CHAPTER 5
HYPOTHESIS AND RESEARCH FRAMEWORK

We tried to find the answers to the research questions using appropriate methodologies and integrate the answers within some theoretical foundations. It was done primarily to understand the current scenario and elaborate the paradigm so as to contribute in theoretical manner. Although the research on assortment planning has been extensive, there is no existing theory that could be applied. So the best approach to scenario building was adoption of grounded theory. Inductive analysis is the principal technique used in the grounded theory method. Inductive analysis means that the patterns, themes, and categories of analysis come from the data; they emerge out of the data rather than being imposed on them prior to data collection and analysis (Patton 1990). The qualitative research finding has been elaborated in the section of data analysis.

A grounded theory is generated by themes, and themes emerge from the data during analysis, capturing the essence of meaning or experience drawn from varied situations and contexts. Grounded theory is a research approach or method that calls for a continual interplay between data collection and analysis to produce a theory during the research process. A grounded theory is derived inductively through the systematic collection and analysis of data pertaining to a phenomenon (Strauss & Corbin 1990). Data collection, analysis and theory stand in reciprocal relationship with one other. In order to address the research questions, it was very important to build a theory, which would act as a base towards the further investigation.

So, with the help of the themes developed from the qualitative data collection and the post literature analysis, certain hypotheses were made, which helped to develop a conceptual model for the study. The end result of the model is to find out how the small retailers plan their assortment in their stores. We define retailer’s assortment as a retailer’s full range of goods. Also, the overall store assortment can be regarded as a mix of different categories. Each category
describes a particular subset of products, which consumers consider as substitutes for each other in satisfying a specific need (Hart & Rafiq 2006; Levy & Weitz 2008).

This section aims at building a conceptual model for the study after identifying the relevant themes from the qualitative data collection and the literature survey. The chapter explains the constructs and the hypotheses generated for testing the relationships between the constructs.

5.1 Hypothesis Developed Retail Assortment Planning

5.1.1 Retailer’s Profitability

The retail margin, which in this study is defined as the difference between cost price and retail price, provides an important determinant of a retailer’s expected profit (Corstjens & Corstjens 1995). As discussed above, the profitability has been derived as a determinant towards selection of product for the store. There have been a few studies, which did not find a significant positive effect (Montgomery 1975; White, Troy & Gerlich 2000), while Rao and McLaughlin (1989) reported even a significant negative impact of gross margin on retail adoption. However, when we talk about the long term aspect, instead of looking at the absolute gross margin, it would be more realistic to look at the relative gross margin, that is, the gross margin of the new product relative to the gross margin of comparable products in the product category to which the new product belongs. This is because the introduction of a new product will most probably result in dropping an underperforming product from the assortment, due to shelf space limitations. Therefore retailers would be more likely to consider a new product for adoption if the gross margin of this product is higher than the average gross margin for comparable products in the product category.

Average demand, variability of demand, and target service levels (i.e., percentage of demand satisfied) dictate how much merchandise should be in a store and, consequently, how much space is needed (Mantrala et al. 2009). Retailers’ profit orientation is the main concern for any business (Kumar, Shah & Venkateshan 2006). Certain supply chain characteristics such as delivery cycle and shelf pack size determine space requirements. The space to be provided to the
product category will depend on the total acceptability of the product. Both average demand and variability of demand affect shelf space requirements. As consumers demand more units per period on average, more shelf inventory is necessary; moreover, as demand varies from period to period, the retailer must stock additional inventory on the shelf to satisfy demand in excess of the average (Mantrala et al. 2009). Whether it is a large scale retailer or a small retailer, the basis aim of the business is to gain profit. So the retailer has to emphasize what to keep at the store in order to attain profitability with minimum cost. So, we can hypothesize that,

