Chapter 4

Mixed Methods Approach to Disposition Behaviour

This chapter advances the research scheme from planning towards implementation by specifying a research design that acts as "an architectural blueprint" (Bickman & Rog, 2008; Hall, 2008) for the various phases of investigation in this research study. The first four sections of this chapter discuss the research paradigm adopted; the research methodology employed; the research processes designed to achieve the main objective; and the method used to collect data from the targeted sample. It further explains the methodology adopted to develop the pilot model and research instrument. Statistical analysis conducted on the demographic data is presented next. Then, the following two sections discusses the data analysis technique (i.e. partial least squares); and the statistical analyses used to assess the reliability and validity of the research model.

4.1 Research Paradigm

A research paradigm refers to a course of research actions, including research design, data collection techniques, analysis, presentation and interpretations of the findings. It can represent a set of central beliefs that steer the researchers' deeds (Krauss, 2005). Guba (1994) introduced four different paradigms, viz, positivism, post-positivism, critical theory and constructivism for conducting research. Participatory was subsequently added as a fifth paradigm for alternative inquiry by them. Creswell (2003) suggested four schools of thought with regard to knowledge; namely, post-positivism, constructivism, pragmatic and advocacy (or participatory). However, in a broad sense the paradigm of research can be divided into two views: positivist and interpretivist (Johnson & Onwuegbuzie, 2004). A positivist research paradigm usually is allied with a quantitative research approach that believes there is one true reality that can be unraveled by means of rigorous empirical study (Creswell, 2003; Maxwell, 2008). At the same time, a constructivist paradigm is based on transactional subjectivism that allows researchers to develop subjective meanings from individuals' experiences towards certain issues in order to understand a certain phenomenon (Creswell, 2013). Under constructivism, there is no objective truth and human sense making is believed to be an act of construal and is devoid of foundational reality. Although most of the research studies carried out are grounded in the positivist paradigm, triangulation of data methodologies, observers, methods and theories can provide a lot of benefits to the investigator (Creswell et.al, 2003; Greene, Caracelli, & Graham, 1989; Jick, 1979). Hence, mixed method designs that include inductive investigation

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methods to collect qualitative data and deductive investigation methods to collect quantitative data is the pragmatic choice to develop theory and to gain better understanding of a phenomenon (Creswell, 2003, p.216).

Since, there is lack of empirical research on disposition tendency of individuals and the qualitative studies in this domain are sparse, not much is known about the disposition tendency or its impact on disposition behavior. Also, there has been no prior empirical research on disposition behavior and tendency in the Indian context. Hence, mixed method exploratory research is chosen to gain clarity and accuracy. The method of exploratory mixed method research is discussed in detail below.

4.2 Mixed Methods

A mixed methods design is a procedure to explore a research problem in multiple ways by mixing quantitative and qualitative data, methods, methodologies, perspectives and/or paradigms (Creswell et al., 2003; Greene et al., 1989; Tashakkori & Teddlie, 2002). Both quantitative and qualitative research strands can have equal or unequal priority and can be employed alongside, consecutively or across multiple phases. Researchers select a mixed methods design based on practical considerations and that which is best suited to the research problem. The six major mixed methods designs include: convergent, embedded, explanatory, exploratory, transformative and multiphase (Creswell et al., 2003). These designs have different philosophical assumptions and hence they each comprise a certain set of procedures in consonance with the logic of the approach. Researchers should deliberate on the challenges associated with their design option and design strategies for tackling these challenges.

The convergent design is employed when the researcher uses parallel timing to implement the quantitative and qualitative phases during the same stage of the research process and accords equal priority to the methods. Also, the design keeps the phases independent during analysis and then mixes the results during the overall interpretation. The explanatory design starts with the collection and analysis of quantitative data, which has the priority for addressing the study's questions. Subsequently, the second, qualitative phase of the study is designed to summarize the results of the first, quantitative phase. The researcher interprets how the qualitative results help to explain the initial quantitative results. The exploratory design also uses chronological timing. However, the exploratory design begins with the collection and analysis of qualitative data in the first phase. Building from the results of qualitative data, the researcher conducts a quantitative study to test or generalize the initial findings. The researcher then interprets how the quantitative results build on

the initial qualitative results. Embedded design happens when the researcher adds a qualitative phase within a quantitative design (for instance, an experiment), or adds a quantitative phase within a qualitative design (for instance, a case study) to enhance the overall design in some way. The transformative design is a mixed methods design that typically involves advancing the agenda for change or reform in the beginning of the study and then using either the sequential or concurrent structure as a means of organizing the content of the study. All other decisions like mixing, level of interaction, priority and timing are made within the context of the transformative framework. The multiphase design combines both sequential and concurrent phases over a period of time that the researcher implements within a program of study to deal with an overall program objective.

4.3 Research Approach Followed for this Study

This study utilizes the two-phase sequential exploratory design where the topic was qualitatively explored before building to a second quantitative phase. This design will serve best for exploring a phenomenon (Creswell et al., 2003). This design is predominantly used when the research study seeks to develop and test an instrument since one is not available (Creswell, 2013) or to identify important variables to study quantitatively when the variables are unknown. It is also appropriate when the researcher wants to generalize qualitative results to different groups, to test aspects of an emergent theory or classification, or to explore a phenomenon in depth and measure the prevalence of its dimensions.

