CONSUMER STORE CHOICE IN CLUSTERED GROCERY LOCATIONS IN AN EMERGING MARKET

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ABSTRACT

The research aims to investigate significant factors that drive decision making on grocery consumers' store selection in a specific environment in clustered areas in Bangkok. This research provides grocery retailers operating in Bangkok with information about the attributes that consumers consider to be the most important factors when choosing a store.

Neilsen (2008) found that consumers re-evaluate their criteria for choosing grocery stores such as location, access and convenient parking. Other attributes such as product assortment and customer services are also critical in store choice (Arnolds, 1997; Sparks, 1995). There is limited knowledge about local consumer behaviors because few studies have been recently carried out so expert interviews were conducted prior to designing questionnaires. Questionnaires were designed and adapted to local customers based on local retail marketing research and international academic reviews. 450 respondents participated by completing questionnaires in three different clustered store areas in Bangkok during various time periods over the course of many days. Descriptive statistics and factor analysis were used in data evaluation. Findings indicated store layout, merchandise and promotions were decisive factors that consumers considered when choosing a store in clustered locations.

KEY WORDS: STORE CHOICE / CLUSTERED LOCATIONS / CONSUMER BEHAVIOR / GROCERY SHOPPING/ BANGKOK

95 pages

ปัจจัยที่ผู้บริโภคใช้ในการเลือกเข้าร้านไฮเปอร์มาร์เก็ตที่ตั้งอยู่ใกล้เคียงกัน
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บทคัดย่อ

งานวิจัยนี้มีเป้าหมายที่จะศึกษาปัจจัยที่มีผลต่อการตัดสินใจเลือกร้านที่จะซื้อของในพื้นที่ที่มีการกระจุกตัวของคู่แข่งตั้งแต่ 2 ร้านขึ้นไป ผลการวิจัยนี้น่าจะเป็นประโยชน์ต่อทั้งนักวิชาการและผู้บริหารค้าปลีก ในการศึกษาและกำหนดกลยุทธ์ทางการตลาดที่เหมาะสมต่อไป

เนลสัน (2008) ได้พบว่าในปัจจุบันผู้บริโภคคำนึงถึงปัจจัยหลายประการก่อนตัดสินใจเลือกไฮเปอร์มาร์เก็ตในการซื้อของใช้ภายในครอบครัว ตัวอย่างของปัจจัยเหล่านี้ได้แก่ ทำเลที่ตั้ง ระยะทาง ความสะดวกในการเดินทางและเข้าถึงร้านค้า พื้นที่จอดรถ เป็นต้น นอกจากนี้ อาร์โนลด์ (1987) ยังกล่าวถึงปัจจัยอื่นที่สำคัญในความคิดลูกค้าอีก เช่น ความหลากหลายของสินค้าและการบริการลูกค้าเป็นต้น เนื่องจากข้อมูลการวิจัยที่เกี่ยวกับการตัดสินใจเลือกร้านเพื่อซื้อของใช้ในครอบครัวในประเทศไทยยังมีค่อนข้างจำกัด ผู้วิจัยจึงได้ทำการศึกษาเรื่องดังกล่าว โดยเริ่มจากการสัมภาษณ์ผู้เชี่ยวชาญค้าปลีกก่อนที่จะเริ่มทำแบบสอบถาม

งานวิจัยนี้เป็นการวิเคราะห์ภาคสนามผ่านแบบสอบถาม โดยเลือกสัมภาษณ์ผู้ซื้อสินค้าจากไฮเปอร์มาร์เก็ตที่ตั้งอยู่ในบริเวณเดียวกัน 3 กลุ่มในกรุงเทพมหานคร เช่น เทสโก้โลตัส, คาร์ฟูและบิ๊กซี จำนวน 450 คน และใช้เวลาทั้งสิ้น 3 เดือนข้อมูลที่ได้จะทำการวิเคราะห์ตัวแปรแบบถดถอยพหุคูณ ที่มีความสัมพันธ์กับการตัดสินใจของกลุ่มตัวอย่าง ผลการวิจัยพบว่า แผนผังของไฮเปอร์มาร์เก็ต สินค้าและการส่งเสริมการขายมีผลต่อการตัดสินใจในการเลือกไฮเปอร์มาร์เก็ตของผู้บริโภค

95 หน้า

CONTENTS

CONTENTS(cont.)

LIST OF TABLES

LIST OF FIGURES

CHAPTER I
INTRODUCTION

This research is to study factors that have influences on consumer store selection in the context of hypermarkets locating in Bangkok Central Business District. The study only emphasizes on the hypermarkets which have a feature of being in a near proximity. Obtained information will enable academic and industry professionals in the fields to gain insights on influences of store attributes on consumer decision-making. This chapter will describe retail history, development of Thai retail business and agglomerated hypermarket in Bangkok.

1.1 Background

Retailing is defined as the activities that involve selling goods or services directly to final consumers, for personal and non-business use (Kotler and Keller, 2009). In a supply chain of marketing, retailing plays a vital role among manufacturing, wholesaling, and consumers. With time evolutions, there have been evidences of retail development altogether with consumer behavior change. One of the outcomes resulted from these changes was an introduction of one stop service, firstly taken place in the Western world which later spread to the East.

East Asian markets have become particularly attractive to European retailers as the economic growth rates and rapid social change in the region have offered attractive expansion opportunities. In particular the “Asian Tiger” economies, offered retailers the market opportunities which were underdeveloped in terms of their retail structures and yet promised the economic basis for sustainable developments. In Asia, particularly in Japan, hypermarkets are popular where five major chains have penetrated and present some of the largest retail chains of the world. With technological advances and an open-door policy, these retail chains have entered in Thailand and increasingly expanded their presence. Several analyses on Asian markets

have been conducted in respect to market opportunities, market assessment and relative advantages. For many European retailers in the early 1990s, East Asian markets appeared to provide opportunities for future expansion, as the markets themselves passed through the type of transitional process already experienced by European markets. Retailers may have competitive advantage by introducing unknown retail format in the host market, the introduction of technology, and sophisticated management techniques. On the other side, heterogeneity rather than homogeneity represent characteristics the markets of East Asia. The main advantages of emerging markets lie in their potential rather than their current conditions. Measurements of economic growth, such as rising per capital income, suggest a developing economy, which in turns link to a development of infrastructure, creating a more attractive opportunity to modern traders.

In 2010, three of five largest retail chains in the world are classified as hypermarkets, supercenters and superstores (Retail About, 2011). By definition, hypermarket is the combination of supermarket and department stores which has at least 150,000 square feet of floor space, and at least 35% of space is used for non-food merchandises. In the U.S., Wal-Mart is the dominant hypermarket chain and has no major international hypermarket competition. Wal-Mart mainly presents in Europe whereas Carrefour succeeded in expanding internationally especially in developing countries. By contrast, eleven European hypermarkets/supercenters/store chains are among the largest retail chains in the world.

