CHAPTER 3: RESEARCH METHODOLOGY

This Chapter details the methodology used to conduct this research. The Chapter starts with a definition of the operating paradigm guiding this study. This operating paradigm as a foundation, it then details the research methodology, including data collection methods, measurement instrument used, study population and sample, implementation plan, and finally ends with the data analysis approach that was used to analyze the study data.

3.1. Methodological Paradigm

Arbnor and Bjerke (1997) defined the methodological approach as “a set of ultimate ideas about the constitution of reality, the structure of science ...... that is important to methods, that is, to the guiding principles for creating knowledge (Abnor and Bjerke, 1997, page. 26). It is also stated that ” for a study successfully to address its research question, it must be firmly grounded within a methodological approach” (Maggs-Rapport, 2001, page. 373). Arbnor and Bjerke (1997) proposed six social science paradigms and three methodological approaches, these are as follows:

Methodological Approach 1: The analytical approach

1. Paradigm 1: Reality as concrete and conformable to law from a structure independent of the observer.

2. Paradigm 2: Reality as a concrete determining process.


Methodological Approach 2: The systems approach

4. Paradigms 2 and 3.
5. Paradigm 4: Reality as a world of symbolic discourse.

Methodological Approach 3: The actor approach


7. Paradigm 5: Reality as a social construction.


These above mentioned six paradigms works as a continuum. At one end of the continuum reality is viewed as objective and rational (for example, Paradigm 1). It explains the researcher believes in universal laws and truths that are constant and consistent and hold for all. This generally represents the analytical methodological approach. On the other end of the continuum (for example paradigm 6) reality is viewed as completely subjective. That is, reality is completely determined.

The field of the study with which the current study focused on gaining insight into and integration of attitudinal and behavioral components of consumer-brand relationships is lying in the middle of the continuum. In essence, it did this by looking at how consumers’ form relationship with brands, what are the stages at which they form the relationship with the brands.

3.2. Research Methodology: Mixed Methodology

The current research positioned its study paradigm in the middle of the possible spectrum of methodological choices. This positioning of the study’s operating paradigm suggests a research methodology that combined both the perspectives, such as quantitative and qualitative approaches, known as “Mixed Methodology”. There are three primary reasons for choosing a mixed methodical design over traditional research designs:
1. The problem statement and research objectives mentioned in Chapter 1 requires a combination of qualitative and quantitative methods.

2. Research questions formulated in this study requires the exploration and integration of attitudinal and behavioral dimensions (qualitative) and its empirical validation (quantitative). It is clear that the individual understanding (use of a single approach) do not address the primary purpose of the study.

3. There is insufficient information available in the literature regarding the role of attitudinal and behavioral dimensions in consumer-brand relationship building. The detailed understanding of this requires the mixing of qualitative and quantitative methods.

This mixed method research design helps the researcher to go for inductive and deductive reasoning techniques in order to more accurately answer the study’s research questions that cannot be completely answered through qualitative or quantitative research alone (Norman and Lincoln, 2000). Denzin and Lincoln (2000) stated that mixed research design emphasises on the explanation and application factors in which process of the research is benefited, which ultimately lead to the interpretation of the subject matter, its applications and implications for the field of the study. Rocco et al. (2003) suggested the advantages of mixed methodology, in which the authors justified that the legitimacy of qualitative methods is enhanced through the incorporation of quantitative methods, known as triangulation.

As the study follows the mix of qualitative and quantitative methods, and these two approaches were applied in sequence (qualitative first and quantitative later), in which quantitative research design dominates over the qualitative approach. Following Leech
and Onwuegbuzie (2009) typology of fully mixed method research design, the design proposed in this study could be classified as “Fully Mixed Sequential Dominant Status Design”. This typology of mixed method design involves combining or mixing both qualitative and quantitative research approaches within one or more of or across the stages of the research process. In this study, the qualitative and quantitative research approaches were mixed within all the four areas, like research objectives formation, data collection, type of analysis, and type of inference. These phases occurred sequentially and more weight would be given to quantitative approach.

In this study the quantitative findings were presented as either helping to elaborate on or extend the qualitative findings (Creswell, 2003). This approach of mixing is more valid and robust, because rather than inferring and conceptualizing the attitudinal and behavioral dimensions of consumer-brand relationships from the qualitative data alone (in-depth interviews), rich empirical data provided a context for quantitative interpretation and support. It is also supported that mixed method design allows the researcher for the objective examination of two separate data sources as a means of ensuring accurate interpretation through triangulation (Creswell, 2003). The following Figure (Figure 3.1.) shows the outline of sequential dominant status mixed research design.