The present study used this research paradigm for the following reasons: (1) there is a lack of existing validated instruments in the field of product disposition studies (2) there is no clarity on what constructs are important to understand disposition tendency better (3) there is lack of research to see if the research findings pertaining to product disposition can be generalized to a sample and a population in the Indian settings (Morgan, 1998). The researcher made use of this iterative design to develop an instrument as an intermediate step between the two phases. The questionnaire based on the qualitative results was used in the subsequent quantitative data collection. For that reason, this design has been referred to as the instrument development design (Creswell, Fetters, & Ivankova, 2004) and the quantitative follow-up design (Morgan, 1998). This helped to generalize qualitative findings based on a few individuals from the first phase to a larger sample gathered during the second phase. As with the explanatory design, the intent of the two-phase exploratory design is that the results of the first, qualitative method can help develop or inform the second, quantitative method (Greene et al., 1989). Figure 3-1 illustrates the research approach followed for this study.

4.4 Qualitative Phase

A pilot research model on Product disposition tendency was proposed based on the literature review. The model later on needed to be refined with the support of the field study. Hence qualitative field study was carried out for this research study (Zikmund, 2003; Creswell, 2003). The purpose of this qualitative field study was to explore and identify additional factors that impact product disposition besides those recognized in the literature review. Further there are limited qualitative studies that explore product disposition tendency in the global context and lack of any studies that focus on product disposition tendency in the Indian context. Hence, the priority was to explore and identify the various dimensions of product disposition in the Indian context. Thus the research seeks to make a significant contribution to the contemporary knowledge in the field of Product disposition besides validating the existing theories in the Indian context.