1.2 History of Food Retailing Sector in Thailand

Prior approaching food retailing industry in Thailand, it was worth to distinguish different grocery store format being existed worldwide. Grocery store is a store that retails food whereas a supermarket, a form of grocery store, a self-service store offering a wide variety of food and household merchandises, organized into departments. It is larger in size and a selection of products than a traditional grocery store. Hypermarket is a superstore combing a supermarket and a department store. It provides an expansive facility carrying a wide range of products, including full groceries and general merchandise. In theory, hypermarkets allow customers to satisfy

all their routine shopping needs in a trip. They are like other big-box stores; have business models focusing on high volume, lower-margin sales (Wikipedia, 2011).

In Europe, especially in big cities, large supermarkets are often found, leading to a decline in independent smaller grocery stores and replacements of supermarkets and hypermarkets. A similar situation was also found in Latin America (Wikipedia, 2011). In Thailand, modern grocery sector are at present composed primarily of hypermarkets, cash-and-carry, and convenience store format which continue to grow (McKinsey, 2010).

Retailers have played a significant role in Thai culture and affected lifestyle and social community. Thai traditional grocery stores or "Chowhuay", have been present in the society for more than decades. The "Chowhuay" is also known as "mom and pop" shops. From the early 1950s when Thailand experienced its first wave of industrialization, the structure of retailing was virtually unchanged (Silcock, 1967). The mainstay of the retailing system in Bangkok was the shop-house sold great merchandise on the ground floor, stored inventory on the second floor and provided accommodation for its owner on the third floor. These "mom and pop" stores provided very limited variety of merchandise, although most convenience shopping would be done there or nearest wet markets. In 1950 the coverage of each general merchandise shop was 84 persons in Bangkok compared with 74 in Tokyo in the same year. (Dunn, 1964)

In was not until 1964 that there was foreign (Japanese) investment in department stores, Thai Daimaru. There was food section in Thai Daimaru which attracted mostly high income earners. Since then it introduced four different food retail formats which are supermarket, convenient food shopping, hypermarket focusing on cheaper price, and convenient store for ready to eat meals and beverages. By the end of 1960s, there were nearly a dozen supermarkets in Bangkok (Wigglesworth et al.1966). Thai households traditionally bought fresh food daily for their cooking from nearby Chowhuay and fresh market such as the wet markets. 1980s arrived with a large proportion of Thai population fully grown and already working in the workforce. This led to the higher purchasing power. Their preference on modern retail trade was one of important factors for development in modern food retail sector. Working age consumers preferred to live in the suburban Bangkok, due to lower housing cost.

Nevertheless family car became a requirement due to lack of mass public transportation during that time. Increasing number of cars produced traffic problems and inadequate parking space.

Department stores reacted by opening branches in suburban in Bangkok with units of supermarkets. Married women continue to be in the workforce. Limited time resulted in buying once a week of grocery in a large quantity. By 1990s a substantial number of Bangkok residents had started to enjoy the advantages of one stop shopping. Supermarkets were defined as 'self-service', complete with basket cart, plastic packaged meats and vegetables and a wide assortment of imported foods (Shannon, 2009).

Discount retailers are believed to be so detrimental to the existing retail environment that many communities have fought their entry through zoning and other regulations (Miller et al., 1999).As a member of World Trade Organization since 1st January 1995, Thai government could not possibly deny or set strong barriers of entry by imposing heavy rules and regulations on overseas modern traders. During the economic boom of 1988 to 1996, Thai Economy has been precipitated by the strengthening yen, against the dollar to which the Thai currency was tied, a growth rate of 8-9 percent for nine years during which time Thailand was the fastest growing economy in the World. The income of the top 10 percent of the Bangkok workface tripled during this period (Phongpaichit and Baker, 1996). Unfortunately the economy was to collapse in the following year when the Thai currency was devaluated on July 2nd which preceded a worldwide economic crisis. Thailand was one of the worst impacted economies with respect to the contraction of the retail sector due to sudden decrease in consumer confidence and purchasing power (French and Crabbe, 1998).

The crisis had lowered considerably disposable income led to development in hypermarket as an alternative for lower prices. Consumers spent approximately one-fifth of their food expenses either on dining out or buying ready to cook food for family meals, with an increasing tendency through the years. Limited time and convenient service made available by modern retail food sector accommodated their needs and preferences. Preferences on buying from modern food sectors were a wide assortment of merchandises with better services at relatively lower prices. Location

(closer to home) and ample parking space were considered important factors (Tokrisna, 2005).

Prior to the recess in 1997, the Alien Business and Occupation Law had restricted ownership of companies, such that Thai shareholdings must account for at least 51%. Additionally, the number of foreigners allowed employment in a joint venture company was limited by the one-year residence and work-permit system. Other informal barriers were seen as restrictive environment that foreign retail environment being possible in the form of minority role with Thai joint venture partners. The first European entrant SHV Makro of the Netherlands entered in 1989 taking a 40 percent equity stake with a large Thai poultry farming company, the CP group. Tesco invested in the Lotus Supermarket chain in 1994, two years before Carrrefour's 40 percent joint venture with Central Retail Group.

In 1999 all regulations were abolished to full direct foreign investment equity ownership. As a result of this abrupt financial crisis, Baht devaluation impaired debt payment ability. Many businesses were sold to foreign investors. In hypermarkets, information was available for Tesco Lotus, Big C, Carrefour and Makro. CP owned 10% of Lotus but after the economic crisis sold 92% to British Tesco. Big C sold 66% to French Casino. After the crisis Central no longer possessed share in Carrefour, sold to SSCP Holding while French Carrefour shared 40%. SHV share in Makro increased from 44% before the crisis to 90% after the crisis.

While the modernization of retailing brings about efficiency gains, there is a danger when the largest players dominated the market (Fels, 2008). The situation became difficult as the government encouraged foreign investment. They found themselves facing demands for regulation due to perceptions of over expansion. In 2001, total retail trade value was 1,194.1 billion Baht of which 53.2% was from modern retail trade and the other 46% from traditional store. The pattern of retail trade had switched from mainly traditional trade (74% in 1997) towards modern trade. While value of modern trade rose by 1.5 times from 1997 to 2001, traditional trade value decreased by 21.2%. Total retail trade increased by 24.6% during this period. The increased was from the modern retail trade. Traditional retail trade had lost its share of 27.2% to the modern trade.

In 2002 Thailand Development Research Institute (TDRI) conducted a survey on traditional retail stores and reported that within one kilometer around a hypermarket, 36% of traditional retail outlets closed while there were 21% newly opened, thus the net decrease was 15%. On the average number of traditional retail outlets decreased 7.6% annually while the sale value of the existing one decreased by 8% per year, most of them were grocery stores.The traditional grocery stores are mostly family-owned, which store management skills and competitive bargaining are considered poor and inefficient comparing to multinational modern traders. Consumers preferred buying processed food from hypermarkets and turned to buy beverages and refreshment from convenience stores.