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Figure 3.1. Fully Mixed Sequential Dominant Status Design.

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1Triangulation is a multiple data collection and analysis method, in which the researcher uses multiple data sources, multiple analysts, and multiple theories or perspectives. It is also stated that the purpose of triangulation is to test for consistency rather than to achieve the same result using different data sources or inquiry approaches. (Rocco et al., 2003, page. 20).
3.3. Research Framework

Figure 3.1. displayed the research framework of this study. During the first phase of qualitative or exploratory investigation, the study conducted a series of in-depth interviews to explore the attitudinal and behavioral dimensions of consumer-brand relationships. In which the study adopted a grounded theory approach (Strauss and Corbin, 1994) for data collection, analysis and inferences, aimed to develop a conceptual model of consumer-brand relationships. During this stage the study also developed the hypotheses to link the attitudinal and behavioral dimensions backed by previous literature. During the second phase, the study followed a quantitative design which mainly dealt with testing and validation of the conceptual model followed by a survey. During this stage the measurement was taken in a self-reporting manner. For measuring self-reported beliefs and behaviors, a self-administered questionnaire survey is considered to be appropriate and widely used approach in a relationship context (Rundle-Thiele, 2005). First, a pre-test was carried out to test the suitability of the measurement instrument. Then, the confirmation of the suitability of the measurement instrument validity and reliability of the constructs was tested using Confirmatory Factor Analysis (CFA). Finally, a series of Structural Equation Modelling (SEM) was carried out to empirically test the model of consumer-brand relationships. During the third phase, followed by quantitative method using SEM the model validation was carried out to examine the predictive ability of the empirical model.

The research design presented in this Chapter is divided into two sections. The very first section briefly explains the methodology used to develop a conceptual model (more details are presented in Chapter 4). Second section elaborates the quantitative methodology
used for empirical model testing and its validation. It presents the population and sample, measurement, data collection, and analytical approach used to analyze the study data.

1.4. Methodology For Conceptual Model Development

It has been stated that qualitative research is most appropriate in those situations which demand the understanding of the meaning and perspectives attached by the participants regarding the object/case (Hoshmand, 1989). In addition, it has accepted that naturalistic research paradigm offers the researcher to understand consumers’ deep structural processes. It stated that the selection of a particular qualitative methodology is often misleading and conflicting (Caelli et al., 2003). Therefore, the research made careful consideration before selecting a particular method. Caelli et al. (2003) argued that rigor is the basic factor that determine the central component of evaluating a methodology. For confirming the rigor, the researcher examined the two aspects, such as: (a) the tradition chosen will contribute to enhance the methodological rigor, and (b) the chosen method is philosophically and methodologically congruent with study’s inquiry (Caelli et al., 2003).

3.4.1. Choosing Among the Five Research Traditions

The current study considered five research traditions proposed by Creswell (1998) before selecting a particular qualitative research tradition as the appropriate one. These are:

- **Ethnography**: research problem associated with ethnographic studies involves study of a specific cultural group over an extended period of time (Creswell, 1998). Identification and examination of consumer-brand relationship dimensions are not associated with the cultural aspects over an extended period. As a result, ethnography was rejected as a research approach to this study.
Narrative Research: the tradition of narrative research involves understanding of individual life experiences in story form (Creswell, 1998). As the current research was focused on identifying consumers’ experiences specific to brand, the narrative research did not meet the needs of the study.

Case Study: the case study tradition involves the consideration of a single historical situation, which is constrained by time and context. In this study the consideration of these kind of tradition will give little value to the research. Therefore, the case study approach could not be considered as the research approach.

Phenomenology: this research tradition generally uses to explore the exact nature specific human experience. Creswell (2005) stated that phenomenological research provides insight into a person’s subjective interpretations, beliefs, perceptions, and frames of reference of the specific human experience under study. In short, this research tradition is best suited in those situations in which problem in hand involves understanding human relations. As the present study does not involve exclusive understanding of human relations, rather it aims to understand consumer-brand relations, it is considered that phenomenology is not a best suited approach.