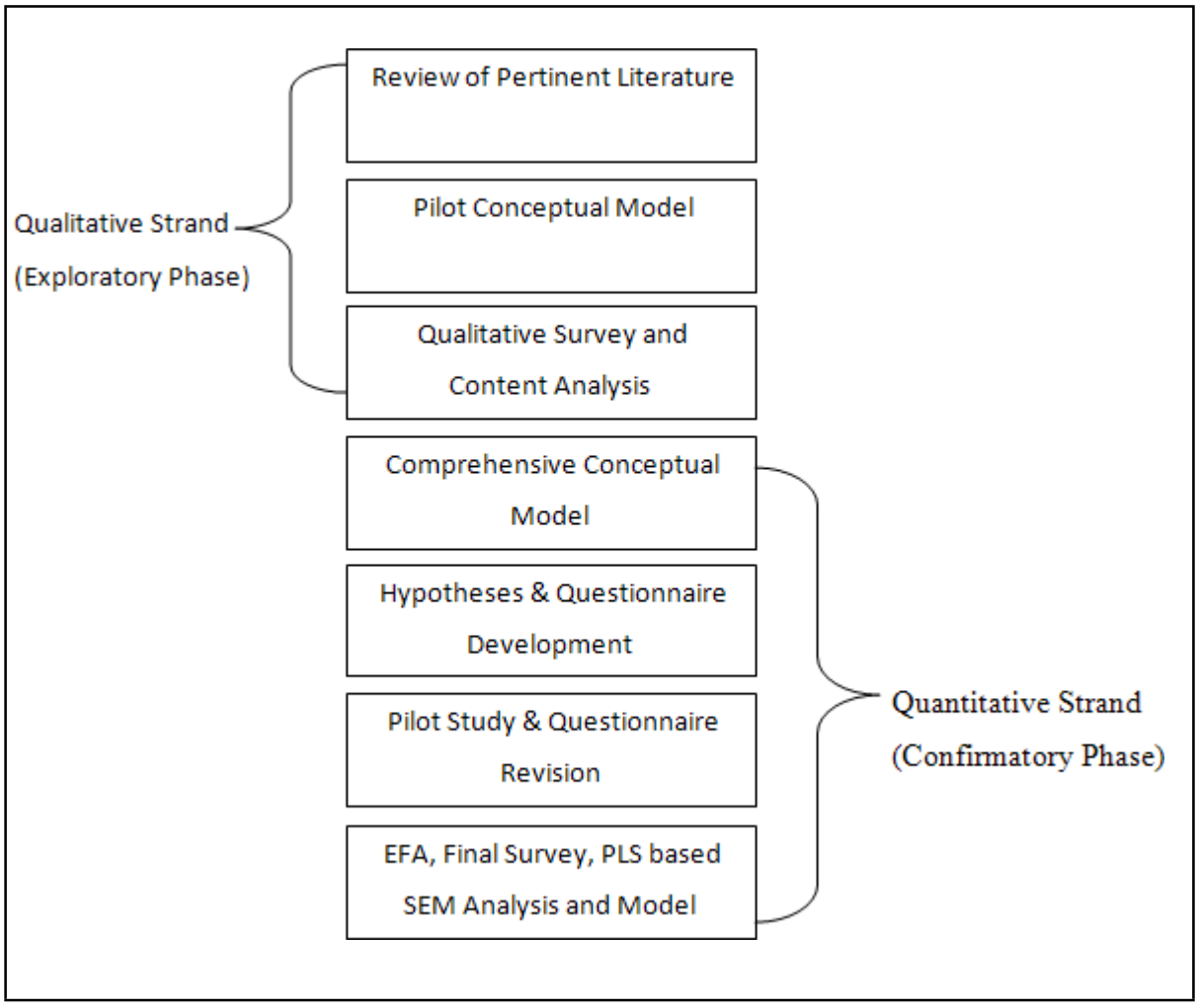

Fig 4.1: Research approach followed for this study

4.4.1 Sample Selection for Qualitative Field Study

Convenient sampling procedure was utilized to select sample respondents for the field study (Zikmund, 2000). Subsequently, data on product disposition was gathered from disposers. The spirit of this qualitative study was to study real people in natural settings. Using convenience and snowball sampling techniques, the sampling requirements were met (Zikmund, 2000). The faculty, staff and research scholars of Pondicherry University constituted the sampling frame. The researcher also used her own judgment during the field interview for this purpose to shortlist respondents who could provide rich insights into disposition practices. Data pertaining to disposition tendency and behavior was gathered from individuals who either had a strong tendency to dispose or retain. Besides informant's characteristics, temporal, spatial and situational influences were given due consideration. The individuals were interviewed at their homes in the evenings when they were relaxed to improve the reliability of the results. Fresh themes ceased to emerge after about 20 interviews and an acceptable framework was constructed after 40 interviews- the point of thematic and theoretical saturation.

4.4.2 Data Collection Methods for Qualitative Field Study

The in-depth interview technique was used to collect qualitative data from respondents. This method generated exhaustive data on disposition tendency and disposition behavior and also provided enough flexibility to employ it in the subsequent phase (Brannen, 2005; Bryman, 2006) . A semi-structured interview method was used to obtain the data on antecedents influencing disposition tendency and how this influenced product disposition behavior (Schmidt, 2004; Tashakkori & Teddlie, 2002). Semi- structured interview format steered the interview process (Berg & Lune, 2004). Integrating the constructs from the pilot research model helped develop interview guidelines. The interview questions concentrate on the following areas:, (1) value seeking tendency, (2) innovation seeking tendency (emerged during the interview), (3) tendency to de-clutter, (4) life style factors, (5) storage factors, (6) product working condition, (7) disposition channel, (8) disposition behavior and (9) impulse disposition behavior (covered in a minor way as it emerged as a new construct during the course of the interview).

To gain nuanced insights into consumer disposition behavior, a semi-structured field study questionnaire was developed and administered. The instrument consisted of open-ended questions designed to explore participants' attitudes, motivations, and experiences related to product

disposition. The complete set of questions is provided below.

Qualitative Data collection Tool

The primary objective of this interview is to identify factors that influence product disposition tendency. Product disposition is what an individual does with a possession that he no longer needs. Disposition includes not only disposal but also reselling, trade-ins, gifting, donating, recycling or storing. Also, it seeks to understand the effect of such tendency on disposer types, impulse disposing and also actual disposition behavior.

The following interview questions will serve as a guide to achieve the above objectives:

Q1. Generally speaking, do you tend to retain possessions or dispose of them when you are done using them?

Q2. Have you been currently involved in product disposition (in this one year)? If yes, what were the items?

Probe further on:

- About how long have you had this possession?
- How much time and effort did you spend thinking about their disposal?
- Were they in working order?
- How did you dispose?
- Why did you dispose?

Q3. Are you retaining any product(s) that you no longer need? If yes, please list the possessions.

Probe further:

- About how long have you had this possession?
- Are they in working order?
- Why are you retaining them?
- What factors will encourage you to dispose them?

Q4. Generally, what factors trigger product disposition?

Probe further:

- External factors
- Situational factors
- Personal factors

Personal Information

1. What is your gender?

- Male ☐ Female ☐

2. What is your age?

- 25-29 ☐ 30-49 ☐
- 50-64 ☐ 65 & Above ☐

3. What is your current marital status?

- Single ☐ Married ☐

4. What is your annual family income (in Rupees)?

α. Less than 3 Lakhs ☐
β. 3 Lakhs - 5 Lakhs ☐
χ. 5 Lakhs - 9 Lakhs ☐
δ. Above 9 Lakhs ☐

5. What is your family type?

α. Nuclear Family ☐ Joint Family ☐

6. What is your occupation?

- Employed in Government Sector ☐
- Employed in Private Sector ☐
- Own Business ☐
- Student ☐
- Retired ☐

7. Nature of Job?

a. Transferable ☐ Non Transferable ☐

Thank you very much for your helpful participation!

4.4.3 Data Analysis Techniques for Qualitative Field Study

The qualitative data analysis for this study was undertaken using content analysis (Patton, 2005). The chief objective of content analysis was to extract necessary factors and variables of the study. The content categories were identified by sorting the occurrences into categories and counting the occurrences of each of the categories. Analysis was performed using both inductive and deductive approaches. The qualitative research phase generated an initial pool of 55 items. Subsequently, these items were purified with the help of expert opinion (Churchill, 1979). This analysis presented the quantitative elements for the research. All factors and variables from the analysis and literature

review were justified as per rule of the qualitative study. The findings were then compared to the initial model to develop a comprehensive research model (Creswell, 2003).

4.4.4 Model Refinement and Final Research Model

In order to ensure content validity for the group of scale items and substantive validity for individual scale items of a construct, item-sort method was adopted (Dunn et al., 1994). Experts' help was sought to match individual scale items to their respective constructs. Three senior faculty members in the field of consumer behaviour, each with more than 10 years of experience examined the initial pool of 55 items for item redundancy and irrelevancy. The consensus of all three experts was necessary for an item to be retained. To increase the effectiveness of the screening process, the screening took place in two stages. In the first round of screening, each expert first reviewed the list of items independently to identify the items for the ten constructs explored in this study.

