CHAPTER 3

RESEARCH METHODOLOGY

3.1 Introduction

From the review of literature, it is evident that humane connections in the home, work and general context is vital for subjective well-being. Recent studies argue that expatriate adjustment should consider the role of various stakeholders as well as person-environment fit which is present in the host environment (Takeuchi, 2010; Haslberger et al., 2013). Seminal work in the area of culture has indicated different patterns emerge across the world as a result of dissimilar values, attitude and behavioural norms (Hofstede, 1980; Schwartz, 1992; Trompenaars & Hampden-Turner, 1998). India has been found to be unique in terms of language, religion, and geographical boundaries (Ronen & Shenkar, 2013). Studies highlight the importance of adopting oneself as per the Indian value system to become effective and influence modern business communities (Cyriac, & Dharmaraj, 1994; Gopalan & Rivera, 1997). Although limited research on expatriates pre-departure training is available but it has been reported to be remarkably low (Puck, Kittler, & Wright, 2008). Research study in the context of India as host nation has been inadequate, and the overall impact of cultural orientation besides effect of work-family conflict on expatriates and their family members needs to be investigated.

This chapter aims at developing suitable methodology for the research gaps which were derived from the review of literature. The notable research gaps found in the literature review included; a) social tie characteristics b) exchange relationship with subordinates c) work-life conflict d) expatriates life satisfaction in host nation e) expatriate adjustment in India. To fill the research gaps, research methodology was designed to understand the impact of various factors during adjustment process. This chapter outlines the statistical methods adopted to carry out the research study. Various sections within the research methodology are delineated as follows: Section 3.2 explains the research design adopted in the current study. Section 3.3 deals with the research questions derived from the prevailing research gaps. Section 3.4 formulates the research objectives on the basis of
research questions. Section 3.5 offers hypothesis originating from the research objectives. Section 3.6 elaborates on the sampling strategy (population, frame, technique, size) used in the research. Section 3.7 provides detail about the procedure adopted for collecting data. Section 3.8 explains the demographic characteristics about the participants. Section 3.9 elaborates the measurement instruments used for data collection. Section 3.10 describes the statistical technique adapted in the current study. Section 3.11 summarizes the chapter and offers conclusion.

### 3.2 Selecting the research design

Research design is the process of methodically examining issues related to research problem and address objectives by stating evidence required to test the relationship underlying the phenomenon. Design helps in deciding research procedures and justify its selection over other alternatives, those could have been deployed. Trochim (2005), emphasizes that research design, ‘provides the glue that holds the research project together. A design is used to structure the research, to show how all of the major parts of the research project work together to try to address the central research questions.’

The purpose of a research design is to confirm that the evidence achieved allows us to answer the initial problem as certainly as possible. Research design could serve three main purpose viz., exploration, description and explanation (Cooper & Schindler, 2001). **Exploration** involves obtaining contextual and up-to-date information about the phenomena under study from the literature and validates the researcher's interest towards more extensive study. The researcher seeks to understand more about the phenomenon and issues which could be solved through existing theories. After understanding the phenomena, subsequent step is **description** which comprises describing circumstances and phenomenon under study through scientific observation. This process fills the missing parts and expands understanding after the initial groundwork has been completed. Information is collected without changing the environment and are typically more precise. Finally **Explanation** encompasses connecting relationship within variables and relates with causation process. The process occurs only when the researcher is able to deduct variables based upon the phenomena and develop understanding towards their expected relations or outcome. Based upon the
process, exploratory research was conducted in this study to develop background information towards the expatriate phenomena, followed by describing and extracting important constructs which are closely associated with expatriates based upon literature review and lastly the relationship among various constructs was explained in the form of research hypotheses. Creswell (2009) underlines the three components which are involved in the research design process as, philosophical worldview, selected strategies of inquiry and research methods.

3.2.1 Philosophical worldview

Research paradigm or worldview has been defined as ‘a basic set of beliefs that guide action’ (Guba, 1990). Research paradigm is based upon certain philosophy that have established rules and standards. Researchers have to discover the appropriate methodology suitable in their context and adopt a path so that an outcome could be reached. Many factors such as context under study, philosophical belief, and past research experience could influence the selection of research methodology (Creswell, 2009). These beliefs could result in the adaptation of qualitative, quantitative or mixed method approach for attaining the research objectives. Creswell (2009) recommends that worldviews could take either of the four categories, viz., post-positivism, constructivism, advocacy, participatory (Table 3.1).