In relation to fierce competition among multinational companies, many Thai traditional stores have forced themselves to close down the business due to a critical loss of competitive edge to convenient and discount stores (Chaisamorn, 2001, p.64). Discount stores have many advantages over traditional grocery stores. Thanks to massive foreign investments injecting to the industry. Positioned with management skills and advanced technology, it is not surprising that they have now become dominant players in grocery retail business in Thailand. With diminishing number of traditional grocery stores and the continuous rise of new modern trades, consumers have shifted their behavior in regards to the change.

The expansion of hypermarkets not only affected traditional food retailers but also wholesalers. Large wholesalers usually bought from the producers, thus were not much impacted by hypermarkets. Large wholesalers focused on low price and customer relation. Customer of small and medium wholesalers could check for cheaper price from hypermarket, hence bought less from small and medium wholesaler. In coming year 2015, Thailand's modern grocery market should experience growth of 10 percent, while traditional grocery (primarily mom-and-pop grocers) would shrink as a percentage of the total market, from 60 percent to about 50 percent. The past 10 years have seen tremendous change in Thailand's modern grocery landscape. McKinsey (2010) indicated that more or less bypassing the "supermarket phase," Thailand has seen the number of hypermarkets jump from 65 to 216 since 1999, and the number of convenience stores has ballooned from about 1,500 to 7,800 over the same period. Thailand's modern grocery is dominated primarily by foreign

players (some with local partners); they estimate that the combined revenues of the top three hypermarket players, Tesco, Big C, and Carrefour, plus the leading cash-and-carry and convenience players, Makro and 7-Eleven, will reach THB 473 billion ($14.4 billion) in 2010, out of total modern grocery sales of THB 580 billion ($17.6 billion) (McKinsey, 2010).

Despite a larger share in retail food markets, hypermarket was not able to charge high profit. Competition was present in hypermarkets and traditional retail food sector in terms of freshness. Thai consumers preferred freshness, and advantage of fresh markets. The issue of product freshness was a constraint for hypermarkets. In return, hypermarket had the advantages in economy of scale, namely lower cost, more product varieties for customers and better information technology. House brand was developed, attracting for its greater margin and cheaper selling price relatively its quality.

At present, consumers possess wider alternatives of where to make grocery purchases. Consumers tailor their shopping habit to reflect both time needs and mobility. Convenient; Seven – Eleven, and discount stores, Tesco Lotus, Carrefour and Big C, have expanded their business in big cities, especially in Bangkok metropolitan. There are three main grocery hypermarkets in Bangkok; Tesco Lotus, Carrefour and Big C.

1.3 Agglomeration and Bangkok clustered hypermarkets

Agglomeration has become a new trend of retail industry. Over the years, several explanations of retail agglomeration have been proposed (Brown, 1989; Miller et al., 1999). Some of these emphasized on the economies of scale that agglomerations allow. Retailers are able to share costs of facilities or promotion, or being better able to represent their shared interest. In the eyes of consumers, agglomerations become interesting as they could make a one-stop service. With reducing cost of time and travel, shorter and fewer trips are required to make purchases, store in a near agglomeration have become popular. The presence of several competitors in one center limits purchase risks such as encountering stock-outs and makes it easier to compare prices (Oppewal and Holyoake, 2004).

The theory of cumulative attraction formulated by Nelson (1958) suggested retailers benefit from agglomeration. Hotelling (1929) supported the statement by exemplifying the situation of two ice-cream vendors with identical costs who are originally located at opposite ends of a beach- as they move closer, both their business volumes increase. Berry and Barnum (1962), Thompson (1964), Bucklin (1967), as well as Parr and Danike (1970) explain the propensity of consumers to visit multipurpose shopping centers comprised of dissimilar stores on a large scale more frequently than small ones. Cowen and Lewis (1967) and Epstein (1971) emphasized the importance of physical factors and transportation facilities as influential in shoppers' preference for one stop shopping centers, which are typically comprised of dissimilar stores. Reilly's law of 'retail gravitation', based on the Newtonian law of the same name was believed to explain why consumers trade off the costs of travel with attractiveness of alternative shopping opportunities. We have witnessed over the last decades that there has been a strong growth of the one stop shopping format; department stores, supermarket and hypermarket.

To drive more customers to the grocery stores, retailers seem to adapt themselves well in terms of more convenient location. Being near the competitor to achieve higher sales and market share is one way to grow the business and gain competitive advantage by using broad scale strategies and ignoring geographical segmentation (Czerniawski, 1986). The one-stop convenience shopping format is designed by concentrations of dissimilar retail stores outlets in a shared area. Consumers' shopping needs can be satisfied with a trip to an establishment. This has been the case of Bangkok. The city is now home to more than 13 million people (Wikipedia, 2011). It covers an area of 1,569 square kilometers with 50 administrative districts. With increasing population growth, Bangkok enlarged its city to suburbs. As mentioned that retailing in Bangkok ranges in type from the traditional through to the most modern. There are agglomerations of small stores selling similar ranges of goods there are also some of the most up-to-date large shopping malls in the world (Blois et al, 2001). He indicated further that there were unique characteristics of Bangkok development; growing number; there agglomerations, new rang of goods found in agglomeration and one particular agglomeration dominating Bangkok market for its range of products. The city unlike other cities does not have distinct areas, for

instance, no diplomatic area so embassies are located around the city; there is no financial district as bank headquarters are found in a wide variety of locations. This means that Bangkok Central Business District could cover an area of approximately 20 square kilometers.

Hypermarkets are now located throughout the city. In some areas they are positioned themselves in a very near proximity or even opposite to one another. These classical patterns created the point in creating a shopping center to make more overall value the individual within it could create for themselves (Howard, 1995). Within these hypermarkets clustered a number of retail stores offering various services and merchandises apart from what hypermarkets themselves originally have made available. These store offering illustrates the synergy of Nelson's Law of retail attraction (Nelson, 1958). For instance, if two stores are located side by side and one customer in 100 makes a purchase in both together than will do 1 percent more business than if separated (Howard, 1997). It could explain the motives why hypermarkets have used these strategies in specific areas of Bangkok. This scenario persists along with city growth, clustering of competing stores or so-called "retail propinquity" (Anamthawat, 2006).

