CHAPTER 3: RESEARCH METHODOLOGY

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 Chapter Overview

Present chapter deals with the need for research and the study objectives. It throws light on the research design and methodology. A discussion on research instrument development, constructs and items, reliability and validity issues, data collection and sampling procedure is presented. This is accompanied by research hypotheses considered for the study along with an illustration of the conceptual research model adapted. The chapter concludes with a concise summary of the process of analysis adopted for the present study.

3.1 Need for Research

The area of work-life balance has been receiving significant research attention in recent times. There are several reasons that highlight the need for research in this area:

- Due to high level of stress and increasing competition, more emphasis is laid on implementing work-life balance program in organizations (Bonney, 2005). Expansion in the workplace (i.e. both national and international) and in employee demographics (more women in workplace) in the past decade has led to an increased anxiety over the creation of proper boundary between employee work and personal lives. Thus, WLB can be used as a key component in any organization as employee retention strategy (Nord et al., 2002). An empirical examination of work-life balance scenario is thus, essential to understand this domain of knowledge.

- An extensive literature review in the field of work-life balance and organization commitment reveals that there are very few studies in the Indian context incorporating both the dimensions. Thus, it was felt that there is a need to study the relationships between the two important areas.

- Studies have been carried out quite extensively on work-life balance issues in the context of the corporate world. However, there is a lack of such studies in
the field of academics. Borg and Riding (1991) concluded that teaching is stressful. It has been found that between 5% and 20% of all teachers are burned out at any given time (Farber, 1991). In a study it was found that educators have the highest level of WLB problems in comparison to other white collar jobs (Kalimo & Hakanen, 2000). There is thus, a need for research in the context of academicians. The extant studies on academics are mainly in the Western world. Thus, the area remains largely unexplored in the context of academicians in India.

- Further, most studies on academicians in the area of work-life balance have focused on school teachers. Teachers in the higher education institutions in India have not been covered in these studies. There is lack of researches in the area on teachers in higher education in the Indian context. Thus, this present study is expected to fill the gap.

- The present study attempts to bridge the methodological gap that was left unattended in the previous researches. In the present research, quantitative data analysis is supplemented with qualitative analysis in order to provide more meaningful results as suggested by researchers (Boyatzis, 1998; Roulston, 2001). Structural Equation Modeling (SEM) was deployed as it has the ability to take into account measurement error by estimating measurement error variances from the data and model specification, whereas traditional techniques do not (Ahire et al., 1996). The present research also takes into consideration a fairly large sample size as compared to previous researches, thereby filling the gap in terms of small sample related problems.

- It is an accepted truth that highly qualified and satisfied teaching staff is the cornerstone of a successful society. It has been realized that a good teacher is a primary requirement for establishing a successful educational institution (Sharma & Jyot, 2006). The most severe consequence of a dissatisfied teacher is its negative effect on teaching quality and student achievement (Geringer, 2000). Thus, work-life balance of teachers is a critical area that needs to be addressed in order to enhance teachers’ satisfactions and retention. Thus, a study in the area will help meet the societal goal of identifying strategies to
help teachers balance work-life aspects in order to enhance overall quality of education in the country.

3.2 Research Objectives

The study attempts to achieve the following objective:

*To validate the conceptual research model exploring the relationship between work-life balance and organizational commitment as well as to examine the mediating role of job satisfaction and the moderating role of demographic variables in the context of teachers of higher education institutes in India.*

The above objective can be seen in light of the following sub-objectives:

I: To develop validated measures of work-life balance, organization commitment and job satisfaction in the context of teachers of higher education institutes of India.

II: To explore the relationship between dimensions of work-life balance and organizational commitment in the context of teachers of higher education institutes in India.

III: To examine the mediating effect of job satisfaction in the relationship between dimensions of work-life balance and organizational commitment.

IV: To examine the moderating effect of demographic variables in the relationship between dimensions of work-life balance and organization commitment.

V: To develop further insights into the research model using qualitative data analysis.

3.3 Research Design

The present study is conclusive, descriptive and based on a single cross-sectional research design. In a descriptive study, no attempt is made to change behavior or conditions—things are measured as they are (Malhotra & Dash, 2012). In conclusive
research design, information needed is clearly defined to test specific hypotheses and analyze the relationships. A study is said to have a cross sectional design in which one sample of respondents is drawn from the target population and information is drawn from this sample only once (Malhotra & Dash, 2012). Other prominent studies in the area have also deployed single cross-sectional research design too (Crooker et al., 2002; Forsyth & Debruyne, 2007; Hayman, 2005).