**H1a:** Retailer’s Profitability from a product is positively related to Retail Shelf Space in a store.

**H1b:** Retailer’s Profitability from a product is positively related to the Product Selection by the retailer.

### 5.1.2 Customer Demand

In India, there has been not only an increase in income but also a change in the demographic profiles of consumers (Sinha & Kar 2007). Educational qualifications have increased, women have started entering the workforce and nuclear families have begun to replace the traditional joint family system. This has shown a drastic change in the customer demand patterns. International studies show that with high economic growth, per capita income increases, which leads to a shift in consumption patterns from necessity items to discretionary consumption. Customers nowadays not only need goods which are necessity based but also luxury based items. So availability of products at retail stores is important to improve consumer satisfaction. Assortment, price bargains, transactional convenience, and shopping experience influence consumers’ choice of small retail stores (Lee, Johnson & Gahring 2008; Messinger & Narasimhan 1997). A very important feature of local retailers is their ability to adjust the supply at the store according to local demands (Landry, Arnold & Stark 2005; Smith & Sparks 2000). Small retailers interact with their consumers more as compared to big stores and therefore it is easy for them to stock products according to the local demand. The small retailers need to cater the demand of customers and accordingly respond to it. The ability to respond to consumer requirements is the strength of small retailers (Griffith, Noble & Chen 2006). Demand from the
customer can be uncertain but the retailer needs to be impulsive in satisfying the customer demand is near possible time. For that the customer needs to keep a stock of the demanded products in the store. Hence we can hypothesize that:

**H2a: Customer Demand for a product is positively related to Retail Shelf Space Allocation of the product.**

**H2b: Customer Demand for a product is positively related to Product Selection of the criteria of the product.**

### 5.1.3 Customer Brand Awareness

Traditional retail in India was dominated by local and unbranded products. Since globalization, branded products are now sold in India through both traditional and modern retail outlets, using different retail formats such as exclusive brand outlets and multi-brand department stores. Webster (2000) pointed out that brands offer retailers many benefits including increased consumer demand, a favorable attitude towards branded products in their stores, and credibility. There is also increased awareness about global shopping patterns and products brought about by the liberalization of the media (Rao 2000). Brand visibility has increased through multiple modes like television, radio, newspapers and magazines. Indian consumers have now started experimenting with brands (Mukherjee & Patel 2005). However, non-branded products continue to be sold through traditional retail outlets, although products such as food products are sold through both traditional and modern outlets (Chattopadhyay, Dholakia & Dholakia 2011). Indian customers are opening themselves towards brands and are accepting them. Indian consumers recognize that a brand adds value to a product (Rao 1998). Urban and rural markets are similar in brand awareness and associating established brands with quality but, in better developed states, there is a distinct preference for foreign brands (Rao 2000), which is associated with. Kumar and Bishnoi (2007) in a survey of 32 villages in India found that rural consumers are willing to buy a variety of products and brands if their prices are lowered in the future. So retailers need to select brands based on customer’s choice, which is a difficult task indeed.
All these factors contributed to the growth and modernization of retail, and thus change in the customer product and brand preferences. The heterogeneous nature of the marketplace also demands that retailers tailor their assortments to local tastes rather than making national-level Product Assortment Planning (PAP) decisions. For that, retailers need to know the customer preferences for the product varieties as well as brands they carry. As a starting point in any business, the retailer needs to identify consumers’ preferred brands. According to consumers, an optimal assortment includes the first choice preference for each consumer in the target market. But in some markets, the heterogeneity of preferences is so massive that even this seemingly simple solution becomes quite difficult (Green & Krieger 1985).

This shows that retailers need to focus on the customer preferences with their awareness in mind. This will have an effect on the product categories and the brands the retailer select for their stores, and also the space to be given to each product in the store.