1.4 Research problem

Choosing a hypermarket locating in a clustered area would have some factors or reasons why consumers have chosen one over the other. Considering relatively similar hypermarket features of services and merchandises, it is interesting to further find out what consumers have valued more and considered important when selecting a store. Many of the trends research companies have witnessed evidence to support Thai changing consumer behaviors. They are quite similar to those found in developed countries. These include more economizing and a greater value, increased focus on convenience, health, wellness and food safety, demographic shifts, including income per capita, aging population and smaller household size. Another important observation was an interest for ready to eat and prepared foods (McKinsey, 2010). Hypermarket players attempt to leverage consumer insights and data analytics to ensure the best assortment and price tailored to the most common consumption, the

best delivery, product placement and promotion. They would be thoughtful to consider which geographic clusters to win, to ensure network effects associated with distribution and customer recognition are fully realized. The location of the study was specific only in Bangkok Central Business District where found two big hypermarkets. In inner Bangkok land is limited and expensive. With increasing growth and expansion of Bangkok, land becomes very expensive. Hypermarket industry attempted to implant at strategic locations to attract customers and offer one-stop service shopping. In this research, only hypermarkets typed-format would be studied. The study of influential factors on consumer decision making particularly in hypermarkets locating in propinquity would provide insight to professional to design marketing strategies to suit their customers' needs.

CHAPTER II
LITERATURE REVIEW

2.1 Introduction

As described in Chapter one, the main objectives of the paper is to study factors that influence grocery shoppers in decision-making on selected store. The stores being investigated are particularly located in a near proximity or in an agglomerated area. The Chapter 2 is divided into three main sections.

1. Consumer behaviors and demographics
2. Retail strategies and store attributes
3. Impact on consumer behaviors and demographics on consumer decision-making

Figure 2.1 Literature Review's Formulation

2.2 Consumer behaviors and demographics

Consumer behaviors are impacted by several factors; cultural, social and personal factors (Kotler, 2009). Culture is the fundamental determinant of a person's

behaviors. This set of values, perceptions, preferences throughout a person's family and society. Each culture has its own uniqueness and is specific to a group of people. In most Asian countries where culture strongly exists, people tend to act and behave in a similar manner. Cultural social factor is one of the important factors. People tend to have behavior influenced by reference groups, family, social roles and statuses (Kotler, 2009). A consumer decision making also depends on personal characteristics. It relates to age and stage in the life cycle; occupation, economic situations, personality, values and lifestyles. People with different age groups consumer are attracted by different goods and services. Taste in food and products, for instance, are often age related. Person in different economic situation tend to act differently towards retail strategies. They choose products and shops that reflect their role and actual or desired status in society. For example, a well-to-do family often visits premium grocery stores provided a wide variety of selected imported products rather than a hypermarket promoting low price strategy. A blue-collar worker buys work clothes and lunch boxes whereas a company president buys dress suits and club memberships. A person's lifestyle form a person's preference and pattern of living, exposed to interests and opinions. Lifestyle could be key whether consumers are money-constrained or time-constrained (Kotler, 2009). By appealing money-constrained consumers, stores could create lower cost products and services. Consumers with time-constrained tend to be multitasking. Most often they are require completing several tasks within a timeframe. The stores where they could carry out one stop shopping would be their most preference. Fast service and convenience are ideal. In some cases, they could pay others to finish off their tasks because time is more important than money. According to Kotler, consumer decisions are also influenced by core values, the belief system that underlies consumer attitudes and behaviors. Core value is rooted more profound than behavior or attitude and determines people's choice and desires over the long run.

2.3 Psychological Processes

A set of psychological processes combines with certain consumer characteristics to result in decision processes and purchase decisions. Motivation has

been studied by Freud, Maslow and Herzberg. Sigmund Freud assumed that the psychological forces shaping people's behavior are largely unconscious.

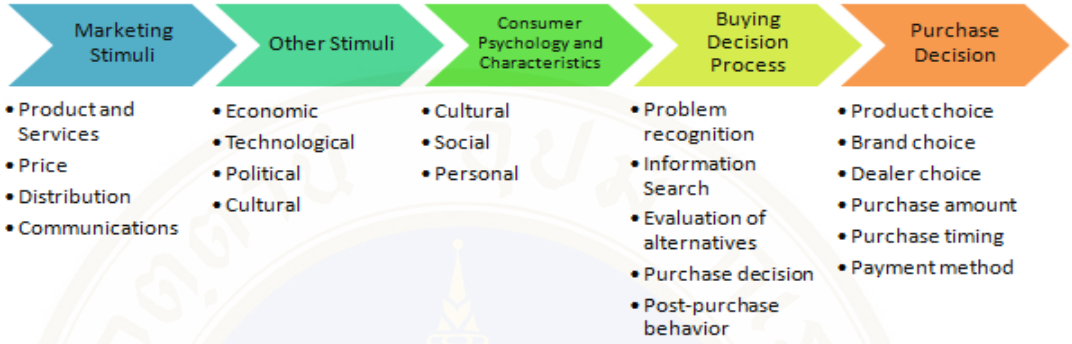

Figure 2.2 Model of Consumer Behavior (Kotler, 2009)

Maslow's Hierarchy theory of needs explains why people are driven by particular needs at particular times (1970). The answer to this statement is that people prioritize the importance of their needs. When a level of need is achieved, a subsequent level will be satisfied. Herzberg's theory developed a two-factor theory distinguishing satisfier and dissatisfier. Satisfier is the cause of satisfaction and dissatisfier is the cause of dissatisfaction. The lack of dissatisfier must be present largely enough to motivate a purchase to create a satisfier. Herzberg concluded two implications from his theory; to avoid dissatisfier and identify satisfiers or motivators, the latter having more impact to general sales.

Figure 2.3 Maslow's Hierarchy of Needs (1970)

Other factors that motivate consumers to purchase are perception and learning. Perception is the process by which an individual selects, organizes and interpret information to create a meaningful picture of the world (Kotler, 2009). Consumers who are exposed to situation deviating perceptions could have different behaviors because of three perceptual processes; selective attention, selective distortion and selective retention. Selection attention is when a person screen out stimuli messages he has received. However, the selected message could be eliminated due to sudden offer or more attractive promotion. Selective distortion is when a consumer distorts some information of brand to match with his prior belief or image of the brand. Selective retention is when a person decides to remember the information. It is likely that a person remembers a good aspect of the product and forgot competing brands. Learning is also an important indicator of consumer behavior. Through experiences, responses and reinforcement, consumer behaviors are strongly interrelated to form a person's behavior (Kotler, 2009).

2.4 Buying Decision process

Understanding the process of consumer buying decision process is crucial for marketers. It is the steps which consumers go through when purchasing a product or a service. Kotler (2009) introduced a five-stage model of the Consumer Buying Process. It illustrates that consumer have to pass through five stages; problem recognition, information search, evaluation of alternatives, purchase decision, and post-purchase behavior. In some cases, it is possible that consumers do skip some stages or reverse some stages.