The research technique followed in the study can be divided into two components viz. quantitative and qualitative research. The first part deals with quantitative approach. It involves development of a research instrument based on literature, determination of sampling technique, questionnaire administration, data collection and quantitative data analysis. The second part i.e. qualitative research deals with generating and examining qualitative data obtained from the respondents. It was done with an intention to carry out a more intensive analysis of the respondents’ perceptions vis-à-vis work-life balance.

In accordance with Yin’s (1994) suggestions, the current research attempts to decrease any discrepancy by deploying a sound and rigorous research methodology which is necessary for the development and testing of a research model in order to boost up the process of theory building. Since any one technique has its limitations, the study deploys both quantitative and qualitative approach to compensate for the shortcomings, if any. Through quantitative data analysis, the proposed research model was tested. Thereafter, through the qualitative design, a further examination and extension of the proposed research model was carried out.

Exhibit 3.1 highlights the research design followed in the present study.
3.4 Research Constructs and Measures

Research constructs and items related to the study variables were identified after an extensive literature review.

3.4.1 Independent Variables: Dimensions of Work-life Balance

Studies on measuring work-life balance have been carried out by several researchers. A number of measures and constructs have been developed to map the phenomenon of work-life balance. Hobson et al. (2001) have highlighted the significance of work-life balance and how the stressful events of life impact work-life balance. Dex and Bond (2005) developed an instrument in the form of work-life balance checklist. They focused on how flexible working and time structure can have a positive effect on work-life balance.
Pichler (2009) studied work-life balance and has presented significant insights into the troubles of combining family aspirations with salaried work in relation to policy relevant agendas. Fisher and Layte (2002) investigated the role of time diaries in the study of work-life balance. They consider three sets of work-life balance measures: i) proportion of free time ii) overlap of work and life and iii) time spent with other people.

Chang et al. (2010) reviewed methodological choices (sampling frames, measures used and constructs investigated) in 245 empirical studies on work-life balance published between 1987 and 2006. Results show that work-life balance studies require setting up better reliability between the conceptualization of constructs and the operationalization of measures.

Geurts et al. (2005) report on the stepwise development of a new questionnaire for measuring work-home interaction. Inspired by insights from work psychology, more specifically from Effort-Recovery Theory (Meijman & Mulder, 1998), they defined work-home interaction by differentiating between the direction and quality of influence. Validity evidence was provided based on the internal structure of the questionnaire. The results showed that the questionnaire reliably measured four empirically distinct types of work-home interaction, and that this four-dimensional structure was largely invariant across relevant subgroups. Validity evidence was also provided based on the relations with external (theoretically relevant) variables (i.e. job characteristics, home characteristics, and indicators of health and wellbeing). The results generally supported the hypothesized relationships of these external variables with negative work-home interaction. Less support was found however, for the hypothesized relationships with positive work-home interaction. This contributes to current literature as it employs a relatively broad conceptualization of work-home interaction and offers a promising tool that measures its multiple components across a wide variety of workers. Therefore, considering the robustness of the scale developed by Geurts et al. (2005), the same was adapted for the present study.

Thus, four important dimensions of work-life balance viz. Positive Work-Home Enhancement (PWHE), Positive Home- Work Enhancement (PHWE), Work Experience (WE) and Home Experience (HE) were considered in the present study.
**Construct 1: Positive Work Home Enhancement (PWHE)**

This construct measures how work experiences/conditions enable an employee to manage his/her family responsibilities. When a person experiences amicable conditions at their work, they are able to carry out their daily responsibilities that stem from home and family responsibilities (Geurts *et al.*, 2005).

According to Geurts *et al.* (2005), this construct includes all those items that are related to the work to home facets and that how environment at work influence home environment. Some of the items which were used to measure the above constructs are: “I fulfill my domestic obligations better because of how I do my job”, “I manage my time at home more efficiently because I am efficient at work.”

**Construct 2: Positive Home Work Enhancement (PHWE)**

This construct explains as to how home experiences/conditions enable an employee to manage his/her work and job responsibilities. When a person experiences amicable situations at their home, they are able to carry out their daily responsibilities that stem from work and job demands more productively (Geurts *et al.*, 2005).