Grounded Theory: Loke (2001) argued that grounded theory is best suited in those situations, such as; (a) capturing complexity; (b) linking with practice; (c) facilitating theoretical work in substantive areas that have not been well researched by others; (d) putting life into established fields or to provide alternative conceptualization for the existing work. By considering the last situation, grounded theory can provide the basis for an alternative view of well-established fields,
through its open-ended approach to data collection followed by a systematic approach to theoretical development. As the present study’s requirement matches with the objective of the grounded theory approach, it has been decided to use grounded theory as the qualitative approach to this study.

3.4.2. Grounded Theory Methodology

Qualitative research techniques are suitable when the research objective is to uncover the meaning of some phenomenon that involves respondents’ experiences (Hoshmand, 1989). Chosen to clarify consumer understanding of the attitudinal and behavioural bond with brands, the method used here is grounded theory. To conduct grounded theory phase of this study, the multi-stage process was followed from the work of Strauss and Corbin (1994). This grounded theory approach which involves: (a) development of codes, categories and themes through using an inductive process of data reduction, rather than applying pre-determined classification of the data (Glaser, 1978); (b) development of working hypothesis and assertions; and (c) analyzing the consumer’s experiences with the brand, particularly, relationship establishment, augmentation, maintenance and outcome.

3.5. Methodology for Empirical Model Testing and Validation

3.5.1. Study Constructs

In the conceptual model development phase, the study identified seven latent constructs which are relevant to consumer-brand relationships, namely “brand attitude strength”, “brand satisfaction”, “brand trust”, “brand attachment”, “brand commitment”, “brand equity”, and “brand loyalty”. In the second phase, followed by a survey design all these constructs were measured. For measuring these constructs, the research adapted the scales
from past literature. In the brand attitude strength paradigm, the study considers the works of Abelson (1995), Fazio (1995), Gross et al. (1995), and Krosnsick and Petty (1995) and modeled as an exogenous variable to four different constructs like brand satisfaction, trust, attachment and commitment. In the brand satisfaction, the study considered the works of Sung and Cho (2010) and modeled it as an endogenous variable to brand attitude strength and exogenous variable to brand trust and attachment. In the brand attachment paradigm, the proposed study considers the work of Park et al. (2010), modeled as mediating variable between brand attitude strength and brand commitment; brand satisfaction and brand loyalty. The study took the construct of brand trust from the works of Moorman et al. (1993), Morgan and Hunt (1994), and modeled it as a mediating variable between brand attitude strength and brand attachment; brand satisfaction and attachment; brand attitude strength and brand equity; and brand attitude strength and brand commitment. The brand commitment paradigm, which is mainly from Bansal et al. (2004) and Morgan and Hunt (1994), modeled it as an endogenous variable to brand trust and brand attachment. Brand equity paradigm, which is mainly from Yoo and Donthu (2001), modeled in the proposition as an exogenous variable to brand loyalty and endogenous variable to brand trust and brand commitment. Finally, brand loyalty which is the higher order endogenous variable is from Tsai (2011) and considers as the major outcome of brand equity.

3.5.2. Instrument Development

The survey questions for the proposed study were developed based on the extant literature and extensive personal communications with leading researchers in the field of brand management. The study developed a survey questionnaire which includes items to measure all the constructs used in the theoretical model developed during the qualitative phase. All
the items used in this study were measured in 10-point Likert-type scales, as in line with previous literature, anchored by strongly agree and strongly disagree and other bi-polar adjectives.

The items for brand attitude strength were adapted from Kim et al. (2008), ranges from 1 = very positive to 10 = very negative; 1 = not very certain to 10 = very certain; 1 = not very important to 10 = very important; 1 = not very knowledgeable to 10 = very knowledgeable. The brand satisfaction scale was taken from Anderson et al. (1994), ranges from 1 = totally disagree to 10 = totally agree. Building on brand attachment literature, brand attachment measures were adapted from Park et al. (2010) with anchors of 1 = strongly disagree to 10 = strongly agree. Four items scale for brand trust was adapted from Chaudhuri and Holbrook (2001), ranging from 1 = totally disagree to 10 = totally agree. The brand commitment measures were taken from Tsai (2011), anchored on a scale of 1= totally disagree to 10 = totally agree. Four items on the brand equity scale was adapted from Yoo and Donthu (2001), anchored from 1 = totally disagree to 10 = totally agree. Brand loyalty measurement was adapted from Bloemer and Kasper (1995), anchored from 1 = totally disagree to 10 = totally agree. See Appendix 3.1. for detailed understanding of the measurement items.