In the second round of screening, the individual lists prepared by the three experts in the first round were compared. The comparison showed that the consultants had full consensus on 48 items out of the 55 items initially generated for the field study questionnaire. So, a total of 48 items were considered for the preliminary questionnaire. The newly identified factors (innovation seeking tendency and impulse disposing behavior) mentioned by the participants from interviews were retained and are included in the final research model. . Thus, the findings from the qualitative data analysis, helped refine the proposed conceptual model and arrive at the final research model. The connections between the factors were hypothesized for the model based on both empirical and qualitative field study. These hypotheses have been tested using a quantitative approach in the second phase of (Chapter 5) this research.

4.4.5 Hypotheses and Instrument Development

Hypotheses were proposed based on the refined research model and a provisional questionnaire was designed based on these hypotheses for the pilot study. It was important to conduct the quantitative study to confirm the generalization of the model. The indicators that were employed for the pilot survey were collected from the literature and field study. The questionnaire was structured using a seven point Likert Scale, ranging from 1 = strongly disagree, 2 = disagree, 3 = slightly disagree, 4 = neither agree nor disagree, 5 = slightly agree, 6 = agree, to 7 = strongly agree. When writing up items for the questionnaire, guidelines with regard to clarity, precision, avoiding double negatives, jargons, abstract terms, assumptions and double barreled items were followed (DeVellis, 2011; Clark and

Watson, 1995). The instrument also included the demographic information of respondents as profile descriptors as well as multi-group analysis.

4.5 Quantitative Phase

4.5.1 Scale Development

According to DeVellis (2003), measurement scales are "*collections of items combined into a composite score, and intended to reveal levels of theoretical variables not readily observable by direct means (pp.8- 9)*". Developing a multi-item questionnaire for measuring latent variable constructs that cannot be measured directly requires a lot of skill as poor measurement imposes an absolute limit on the reliability and validity of the conclusions one can reach (DeVellis, 2003,p.12).

4.5.2 Specification of Constructs

As mentioned above, providing a precise definition of the constructs that have to be measured is crucial for the subsequent development of measurement scales (Churchill, 1979). The spotlight of this study was on the construct of product disposition tendency and its impact on product disposition behavior. Based on the literature review, which covers factors such as (1) value seeking tendency, (2) innovation seeking tendency (emerged during the interview), (3) tendency to de-clutter, (4) life style factors, (5) storage factors, (6) product working condition, (7) disposition channel, (8) disposition behavior, the conceptual framework as well as hypotheses have been put forward.

4.5.3 Item Generation

The generation of an initial item pool reflects the second step of Churchill's (1979) procedure. Literature review and meticulous efforts to adapt it to Indian settings were taken to define the initial item pool and to avoid inadequacies (Clark and Watson, 1995)

According to Clark and Watson (1995) defining the initial item pool is crucial as item inadequacies cannot be resolved by any data-analytic technique. Also, some items were generated by the researcher based on qualitative research findings. In total, the initial item pool comprised 55 items which were reduced to 48 items. The following table (Table 4.1) depicts the questionnaire section which includes the construct name, number of items (item pool before testing for content validity) and Cronbach's alpha.

Table 4.1 Constructs' Scale Items and Item Sources

Construct	No. of original items	Cronbach's Alpha
Tendency to De-clutter	6	0.901
Value Seeking Tendency	5	0.870
Innovation Seeking Tendency	4	0.869
Lifestyle Factor	4	0.934
Storage	2	0.917
Disposition Channel	5	0.912
Product Working Condition	5	0.947
Disposition Tendency	6	0.970
Disposition Behavior	6	0.954
Impulse Disposing Behavior	5	0.869

4.5.3.1. Type of Measurement Indicators

An important step in scale development is deciding whether the construct used in the model is formative or reflective in nature (Jarvis et al, 2003). So far, researchers have generally used reflective indicators for measuring latent variables (Christophersen and Grape, 2006; MacKenzie et al, 2005). However, the reason for choice of type of measurement indicators depends on the characteristic of latent variables. The indicators were essentially interchangeable and the essential nature of the underlying construct remained intact even after deletion of an indicator item. Since, the changes in the underlying construct were hypothesized to cause changes in the indicators and the direction of causality was from the construct to the indicators, the constructs operationalized in the research study were reflective in nature (MacKenzie et al, 2005; Jarvis et al, 2003; Diamantopoulos and Winklhofer, 2001). Table 4.2 provides the list of measurement items, the related statements along with their sources.

Table 4.2 Measurement Items and Related Statements

Construct	Items	Statements	Source
Disposition Tendency	DistT1	Generally, I would describe myself as a disposer (Tick the relevant answer)	Literature +Field Study
	DistT2	I do not like to hold on to possessions that are no longer relevant to me	
	DistT3	I generally tend to retain my possessions as I am emotionally attached to them	
	DistT4	I dispose stuff because I get quickly bored with my possessions	
	DistT5	I generally tend to dispose of my old possession when I replace it with a newer one.	
	DistT6	I do not dispose possessions because it is mentally taxing and physically strenuous	
Value seeking tendency	VS1	Working products have meaning	Lastovicka Scale
	VS2	I prefer saving things	
	VS3	Everything I own has a meaning	
	VS4	I am emotional about things	
	VS5	I link possessions to people and memories	
Innovation seeking tendency	IS1	I quickly buy new products that are launched	Roehrich's Scale
	IS2	I like to keep up-to-date with technology	
	IS3	I feel trendy because I do not keep old or used things	
	IS4	I throw away possessions that I no longer need	
De-clutter tendency	DC1	Disposing of things makes me feel neat and orderly	Literature
	DC2	Disposing of things makes me feel clean and uncluttered	
	DC3	I do not keep things as they block space	
	DC4	I discard objects I no longer need so as to ensure less dusting and cleaning	
	DC6	Retaining things that I no longer use is a sign of poor housekeeping	
Product Working Condition	WC1	When a product does not work, it increases my intention to dispose	
	WC2	I prefer to repair a non- functioning product to disposing	