According to Geurts *et al.* (2005), this construct includes all those items that are related to the home to work facets and that how environment at home influence work environment. Items which were used to measure the above constructs are: “After spending a pleasant weekend with my family, I have more fun in my job”, or “My home responsibilities enable me to take my work responsibilities seriously.”

**Construct 3: Work Experience (WE)**

The construct Work Experience (WE) refers to work related situations and experiences. Three important dimensions of work experience that were considered in the study were amicable work pressure (reasonable workload at work), work control (to have power and control vis-à-vis one’ work) and work support (help and support from seniors and colleagues), all considered vital for workers regulation of effort investment in work settings (De Lange *et al.* 2003; Karasek & Theorell, 1990).

According to Geurts *et al.* (2005) this construct includes items that are related to work pressure, work control and work support. Items which were used to measure the
above constructs are: “I can take a short break if I feel this is necessary”, or “People in my institute are helpful and appreciate my efforts.”

**Construct 4: Home Experience (HE)**

Home experience mirrors work experience and includes dimensions like amicable home pressure (reasonable workload at home), home control (potentiality to deal with unpredicted problems and exigencies at home), and home support reflected in support that one receives from people in his/her private life (Karasek & Theorell, 1990).

According to Geurts *et al.* (2005), this construct includes items which are related to home pressure, home control and home support. Items which were used to measure the above constructs are: “When something unexpected happens in my home (e.g. a child gets ill), it is possible for me to arrange things” or “It is easy for me to get things done at home.”

**3.4.2 Dependent Variable: Organization Commitment**

According to Allen (2001), work-life balance is often seen in terms of organization commitment. It is expected that work-life balance enhances an employee’s commitment towards the organization. Organizational commitment is the individual’s emotional attachment to the organization. Several studies have focused on finding ways to improve how workers feel about their jobs so that these workers would become more committed to their organizations (e.g. Balaji, 1988; Cohen & Bailey 1997; Loy & Wharton 2004).

Eaton (2003) found that work-life balance practices improved employees’ organizational commitment, but only to the extent that employees felt free to use the practices without negative consequences to their work lives- such as damaged career prospects. According to Liff and Cameron (1997), use of work-life leave provisions is low among staff with career aspirations due to the belief that taking such leave will be interpreted as a lack of commitment to the organization. Interference between work and non-work responsibilities has a number of negative outcomes. Mowday *et al.* (1979) developed an Organizational Commitment Questionnaire (OCQ). Series of statement were used to check out the possible feeling of an individual about an organization or company. Several researches have been done using the above OCQ
(e.g. Allen, 2001; Burke & Greenglass, 1999; Kossek & Ozeki, 1998). Thus, in the present study, the OCQ was adopted. Items that were used to measure the construct are like: “I am willing to put in extra effort in order to help my institute succeed”, or “I am proud to tell others that I am part of this institute.”

3.4.3 Mediating Variable: Job Satisfaction (JS)

Spector (1997) defined job satisfaction as how people feel about their job. Job satisfaction is seen as one of the most researched positive outcomes of work-life balance. Several studies have linked work-life balance to job satisfaction (e.g. Kiecolt, 2003; Near & Sorcinelli, 1989; Saltzstein et al., 2001). Further, a number of researchers have also studied the link between job satisfaction and organizational commitment (e.g. Balaji, 1988; Dirani & Kuchinke, 2011), testifying to the fact that job satisfaction positively affects organizational commitment. Job satisfaction is treated as a mediator in the relationship between work-life balance and organizational commitment (e.g. Brombacher, 2015; Azeem & Altalhi, 2015; Yutaka, 2012). Thus, in the present study too job satisfaction was considered as a mediator.

The job satisfaction scale used in the present study has been adapted from the study of Oshagbemi (1997). There are eight job specific elements that are consistent with the findings on the measurement of job satisfaction (Loher et al., 1985; Wanous & Lawler, 1972). This instrument was seen to provide consistent and valid results (Imparato, 1972). Thus, in the present study, these job dimensions were used as indicators of job satisfaction. Some of these job-related dimensions on which satisfaction was measured are: “Nature of the job with respect to teaching” or “Opportunities for doing research.”