Table 3.1 Four worldviews and their major elements

<table>
<thead>
<tr>
<th>Postpositivism</th>
<th>Constructivism</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Determination</td>
<td>• Understanding</td>
</tr>
<tr>
<td>• Reductionism</td>
<td>• Multiple participant meanings</td>
</tr>
<tr>
<td>• Empirical observation &amp; measurement</td>
<td>• Social and historical construction</td>
</tr>
<tr>
<td>• Theory verification</td>
<td>• Theory generation</td>
</tr>
<tr>
<td><strong>Advocacy/Participatory</strong></td>
<td><strong>Pragmatism</strong></td>
</tr>
<tr>
<td>• Political</td>
<td>• Consequences of actions</td>
</tr>
<tr>
<td>• Empowerment Issue-oriented</td>
<td>• Problem-centered</td>
</tr>
<tr>
<td>• Collaborative</td>
<td>• Pluralistic</td>
</tr>
<tr>
<td>• Change-oriented</td>
<td>• Real-world practice oriented</td>
</tr>
</tbody>
</table>

Source: Creswell, 2009

The postpositivist worldview, challenges the traditional or existing notion about the ‘truth’ and approves that scientists cannot remain ‘positivist’ about knowledge while
studying human behaviours. Postpositivist methodology deploys careful observation about the real world and search for various antecedents having impact on human actions or behaviour (Philips & Burbules, 2000). Procedures involved under the Postpositivist worldview includes determining effects on outcomes, reducing the ideas to be tested (i.e., hypotheses and research questions), developing measures of observation and finally testing existing theories that govern the world (Philips & Burbules, 2000). Constructivism takes a holistic approach towards research issue and assumes that individuals develop meaning towards the world in which they live and work (Creswell, 2009). Researcher looks for complexity of views and understand participant’s view of the situation, rather than narrowing down the meaning (e.g., postpositivism). Questioning is mainly open-ended so that participants could share their views based on their historical and social perspective (Crotty 1998). Advocacy / Participatory worldview provides that research agenda needs to be intertwined with the policy framework so that it improves the conditions of its participants (Creswell, 2009). It mostly represents marginalized sections of the society and provides a voice to individuals for unchaining themselves from unjust system that limits self-development. Advocacy / Participatory worldview engage with participants and make them active stakeholders for their change and development (Kemmis & Wilkinson, 1998). Pragmatic worldview do not see the world as absolute unity and have freedom to adopt method, technique and procedures including mixed method approach (Morgan, 2007). It’s believed to be an outcome of action, sequence and consequence rather than antecedent condition (e.g., postpositivism). Pragmatism believes in the external world, independent of mind, but they restrict researchers in asking question about laws of nature (Cherryholmes, 1992).

3.2.2 Strategies of inquiry

Approaches to inquiry, available for researchers could take either of the three forms viz., quantitative, qualitative or mixed methods (Creswell, 2009). Various options are available within these three main categories, hence the researcher has to decide on to suitable options available to conduct their research. With increasing usage of various software packages, many approaches have been experimented and implemented, by
researchers to understand micro, macro and international perspectives. Quantitative strategies are mainly associated with postpositivist paradigm as they have better explanatory capacity towards any event or occurrence. Quantitative strategies help towards establishing relationship either in the form of quasi-experiment or correlational studies (Campbell & Stanley, 1963). In the recent times, quantitative strategies have been adopted enormously to understand complex circumstances and human behaviour (e.g., structural equation modeling). Subcategories within quantitative strategies include survey research (assess thoughts, opinions, and feelings about the entire sample) and experimental research (controls and measures the influence of an outcome within two separate sample groups) (Shaughnessy, Zechmeister & Zechmeister, 2014).

Qualitative strategies of enquiry focus on gaining profound understanding of a human behaviour, organisations or event through first-hand experience. It is mostly suitable for constructivist and participatory action worldview (Kemmis & Wilkinson, 1998). Qualitative strategy could be adopted in five different approaches, viz., Case studies, grounded theory, Ethnography, narrative research and phenomenological research. Finally, mixed method strategies are carried out less in comparison to the qualitative and quantitative methods. It is a multi-method approach, and uses combination of quantitative and qualitative methods, suitable for pragmatic worldview. Mixed method strategy combines field methods such as observations and interviews with traditional surveys (Sieber, 1973). Mixed methods could be used in any of the three ways viz., transformative mixed methods, concurrent mixed method and sequential mixed method (Creswell, 2009). A tabular representation of alternative strategies of inquiries has been indicated in table 3.2.

Table 3.2 Alternative strategies of inquiry

<table>
<thead>
<tr>
<th>Quantitative</th>
<th>Qualitative</th>
<th>Mixed Methods</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental designs</td>
<td>Narrative research</td>
<td>Sequential</td>
</tr>
<tr>
<td>Non-experimental designs, such as surveys</td>
<td>Phenomenology</td>
<td>Concurrent</td>
</tr>
<tr>
<td></td>
<td>Ethnographies</td>
<td>Transformative</td>
</tr>
<tr>
<td></td>
<td>Grounded Theory studies</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Case study</td>
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</table>

Source: Creswell, 2009
3.2.3 Research Method

Research methods encompasses the process of data collection, analysis and interpretation that scholar put forward for their specific studies (Creswell, 2009). Based upon the strategies of enquiry it could take place in any of the three methods viz., quantitative, qualitative and mixed methods. The range of possibilities for collecting data within each category has been classified in Table 3.3.