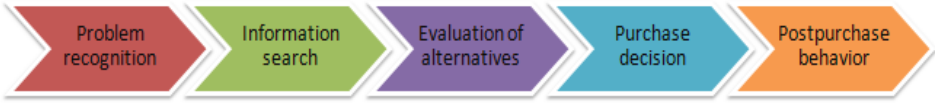

Figure 2.4 Five-Stage model of Consumer Decision Process (Kotler, 2009)

Levy and Weitz (2009) introduced the steps of Buying process. The model is very similar to what Kotler's Five stage theory of Consumer Decision Behavior. Additionally to Kotler's thory, Levy and Weitz further included the aspects that consumers are likely to seek more information on retailers and channels to satisfy their needs.

Figure 2.5 Stages in Buying Process (Levy and Weitz, 2009)

At an early stage, a consumer would identify their needs. The needs could be motivated by either internal or external stimulus. There are two types of needs; utilitarian and hedonic needs. Utilitarian needs take place when a consumer goes shopping to accomplish some specific tasks (Levy and Weitz, 2009). In a retail context, utilitarian shopping value can be related to the consumer's need to obtain some utilitarian of functional consequences from visiting a store, for example in terms of competitive price (Dodds et al., 1991), time and effort expenditure reduction (Baker et al., 2002), or risk reduction (Chen and Dubinsky, 2003; Sweeney et al., 1999); Teas and Agarwal, 2000). There are a variety of utilitarian attributes that are in consumer's discrimination between retail locations. These include price level, range of goods, distance from home to store, customer service levels, and accessibility (Bell, 1999; Louviere, 1996, Oppewal and Koelemeijer, 2005). On the contrary, hedonic needs occur when consumers go shopping to obtain fun and pleasure. It needs to satisfy

consumers' needs for an entertaining, emotional, and recreational experience (Sands et al., 2009). The retail attributes for hedonic needs include the store exterior, store interior, store layout and design, the point-of purchase and decoration variables, and human variables (Turley an Milliman, 2000).

Being aroused by either utilitarian or hedonic needs, the person would seek for more information where his needs could be satisfied. Most often consumers seek for information about retailers and product to help them satisfy their needs. How much consumers need the information? It depends on the cost of information search comparing with the value of the needs. The information could come from two types of sources; internal and external. Internal source is from consumers' memory while external source is mainly from advertisements and other people The internal source of information is mostly gained from personal experience. When consumers feel that they do not have adequate information, they continue to gather information from external source; friends, family or specialists (Levy and Weitz, 2009).

Having searched for required information from different brands, the consumer uses his cognitive process to analyze the information using his judgment and rationale. This is important where product attributes come into play as the consumer evaluates pros and cons of a product before making a last final decision. The consumer's evaluation also depends on his beliefs and attitudes toward the product. Levy and Weitz have established the Multiattribute Model to identify how consumers use the information they have collected about alternative products and services, evaluate the alternative and select the final product that they are best satisfied. They also referred to the multi attribute attitude model which is based on the notion of consumers, how they see retailers, a product or a service as a collection of attributes of characteristics. Attitude is a frame of liking or disliking an object. It is clear that the attitudes of favorable or unfavorable evaluation influences how a person reacts consistently towards an object. Emotional feeling also provides a tendency how the consumer would react. After an evaluation has been made, the consumer creates preferences among brands and choices. He might form an intention to purchase the most preferred product. Purchases of daily produces require less decision-making and less deliberation (Kotler, 2009). After evaluating the retailers' merchandise, consumers generally make a purchase or visit other retailer to collect more

information, depending on how satisfied they are with the information they have gathered.

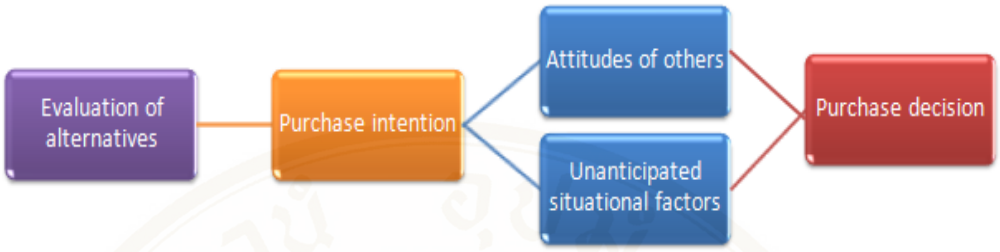

Figure 2.6 Steps Between Evaluation of Alternatives and a Purchase Decision (Kotler and Keller, 2009)

Eventually consumer makes a purchase of merchandise and decides whether the needs are satisfied by going through post-purchase evaluation stage. After Consumer evaluate his experience with the product. Post-purchase satisfaction determines when a consumer is satisfied after having used the product; expectations and performance of the product are close. When there is a gap between expectation and performance, it generates a situation where a consumer is either satisfied or disappointed. If performance is short of expectation, the consumer is dissatisfied and if the performance exceeds the expectation, the consumer is satisfied. The satisfaction and dissatisfaction after the purchase influence how the consumer has subsequent behaviors toward the product. In the case of expectation is met, the consumer forms a tendency to patronage the brand whereas he might abandon use of the product when performance of the product is below what he has anticipated. Consumer then evaluates alternative retailers and existing channels in order to purchase merchandise, such as stores, catalogs and the Internet, and then choose a store or Internet site to visit or a catalog to review.

In some situation, it is worth considering types of buying process as one determinant of consumer decision-making process. It is not always true that consumers go through different stages of decision process. It all depends on time and efforts required to make a decision. Very often, decision-making is done automatically with little thoughts. For instance, consumers tend to give little thoughts when it comes to

make grocery shopping (Kotler, 2009). There are three types of buying decisions; extended problem solving, limited problem solving and habitual decision making. In extended problem solving, a purchase decision is taking considerable time and effort to analyze existing alternatives. Consumers usually engage in extended problem solving when they are making decisions relating to satisfy their important needs or when they have little knowledge about a product or a service (Levy and Weitz, 2009). Limited problem solving involves a moderate level of time and effort. Generally consumers have prior experience of a product or a service before making a decision. Consumers usually decide based on their personal experiences and consider that risk is moderately acceptable. Habitual decision making happens when consumers choose based on little or no conscious effort. When needs is identified, consumers may automatically respond to their needs. It involves familiar merchandise and habitual decision making. It also relates to brand loyalty that consumers consistently patronage specific brands in a product category. Some consumers may have store loyalty. They may like and habitually visit the same store to purchase a type of merchandise.