3.4.4 Moderating Variables: Demographic Profile

Studies conducted in the field of work-life balance, job satisfaction and organization commitment have also explored the role of moderating variables (Simpson, 1998) such as age, income, gender, marital status, working spouse and number of dependents (Aycan & Eskin, 2005; Bacik & Drew, 2006; Dean, 2007; Gardiner et al., 2007; Geurts et al., 2005; Mayo et al., 2011; Robinson & Godbey, 1997; Vickerstaff
& Cox, 2005) also used age, gender, marital status and number of dependents in their model on work-home interaction.

Oshagbemi (1997) studied how university teachers get satisfied with their job. In the study, demographic variables like gender, tenure, age, experience and rank were taken up. Mowday et al. (1979) also used similar moderating variables in their study on organization commitment. Stempien and Loeb (2002) used gender, age, marital status, type of institute and number of dependents in their study as moderating variables.

For the present study, variables that are likely to moderate the relationship between work-life balance, job satisfaction and organization commitment were drawn from literature (Geurts et al., 2005; Mowday et al., 1979; Oshagbemi, 1997).

Eight dimensions of demographic profile of respondents were incorporated in the questionnaire viz. age, income, gender, qualification, experience, marital status, working spouse and number of dependents.

3.5 Research Instrument

The final questionnaire based on the above constructs contained the following items:

**Independent Variables: Dimensions of Work-Life Balance (WLB)**

- Positive Work Home Enhancement (PWHE)
- Positive Home Work Enhancement (PHWE)
- Work Experience (WE)
- Home Experience (HE)

**Mediating Variable**

- Job Satisfaction (JS)

**Dependent Variable**

- Organization Commitment (OC)

**Moderating Variable**

- Age
- Income
- Gender
The constructs work-life balance and organization commitment have been measured using a 5-point Likert scale anchored with the end points 1= strongly disagree to 5= strongly agree. Ample researches have been done in the field of work-life balance where five point scales have been used (De Ceirí et al., 2002; Fairbrother & Warn, 2003; Forsyth & Polzer-Debruyne, 2007). In the case of job satisfaction, a five point Likert scale was used with end points labeled as 1= extremely dissatisfied to 5= extremely satisfied. These differing scaling techniques were used keeping in mind the suggestions of other researchers (Dex & Bond, 2006; Greenhaus et al., 2003; Hayman, 2005;). This is necessary in order to eradicate the boredom the respondents may face while filing the questionnaire (e.g. Fairbrother & Warn, 2003). This helps reduce respondent biases (Podsakoff et al., 2003).

### 3.6 Face and Content Validity

A scale is said to have face validity if by looking at it some idea is obtained about what it is supposed to measure (Ahmad & Schroeder, 2003). Face validity relates to whether an instrument appears to be reasonable, logical and easy to understand. An instrument has content validity if its items representatively sample the domain of the concept it is intended to measure i.e. the items sufficiently span the scope of the construct. Since there is no formal statistical test for content validity, researcher judgment and insight must be applied (Garver & Mentzer, 1999). If items of a construct are drawn from an extensive survey of relevant literature and reviewed by experts, content validity can be ensured (Bohrnstedt, 1983; Shin et al., 2000).

While face validity relates to whether a test appears to be a good measure or not, content validity rests on the instrument’s ability to assess the relevant domains of a certain subject. Care was taken during the instrument development stage to ensure face and content validity.
The research instrument was developed in four phases as discussed below:

**Stage 1: Identification of constructs and items from extant literature**

This study is about exploring the relationship between work-life balance and organization commitment with job satisfaction being considered as the mediator. Different aspects of work-life balance, job satisfaction and organization commitment and their relationship have been explained in previous researches (Burke & Greenglass, 1999; Kossek & Ozeki, 1998). Researches show that work-life balance can be seen in terms of work to family balance, work family conflict, work family interference, work to home and home to work interaction (Bond et al., 1998; Estes & Michael, 2005; Geurts et al., 2005; Pocock, 2003; Probert, 2002; Reed et al., 2003; Voydanoff, 1988). Relationship between work-life balance and organization commitment has been explored by several authors (Burke & Greenglass, 1999; Eaton, 2003; Kossek & Ozeki, 1998; Liff & Cameron, 1997; Mowday et al., 1979). In the same way, mediating effect of job satisfaction in the relationship has been examined (Babakus et al., 1996; Oshagbemi, 1997; Sousa-Poza & Sousa-Poza, 2000; Spector, 1997). Through an extensive literature review, the study constructs and their corresponding items were identified which were then drafted into a questionnaire. Relevant items were selected to ensure that every item included in the questionnaire contributed to the information required. This was done to ensure that the questionnaire had content validity.