Table 3.3 Quantitative, Mixed and Qualitative Methods

<table>
<thead>
<tr>
<th>Quantitative Methods</th>
<th>Mixed Methods</th>
<th>Qualitative Methods</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-determined</td>
<td>Both pre-determined and emerging methods</td>
<td>Emerging methods</td>
</tr>
<tr>
<td>Instrument based questions</td>
<td>Both open and closed ended questions</td>
<td>Open-ended questions</td>
</tr>
<tr>
<td>Performance data, attitude data, observational data and census data</td>
<td>Multiple forms of data drawing on all possibilities</td>
<td>Interview data, observation data, document data, and audio-visual data</td>
</tr>
<tr>
<td>Statistical analysis</td>
<td>Statistical and text analysis</td>
<td>Text and image analysis</td>
</tr>
<tr>
<td>Statistical interpretation</td>
<td>Across databases interpretation</td>
<td>Themes, patterns interpretations</td>
</tr>
</tbody>
</table>

Source: Creswell, 2009

3.2.4 Research design adopted in the present study

Based upon the suggested guidelines, we followed similar procedure in the context of expatriate adjustment. These procedures involve taking appropriate decision, within a range of options available that makes sense in our research context. Worldview assumptions, methods of data collection and procedure of inquiry has been discussed in the following section:-

3.2.4.1 Postpositivist philosophical worldview

Our objective in the research was to find the role of various stakeholders which affect adjustment process and life satisfaction in the host nation. Literature suggests that cross-over effects of role members in different domains could have psychological impact on individuals affecting their adjustment process. Similarly individual’s ability to execute responsibilities in work and family domain or any inter-role conflict occurring in the
form of time, strain and behaviour could impact their psychological well-being. The impact of spill-over effect within work and family domains has been cited by researchers, which could also impact expatriate during foreign assignment. Two models based upon the literature review has been proposed to be empirically tested. Due to its predictable nature, it was considered the postpositivist paradigm as the most suitable framework and deployed quantitative technique for achieving the research objectives. After reviewing the literature on expatriate adjustment and based upon the research objectives, proposed hypothesis is a conventional procedure under the postpostivist worldview (Creswell, 2009).

Main reasons for preferring postpositivist paradigm over other paradigm included; a) the relationship within dependent and independent variables exist independently, irrespective of individual (sample) perception b) it is based on scientific methods which leads toward developing hypotheses and achieving those objectives c) hypotheses could be tested with the help of self-administered online questionnaire which remains neutral and does not influence or let respondents form prejudice towards researchers d) the process facilitates in accomplishment of large sample responses within limited time frame and remains cost-effective in comparison to other methods.

3.2.4.2 Quantitative Strategy of Inquiry

In the present study quantitative strategy of inquiry was deployed mainly because the study concerned expatriates psychological well-being and their ability to maintain balance within work and family domains. One of the major advantages of quantitative research remains that it can statistically measures the effect and explain the sample data which could be predicted and used for larger population. Respondent’s opinion expressed in the form of measurement scales helps in calculating many dimensions for a given sample (e.g., t-tests, ANOVAs, or multiple regression correlations).

Survey research as tool for data collection was used as it is economical and shows rapid improvement in access to the sample groups, which could be generalized for larger population (Babbie, 1990; Fowler, 2002). Survey research could be classified in two categories namely, longitudinal studies and cross-sectional studies. Longitudinal studies
assist in calculating changes in perception over a period of time hence data is collected in two or more points of time, in comparison to cross-sectional research, wherein the data is collected and analysed, at one specific point in time. Recurring cross-sectional studies could be conducted to give a pseudo-longitudinal study, where the individuals are selected from the same sampling frame or from different one (Levin, 2006). Researchers have indicated difficulties in collecting data from the expatriate population (Harrison, Shaffer & Bhaskar-Shrinivas, 2004), hence cross-sectional study, was chosen so that data could be collected and analysed at single point in time.

3.2.4.3 Quantitative Research Method

Research objectives was tested by narrowing down into hypotheses and adopted closed ended questionnaire from the existing measurement scales. Quantitative method of data collection allows the researcher to accept or reject the hypotheses, which has been developed from the existing literature. Quantitative approach is suitable when there is need to find the impact of independent variables on dependent variables as well as there is a possible intervention in the form of mediator variable between the dependent and independent variable (Creswell, 2009). Quantitative approach also let one know the best predictor within a range of independent variables.

3.3 Research Question

From the review of literature, it has been observed that numerous research gaps exist in measuring the expatriate adjustment process. Scholars have done limited attempt to understand the role of various individuals who are involved with expatriates during the international assignment. Simultaneously, expatriate’s ability to utilize time and resources for executing responsibilities in the family and work domains play important role in affecting adjustment process. Based on the literature review and the identified gaps from the review, research questions are as follows:-

1. Does negative or positive crossover effect of various stakeholders such as spouse, supervisor, subordinate and social ties play significant role during international assignment?
2. Does negative or positive spillover occurring from work and family domains has impact on expatriates well-being or adjustment process?
3. What is the mechanisms which connects life satisfaction and adjustment process and how is this relationship associated with various stakeholders?
4. Does expatriate inability to execute domain specific responsibilities i.e., work – life conflict play important role in their psychological well-being?
5. Is there any relationship amongst facets of expatriate adjustment?