2.5 Grocery shopping

Grocery shopping is categorized as an ongoing and important activity. Individual grocery items are generally perceived to be low-involvement. There is minimal risk that consumers involve in trying a new brand product. Slama and Taschian (1985) indicated tht individual differences make some people more interested, concerned, or involved in the decision process, and that consumers' involvement in purchasing activity influences purchase behavior. Consumer involvement is recognized as an important influence on the consumer decision process (Assael, 1984), which drive consumer perceptions, attitudes and behaviors. Houston and Rothchild (1978) identified three types of involvement; situational involved, enduring involvement and response involvement. Situational involvement is evoked by a particular purchase and is influenced by product attributes as well as the situation. Enduring involvement is the ongoing concern with a product that the individual brings to a purchase situation. It relates to one's past experience and the strength of value to which the product is relevant. Euduring involvement is independent of the purchase

situation and motivated by the degree to which they relate to the self and to hedonic pleasure received from the product (Richins and Bloch, 1986). Response involvement is an extensiveness of consumer decision-making, referring to the conscious of the inner state of being involved (Houston and Rothschild, 1978). Grocery purchase may be perceived as low-involvement, products can be assumed situational involved such as during holidays (Richins and Bloch, 1986). It could sometimes be considered as enduring involvement when grocery shopping could differ from each individual. To some extent food and grocery are linked with an individual's role within a household and self-concept (Smith and Carsky, 1996). Richins and Bloch (1986) stated that a risky purchase is the most common source of involvement. A consumer perceives a financial risk when the purchase price is high relative to disposable income. A psychological risk would be prominent when a purchase decision is relating to ego. When a decision could poorly reflect on the decision maker or result in a feeling of failure, a psychological risk is present. Social risk is seen when a product or a service is not perceived by significant others' as being appropriate or it is not achieving anticipated expectations.

The individual characteristics of consumers influence their purchasing behaviors. The previous research revealed a connection between demographic characteristics and choice of retail format. Crask and Reynolds (1978) compared the demographic characteristics of frequent and non-frequent patterns of department stores and found that the frequent pattern tended to be younger, more educated and had higher incomes. It forms an underlying basis for the high degree of correlation between the increase in per capita Gross Domestic Product and the increase in the share of market that goes through the Modern Trade (Nielsen, 2008).

A field study conducted in the U.S. to examine the effects of five demographic variables (gender, female working status, age, income, marital status) on supermarket shopping variables (i.e. shopping time, number of supermarket visited weekly, amount of grocery spending) was carried out (Zeithaml, 1985). The study detected major shifts in demographic characteristics and predicted that changes in family unit would drive changes in grocery patronage in the U.S.

The rules of retailing game are changing dramatically as consumers re-evaluate their criteria for choosing the grocery stores they spend their money in (Nielsen, 2008). The location might not be solely the critical success factor. Recent research further discovered more than eighty-five percent of the world's consumers ranked Good Value for Money the most important consideration when choosing a grocery store. Consumers ranked the relative importance of store attributes as location, higher quality brands and products, access and easy parking, respectively. The findings also reveal the important differences in consumer preferences across the World are resulted from changing habits and motivations behind grocery store behaviors.

The shopping trip to the grocery store is one of the most basic elements of consumer behavior (Bawa and Ghosh, 1999). In deciding where to shop consumers are faced with trading-off the value offered by alternative destinations. Shopping value is a multi-dimensional construct and is often described as comprising utilitarian and hedonic value (Babin et al., 1994; Childers et al, 2001). During a shopping trip, customers form value perceptions on the basis of their interaction with the products and various store attributes (e.g. location, staff, environment) (Diep and Sweeney, 2008). The importance of understanding the total value of the shopping trip (e.g. overall shopping experience) includes evaluations of the product and store during the shopping trip can increase or decrease utilitarian and hedonic shopping trip value. In addition, the store features and atmosphere appeared to give different impacts to different types of consumer purchasing behaviors; hedonic and utilitarian (Gilmore et al, 2001; Kaltcheva, 2006).

Individual differences make some people more interested, or involved in the decision process. The consumer's involvement in purchasing activity therefore influences purchase behavior. Research found that those who were more involved with grocery shopping were more likely to shop at different supermarkets for various categories of grocery items, used newspaper grocery advertisements more frequently for grocery shopping, and were more likely to plan a trip to supermarkets based on what grocery advertisements reveal about prices of their most important grocery items than those who were less involved (Smith et al., 1996).

Consumer behavior can be influenced by external factors such as economic factors. In 2008 ACNeilsen had conducted a global study on consumer confidence index to determine consumer confidence index during gloabal financial crisis in 2006. Thailand had been impacted by a decline in consumer confidence index. However in 2009 another similar study was conducted and found that consumer confidence in Thailand was on the rebound. However, Thai consumers have been reprioritizing their shopping list cutting out less essential items such as frozen foods, non-staple groceries including alcoholic beverages and cigarettes. ACNeilsen (2009) further pointed that Thais' lifestyles have also changed as they tend to spend more time with home-entertainment. With less going-out they can reduce entertaining expenses. With the trend to stay at home, Thai consumers shop more frequently. Thais have cut back their trips to the Traditional trade, convenience stores, wet markets and supermarkets, while shopping frequency at hypermarkets remained unchanged. The average household shopping frequency slightly decreased from 70.7 times in 2007 to 79.2 times in 2008, leading to a higher average spend per trip, increased by 3.9% in 2008 compared to 2007 (ACNeilsen, 2009)

2.6 Retail strategies and store attributes

In the situation where competition has been increasing drastically due to new emergence of new competitors, marketers spend more time on developing retail strategies. Many authors have discussed about different store attributes or characteristics that are part of the overall image towards the store. Lindquist (1974) combined models from nineteen studies and came up with nine different elements: merchandise, service, clientele, physical facilities, comfort, promotion, store atmosphere, institutional and post-transaction satisfaction. Doyle and Fenwick (1974) distinguished only five elements; product, price, assortment, styling and location. Bearden (1977) suggested the following characteristics: price, quality of the merchandise, assortment, atmosphere, location, parking facilities and friendly personnel. The environment in grocery retailing has evolved drastically. It is

characterized by increasing competition and more sophisticated and demanding consumers. Not only should the retailers be concerned with value and quality of merchandise, but they also have to consider a wide range of other factors such as store physical environment and other store attributes. These factors are expected to play an important role in success of failure of stores (Martineau, 1958). As a result, retailers turn their main focus on a particular aspect of retail mix (e.g. services, prices and store atmospherics).

The studies have shown that location, pricing, product assortment and customer services are important factors in determining store choice in the department store (Arnold, 1997; Sparks, 1995). The store environment and atmosphere are proved to relate to consumer choice on store format (Baker et al, 1994). The product assortment, staff availability, convenience and pricing are significant determinants driving grocery consumers to a particular store.

Location convenience is the most determinant attribute and associate a given store with evaluative store attributes predicting of primary store choice (Leszczyc, 2000). From retailing perspective, location is still a critical importance; however, the recent studies from Nielsen (2008) suggested that theories have changed as consumers re-evaluate their criteria of choosing the stores they spend their money in. Good value for money becomes the most important factor in determining where consumer grocery-shop, with 60% of consumers in the US and 85% globally ranking good value for money as the most important consideration when choosing a grocery store. Niel Sangster, Associate Director of ACNielsen Australia stated that customers show their appreciation on store convenience with more frequent shopping trips and bigger sales totals (ACNielsen Breaking News, 2006).