So, we can hypothesize that,

**H3a: Customer Brand Awareness for a product is positively related to Retail Shelf Space Allocation of the product in the store**

**H3b: Customer Brand Awareness for a product is positively related to retailers’ product selection criteria for the product.**

### 5.1.4 Relationship Management

In the academic community, the terms "relationship marketing" and CRM are often used interchangeably (Parvatiyar & Sheth 2001). In current era, relationship management is predominately used in the context of technology. However, in case of small retailers, where use of technology is not evident, the retailers use the traditional approach of maintaining the relation with the third party. The business environment for small retailers is different from those of large retailers in terms of the technology, infrastructure, customers as well as the merchandise they carry. In a study, Home (2002) found out that the consumers that visit small retailers give
importance to the friendly personnel, location convenience, likelihood of meeting acquaintances at local store, and quick easy purchase. The retailers’ behavior to treat their customers and the retailers’ knowledge about their regular consumers enables them to serve them efficiently and improves their ability to handle consumer complaints (Adeji, Griffith & Noble 2009; Lee, Johnson & Gahring 2008). Research suggests that small retailers’ relationship with local consumers plays a pivotal role in enhancing consumer loyalty, service perception, and consequently minimizing consumer defection (Auh et al. 2008; Lee, Johnson & Gahring 2008). Lu and Seock (2008) identified personal interaction as the most important factor in generating positive word-of-mouth and small retail store patronage. In small communities, word-of-mouth was effective in generating increased footfalls in the store. Klemz and Boshoff (2001) found that small retailers were empathetic to their consumers and it generated store loyalty. Building strong relationships with local community can help small retailers combat competition posed by big organized retailers (Jackson & Stoe 2011; Miller & Besser 2000). Landry, Arnold and Stark (2005) examined small retailer’s community embeddedness as an extension of their involvement with community. Their relationship with local community provides them insight about consumers’ needs and product requirements. They can strengthen this relationship by associating with local events and enhancing their belonging to the community. With the above discussion, we can hypothesize that:

H4a: Retailer relations with customers positively affects to retailer decision of keeping the product on the shelf.
H4b: Retailer relations with customers positively affects to retailer decision of selecting the product for the store.

5.1.5 Retailer Facilities

In running a business, whether small or big, a capital amount is required to be invested. The small retailers do not keep a wide variety of goods at the store. The main reason for it is the budgetary constraint. As budget limitations always prevail among the small retailers, they are not able to expand their store in terms of size, goods they carry, varieties they offer and the customers they cater. This limitation restricts these retailers to compete with the large retail
stores. To overcome such limitations, small retailers give certain extra facilities to their customers. Traditional retail stores have been providing certain extra facilities to the customers in order to have an increased level of satisfaction, and thus retention of the customers. These facilities may be providing goods on credit, home delivery of goods or providing gap for bargaining. Home delivery may be defined as when a customer orders desired products either at present or by telephone, the service provider (retailer) dispatches them to the residence of the customer. The traditional stores in India are trying to fight extensive competition by giving such facilities to their customers. The construct of facilities has not been discussed much in literature. But looking at the scenario through the qualitative interviews, we can consider retailers’ attitude of providing facilities to the customers and suppliers as an important variable in assortment planning. With the above discussion we can hypothesize that,

**H5a: Retailer facilities are positively related to the retail shelf space decision of the retailer.**
**H5b: Retailer facilities are positively related to the retailers’ decision of product selection for the store.**

### 5.1.6 Store Attributes

The previous retail research studies have focused on store image and importance of store attributes in understanding the concept of store choice and patronage behaviour (Carpenter & Moore 2006; Sinha & Banerjee 2004, Sinha, Mathew & Kansal 2005; Sinha & Uniyal 2005). Earlier research determines that store environment and atmosphere appear to be influential in consumers’ format decisions (Baker *et al.* 1994; Donovan *et al.* 1994). The findings of studies published in the trade literature are similar in identifying product assortment, availability, convenience, and pricing as significant drivers of format choice (Taylor 2003). A more recent study by Seiders, Tigert & Douglas (2000) compared organized store shoppers with traditional market shoppers. Organized market shoppers identified low prices and range of product assortment as the primary reasons for their format choice. In contrast, traditional market shoppers placed more importance on location and product quality. This shows that retailers need to consider such variables while selecting products for their stores. The impact of store size as a store attribute has not been studied in previous studies. Moreover, being a research on small
store, the store size remains an important store attribute. The current study also adds number of shelves in a store as a store attribute.