3.4 Research objectives

Above mentioned research questions demands interrogation from various viewpoints. The enquiries lead towards integrating the research gaps and formulation of causation among variables. The entire process that is being established is based upon the limitations found in the earlier studies and takes place in the form of research objectives. Based on the above mentioned research questions the two main research objectives are:-

1. To find out the effects of various stakeholders (family and host country nationals) on expatriate adjustment and life satisfaction (Model-01, Figure: 2.7);

   1.1. To ascertain the effect of spousal support on general adjustment, work adjustment and life satisfaction;
   1.2. To determine the influence of leader member exchange on work adjustment and life satisfaction;
   1.3. To measure the impact of subordinate member exchange on work adjustment;
   1.4. To examine the influence of social tie characteristics on general adjustment, work adjustment, interaction adjustment and life satisfaction.

2. To find out the relationship among the predictors (spouse support, LMX, SLMX and social ties with HCNs), the outcomes (work, general, interaction adjustment), and mediators (work-life conflict and satisfaction with life) (Model-02, Figure: 2.8)
2.1. To ascertain the effect of spousal support and social tie characteristics on family-to-work conflict;
2.2. To determine the influence of leader member exchange, subordinate member exchange, and social tie characteristics on work-to-family conflict;
2.3. To measure the impact of family-to-work conflict and work-to-family conflict on life satisfaction;
2.4. To find out the influence of life satisfaction on work, interaction and general adjustment;
2.5. To analyse the effect of work and interaction adjustment on general adjustment.

3.5 Hypothesis Development

Many considerations were kept in mind for identifying the dependent, independent and mediator variables. As the main objective is to find the psychological well-being of expatriates and their adjustment process, they are presumed to be dependent variables, whereas stakeholders viz., spouse, LMX, SLMX and social tie characteristics are recognized as independent variables. It has also been observed that expatriate ability to execute responsibilities in the work-family domains are affected by stakeholders and any conflict among domains have negative relation with life satisfaction, hence they are labelled as mediating variables. Based on RO-01, it is proposed that dependent variables are life satisfaction along with facets of expatriate adjustment. Independent variables are support received and exchange relations with various stakeholders. For RO-02, dependent variables include facets of expatriate adjustment and independent variables include support received and exchange relations with various stakeholders. Independent variables have effect on intervening (mediator) variables i.e., both forms of work-life conflict and life satisfaction which in turn has effect on dependent variable. The following hypothesis are therefore proposed:-

Table 3.4 List of hypothesis based on research objectives

| RO#1 | To find out the effects of various stakeholders (family and host country nationals) on expatriate adjustment and life satisfaction |
H1a Spousal support is positively related to life satisfaction
H1b Spousal support is positively related to general adjustment
H1c Spousal support is positively related to work adjustment
H2a Leader member exchange is positively related to life satisfaction
H2b Leader member exchange is positively related to work adjustment
H3 Subordinate member exchange is positively related to work adjustment
H4a Social tie characteristics is positively related to life satisfaction
H4b Social tie characteristics is positively related to general adjustment
H4c Social tie characteristics is positively related to interaction adjustment
H4d Social tie characteristics is positively related to work adjustment

RO#2 To find out the relationship among the predictors (spouse support, LMX, SLMX and social ties with HCNs), the outcomes (work, general, interaction adjustment), and mediators (work-life conflict and satisfaction with life) (Model-02, Figure: 2.8)

H1 Spousal support is negatively related to family-to-work conflict
H2a Social tie characteristics is negatively related to family-to-work conflict
H2b Social tie characteristics is negatively related to work-to-family conflict
H3 Leader member exchange is negatively related to work-to-family conflict
H4 Subordinate member exchange is negatively related to work-to-family conflict
H5 Family-to-work conflict is negatively related to life satisfaction
H6 Work-to-family conflict is negatively related to life satisfaction
H7 Life satisfaction is positively related to work adjustment
H7b Life satisfaction is positively related to general adjustment
H7c Life satisfaction is positively related to interaction adjustment
H8 Work adjustment is positively related to general adjustment
H9 Interaction adjustment is positively related to general adjustment

3.6 Sampling design

Sampling is significant constituent of research design. It is representative of the extent to which sample describes the population and the obtained results could be generalized.
This procedure could only be conducted once the problem has been recognised and the nature of research design has been finalized (Malhotra & Dash, 2011). Many factors involving sampling needs to be considered before proceeding towards the target population such as sample necessity, type of sample, the largeness of sample, adjustment for non-response errors etc. Creswell (2009) outlines the important aspects which should be considered while deciding sampling technique:

1. Identify the target population, size of the population, and means to identify individuals within population for the research study.

2. Determine whether sampling design for collecting the data is a single stage or multistage process. Single stage is suitable when researcher has access to names in the population whereas multistage is suitable when it is unrealistic to gather the list of components comprising the population (Babbie, 2007).

3. Ascertain the selection process of respondents. Random representation of the population has better chance of generalization, whereas a serious limitation in the non-probability sampling technique is that it allows choosing respondents based on convenience or availability (Babbie, 1990).

4. Recognize whether any stratification is required before commencing the sampling process. Stratification is the process of determining whether population has to be chosen, based on certain criteria i.e., gender, country of origin, designation, marital status, income or expenditure level etc. which is true representation of the existing population (Fowler, 2002).

5. Specify the number of people in the sample and the procedure for selecting sample from the options available (Gravetter & Wallnau, 2000).