Todd Hale, Senior Vice President of Consumer & Shopping Insights, Nielsen Consumer Panel Services stated that what shoppers demand from grocery retailers varies significantly across the regions and countries. Due to the increase consolidation and globalization of the retail industry, it is essential for retailers to understand how a shopper preference differs across market. For example, Malaysian shoppers preferred supermarkets with the most convenient / easy parking. South Koreans, Indonesians and Germans like the supermarket closest to them. Russians and Indians seek out supermarkets offering a better selection of high quality brands and

products, while Filipinos and Singaporean top global ranking placed most importance on getting good value for money.

A marketing researcher on the choice of store in supermarket context affirmed that not only brand-loyal or effective reward program that make customer return to the stores, pleasant experiences with stores also increase of loyal customers. It is reassured that in-store themed events can create unique experiences that will enhance shopping value and lead to their store choice decision (Sands et al, 2009).

One of the major success factors in the retail industry is store image. Consumers distinguished acceptable stores from unacceptable stores in the process of comparing their evaluation standards with perceive image attributes. Store image is also considered as being an important antecedent of store satisfaction and loyalty. Store loyalty is built by satisfaction and this satisfaction, in its turn, is build by store image (Bloemer and Ruyter, 1998). The store satisfaction is a post-consumption evaluation (Levy and Weitz, 2009)

The Retail strategy is served as a roadmap marketers plan to use to satisfy their target market's need as well as building sustainable competitive advantages (Levy and Weitz, 2009). There are different variables that are related to retail grocery stores. The concepts of element of retail mix by Levy and Weitz has been well-known among marketers. Its objective is to satisfy consumers' needs of its target market more than of its competitors. Elements in the retail mix include the types of merchandise and services offered, merchandise pricing, advertising and promotional campaign, store design and layout, merchandise display, assistant to customer provided by store staff.

Figure 2.7 Element in the Retail Mix (Levy and Weitz, 2009)

Marketers design each strategy thoroughly to respond to consumers' needs and to maintain competitive position. Communication mix involves development of a communication program to build appealing images and brands to attract customers to a store. The program is designed to achieve a variety of objectives for instance, building a brand image of the retailer in the customers' mind, increasing sales and store traffic, pr0viding information about the retailer's location and offering and announcing special in-store activities. It may give impacts on both long and short terms. For a long-term impact, it could establish image and strong brand awareness, differentiated image of the retailer and other brands. This brand image in turn results in a brand loyalty. In a short-term perspective, the aims could be seen as increased sales during which the merchandises are offered at discount for a certain time. Examples could be seen in supermarkets and hypermarkets.

Customer satisfaction is essential to marketing concept. It is linked between satisfaction and overall store services and performance (Truch, 2006) and is an important theoretical and practical issue for more marketers and consumer researchers (Goode, 2001). Customer satisfaction remains in the limelight, (Bartikowski and Llosa, 2004), particularly in the service field. It is defined as an overall assessment of the performance of various attributes that form a service. It is well-known that service quality and customer satisfaction are distinct constructs (Dabholkar, 2000). The service quality was suggested to be antecedent to customer satisfaction regardless of whether these constructs were measured for a given experience over time (Oliver, 1993). Spreng and Macoy (1996) find empirical support which customer satisfaction is a consequence of service quality, and Dabholkar (2000) proves that customer satisfaction is a consequence of service quality (mediator model of customer satisfaction). Moreover, Bodet (2006) indicated that the quality of human factors such as staff behavior and non-tangible factors such as image, are determinant in the formation of customer satisfaction. Service can only be experienced and the production of a service takes place at the same time and in the same place as its consumption (Fonseca, 2009). Retailers use two strategies to provide customer service both personalized and standardized services. A personalized approach relies on the assistance provided by sales representatives while a standardized approach is based on consistent procedures and store designs (Levy and Weitz, 2009).

Price and sales promotions are one of critical retail mix. Marketers consider price sensitivity when setting the price of merchandise and service being offered. Retailers need to consider prices charged by the competitors. Consumers often actively process price information interpreting prices in terms of knowledge from prior purchasing experience. A purchase can be based on how consumer perceives an actual prices and what should have been the current price. Consumers also consider the value of money comparing to product quality (Kotler, 2009).

CHAPTER III
METHODOLOGY

The objective of this chapter is to elaborate how the research and methods was designed and carried out. The chapter is divided into seven sections. The first and second section aims to identify research questions and objectives. The third section briefly explains research scope. The fourth section walks through research design. The fifth section explains how data characteristics are to be used in the study. The sixth section illustrates research sampling; population sampling and location sampling. The last section touches the topic of research tool; measurement and scaling and data analysis.

3.1 Research questions

The research question probes to determine crucial factors driving consumer decision-making in store selection locating in clustered areas in Bangkok Central Business District.

3.2 Research objectives

1. Identify crucial store attributes, influencing consumer decision-making in clustered grocery retailers in Bangkok Central Business District.
2. Provide a general understanding of grocery consumer's store choice and recommendations to practitioners in implementing retail strategies.

3.3 Research scope

This research involves three existing brands of hypermarket; key players locating in Bangkok Central Business District. A summary of existing branches of

three hypermarkets: Tesco Lotus, Big C and Carrefour, has been established. We have found two settings which are locations with two and three brands presented. Due to the locations with all three brands existing in the location, the areas are classified as 'outer Bangkok', therefore it is eliminated from the scope of study as we would emphasize on 'Stores locating in Central Business District'.

3.4 Research Process

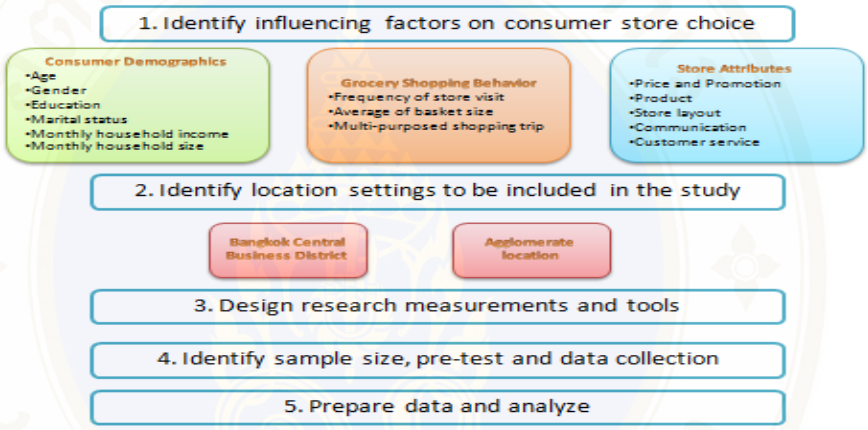

Figure 3.1 Research process (Author, 2011)

The author's interest has always been in retail industry especially hypermarkets. In the locations found with choices of hypermarkets, it gives consumers power to select. Selecting one store over the other is a trade off decision. It thus has become interesting to study what attributes they have used to decide a store to patronage. More research on retail strategy theories and consumer behaviors is the next step. Considering locations where we would data would be collected is important. In Bangkok, there are two scenarios of clustered locations; either location with two or three hypermarket-brand presented. Narrowing down to focus only in Bangkok central business districts, we discover only one valid scenario which is a location with two hypermarket brands; Tesco Lotus and Carrefour (name being referred at the time of questionnaires launched).