**Stage 2: Review and revisions in draft questionnaire**

The draft questionnaire so developed was then put to a review by senior researchers and academicians in the area in the light of the recommendations by Malhotra and Dash (2011). The main objective during this stage was to incorporate the inputs and suggestions from area experts in order to enhance the content and face validity of the instrument.

The researcher approached two senior researchers to provide suggestions in terms of items that should be included in the questionnaire, a method suggested by Ahmad and Schroeder (2003). The same were then broadly compared with the existing items in the draft questionnaire and some minor modifications were made. Thereafter, two
other researchers/academicians in the area were approached who were asked to review the questionnaire items and guess what the questionnaire was intended to measure in order to ensure that the questionnaire appeared reasonable and acceptable. This was done to ensure that the questionnaire had face validity.

This process enabled the researcher to modify the questionnaire and to remove several discrepancies, which led to the development of a valid and sound research instrument.

**Stage 3: Pilot testing and finalization of research instrument**

The study should be piloted with a sound sample of respondents who come from the target population and a pilot study of 30 respondents is generally used (Cavana et al., 2001). Pilot testing of the questionnaire was carried out by administering the questionnaire on a small number of respondents. Faculty members teaching in professional courses (MBA and BTech) were provided with the questionnaire in which an extra space was included for them to provide their feedback on the questionnaire. After the feedback was obtained from the pilot testing, some of the items were re-worded or changed and refined so that the instrument could be more representative of the proposed constructs thus enhancing its content validity.

**Stage 4: Final layout and design of the questionnaire**

The questionnaire was kept short so that the responded may not show signs of boredom. Iglesias and Torgerson (2000) suggested that long questionnaires yield poor responses in comparison to short ones. In addition to that, the questionnaire was printed in the form of a hard card-like form to make it look more professional and interesting. It has been found that the use of colour in research instruments enhances the response rate, especially when colors are blue, pink, green and yellow (Bender, 1957; Blyth & Essex, 1981; Buttle & Thomas, 1997). The suggestions were incorporated while designing the questionnaire. Proper question wording guidelines and format as suggested by Malhotra and Dash (2011) were followed to keep the items as simple, specific and objective as possible. The design of the questionnaire is important as it helps increase response rate (Arthur & Boyles, 2007). Sequencing of questions and structuring of the instrument were given special attention to make the
questionnaire look attractive and easy to respond to. Anonymity of the respondent was maintained to minimize chances of bias (singer et al. 1995).

At the time of questionnaire administration, an open ended question viz: “Please mention any one aspect of work-life balance that you think is most important for you” was also added. Responses generated were segregated and then those were clustered in the form of themes and subthemes. In this way a qualitative analysis of the responses was also carried out, keeping in mind the research objectives of the study.

3.7 Sampling procedure

Determining the sampling procedure for the study involved taking into account all the steps that are typically involved in sampling design:

- Defining the target population
- Defining sampling unit
- Determination of sample frame
- Determination of sample element
- Selection of sampling technique
- Determination of sample size
- Execution of sampling process

3.7.1 Target Population

The present study was aimed at exploring work-life balance in the context of teachers in higher educational institutes in India. Since India is a big country and there are a large number of institutes offering higher education, it was deemed appropriate to restrict the study to institutes offering professional courses like MBA and B.Tech.

Target population for the present research included faculty members from institutes in India that offer MBA and BTech courses. Faculty members from MBA and BTech courses were selected as it was surmised that teachers in such professional courses face more challenging and demanding work scenarios as they need to keep up with the changing requirements of the market (Punia & Kamboj, 2013). Since institutes offering MBA and BTech courses cater to an ever-changing corporate landscape, teachers in these institutes are expected to be abreast with the latest developments in
their respective fields. Thus, these teachers face highly challenging work demands. Therefore, a study on work-life balance in the context of teachers in MBA and engineering institutes was conceived as highly relevant.