While considering the role of sample expatriate population in the research context, the role of inward FDI in India was also covered. It was found that European economies have wider presence and made significant investment in India (Policy, 2014). There has been tendency to deploy expatriate managers by parent companies of European origin (Waxin & Panaccio, 2014). The following sections, underlines the main steps involved in the sampling design process in the research context including the sample size, sampling technique, sampling frame, target population, etc.
3.6.1 Target Population

Target population has been defined as ‘the collection of elements or objects that possess the information sought by the researcher and about which inferences are to be made’ (Malhotra & Dash, 2011). Target population should be clearly defined and with utmost care, indicating the individuals which needs to be included and those need not as any deviation from the genuine sample will result in ineffective outcome. The target population must be demarcated in terms of, element, sampling units, extent and time. Target population in the study context has been defined as follows:-

- **Element** – Working managers reassigned to India for accomplishment of global assignment by their parent company.
- **Sampling units** –
  - a. Primary sampling unit – Multinational European companies operating in India
  - b. Secondary sampling unit – Male or female expatriates of European origin living with spouse or partner in India for more than 12 months.
- **Extent** – Geographical area covered for collecting the sample primarily included New Delhi (North Capital Region) besides other metropolitan cities in India.
- **Time** – Survey was conducted among the target study population during January to December 2013.

3.6.2 Sampling frame

Malhotra and Dash (2011) defined sampling frame as ‘a representation of the elements of the target population. It consist of a list or set of directions for identifying the target population. As the research dealt with expatriates of European origin who were deployed for fulfilling international assignment in India, trade consulates and chamber of commerce, were approached for obtaining the databank of their respective national companies (and in some cases expatriate nationals) operating in India. Databank was helpful in enlisting the companies as per their geographical locations based out of India. The director of human resources of local subsidy was communicated via email and were asked to participate in the research study and provide the details of employed European
expatriates. Particulars about expatriate received from local subsidiary was instrumental in developing the complete list beneficial for the research study (*enumeration units*).

### 3.6.3 Sampling technique

Simple random sampling (SRS) technique was used in which ‘each element in the population has a known and equal probability of selection. Every element is selected independently of every other element and the sample is drawn by a random procedure from a sampling frame’ (Malhotra & Dash, 2011). Based upon the directory received from the embassy / business chamber and list generated after communicating with local subsidiary, SRS technique was used on the final list. It may however be noted that *enumerated units* contained details of bachelor, divorced, or those expatriates who decided to relocate to India on their own (without their family members), hence it was important that such elements not to be included during the final analysis. *Computer program method,* was used (i.e., http://www.randomizer.org/) which is an acceptable procedure for deciding the sample population (Kumar, 2011).

Table 3.5 The procedure for selecting a simple random sample

<table>
<thead>
<tr>
<th>Step 1</th>
<th>Identify by a number all elements or sampling units in the population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 2</td>
<td>Decide on the sample size ( n )</td>
</tr>
<tr>
<td>Step 3</td>
<td>Select ( n ) using fishbowl draw, the table of random numbers or a computer program</td>
</tr>
</tbody>
</table>

Source: Kumar, 2011

### 3.6.4 Sample Size

Sample size is the process of determining the total quantity of elements which needs to be incorporated in the study. Various points need to be looked into, before determining the appropriate number of respondents such as, sample sizes used in similar analysis, number of variables, completion rates and resource constraints, importance of decision, nature of research, nature of analysis, incidence rates etc. (Malhotra & Dash, 2011). Scholars suggest that sample size is also dependent on the type of statistical technique used in the research study (Luck & Rubin, 1987). Sophisticated data analysis technique
i.e., structural equation modeling (SEM) was used, to find association among independent and dependent variables and intervention of mediating variable, as a result, requirement of sample size was relatively higher.

Appropriate size remains vital in SEM so as to obtain reliable estimates (Hair, Black, Babin, Anderson & Tatham, 2006). Based upon the recommendations of various research studies, sample size in SEM analysis could vary from five response per construct to at least 200 response for the entire analysis for assuring robustness in the model (Gorsuch, 1983; Harris and Schaubroeck 1990). Similarly many researchers have suggested that sample size for doing SEM analysis should be in the range of 200 to 400 (Kline 2005; Hair, et al., 2006). On the other hand, sample size in excess of 400 could turn out to be highly receptive in forming significant / insignificant association among dependent and independent constructs (Kline 2005; Hair, et al., 2006). Therefore, it was decided to get a minimum of 200 valid response to test association among variables, using SEM analysis. Questionnaires were circulated to at least 1200 expatriates who were based out of India (Black, 1988).

3.7 Data Collection Procedure

Respondents (expatriates) were engaged using online methods and they were invited to complete the research survey using Google Docs. Embassy representatives and business chambers of the selected European nations which have highest FDI inflows in India (Policy, 2014) were contacted to obtain the list of their local companies operating in India. These countries included United Kingdom, Netherlands, Cyprus, France, Germany, Switzerland, Spain, Italy, Luxembourg, Sweden, Belgium, Poland, Denmark, Ireland, Finland, Austria, and Norway. Director of Human Resources was contacted via email and were requested to contribute in the research study and provide the details of employed expatriates in the local subsidiary. The prevailing list was further increased with the help of directory available with expatriates association functional in Delhi NCR.

