially for large sample sizes. However the following disadvantages of using questionnaires also needs to be considered:

- Possibility of responses being inaccurate
- A reasonable sample size is required to represent views of the entire population.
- Response rates might be poor due lack of motivation for respondents.

The most important attribute of the questionnaire is that must collect the appropriate data required for analysis of objectives and testing of the hypothesis. Also researcher has considered the disadvantages as mentioned above and had sent the questionnaire to 800 individuals out which 485 respondents had completed the survey. Also researcher and has filtered out around 90 questionnaires where data appeared to conflicting. The link between each section of the Questionnaire to the Research Hypotheses is summarized in Table 3.2 below:

**Table 3.2 Questionnaire and hypothesis mapping**

<table>
<thead>
<tr>
<th>Survey Questionnaire</th>
<th>Section</th>
<th>Research Hypothesis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demographic profile</td>
<td>Opening</td>
<td>H1, H2 and H3</td>
</tr>
<tr>
<td>Level of awareness for retirement</td>
<td>C</td>
<td>H1</td>
</tr>
<tr>
<td>Saving-spending attitude</td>
<td>B</td>
<td>H2</td>
</tr>
<tr>
<td>Savings for retirement</td>
<td>A</td>
<td>H3</td>
</tr>
</tbody>
</table>

**3.5.3 Statistical Design**

Post collection of the data, the researcher commenced the activity of analyzing it. The data analysis requires various operations like establishment of categories, the application of these categories to raw data through coding, tabulation and drawing statistical inferences. The inept data needs to be condensed into few manageable tables or group for additional analysis. The activity of classification of raw data into some purposeful and usable categories was carried out followed by coding of data. Data was presented in graphs and tables at appropriated places. Hypothesis was tested with help of statistical package for the social science (SPSS).
Various measures of central tendency (mean, mode, median) and measures of dispersion (standard deviation) are used appropriately. For measuring reliability of the research instrument researcher has used Cronbach's Alpha Reliability test. Statistical tests like, T test, one way ANOVA and Chi Square test are employed.

As this being a social research of an exploratory nature, researcher would like to test hypothesis at **5% level of significance**. That’s why researcher has set **interpretation criterion** for testing of hypothesis which is as follows: -

**If p value is less than 0.05 - null hypothesis is rejected and alternate hypothesis is accepted.**

**If p value is greater than 0.05 - null hypothesis is accepted and alternate hypothesis is rejected.**

### 3.6 Pilot Study

For the purpose of eliciting feedback on clarity and the communication of instructions and survey instrument items to respondents, a pre-test of the initial questionnaires was carried out and all constructive comments and suggestions from the feedback were incorporated into the final questionnaire in order to improve its format, content and quality to facilitate easier understanding and comprehension by them. A pilot study was conducted as a trial run of the questionnaire designed to spot any flaws which can be corrected before going to the expense of implementing the main survey. Questions that were complex and vague were identified and studied.

This feedback was used to gauge the extent of redesigning the questionnaire to gather data, test the research hypotheses, and validate the scientific approach and methodology in the main survey.

The following are some of the questions included in the survey questionnaire:

- Age grouping of respondents
- Segmentation of salaried individual
- Saving habits
- Atal pension scheme
- Reasons for investing for retirement planning
The pilot included the questionnaire completion, analysis and feedback from respondents. Personal interviews were conducted in the pilot for data collection. Researcher conducted a pilot study by administering questionnaire on 40 (about 10% of sample size) individuals. After collecting the responses, we calculate reliability of the research instrument (Questionnaire).

Interpreting Reliability Statistics for Pilot Study - To check the consistency of the respondents for the questionnaire researcher has applied Cronbach’s Alpha Reliability test. It is observed that the reliability for the questionnaire is 91% (as Cronbach’s Alpha is 0.905) which is statistically significant and acceptable for further administration and analysis.

### 3.7 Scope of the study

The scope identifies the boundaries of the study in term of subjects, objectives, area, time frame, to which any study is focused.

The present study is an attempt to throw light on the awareness practices followed by individuals for retirement financial planning in age group 25-45 years in Pune City. The geographical scope of the study is limited to Pune city only.

This study is carried during three years starting from the year 2012 to year 2015. But, data is collected is made in the year 2015. Our time wise scope is for the period of Jan 2012 to Dec 2015.

This study could be carried out from various angles financial literacy, general financial awareness, risk profile, awareness about products and regulators for various financial instrument and role of intermediaries. But researcher is carrying this study from individual perspective only.

This study is an attempt to study the retirement planning practices followed by individuals in wealth creation stage along with the factors that make an individual active or inert towards retirement planning.

a. To study various factors which makes individuals willing or inert towards retirement planning
b. To study the levels of awareness amongst the individuals in wealth creation stage with regard to financial planning for retirement, instruments for financial planning for retirement and about the institutions/Intermediaries.

c. To study the role played by financial intermediaries especially the Certified Financial Planners (CFP) in influencing the decisions of individuals in regard to their financial planning for retirement.

3.8 Limitations of the study

This study is made under quite a few constraints. Hence, the findings of the study are interpreted with caution. Non-random sampling method is mainly used in the study, hence while generalizing findings of the study there are certain inherent limitations.

The responses provided by the respondents may not be as precise as desired due to the financial illiteracy, unawareness and poor knowledge about entire financial services as such. Moreover, sampling and non-sampling errors are also unavoidable while drawing inferences.

The individuals over 45 years of age will not be a part of study. Respondents only from Pune city will be considered for the study, as Pune city is an appropriate representation of the desired profile of respondents. Researcher will study the relative preferences on various factors like intermediaries, instruments for retirement planning etc. and will not cover the probable reasons for individual preferences. Due to the dynamic changes taking place in Indian financial services particularly specifically financial instruments, data obtained is always influenced by environmental factors which are beyond the control to the researcher.

However, the analysis made is as scientific as possible giving attention to all these limitations. Though this work suffers from these limitations, but the care has been taken to minimize these errors.
Conclusion

Researcher has now completed the structure of the entire research process which includes understanding the type of research, formulating objectives and hypothesis, sampling design, research questionnaire, pilot study, reliability test of the pilot study, scope of study and limitations of study. As the next step researcher then collected the primary data through questionnaire. Post filtering the questionnaires, researcher had coded the raw data and completed the analysis. In the next chapter researcher will present the analysis of the primary data collected during the survey of individuals.