Further, the two courses are quite similar in terms of academic rigor needed e.g. extended classes, regular assessments, projects, summer trainings, tight semester schedules, frequent student presentations, professional orientation etc. Thus, the expectations that faculty members need to fulfill are also quite high in both the streams.

3.7.2 Sampling Unit and Sample Frame

Since the study was aimed at getting responses from MBA and Btech teachers, institutes offering engineering and management education served as the sampling units for the study. There are several institutes that come under this category. Some are set up by the Central Government of India; some are affiliated to state governments; some are university departments while some are affiliated to different universities. Thus, the task of targeting the population was not an easy one. Lists of institutes offering MBA and BTech were obtained from the website of All India Council for Technical Education (AICTE). AICTE is a national-level ruling body for technical education, under the Department of Higher Education, Ministry of Human Resource Development and Government of India. It was formed in November 1945 as an advice-giving body. Later in 1987, it was given constitutional status by an Act of Parliament. AICTE is now responsible for coordination and planning of technical and management education system in India. The AICTE accredits graduate and postgraduate programs under detailed categories at Indian institutions as per its agreement. Thus the list of institutes obtained from AICTE was seen as the most authentic published source that could serve as the sample frame for the study.

3.7.3 Sampling Element

Sampling elements were the faculty members employed in the institutions offering MBA and BTech courses which were accredited by AICTE. Faculty members
targeted were from the private and government institutes. Faculty members who are included in the sampling elements were from different grades (assistant professors, associate professors and professor) with different experience levels including both males and females.

3.7.4 Sampling Technique and Sample Size

There were geographical and logistic constraints in reaching out to the institutes since India is a big country. Considering the vast expanse of India, it was practically not feasible for the researcher to cover these institutes spread across the country.

Due to the above cited constraints, it was deemed fit to carry out the study within the geographical limits of the states of Uttar Pradesh (U.P) and Delhi (located in northern region of India). Uttar Pradesh is the most populous state of India and is one of the largest in terms of geographical area covered (Census Report, 2011). According to sixth Economic Census (2013-14), UP is also one of the largest job generators. It comes third in terms of total number of professional institutes. Delhi being the capital of India and employment hub for most of north Indians is an important center for management and engineering institutes and is constantly showing a rise in the number of such institutes. Delhi is now the dwelling place of major global and Indian companies, be it in the service or manufacturing sectors. Multinational Companies from all over the globe are now turning their heads towards Delhi due to skilled manpower and labor resource. Delhi is now considered as an important and major service provider in terms of management and engineering education in India.

As per the classification given by Sixth Central Pay Commission, Government of India (2006), the country has been divided into various categories of cities. This classification is done according to the rates of house rent allowance of the cities. In determining the classification, the population of urban agglomeration area of the city has also been taken into consideration. Earlier, the cities were classified as falling in A-1, A, B-1, B-2 and C categories. These categories have now been revised and buckled into more precise categories viz. A-1 to ‘X’; A, B-1 & B-2 to ‘Y’ and C & Unclassified to ‘Z’.

*When the study was being designed, the Seventh Pay Commission report had not been presented.
There are 14 cities in U.P. which are classified as ‘X’ and ‘Y’. Only ‘X’ and ‘Y’ category of cities were selected as those are seen as developed and logistically well connected. Also that majority of MBA and BTech institutes were also present in these cities. This also supports the selection of functionally equivalent sample as teachers from ‘X’ and ‘Y’ class cities are paid at par and thus, share comparable living standards. It is therefore assumed that they face similar work-life concerns.

In addition to Delhi, cities selected from UP were Noida, Allahabad, Kanpur, Bareilly, Lucknow, Agra and Aligarh. All these cities were classified as ‘Y’ class except for Noida that is categorized as ‘X’. Delhi is classified as ‘X’ class. Out of the 14 cities of U.P. falling in the considered category, every alternate city was selected and that led to final selection of 7 cities from where data was collected.

Keeping in mind the fact that the study was conducted in U.P. and Delhi which is itself very vast; geographical and logistics constraints warranted that the study be limited to only a select number of institutions offering MBA and BTECH courses. To select institutions offering MBA and BTECH courses in these cities, which were accredited to AICTE, systematic random sampling technique was deployed.