Particulars about the research study was clarified and expatriates were requested for their cooperation in publicising the same. Those expatriates who provided consent to
join the study were specified brief justification behind the study along with the survey link, which could be accessed and completed. The participants were informed about suitability of the research and were asked few questions to validate if they are appropriate for contribution. These participants opened the online survey, which comprised demographic questionnaire along with the spousal support scale (Caplan et al., 1976), the leader member exchange scale (Liden & Maslyn, 1998), supervisor’s perspective of leader member exchange scale (Greguras & Ford, 2006), the social tie characteristics (Johnson et al., 2003), the work life conflict scale (Shih et al., 2010), the expatriate adjustment scale (Black & Stephens, 1989), the satisfaction with life scale (Diener et al., 1985). These participants were acknowledged and shown gratitude after completing the research survey.

3.8 Data collection instruments and constructs (Measurement Scales)

Each construct involved in the model was tested with the help of items from previously validated instruments. Prior research instruments contained vital elements of the proposed research objectives, which are explained in detail in the following section.

3.8.1 Spousal support

To measure the perceived support received from spouse during international assignment, 4 items spousal support subscale developed by Caplan, Cobb, French, Harrison, and Pinneau (1975) was used. This scale has been previously used in international assignments context (Kramar et al., 2001). Response was collected on 5-point scale (1 = not at all to 5 = a great deal). Sample items included ‘how much does your spouse goes out of their way to do things to make your work life easier for you’ and ‘how easier it is to talk with your spouse’. The spousal support scale has been used previously in research studies involving adjustment process (Kramer et al., 2001). All items were summed up to yield a single score of internal consistency i.e., cronbach’s alpha (α = .91).
3.8.2 Leader member exchange

To measure the expatriate’s perceived exchange relationship with their supervisors, LMX-MDM scale as developed by Liden and Malyn (1998) was used. The scale comprises 12 items with equally distributed 3-item subscales and measures four dimensions viz., affect, loyalty, contribution and respect. Item responses were collected on 5-point scale (1 = strongly disagree to 5 = strongly agree). Sample items for each dimension included, ‘I like my supervisor very much as a person’ (affect), ‘my supervisor defends my work actions to a superior, even without complete knowledge of the issue in question’ (loyalty), ‘I do work for my supervisor that goes beyond what is specified in my job description’ (contribution) and ‘I am impressed with my supervisor’s knowledge of his/her job’ (professional respect).

The construct validity for the scale has been established in the earlier research studies (Greguras & Ford, 2006; Sparrowe, Soetjipto & Kraimer, 2006). Liden and Malyn (1998) found that all four dimensions viz., affect, loyalty, contribution, and professional respect have satisfactory reliability measures i.e., $\alpha=.90$, $\alpha=.74$, $\alpha=.57$, and $\alpha=.89$, respectively on organizational employees. In the present study, the aggregated reliability scores for the 12-item scale was found to be $\alpha=.83$ (Erdogan, Liden, & Kraimer, 2006; Kraimer, Seibert, Wayne, Liden, & Bravo, 2011).

3.8.3 Supervisor’s perspective of Leader member exchange

To measure the expatriate’s perceived exchange relationship with their subordinates, SLMX-MDM scale as developed by Greguras and Ford (2006) was used. The scale comprises 12 items with equally distributed 3-item subscales and measures four dimensions viz., affect, loyalty, contribution and respect. Greguras and Ford (2006) used a ‘parallel’ approach to capture the subordinates and supervisors perception towards the multidimensional aspects of leader-member exchange, although ‘mirroring’ approach has been common practice among researchers (Schriesheim, Neider, & Scandura, 1998). In the present study, SLMX-MDM scale has been used to measure exchange with expatriate’s subordinate. Sample items for each dimension included, ‘my subordinate is a lot of fun to work with’ (affect), ‘my subordinate would come to my
defence if I were ‘attacked’ by others’ (loyalty), ‘I do not mind working my hardest for my subordinate’ (contribution) and ‘I admire my subordinate’s professional skills.’ (Professional respect).

Item responses were collected on 5-point scale (1 = strongly disagree to 5 = strongly agree). Greguras and Ford (2006) found reliability estimates for the affect, loyalty, contribution, and professional respect dimensions as $\alpha = .85$, $\alpha = .85$, $\alpha = .75$ and $\alpha = .91$, respectively. In the current study, the aggregated reliability scores for the 12-item scale was found to be $\alpha = .86$.