Store size is also a very important feature of store attributes. For small retailers, store space is a limited and cost effective asset. Because expanding the physical dimensions of stores is very costly and often impossible, total floor space remains essentially fixed. In case of small retailers, space limitation is always present as the most obvious constraint on the size and composition of retail assortments. Which products to keep and which not to has to be decided by the retailers themselves. Without considering costs, the ideal store size equals the sum of all ideal category assortments. Yet space requirements further depend on the physical dimensions of the individual items and their strategic importance. Thus we can hypothesize that:

**H6a:** The store attributes are positively related to the shelf space allocation of a product in the store.

**H6b:** The store attributes are positively related to the product selection criteria of a retailer.

### 5.1.7 Catchment Area

Catchment area is defined as the agglomeration of stores in a particular geographic region which attract a population of shoppers. Larger the catchment area, larger will be the population of customers attracted towards it. Catchment area constitutes the stores selling almost the same kind of products, so the level of competition is high. Small businesses without much brand recognition (e.g., small retail store or tobacco shops) are unlikely to attract consumers from afar, and thus, if located individually, their catchment areas are likely to be very limited. Another very important factor constituted in catchment area is the type of customers and the locality of the agglomeration of stores. So the social class of the customers impacts the overall shopping done from that catchment area. There are very few studies in Indian retailing domain that typically focus on small retailers’ competitive scenario. One such study by Ramakrishnan (2010) focuses on the competitive scenario on small retailers with the aim to decipher the competitive response
of small, independent retailers in an emerging economy. The existing small retailers view the emergence of new and bigger retailers as potential threats, especially when a majority of the big retailers are multinationals with local partners. With the emergence of discount stores, the customers seem to be attracted to them as they offer branded low priced products. Large, specialized stores might have sufficiently strong brand recognition and consumer loyalty. This is a potential threat for the small retailers for which they need to think over. In a study conducted by Lee, Johnson and Gahring (2008), consumers shop at local independent retailers (i.e. small retailers) primarily for the unique items they carry. Some of the features that motivate customers for shopping at the nearby retailer are having items in stock, offering quality, offering variety, and being located close to home. In general, the closer the consumers are to a store, the greater their likelihood of buying from that store. In contrast, the farther away consumers are from a store, the greater the number of intervening alternatives, and thus, the lower their likelihood to patronize that store (Loudon & Della Bitta 1993).

In unorganized retailing, the assortment to be carried by a retailer is not fixed and the retailers offer huge varieties and brands of products depending upon the target customers. So the number of retailers offering the same merchandise is somehow large in a single locality. So the small retailers not only face the competition from the organized players but also from the other small retailers in the same locality. Catchment area should affect the retailers’ decision on assortment planning. So, looking upon this, we can hypothesize that,

H7a: Catchment area where the store is located is positively related to the retailer’s decision of shelf space management.

H7b: Catchment area where the store is located is positively related to the retailer’s product selection criteria.

5.1.8 Customer Profile:

The retailer that serves in a locality needs to observe the people around for better retail satisfaction. Indian demographic profile is a hub of multi caste and multi lingual people, so a retailer needs to select its assortment keeping all factors under consideration. Dholakia, Dholakia
& Chattopadhayay(2012) emphasizes the role of caste and family relationship within retail establishments and between wholesale and retail establishments, hinting at the deep ethno-social fabric, which plays an important role in business decisions pertaining to procurement and credit policies. The study also makes a separate mention about the existence of ethnic groups in the wholesale and retail trading communities in India, thus signifying the possibility of the influence of caste in the procurement of goods. The customers belonging to different socioeconomic strata live in the same locality. They also tend to buy from the same retailers. Moreover the customers belong to different age groups and economic backgrounds. Kirkup et al. (2004) state that consumers’ preference for small retail stores was governed by consumers’ circumstances (such as owning a care, small kids, disabled mother), situational factors, mobility, perceived choice of stores, and individual characteristics. So a retailer needs to keep different brands varying in choice of prices and tastes in order to satisfy the customer needs.