In all there were 302 such institutes. Every 5th institute was picked up from the list. Thus, in all, 60 institutes were targeted. Every 5th institutions offering MBA and BTECH courses was selected on the premise that 60 colleges would be covered in all from the sample frame. On the basis of an initial survey of institutes’ websites and other available published sources, it was surmised that on an average each institute had about 15-20 faculty members. Thus, in all about 900 respondents could be targeted all together from about 60 institutes. Assuming that such researches have a low to moderate response rate, it was expected that the final number of responses should be above 400. As the questionnaire contained 40 items, it was expected that the responses should be at least ten times the number of items. This was found to be a feasible number, considering the fact that the researcher proposed to use SEM technique for data analysis.

Teachers were selected from targeted institutes offering MBA and BTech programmes. All faculty members teaching in the institutes were covered. Faculty
members working at different levels (assistant professors, associate professors and professors) with different experience, education, age, gender and marital status were thus included. This ensured that the sample covered the range of demographic characteristics included in the questionnaire.

The Condition of Sampling Equivalence

It has been widely agreed that one of the most important issues in conducting behavioral research is that of sample equivalence (Craig & Douglas, 2000). According to Sin et al. (1999), it is crucial to establish equivalence not only in research instrument but also in sampling procedure and data collection. Green and White (1976) claimed that sampling equivalence must be achieved by ensuring that the sample belongs to a comparable social class and cultural background.

Further, Van de Vijver and Leung (1997) suggest applying the concept of matched sample; it requires choosing samples which are similar and comparable on the variables considered for the study. In matched samples, it must be ensured that the sample is functionally equivalent i.e. the sample is drawn in a way so that it is equivalent in terms of demographic and cultural characteristics. When turning to sampling equivalence, at least three issues need to be considered: focus on geographical coverage, unit of analysis and sampling of individual respondents (Samiee & Jeoung, 1994; Reynolds et al., 2003).

As discussed above, the study focused on two prominent states of North India viz. Delhi and Uttar Pradesh. Both these states are geographically neighbors. Because of geographical proximity, these regions are seen as having small psychic distance and hence, are also seen as culturally similar, as suggested by Johanson and Paul (1975). As a result, the choice of the two states can be seen as fulfilling the condition of sampling equivalence.

Further the units of analysis were AICTE recognized institutes offering Btech and MBA courses. The sample elements included faculty members working at different levels in the institute. Since the two courses are quite similar in terms of academic rigor needed, as discussed above, the sample units and sample element fulfill the requirement of sample equivalence. They are seen to be functionally similar and
comparable. By ensuring that the sample is equivalent and matched, the research tries to fulfill the condition of being methodologically rigorous.

Summarization of steps followed in sampling is shown in exhibit 3.2.

**Exhibit 3.2: Steps Adopted for Sampling**

3.8 Questionnaire Administration and Data Collection

Teachers were contacted personally by the researcher as well as through email and Google docs’ link. Addresses of the institutes/ email address of teachers were traced from AICTE’s or institutes websites. Firstly, it has been found in other studies that e-mail surveys in India generate a very thin response rate (Budhwar & Sparrow, 1997). Hence, it was decided to direct the questionnaire also through physical interaction with the respondents.

Data was collected from the sample elements mostly by contacting them personally. This methodology has been used by other researchers in the area too (Randhawa, 2007). Most of the institutes were personally visited by the researcher and the teachers were contacted during their free time or in between breaks. To collect data from all those who couldn’t be contacted, due to their absence, questionnaires were sent to them through e-mails/ links. Their contacts details were taken from the official
websites or from their colleagues. Permission was taken from the respective authorities before administering the questionnaire.

3.9 Conceptual Research Model

In order to assess the hypothesized relationship, a conceptual research model was developed. Constructs of work-life balance viz. PWHE, PHWE, HE and WE were adopted from Geurts et al. (2005) and are treated as independent variable. Job satisfaction was treated as mediating variable and organization commitment was treated as dependent variable.

![Exhibit 3.3: Proposed Research Model](image)

PWHE= positive work home enhancement, PHWE= positive home work enhancement
WE= positive work experience, HE= positive home experience, JS= Job Satisfaction
OC= Organization Commitment
*All variables have positive relationship with each other.