Construct	Items	Statements	Source
	WC3	The greater the product damage, greater are the chances that I will dispose it	
	WC4	If the spare parts or service centers are difficult to locate, I generally dispose	
	WC5	If it takes a lot of money or efforts to fix a possession, I generally dispose it	
Lifestyle	LS1	I am likely to dispose certain things due to changes in life (like getting a job or getting married, child birth, retirement, etc.)	Literature + Field Study
	LS2	I am likely to dispose certain things I no longer need when I change jobs	
	LS3	I am likely to dispose certain things when I shift to a different city	
	LS4	I am likely to dispose certain things when I change to a better or healthier lifestyle	
Disposition Channel	DispCh1	If disposition channels are available nearby I am likely to dispose a product that I no longer use or need	Literature
	DispCh2	If the disposition channel helps me make some money I am likely to dispose a product that I no longer use or need	
	DispCh3	If disposition channels make disposal quick and easy, I am likely to dispose a product that I no longer use or need	
	DispCh4	Exchange offers encourage me to dispose a product that I no longer use or need	
	DispCh5	If someone comes to pick up heavy and cumbersome things that I no longer need, I am more likely to dispose them	

Construct	Items	Statements	Source
Storage	STOR1	If the product I do not need requires less storage space, I am likely to retain it	Literature
	STOR2	If the product I do not need is fragile and hence difficult to store, I am likely to dispose it	
	STOR3	When I do not have enough storage space, I generally dispose things I no longer need though I would like to retain it	
Impulse disposing behavior	IMP DISP1	I dispose things suddenly if I feel like doing so	Rook & Fisher Scale
	IMP DISP2	Just do it describes the way I dispose things	
	IMP DISP3	I plan the time of disposal of my used items carefully	
	IMP DISP4	I thoroughly analyze the pros and cons of various disposal options	
Disposition behavior	DISB1	I recently disposed my old mobile phone	Field Study
	DISB2	I recently disposed my old furniture (sofa set/ beanbag/ chair)	
	DISB3	I recently disposed clothes that I no longer need	
	DISB4	I recently disposed a handbag (or a wallet)	
	DISB5	I recently disposed my old shoes (or slippers)	
	DISB6	I recently disposed my old computer (or a laptop)	

All scale items and questions used in the quantitative survey are described in the Item Generation section above. The full formatted questionnaire, as administered to respondents, is provided below for reference.

4.5.3.2 Final Survey Questionnaire

Dear Respondent,

You are invited to participate in this research study on Consumer Disposition Behavior. As consumers, we buy many things and also get rid of or dispose of things we do not use any more for many reasons. The responses you provide in connection with this research will be only used for academic purposes and statistical analysis. Any information you provide will remain confidential and anonymous.

Thank you for taking the time to complete this survey. By doing so, you are helping me investigate disposition behavior under the guidance of my PhD supervisor Dr. Uma Chandrasekaran. With your cooperation, we hope to understand more about this topic. Have a Beautiful Day!

Usha - PhD (Marketing), DMS, Pondicherry University.

Note: This survey aims to understand your disposition tendency, i.e. how you dispose products in general. To explain better, while some people tend to change 2 or 3 cars in a span of 10 to 15 years, some retain a car for about 15 years. While some people change their television sets in 5 years, some of them may retain it for over 10 years. Some don't wear a dress for more than a few times and dispose of it in some way or keep it in their cupboard for years without using it. Generally, if you dispose a product that is working because you want a quicker change or move to a higher tech version, you are a disposer and if you retain a possession as long as it can function or beyond the end of its useful life, you are a retainer. The usage time period of 10 or 15 years in the above examples is mentioned only to show the difference between a disposer and retainer. Please remember there is no right or wrong answer. So, you may choose the option that best describes what you tend to do more often

Part I: Your Description About Your Overall Disposition Tendency

Questions	Score
1. Generally, I would describe myself as a disposer (Tick the relevant answer)	• A disposer • A retainer • Collector of Fine things • Someone who finds it difficult to get rid of things
2. I do not like to hold on to possessions that are no longer relevant to me	Strongly Disagree ○ ○ ○ ○ ○ ○ ○ Strongly Agree
3. I generally tend to retain my possessions as I am emotionally attached to them	Strongly Disagree ○ ○ ○ ○ ○ ○ ○ Strongly Agree
4. I dispose stuff because I get quickly bored with my possessions	Strongly Disagree ○ ○ ○ ○ ○ ○ ○ Strongly Agree
5. I generally tend to dispose of my old possession when I replace it with a newer one.	Strongly Disagree ○ ○ ○ ○ ○ ○ ○ Strongly Agree
6. I do not dispose possessions because it is mentally taxing and physically strenuous	Strongly Disagree ○ ○ ○ ○ ○ ○ ○ Strongly Agree