Variations in education, attitudes, values and communication styles across social class levels could be expected to lead to variations in consumer information processing and decision making styles within and across social strata (Fisher 1987; Komarovsky 1961). Local small retailers serve as community hubs and provide forums for community interaction (Paddison & Cadlerwood 2007). Landry, Arnold and Stark (2005) examined small retailer’s community embeddedness as an extension of their involvement with community. Their relationship with local community provides them insight about consumers’ needs and product requirements. They can strengthen this relationship by associating with local events and enhance their belonging to the community. Consumers have favorable attitudes about service quality and merchandise when social cues were present. So retailers need to study the environment and the local customers that visit the store in order to satisfy their needs. Keeping the above discussion in mind, we can hypothesize that:

**H8a:** Customer’s profile is positively related to the retailer’s decision for space allocation of the product in store.

**H8b:** Customer’s profile is positively related to the retailer’s decision for product selection criteria of the retailer.
5.2 Customer Perception for Retail Assortment in a Small Store

Providing an assortment of products and services is one of the basic functions of a retailer (Levy & Weitz 2008). As a key component of the marketing mix, assortment represents a strategic positioning tool for customer acquisition and retention (Grewal et al. 1999; Kahn 1999; Koelemeijer & Oppewal 1999). Besides attracting consumers to the store, the composition of the assortment can influence both current and future product choice by shaping consumer preferences (Simonson 1999; van Ryzin and Mahajan 1999). The current study emphasizes on finding out the factors that affect the customer perception about the assortment kept at the store.

5.2.1 Customer Variety Perception:

Research on assortment variety provides empirical evidence that consumers’ variety perceptions are not solely determined by the number of SKUs offered in a specific category (Kahn & Wansink 2004). Rather, consumers form assortment variety perceptions based on how distinct product variants are along a number of key attributes (Hoch, Brandlow & Wansink 1999; van Herpen and Pieters 2002). Consumers’ assortment variety perceptions are, to a large extent, determined by the number of distinct combinations of relevant key attributes. The key attributes that are included in the study were identified in line with the results of prior studies on assortment reduction in grocery categories (Boatwright and Nunes 2001). Offering products that represent various combinations of brands, flavors, package sizes and quality ranges not only enhances consumers’ likelihood of finding the right product but also provides consumers with the desired choice flexibility. Choices in the product category can be beneficial as well as harmful for a customer to decide for the preferred product. So the retailer needs to decide the right amount of variety. So we can hypothesize,

H9a: Retail assortment planning is directly related to the customer variety perceptions.
5.2.2 Customer Price Perception

In a pricing context, an empirical study by Desai and Talukdar (2003) as well as findings by Bell and Lattin (1998) suggest that some grocery categories are more influential than others in shaping a retailer’s store price image. These results support our assumption that consumers develop specific price perceptions of the products or direct empirical evidence comes from behavioral pricing research, which posits that consumers develop category-specific internal reference prices (IRP) for frequently purchased, low-involvement products (Mazumdar, Raj & Sinha 2005). Rather than remembering the exact numerical prices of particular grocery products (Dickson & Sawyer, 1990), consumers develop a general price perception of a category’s expensiveness, which allows for evaluative judgments about prices being “too high”, “too expensive”, or “good value” (Desai & Talukdar 2003; Monroe & Lee 1999). This is due to the fact that most consumers consider thoughtful price processing not worth the necessary cognitive effort due to only little differences in most products’ absolute prices and quality levels within a specific grocery category (Mazumdar, Raj & Sinha 2005). So customers develop price perceptions regarding the assortments they usually purchase. Hence we can hypothesize that,

H9b: Retail assortment planning is directly related to the customer price perception.