### 3.8.4 Social tie characteristics

To calculate the complex nature of social ties, measures developed by Johnson and colleagues, (2003) was used, as per research criteria. Social tie characteristics was dependent on three factors namely a) total number of social ties with host nationals b) depth of relationship and c) breadth of relationship. For measuring the number of contacts we requested expatriates to list host nationals with whom they interacted at least once per month. A contact was defined as host nationals inside or outside the organization, who facilitate expatriates in attaining work-related and personal objectives. For measuring the depth of relationship expatriates were requested to list initials of up to eight host nationals with whom they interacted at least once per month. For each host nationals they described the closeness of their relationship (1 = not at all close, 5 = extremely close), length of time they had known each other (in months), and the frequency of their interaction (times per month). As there was differences in the format, final score were standardized and aggregated to create the variable depth of relationship with host nationals. Finally, to measure the breadth of relationship, expatriates were asked to indicate the degree to which they obtained non-work information, business information, and social support from each host national contact (1 = not at all, 5 = to a great extent). Breadth of relationship was calculated by summing the overall ratings of expatriates towards obtaining information related to work, non-work domains and social support.
3.8.5 Satisfaction with life

The Satisfaction with Life Scale is a 5 item scale that has been popular and globally accepted in research studies (Diener et al., 1985). Sample items included ‘In most ways my life is close to my ideal’ and ‘I am satisfied with my life’. Response was collected on 5-point scale (1 = strongly disagree to 5 = strongly agree). Diener et al., (1985) found satisfaction with life scale to be internally consistent $\alpha=.87$. The scale has also been found to be correlated with other measure of life such as values, religion, culture and family (Diener et al., 1985). In the present study it was found that the coefficient alpha was .90 for life satisfaction scale.

3.8.6 Expatriate adjustment

To measure the expatriate adjustment in the general living conditions, interaction with host nationals and work environment, a scale developed by Black and Stephens (1989) was used. Expatriates were asked to rate the extent to which they felt adjusted to various dimensions of life abroad on a 5-point likert scale (1 = very unadjusted to 5 = very adjusted). General adjustment comprised of 7-items subscale. Example items included ‘Living conditions in general’ and ‘Health care facilities’. Interaction adjustment comprised of 4-items subscale. Sample items include ‘Socializing with host nationals’ and ‘Interacting with host nationals on a day-to-day basis’. Work adjustment was measured by a 3-item subscale. Example items included ‘Specific job responsibilities’ and ‘Performance standards and expectations’. Black and Stephens (1989) found internal consistency for all three dimensions viz., general, work, and interaction as adequately reliable i.e., $\alpha=.82$, $\alpha=.91$, $\alpha=.89$. In our study reliability for general, work, and interaction adjustment was found as $\alpha=.92$, $\alpha=.76$, $\alpha=.89$ respectively.

3.8.7 Work-life conflict

To measure the expatriate’s psychological conflict occurring in the work and family domains, work-life conflict scale developed by Carlson, Kacmar and Williams (2000) was used. The scale comprises 18 items with equally distributed 3-item subscales and measures six dimensions viz., time based work interference with family (WIF), time based family interference with work (FIW), strain based WIF, strain based FIW,
behaviour based WIF, behaviour based FIW. Item responses was collected on 5-point scale (1 = strongly disagree to 5 = strongly agree). Sample items for each dimension included, ‘My work keeps me from my family activities more than I would like’ (time based WIF), ‘The time I spend on family responsibilities often interfere with my work responsibilities’ (time based FIW), ‘When I get home from work I am often too frazzled to participate in family activities/responsibilities’ (strain-based WIF), ‘Due to stress at home, I am often preoccupied with family matters at work’ (strain-based FIW), ‘The problem-solving behaviours I use in my job are not effective in resolving problems at home’ (behaviour-based WIF), ‘The behaviours that work for me at home do not seem to be effective at work (behaviour-based FIW).

Existing scale on the work-life conflict was modified for Taiwanese expatriates working in China by Shih, Chiang and Hsu (2010). 4-items were added from the measures developed by Netemeyer et al., (1996) in the existing scale to get better hold of the international assignment perspective. These items included ‘The demands of my work interfere with my home and family life’ (time based WIF), ‘My home life interferes with my responsibilities at work such as getting to work on time, accomplishing daily tasks, and working overtime’ (time based FIW), ‘In order for me to be as successful at home as I am at work, I must behave differently’ (behaviour-based WIF), ‘The behaviours I use to respond to interpersonal problems at work perform better at home than at work’ differently (behaviour-based FIW). Carlson et al., (2000) found the internal consistency for all six dimensions to be exceeding the conventional level of acceptance $\alpha=.70$ (Nunnally, 1978); time based WIF $\alpha=.87$, time based FIW $\alpha=.79$, strain-based WIF $\alpha=.85$, strain-based FIW $\alpha=.87$, behaviour-based WIF $\alpha=.78$, and behaviour-based FIW $\alpha=.85$. In our study, we found the internal reliability for all six dimensions meeting satisfaction criteria i.e., time based WIF $\alpha=.86$, time based FIW $\alpha=.91$, strain-based WIF $\alpha=.86$, strain-based FIW $\alpha=.86$, behaviour-based WIF $\alpha=.81$, and behaviour-based FIW $\alpha=.84$.

3.9 Participants

The final sample (n=202) contained expatriates who were either married or staying with their partners in India, and in some cases had child under the age of 16 years who lived
at home. In terms of age wise distribution, the minimum age was reported as 23 years whereas the maximum age was found to be 69 years, average age of the respondents were 41. Gender wise the ratio was higher towards male participants (68.3%), in comparison to female respondents (31.7%). The final sample contained expatriates from 12 different European countries including, Germany (18.3%), Denmark (14.3%), Spain (11.3%), Finland (10.8%), Sweden (9.4%), Netherlands (7.4%), France (7%), Switzerland (6.5%), Austria (5.5%), UK (5%), Ireland (3.5) and Norway (1%). From educational point of view, 21.7% of the respondents had accomplished bachelor’s degree, 52.4% participants obtained master’s degree, 8.4% had doctoral degrees and 17.5% acquired other professional qualification. Designation wise these respondents included, senior-level managers (48%), middle-level managers (33.6%), junior-level managers (11.8%), and others (6.6%).