Part II: To understand your tendency or propensity to disposition

Questions	Score
7. Working products have meaning	Strongly Disagree ○ ○ ○ ○ ○ ○ ○ Strongly Agree
9. I prefer saving things .	Strongly Disagree ○ ○ ○ ○ ○ ○ ○ Strongly Agree
10. Everything I own has a meaning .	Strongly Disagree ○ ○ ○ ○ ○ ○ ○ Strongly Agree
11. I am emotional about things	Strongly Disagree ○ ○ ○ ○ ○ ○ ○ Strongly Agree

12. I link possessions to people and memories	Strongly Disagree	○	○	○	○	○	○	○	Strongly Agree
13. I quickly buy new products that are launched	Strongly Disagree	○	○	○	○	○	○	○	Strongly Agree
14. I like to keep up-to-date with technology	Strongly Disagree	○	○	○	○	○	○	○	Strongly Agree
15. I feel trendy because I do not keep old or used things	Strongly Disagree	○	○	○	○	○	○	○	Strongly Agree
16. I throw away possessions that I no longer need	Strongly Disagree	○	○	○	○	○	○	○	Strongly Agree
17. Disposing of things makes me feel neat and orderly	Strongly Disagree	○	○	○	○	○	○	○	Strongly Agree
18. Disposing of things makes me feel clean and uncluttered	Strongly Disagree	○	○	○	○	○	○	○	Strongly Agree
19. I do not keep things as they block space	Strongly Disagree	○	○	○	○	○	○	○	Strongly Agree
20. I discard objects I no longer need so as to ensure less dusting and cleaning.	Strongly Disagree	○	○	○	○	○	○	○	Strongly Agree
21. Retaining things that I no longer use is a sign of poor housekeeping	Strongly Disagree	○	○	○	○	○	○	○	Strongly Agree

PART III: Effect of external factors on disposition tendency

Questions	Score								
22. When a product does not work, it increases my intention to dispose		1	2	3	4	5	6	7	
	Strongly Disagree	○	○	○	○	○	○	○	Strongly Agree
23. I prefer to repair a non-functioning product to disposing	Strongly Disagree	○	○	○	○	○	○	○	Strongly Agree
24. The greater the product damage, greater are the chances that I will dispose it	Strongly Disagree	○	○	○	○	○	○	○	Strongly Agree
25. If the spare parts or service centers are difficult to locate, I generally dispose	Strongly Disagree	○	○	○	○	○	○	○	Strongly Agree
26. If it takes a lot of money or efforts to fix a possession, I generally dispose it	Strongly Disagree	○	○	○	○	○	○	○	Strongly Agree
27. I am likely to dispose certain things due to changes in life (like getting a job or getting married, child birth, retirement, etc.)	Strongly Disagree	○	○	○	○	○	○	○	Strongly Agree
28. I am likely to dispose certain things I no longer need when I change jobs	Strongly Disagree	○	○	○	○	○	○	○	Strongly Agree
29. I am likely to dispose certain things when I shift to a different	Strongly Disagree	○	○	○	○	○	○	○	Strongly Agree

city	
30. I am likely to dispose certain things when I change to a better or healthier lifestyle	Strongly Disagree ○ ○ ○ ○ ○ ○ ○ Strongly Agree
31. If disposition channels are available nearby I am likely to dispose a product that I no longer use or need	Strongly Disagree ○ ○ ○ ○ ○ ○ ○ Strongly Agree
32. If the disposition channel helps me make some money I am likely to dispose a product that I no longer use or need	Strongly Disagree ○ ○ ○ ○ ○ ○ ○ Strongly Agree
33. If disposition channels make disposal quick and easy, I am likely to dispose a product that I no longer use or need	Strongly Disagree ○ ○ ○ ○ ○ ○ ○ Strongly Agree
34. Exchange offers encourage me to dispose a product that I no longer use or need	Strongly Disagree ○ ○ ○ ○ ○ ○ ○ Strongly Agree
35. If someone comes to pick up heavy and cumbersome things that I no longer need, I am more likely to dispose them	Strongly Disagree ○ ○ ○ ○ ○ ○ ○ Strongly Agree
36. If the product I do not need requires less storage space, I am likely to retain it	Strongly Disagree ○ ○ ○ ○ ○ ○ ○ Strongly Agree
37. If the product I do not need is fragile and hence difficult to store, I am likely to dispose it	Strongly Disagree ○ ○ ○ ○ ○ ○ ○ Strongly Agree
38. When I do not have enough	Strongly ○ ○ ○ ○ ○ ○ ○ Strongly

storage space, I generally dispose things I no longer need though I would like to retain it	Disagree	Agree

Part IV: Your Actual Disposition Style and Behavior

39. I dispose things suddenly if I feel like doing so	Strongly Disagree	○	○	○	○	○	○	○	Strongly Agree
40. Just do it describes the way I dispose things	Strongly Disagree	○	○	○	○	○	○	○	Strongly Agree
41. I plan the time of disposal of my used items carefully	Strongly Disagree	○	○	○	○	○	○	○	Strongly Agree
42. I thoroughly analyze the pros and cons of various disposal options	Strongly Disagree	○	○	○	○	○	○	○	Strongly Agree
43. I recently disposed my old mobile phone	Strongly Disagree	○	○	○	○	○	○	○	Strongly Agree
44. I recently disposed my old furniture (sofa set/ beanbag/ chair)	Strongly Disagree	○	○	○	○	○	○	○	Strongly Agree
45. I recently disposed clothes that I no longer need	Strongly Disagree	○	○	○	○	○	○	○	Strongly Agree
46. I recently disposed a handbag (or a wallet)	Strongly Disagree	○	○	○	○	○	○	○	Strongly Agree
47. I recently disposed my old shoes (or slippers)	Strongly Disagree	○	○	○	○	○	○	○	Strongly Agree
48. I recently disposed my old computer (or a laptop)	Strongly Disagree	○	○	○	○	○	○	○	Strongly Agree