3.5.3. Pre-test 1: Product Category Selection

To select the product category, the study carried out a pre-test using thirty actual consumers from a shopping mall. This was carried out to select the product categories to be employed during the survey. Participants were instructed that there would be two major tasks that need to be completed. First, they were instructed to list the top Ten product categories (based on preference). Once the respondent selected Ten major product categories, during the second
stage, they were given a score and assigned a ranking (from highest to the lowest) for these selected product categories based on their familiarity. In accordance with the pre-test results, the most familiar product categories were Food and Dining (M = 23), Personal Care (M = 22) Apparels (M = 22), Laptops (M = 20), and Automobiles (M = 19).

3.5.4. Pre-test 2: Pre-testing of Survey Questionnaire

After the finalization of the measures for measuring the proposed constructs, the study conducted a pre-test, which was aimed at validating the survey questionnaire. In this pre-test, the study invited 30 management students who were specialized in the field of marketing and asked to review and pre-test the instrument. The respondents were presented with the questionnaire and asked to analyze the questionnaire which includes the measures of all the seven dimensions, and later the one-to-one interview with the study participants helped to understand the problems associated with the form, content, layout and wording of the questionnaire. After the pre-test, based on the respondents’ feedback regarding the items that seemed repetitive and words they do not understand, the measures were modified or edited for clarity, wording and layout. The revised items incorporated into the final instrument which would include the measures designed to capture brand attitude strength, brand satisfaction, brand trust, brand attachment, brand commitment, brand equity, and brand loyalty.

3.5.5. Sampling Design

The target population of the study consists of all consumers/customers who visit the shopping malls in one of the metropolitan cities (Hyderabad, India) during the three-month survey period. The city has been well recognized for its financial, commercial and industrial
activities. The city has a population rate of 7,749,334 making it the fourth most populous city in India\(^2\).

The empirical testing and validation of the current study was conducted based the data collected from five large shopping centers located in Hyderabad city through mall-intercept interviews. These shopping centers were chosen as survey sites because these are the places considered to be the five best shopping centers in Hyderabad\(^3\). The study applied a random selection procedure whereby interviewers walked from an exit door to exit door consecutively, aimed to approach the next shopper as and when he or she exited the mall (Sudman, 1980). The survey was conducted from 9:00 a.m. to 6:00 p.m. over a three-week period of time, including two weekends (covering both the busy days and the slower ones). In total the study collected responses from 501 responses. These respondents answered the questions once they choose their most favorite brand from any of the five selected product categories. The condition is that they are the regular users of that particular brand at least last one year. During the data collection it found that only 475 responses were useful, others were omitted from the study due to the incompleteness of information.

3.5.6. Data Analysis Design

Following the pre-test, the study conducted a model testing and validation. In this stage the total sample is divided into two parts: calibration sample (N = 250) and validation sample (N = 225). The model calibration was aimed to establish the reliability and validity of the scale and to confirm the causal path pattern of the proposed model. The validation sample was used to test the validity of the derived model. During the model calibration, the study also conducted cross validation through conceptualizing different alternative models based on

\(^2\) Government of India 2011 census.

\(^3\) http://hyderabad-ap.blogspot.in/2009/07/top-5-best-malls-of-hyderabad_15.html
theory. This process helped the research to undertake a cross-validation analysis. Such an analysis is necessary if the researcher wants to select the best model among a set of alternative models. Since the model that fits best in a given sample is not necessarily the model with the best cross-validity, especially when the sample size is not large (McCallum et al., 1994). In the model validation phase, the study also examined the extent to which the proposed model replicates in samples other than the one on which it was derived using another set of sample.

3.5.6.1. Test of Reliability and Validity

The reliability of the measurement scale was examined using Cronbach’s (1951) coefficient alpha using IBM SPSS 20.0. The study first confirmed the reliability of the scale as per the suggestion given by Nunnally (1967). Validity checks of the measured constructs were carried out through the confirmation of discriminant and convergent validity using LISREL 8.72. The discriminant validity of the measured constructs was performed using an approach suggested by Joreskog (1971). For each pair of constructs the discriminant validity is achieved in two stages. In the first stage, the correlation between the two constructs is constrained (fixed as one). In the second stage, these two constructs are allowed to correlate freely (unconstrained). After the completion of these two stages, the $\chi^2$ difference of these two models (constrained and unconstrained) is obtained. The significant difference between the constrained and unconstrained model proved that the constructs are not perfectly correlated and that discriminant validity is achieved. Convergent validity of the constructs was confirmed through the suggestion given by Hair et al. (2010). For assessing convergent validity, the proposed study checked the values of standardized factor loadings, Average Variance Extracted (AVE) and Construct Reliability (CR).
3.5.6.2. Conceptual Model Testing

The study followed the steps proposed by Diamantopoulos and Siguaw (2000) for the assessment of model development and testing. The steps are given in the following Figure 3.2.