5.2.3 Customer Quality Perception

Research on the evaluation of products has provided considerable empirical evidence that consumers’ quality perceptions are determined by both intrinsic and extrinsic attributes (Dodds, Monroe & Grewal 1991; Miyazaki, Grewal & Goodstein 2005). Whereas intrinsic attributes are parts of the physical product (e.g. ingredients in grocery items), extrinsic attributes are related to the product without being a physical component of it (e.g. brand name, price) (Olson & Jacoby 1972). Bonner and Nelson (1985) provided evidence for this proposition by showing that flavor; taste, freshness, aroma and appetizing looks are relevant intrinsic product attributes to signal quality across 33 food categories. Moreover, they found that consumers infer the quality of a supermarket by the freshness of its produce. With respect to extrinsic attributes, Mazursky and Jacoby (1986) provided initial evidence that consumers form overall assortment perceptions
based on the brand names carried by the retailer. In this study, the quality attributes related to the FMCG products were mentioned. The above discussion emphasizes that the customers pay importance to the quality of the products being sold in the retail stores. So we can hypothesize that,

**H9c: Retail assortment planning is directly related to the customer quality perceptions.**

### 5.3 Diagrammatic representation of measure of Small Retailer’s Assortment Planning

The research framework developed from the qualitative data themes has been presented below in the Fig 5.1.
5.4. Description of the Conceptual Framework:

Structural Equation Modelling (SEM) consists of two parts. One is “Measurement Model”, where one tests the relationship of an unobserved variable or a “latent variable” or a “construct” with a set of observed variables or “indicators” or “measured variables”. The second part
consists of a “Structural Model” or a “Path Model”, where causal relationships among latent variables and/or measured variables are tested.

A measurement model are of two kinds i.e. a “Reflective Measurement Model” or a “Formative Measurement Model” (Bollen & Lennox 1991; Edwards & Bagozzi 2000). A measurement model is used to depict the relationship between a construct and its measures; it therefore bridges the observed variables (measures) with the unobserved variable (construct) (Byrne 2001). A Construct is defined as “a conceptual term used to describe a phenomenon of theoretical interest” (Edward & Bagozzi 2000). Constructs are measured with the help of Indicators (Diamantopolous & Winklhofer 2001) or Items (Law et al., 1998) or Measures. These are defined as “an observed score gathered through self report, interview, observation or some other means”, (Edwards & Bagozzi 2000). In the current work there are eight constructs, each having a set of items (indicators). A measurement model is a part of a larger model which consists of dependence relationships among constructs. The constructs represent different variables which are germane to understanding the phenomenon. This larger network is known as a “Path Diagram” or a “Structural Model”. In the current research the model consists of ten measurement models (discussed in Chapter 7) which is further merged to form a structural model (Fig 7.11).

A latent construct can be modeled in two ways i.e. Reflective and Formative. In a reflective model (Edwards & Bagozzi 2000) the construct is viewed as the cause and the measures or indicators its manifestations. Thus, the construct determines its indicators. Whereas, in a formative model, the indicators determine (Bollen & Lennox 1991) or cause (Edwards & Bagozzi 2000) the construct. In Fig 7.11, Retail Assortment Planning (RAP) which consists of two sub constructs (Product Selection and Retail Shelf Space) acts as a formative construct as the indicators (Customer Demand, Retailer's Profitability, Customer Brand Awareness, Retailer Margin, Store Attributes, Catchment Area and Customer Profile) determine the construct of RAP. As qualitative interviews were used to determine the eight constructs which determine the assortment planning for small retailers.
RAP acts as a reflective construct for the construct of customer perception in the conceptual model of the current research. RAP here acts as a cause for customer's perception towards the small stores. Retail Assortment at a store determine the customer's perception(Customer Variety Perceptions, Customer Price Perceptions and Customer Quality Perceptions).