Part V: Demographic / Personal Profile

49. What is your gender?

- Male ☐ Female ☐

50. What is your age?

- 25-29 ☐ 30-49 ☐
- 50-64 ☐ 65 & Above ☐

52. What is your current marital status?

- Single ☐ Married ☐

53. What is your annual family income (in Rupees)?

- Less than 3 Lakhs ☐
- 3 Lakhs - 5 Lakhs ☐
- 5 Lakhs - 9 Lakhs ☐
- Above 9 Lakhs ☐

54. What is your family type?

- Nuclear Family ☐ Joint Family ☐

56. What is your occupation?

- Employed in Government Sector ☐
- Employed in Private Sector ☐
- Own Business ☐
- Student ☐
- Retired ☐

57. Nature of Job?

- Transferable ☐ Non Transferable ☐

Thank you very much for your helpful participation

4.5.4. 1. Sampling Frame and Procedure

The usual goal in sampling is to produce representative samples of participants to understand the characteristics of the population (Bryman and Bell, 2007; Zikmund, 2003). However, sampling frame has to be defined before drawing a sample from the target population (Baker, 1999, P.142). Sampling frame refers to the list of population from which the sample will be selected (Malhotra et.al, 1996, P.26). Like every other research endeavor in consumer behavior studies, the sampling frame of this study has specific inclusion and exclusion criteria. The sampling frame excludes individuals who are below 25 years of age as, in India, they are generally either partly or fully financially dependent on their parents and do not have enough say in disposition process. Typically, they do not own enough possessions in need of disposition (Bryman and Bell, 2007; Iacobucci & Churchill, 2009). For this study only members with enough experience with product disposition and those who owned several possessions that they no longer needed were chosen as participants. The logic was that an active disposer must have been an active acquirer too. This is because the main objective of this study is to understand the factors that determine whether or not a person disposes a possession he no longer needs. Hence, only respondents who can provide the required information are selected as respondents.

In the qualitative phase, personal interview technique was used to collect data as it has a high response rate. Semi-structured questionnaires which had open-ended and closed-ended questions with frequent diverging patterns were used to collect comprehensive data. Face to face interaction helped informants cope with the complexity of the questionnaire. The questions and the sequence in which they were ordered were controlled by the researcher who administered the interview based on informants' responses. Notes were taken in a meticulous manner which helped to gain a thorough understanding of what the respondent actually wanted to say. Steps were taken to make certain that every informant had the same interview experience by conducting the interview for all by the same person using the same questionnaire.

In the quantitative stage, an online survey was used to collect data as the interaction between the respondent and the questionnaire is dynamic, less intrusive, faster and simpler (Bordens & Abbott, 2005). However, this method was tedious because response rate was low initially and so efforts like sending repeated reminders via phone call and email were taken to achieve a higher response rate. Also, this method helped to reach out to a number of respondents spread across different cities in

India. The quantitative data was collected through online survey invited using Facebook account and second hand product disposition online forum members, LinkedIn and Google+.

For the pilot study, the contacts known to the researcher via Facebook, Google+ and LinkedIn accounts were contacted to confirm they had adequate disposition experience during the pilot study stage and to get their consent to take up the online survey. Snowballing technique was simultaneously used to help facilitate the informant search process. All the contacts were asked to refer their FB, Google+ and LinkedIn contacts who met the eligibility criteria for this survey. Links to the survey were sent to 250 interested individuals. 180 of them took part in the survey and 168 of them were useable.

For the final survey, the quantitative data was collected via online second hand product disposition forums to ensure adequate representation of the disposer population. In addition, exclusion criteria suggested by Ridings et al., (2002) helped to shortlist only active online communities. According to these authors, an active online community has

1) More than 10 postings per day,
2) More than 15 different individuals posting per day, and
3) 80% postings with at least one reply

Two online Facebook forums: 'Thrift Bazaar' and 'Second to None' were identified from the searching process that met the exclusion criteria. While 'Thrift Bazaar' forum had 8,201active members, 'Second to None' forum had 67,472 active members. Invitation messages were sent to the inbox of the members. After getting their consent, survey links were sent to them. Also, contacts in the Facebook, LinkedIn and Google+ accounts were contacted to ensure a reasonable response rate. Links to online survey were sent to a total of 2000 respondents. 720 filled online forms were received. 648 useable responses were obtained. The researcher has structured all constructs in the measuring instrument to use 7- point Likert type of scale, including the independent and the dependent variables.

4.5.4.2. Sample Size

This study employed a PLS based Structural Equation Modeling (SEM) approach to test the proposed structural model and hypotheses. PLS can be employed not only for theory confirmation, but also for recommending where interactions might or might not exist and to suggest propositions for further testing (Chin 1998a; Chin and Newsted 1999).