3.10 Research Hypotheses

Two sets of hypotheses were tested. The first set included hypotheses for direct effect as well as mediation effect. This involved testing three models viz. direct effect (M1), fully mediated (M2) and partially mediated (M3) structural models. Another set of hypotheses was for moderation analysis where moderating effect was checked.

M1: Investigating the relationship between constructs of WLB viz: positive work home enhancement (PWHE), positive home work enhancement (PHWE), work experience (WE), home experience (HE) and organization commitment (OC).
H₁: Positive Work Home Enhancement (PWHE) has a direct and positive relationship with Organization Commitment (OC).

H₂: Positive Home Work Enhancement (PHWE) has a direct and positive relationship with Organization Commitment (OC).

H₃: Work Experience (WE) has a direct and positive relationship with Organization Commitment (OC).

H₄: Home Experience (HE) has a direct and positive relationship with Organization Commitment (OC).

M2: Investigating the full mediating role of job satisfaction (JS) between constructs of WLB (positive work home enhancement (PWHE), positive home work enhancement (PHWE), work experience (WE), home experience (HE) and organization Commitment (OC).

H₅: Positive Work Home Enhancement (PWHE) has a direct and positive relationship with Job Satisfaction (JS).

H₆: Positive Home Work Enhancement (PHWE) has a direct and positive relationship with Job Satisfaction (JS).

H₇: Work Experience (WE) has a direct and positive relationship with Job Satisfaction (JS).

H₈: Home Experience (HE) has a direct and positive relationship with Job Satisfaction (JS).

H₉: Job Satisfaction (JS) has a direct and positive relationship with Organization Commitment (OC).

M3: Investigating the partial mediating role of job satisfaction (JS) between constructs of WLB (positive work home enhancement (PWHE), positive home work enhancement (PHWE), work experience (WE), home experience (HE) and organization Commitment (OC).

H₁₀: Job Satisfaction mediates the relationship between Positive Work Home Enhancement (PWHE) and Organization Commitment (OC).

H₁₁: Job Satisfaction mediates the relationship between Positive Home Work Enhancement (PHWE) and Organization Commitment (OC).

H₁₂: Job Satisfaction mediates the relationship between Work Experience (WE) and Organization Commitment (OC).
$H_{13}$: Job Satisfaction mediates the relationship between Home Experience (HE) and Organization Commitment (OC).

D: Investigating the moderating effect of gender on the proposed relationships between constructs of WLB (Positive Work Home Enhancement (PWHE), Positive Home Work Enhancement (PHWE), Work Experience (WE), Home Experience (HE) and Organization Commitment (OC).

$H_{14}$: The relationship between Positive Work Home Enhancement (PWHE) and Organization Commitment (OC) is stronger for females than for males.

$H_{15}$: The relationship between Positive Home Work Enhancement (PHWE) and Organization Commitment (OC) is stronger for females than for males.

$H_{16}$: The relationship between Work Experience (WE) and Organization Commitment (OC) is stronger for females than for males.

$H_{17}$: The relationship between Home Experience (HE) and Organization Commitment (OC) is stronger for females than for males.

E: Investigating the moderating effect of marital status on the proposed relationships between constructs of WLB (Positive Work Home Enhancement (PWHE), Positive Home Work Enhancement (PHWE), Work Experience (WE), Home Experience (HE) and Organization Commitment (OC).

$H_{18}$: The relationship between Positive Work Home Enhancement (PWHE) and Organization Commitment (OC) is stronger for married than for Singles.

$H_{19}$: The relationship between Positive Home Work Enhancement (PHWE) and Organization Commitment (OC) is stronger for married than for Singles.

$H_{20}$: The relationship between Work Experience (WE) and Organization Commitment (OC) is stronger for married than for Singles.

$H_{21}$: The relationship between Home Experience (HE) and Organization Commitment (OC) is stronger for married than for Singles.
3.11 Data Analysis Tools

Initial analysis was done using SPSS 21, to test for common method bias, skewness and kurtosis and to generate descriptive statistics. Respondents profile was generated and Confirmatory Factor Analysis (CFA) was carried out for refinement of scale using Lisrel 8.5. Reliability and validity was carried out in Lisrel 8.5. Various types of reliability and validity estimates were generated. Structural equation modeling was then carried out to test the conceptual research model. Role of mediating and moderating variable was examined. Research hypotheses were tested using SEM path values. Further, qualitative analysis was carried out using the method of thematic analysis.