Figure 3.2. Sequential Steps in LISREL Modeling.
3.5.6.2.1. Model Conceptualization

Stage 1 focuses on model conceptualization, which is concerned with the development of theory-based hypotheses to serve as the guide for linking the latent variables to each other and to their corresponding indicators. Hair et al. (1998) stated that the strength and conviction with which the researcher can assume the relationship, particularly the causation between two constructs depends not lie in the analytical methods chosen but with the theoretical justification to support the analysis. This stage of model conceptualization reflects the researchers’ educated perception of the way in which the latent variables are related together based up on the theory and the literature (Chapter 4 present the details of model conceptualization).

3.5.6.2.2. Path-Diagram Construction

Step 2 allows the researcher to visually represent the substantive (theoretical) hypotheses and measurement scheme. In this stage, all the predictions and associative relationships among latent variables and observed variables are presented with arrows. In SEM, all the constructs belong to two general categories: exogenous and endogenous. Exogenous constructs are called KSI’s (denoted by the Greek letter ξ) are independent variables and not caused or predictor by any other variables in the model. Endogenous latent variables are known as ETA’s (denoted by the Greek letter η) are dependent variables are predicted by other constructs in the theoretical model. In this study, Figure 3.3. presented the Full path diagram portrayal with LISREL notations, in which one variable (brand attitude strength) as exogenous and others as endogenous ones.
The generally used representations in LISREL Modeling are listed below:

ξ: Exogenous latent variable (attitude strength) and X₁…..X₄: Observed measure associated with attitude strength

….. : Represents a parameter associated with the relationship between an exogenous latent variable (ξ) and a corresponding observed variable (X), often referred to as a factor loading.

.... : Represents a parameter associated with the residual variance of an observed measure (X) or the covariance of the residual variances of two observed measures on the exogenous side.

: Endogenous latent variable (brand satisfaction)

: Endogenous latent variable (brand trust)

: Endogenous latent variable (brand attachment)

: Endogenous latent variable (brand commitment)

: Endogenous latent variable (brand equity)

: Endogenous latent variable (brand loyalty)

Y₁….Y₂₃: Observed measure associated with endogenous latent variables

........ : Represents a parameter associated with the relationship between an endogenous latent variable ( ) and a corresponding observed variable (Y) – often referred to as a factor loading.

: Represents a parameter associated with the residual variance of an observed measure (Y) or the covariance of the residual variances of two observed measures on the endogenous side.

: Represents a parameter associated with the relationship between an exogenous variable (ξ) and an endogenous variables ( ). : Represents a parameter associated with the relationship between two endogenous variables ( )
Figure 3.3. Full Path Diagram Portrayal with LISREL Notations.
3.5.6.2.3. Model Specification

In this stage, the relationship depicted in the path diagrams now translates into a system of linear equations that link the constructs and define the measurement model. This step of the model specification is necessary for identification and estimation purposes that confirm the instructions are entered into the input file of the LISREL program. At a basic level, the formation, representation of the model can be represented in two ways: structural equations and measurement equations. In the structural equation each endogenous variable ($\eta$) could be predicted by exogenous variable(s) ($\xi$), or by other endogenous variable(s). For each hypothesized effect, a structural coefficient ($\gamma$ or $\beta$) was estimated. Also, an error term ($\zeta$) was included for each equation, representing the sum of the effects due to specification error and random measurement error. Table 3.1. given below shows the details of structural equations.

Table 3.1. Structural Model Equations for Path Diagram.