Sample size and statistical technique influence each other and there is still no clarity on what sample size is large enough to carry out various statistical analyses (Hair et al, 2007). Though there is no right sample size in the absolute sense, efforts were made to arrive at an appropriate sample size to improve the robustness of the model. In SEM a minimum ratio of at least 5 respondents for each estimated parameter has been suggested (Hatcher, 1994). However, Hair et al., (1998) suggest a ratio of 10 respondents per parameter. Nevertheless, they further state that a study must take into reckoning a host of other factors like the departures from normality and model misspecification before determining the sample size (Hair et al., 1998). For data with multivariate normality violation, the ratio of 15 respondents per parameter is recommended. A sample size of 200 is recommended if the study opts for the maximum likelihood estimation (MLE) as the estimation procedure (Chi & Qu, 2008). According to Barclay et al. (1995), the sample size for sound PLS path modeling estimations should be equal to the larger of the following:

(1) Ten times the maximum number of paths aiming at any construct in the outer model, or

(2) Ten times the largest number of path relationships directed at a particular construct in the inner path model. Studies have suggested that PLS-SEM results are quite robust and have high degree of statistical power even when the sample size is small (Chin and Newsted, 1999; Wold, 1982). Also, PLS SEM based model reliability remains high even when formative indicators are used or when the data is highly skewed (Hair et al., 2012).

Thus, PLS path modeling technique offers distinct benefits vis-a-vis CBSEM, when the sample size is relatively small. However, studies show that PLS models have low statistical significance when sample sizes are small (Goodhue et al., 2006). Hence, this study ensured the sample size was adequate enough by using the confidence interval approach which is widely used in the literature for determination of sample size (Burns & Bush, 1995; Kotrlik & Higgins, 2001). This method will help to get the maximum number in the sample. The formula for obtaining 95% accuracy at the 95% confidence level is:

$$N = \frac{Z^2 (PQ)}{E^2} = \frac{1.96^2 (0.5 \times 0.5)}{0.05^2} = 385$$

Where: N = sample size, Z = standard error associated with chosen level of confidence (95%), P = estimated variability in the population 50%, Q = (1 – P), E = acceptable error + 5% (desired accuracy 95%).

The formula above recommends a sample of 385 at 95% confidence level with 95% desired accuracy. Typically, the online surveys tend to have a higher response rate than mail surveys. However, the study expected response rate would be 50% and usable rate of 80%, a total of 963 respondents people should be approached to participate in the survey. However, the researcher distributed 2000 questionnaires in conducting this survey. 720 filled online surveys were received. Six hundred and forty eight useable responses were obtained.

4.5.4.3 Non-Response Bias

Non-response errors basically occurs when the survey fails to get an answer to one or all of the questions from the sample (Iacobucci & Churchill, 2004, p.381). Sometimes, it is difficult to get in touch with respondents or they decline to participate in the survey. The researcher tried to follow up with the respondents to increase the initial response rate and to reduce non-response bias.

4.5.4.4 Data Analysis Techniques

This segment briefly recapitulates key steps that were followed so as to analyse the quantitative data. A more detailed description of each statistical technique for each stage is provided in Chapter 5. The analysis of quantitative data was completed in three main stages. To begin with, the sample characteristics were examined and descriptive statistics were obtained with the IBM SPSS 20 software package. The data was examined for missing values. Normality tests were carried out including Q-Q plots scrutiny, examination of skews and kurtosis values and carrying out the Kolmogorov-Smirnov and Shapiro-Wilks Test so as to assess the normality of the data. Finally, data was examined for multi- collinearity by probing the correlation matrix as well as VIF and Tolerance values. Subsequently, the data analysis involved data reduction and factor structure scrutiny using Exploratory Factor Analysis (EFA) besides testing for scale reliability using Cronbach alpha coefficients.

Data measured on a Likert-type scale for structural equation modeling are normally analyzed by means of an exploratory factor analysis (MacLean and Gray, 1998). Hence, exploratory factor analysis (EFA) was performed using principal component analysis method and promax rotation. Firstly, assumptions of exploratory factor analysis (EFA) were tested by the inspection and assessment of numerous associated criteria such as the correlation matrix (R matrix), the determinant of the correlation matrix, Kaiser- Meyer-Olkin measure of sampling adequacy and Bartlett's Test of

Sphericity. Next, factor loadings, cross-loadings, scree plot and communalities were examined to identify the factor structure suggested by EFA. Exploratory factor analysis was performed again after dropping items and the factor structure was assessed in terms of reliability by examining Cronbach coefficient alpha and item-total correlations. The final stage of data analysis was the assessment of the measurement model and structural model. Mainly owing to the violation of some of the assumptions of normal distribution in this research, Partial Least Squares Structural Equation Modelling (PLS-SEM) was performed using the SmartPLS 2.0 software package. The reliability, convergent validity and discriminant validity of the measurement model were assessed. Reliability was assessed by means of factor loadings and composite reliability values. Average variance extracted (AVE) values, the Fornell-Larcker Criterion and cross loadings established convergent validity. Subsequent to the assessment of the measurement model in terms of reliability and validity, PLS-SEM was used to assess the structural model. In detail, the structural model was assessed by examining coefficients of determination (R2), path coefficients, goodness of fit and the predictive relevance criterion (Q2). Ultimately, based on the calculated path coefficients, results of hypotheses testing were determined. A series of multi group analysis were carried out to examine the moderating effects of age, income, gender, family type, job transferability.

4.6 Summary

In this chapter the rationale for selecting mixed method paradigm was presented. It further highlighted the research approach followed, data collection and data analysis techniques of qualitative phase. Next, the process of scale development and specification of constructs was described. Subsequently, a detailed description of the data collection process of the main quantitative data was provided. In conclusion, a brief account of the data analysis techniques including exploratory factory analysis (EFA) and PLS-SEM were provided.

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