As far as their extent of stay in India is concerned, respondents who stayed in India for between one to three years was higher (56.9%), than four to six years (25.7%), seven to nine years (14.8%), and nine years and more (2.6%). Majority of respondents received cross cultural training (85.1%), in comparison to those who did not received any training (14.9%) from their respective parent companies or local subsidiary. Expatriate annual income ranged from €10,000 - €40000 (16.8%) to more than €160,000 (14.8%). The highest frequency found for €40000 - €70000 (30.1%).

3.10 Statistical technique

Two propositions have been put forward in the form of direct effect of predictors on outcomes and intervening effect of work-life conflict between predictors and outcomes. The reason for using two different propositions is to find better justification of constructs impacting expatriates well-being and adjustment process. To measure the proposed analytical effect of various predictors and outcomes (objective#01) and examining intervening effect of work-family conflict associated with predictors and outcomes (objective#02), structural equation modeling (SEM) was used to develop broader understanding about expatriate adjustment process with/out including work-family domains (Raykov, 2000; Ullman & Bentler, 2003). SEM has been found to have
greater benefits and has been suggested to be used as alternative to multiple regression, but in a more dominant manner by considering the measurement error, correlated error terms, nonlinearities, correlated independents, one or more latent dependents also each with multiple indicators, modeling of interactions, and multiple latent independents each measured by multiple indicators, (Lowry & Gaskin, 2014). SEM using IBM’s AMOS v.20 (Arbuckle, 2011) was deployed to test the research objectives.

SEM is a statistical procedure for calculating and testing causal associations using a mix of statistical data and qualitative causal rules (Pearl, 2000). SEM offers the most suitable and effective measuring technique for a series of multiple regression equations at the same time (Hair, et al., 2006). SEM is useful not only in the empirical testing of theoretical framework but also assist in the development of new theory with the help of confirmatory factor analysis (CFA) and exploratory factor analysis (EFA) respectively. However, scholars mostly deploy SEM for deciding whether proposed model could be validated (i.e., CFA), rather than examining SEM to explore appropriate model (i.e., EFA). The main objective underlying CFA is to test whether existing data could be validated and is fitting for hypothesized model or not, which has been derived from the literature review.

3.11 Summary

Based on the review of literature, the objective was to fill existing gaps by testing expatriate relationship with stakeholders and controlling domains. This chapter aimed on finding the suitable methodology through which the aims and objectives could be satisfactorily met. The chapter started by explaining the philosophical worldview, strategy of inquiry and research method which are integral components of the research design process. Under the philosophical worldview, various perspectives which could have been implemented for research was discussed viz., Post-positivism, Constructivism, Advocacy/Participatory, and Pragmatism. Since the existing gaps were derived from the literature and there could have been an intervention of domain-wise relations it is believed that postpositivism is the most scientific approach in our context. The research survey was mainly quantitative as it led towards the development of research survey for establishing relationship under strategy of inquiry. Finally, pre-
determined, instrument based questions were deployed for analysis purpose under the *quantitative research method*. Consequently, based on the existing research gap in literature, research question, objectives and formulated hypotheses were developed.

The entire data was collected at a single point of time i.e., cross-sectional study from the sample respondents in the form of online survey. It was felt that online research survey has many benefits including faster time to reach the desired sample, cost effective in comparison to off-line methods, easier for respondents to participate, rapid analysis of the available data, more scientific approach etc. Survey findings were also found to have greater advantage that could be generalized for the entire population. Based upon the inward FDI in India, selected countries from the European continent were chosen and met their trade consular or bilateral chamber of commerce representatives to obtain the list of local companies operating in India. *Simple random sampling* was used on the directory obtained from the European embassy, business chambers and expatriate associations.

Expatriates who approved to participate in the research survey, were mailed the online research survey prepared via Google Docs. Existing measurement scales based upon the literature and comprehensively used in research work were used. In some cases the questionnaire was also distributed in hard copy format. The final sample size was n=202 which was ready to be analysed. Sample was distributed among expatriates belonging to different countries within European continent. The maximum response was achieved from Germany n=37, whereas the minimum response was obtained from Norway n=2. Overall consistency of the measurement instruments i.e. reliability was tested and found it to be satisfactory based upon the set criteria α=.70 (Nunally, 1978). Structural equation modeling (SEM) was deployed and was found as the most appropriate statistical technique for analysis purpose. Usage of SEM has increased in the recent years as well as it has been suggested as a more powerful tool in comparison with multiple regression analysis. The analysis was done with the help of IBM’s AMOS Ver. 20. SEM assumes a two-step approach in the form of exploratory factor analysis (recognise the fundamental relations between measured variables) and confirmatory factor analysis (examine whether the data fit a theorized measurement model).