<table>
<thead>
<tr>
<th>Endogeneous</th>
<th>Exogeneous</th>
<th>Endogeneous</th>
<th>Error</th>
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<tbody>
<tr>
<td></td>
<td>Attitude strength $\xi$</td>
<td>$\eta_1$</td>
<td>$\eta_2$</td>
</tr>
<tr>
<td>$\eta_1$ Brand satisfaction=</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$\eta_2$ Brand trust =</td>
<td></td>
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<tr>
<td>$\eta_3$ Brand attachment=</td>
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<td></td>
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<tr>
<td>$\eta_4$ Brand commitment=</td>
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<td></td>
</tr>
<tr>
<td>$\eta_1$ Brand equity =</td>
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<td></td>
<td></td>
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<tr>
<td>$\eta_1$ Brand loyalty =</td>
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Table 3.2. The LISREL Representation for Measurement Modeling.
The measurement model represents the operationalization of latent constructs through the observed or manifest variables. It is considered that the foundation of measurement modeling is quite analogous to factor analysis. In this model, the factors are named as latent variables and the individual items as observed variables or indicators. In this study, the exogenous construct, attitude strength was measured using four observed variables. The six other endogenous constructs altogether were measured by 23 indicators or observed variables. The LISREL representation of measurement modeling is shown in Table 3.2.
3.5.6.2.4. Model Identification

In the stage of model identification the researcher examines whether the information provided by the data is sufficient enough to estimate parameter. If the model is not properly identified, then it is not possible to estimate the parameters. A pre-condition for identification is that the number of known should be greater than the number of unknowns (Maruyama, 1998).

There two basic rules or conditions that have been widely discussed in the SEM literature in association with a model identification problem: rank and order condition. The rank condition is considered to be necessary as well as a sufficient condition for model identification. In this condition the researcher should algebraically examine whether the parameter is uniquely estimated or not. Two widely accepted heuristics are available to verify this condition. First, three indicator rule: each construct in the model should have at least three or more indicators, then that model will be an identified one. Second, the recursive model rule: recursive model with identified constructs (three or more manifest variables) will always be identified.

It is considered that order condition is necessary, but not a sufficient condition for identification. The order condition specifies that the model’s degrees of freedom must be equal (just identified) or greater than zero (over identified). A model is just identified when a single unique solution is obtained for the parameter estimates (in such cases the model degree of freedom is equal to zero). A model is over-identified when more than one estimate of each parameter can be obtained (in such cases the model’s degree of freedom is positive). A good structural equation modelling looks at an over-identified model. In the consecutive chapters the study will analyze the identification of the model.

3.5.6.2.5. Parameter Estimation
Once the model is properly identified, then one can go ahead with parameter estimation. At this stage one should decide about the type of input matrix used and the selection of the estimation procedure. The covariance matrix is considered to be appropriate compared to correlation matrix when the problem in hand is model testing. As the study objective is more of model testing, it has been decided to use a covariance matrix as the input matrix. There are several options available in LISREL for the estimation procedure, among them Maximum Likelihood Estimation (MLE) is the most generally accepted procedures. The current study used MLE to estimate the parameter estimates (The details are presented in Chapter 5).

3.5.6.2.6. Assessment of Model Fit

In this stage of model fit assessment, researchers examine different fit indices that generates while running LISREL, which confirms the extent to which the implied covariance matrix is equivalent to the observed covariance matrix. These fit indices allow the researcher to confirm the quality and soundness of the measurement and structural parts of your model in terms of supporting your operationalizations and theory based hypotheses. In Chapter 5 the study will present the details of this model fit indices.

3.5.6.2.7. Model Modification

In the light of the results obtained in the previous stage the study should modify or make alterations to the base based upon theory. In this stage the basic thing to remember is that these model modifications are made to the model based upon the theory and guard against the temptation of making data-driven modifications just to get a model that fits the data better. In Chapter 5 the study analyzed the alternative models which were driven by theory and compared these alternative models with the hypothesized model.

3.5.6.2.8. Model Cross-Validation
Model cross-validation is the final stage of LISREL modeling. This stage involves fitting the model to a fresh data set (called the validation sample). This sample can also be obtained through using a split-sampling approach, in which the total sample is divided into two parts, first part can be used for model development and its modification (calibration sample) and the second part can be used for validation purpose or model testing (validation sample). Under no circumstance the same sample data set is used for both model development and testing. Chapter 5 presented in detail these model calibration and model validation process.

3.6. Chapter Summary

This first part of the Chapter presented a brief overview of the research methodology that was employed to refine, verify and develop the conceptual model of consumer-brand relationships. This included the choice of using the qualitative research paradigm as the appropriate research approach for conceptualization of theoretical constructs. Moreover, this Chapter emphasized the use of grounded theory approach as the most suitable and appropriate qualitative approach for the concept exploration, integration and the theoretical model building. It also provided context to the choice and process of grounded theory approach. The second part of the current Chapter describes the quantitative methodology, which elaborates the theoretical constructs, instrument used to measure the construct, data collection, sampling, and plan for data analysis, which includes the use of SEM as the appropriate technique.