Primary data was selected as information on impacts of store attributes on consumer decision making was relatively limited. A questionnaire was designed with

a combination of the attributes from previous research, theories and interviews from local experts. The questionnaire was pre-tested with 46 grocery shoppers to test reliability. After the questionnaire was finalized and approved by MU Ethic board, data collection field work begun. The author provided a briefing to data collection team; 3 experienced members. The author participated in the first data collection in the field, observing each team member. A schedule of their field work was set and the author conducted random observation without notifying them. A meeting was organized at the end of data collection at each site. Incomplete questionnaires and/or with strange information were returned for data recollection

Database was constructed in parallel with data collection and screening. It was a time-consuming period to perform all entries to statistical software and validate against hard copies of the questionnaires. Incomplete questionnaires were mostly found in the third site and project had been prolonged to allow adequate time for the team. Data processing and analysis was conducted in order to obtain research results before the last research step; recommendation and conclusion.

3.5 Research design

It is crucial to clearly determine research problems at an early stage. It involves in identifying and clarifying information needs and defining research problems and questions as well as specifying research objectives and benefits of the research. The first need is to identify information needed. Competition in hypermarket industry is increasing to respond to consumer changing needs, it is important that most current data is obtained. Factors influencing consumer store selections are consequently to be listed. Step two is to refine research problems and questions. Once step two is completed, research objectives can then be identified as a study primary goal.

A research design is the overarching plan for the collection, measurement and analysis of data (Gray, 2009). Research design can be broadly categorized as exploratory and conclusive (Malhotra, 2010). Exploratory research is to provide insights into and an understanding of the problem confronting the researcher. Exploratory research is used in a study where a problem is designed precisely, relevant

courses of actions is clarified before an approach is established. The research process is flexible and unstructured. The sample is small and non-representative. The primary data is qualitative in nature and are analyzed accordingly.

Conclusive research is more formal and structured than exploratory research. It is based on large representative samples, and the data obtained are subjected to quantitative analysis. The findings from the research are considered to be conclusive in nature in that they are used as input into managerial decision making. Conclusive design can be either descriptive or causal, and descriptive research design may be either cross-sectional or longitudinal (Malhotra, 2010).

Cause and effect relations could be developed through a causal research (Malhotra, 2010). The main purpose of the causal research is to understand which variables are the cause and which variables are the effects of a phenomenon. It seeks also to determine the nature of the relationship between the causal variables and the effect to be predicted. Similar to descriptive research, it requires a planned and structured design. Independent variables are manipulated in a relatively controlled environment. It is one in which the other variables that may affect the dependent variable are controlled or checked as much as possible.

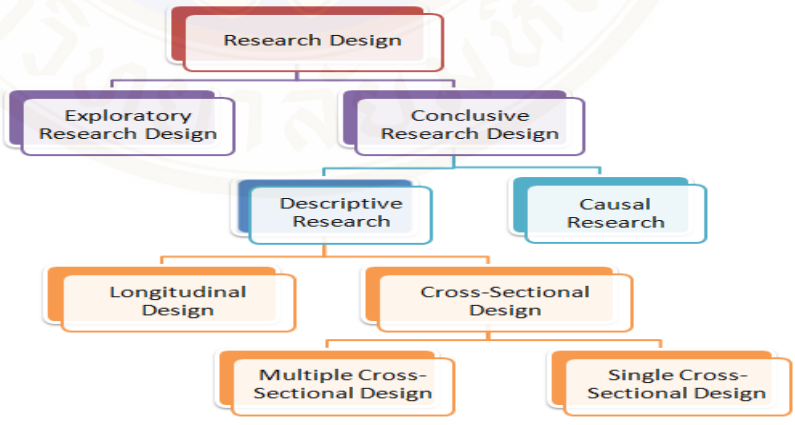

Figure 3.2 Classification of Marketing Research Design (Malhotra, 2010)

3.6 Data

Qualitative research data are in the form of text or images using open-ended questions, observations. They seek to understand research respondents rather than to fit their answers into predetermined categories. Qualitative research methods do have several advantages. An example of qualitative research method is focus group which can be completed very quickly due to its small number of participants. Another advantage is richness of data. The unstructured approach of qualitative techniques enables researcher to collect more in-depth data about respondents' attitudes and perceptions which may link to consumer behaviors.

On the contrary, quantitative research data use structured questions and predetermined response options in questionnaires administered to large numbers of respondents. Quantitative research methods are mostly used in descriptive and causal research designs. Important required skills are interpretation of numerical and statistic data into a meaningful information. Questionnaire is considered as an important tool to gain data on consumer behavior. It should be carefully designed and linked to research objectives, hypothesis and able to collect accurate information.

Deciding whether to conduct cross-sectional or longitudinal researches, it is best to understand their differences in order to respond to research questions. In a single cross-sectional design, only one sample of respondents is selected from the target population, whereas in multiple cross-sectional designs, two or more samples of respondents and information from each sample are obtained only once. Most often, information from different samples are drawn at different times over long intervals. In longitudinal research design, a fixed sample or samples of population is measure repeatedly on the same variables. Cohort analysis is a multiple cross-sectional design consisting of a series of surveys conducted at appropriate time intervals. It refers to the group of respondents who experience the same event within the same time period.

A longitudinal differs from a cross-sectional design in that the sample or samples remain the same over time. It provides a series of information that give an in-depth view of the situation and the changes that take place over time. Sometimes the term 'panel' is used with the term 'longitudinal design'. A panel consists of a sample of respondents, generally household who have agreed to provide information at

specified intervals over an extended period. It helps to understand and monitor changes over the project.

3.7 Sampling

Sampling techniques can be categorized into two methods; nonprobablity and probability. Non-probablity sampling is based on personal judgment of the researcher rather than chance to select sample elements. It could yield good estimates of the population characteristics, however, they do not allow for objective evaluation of the precision of the sample results. This technique includes convenience sampling, judgmental sampling, quota sampling and snowball sampling. In probability sampling are selected by chance. It is possible to determine every potential sample of a given size that could be drawn from the population as well as the probability of selecting each sample.

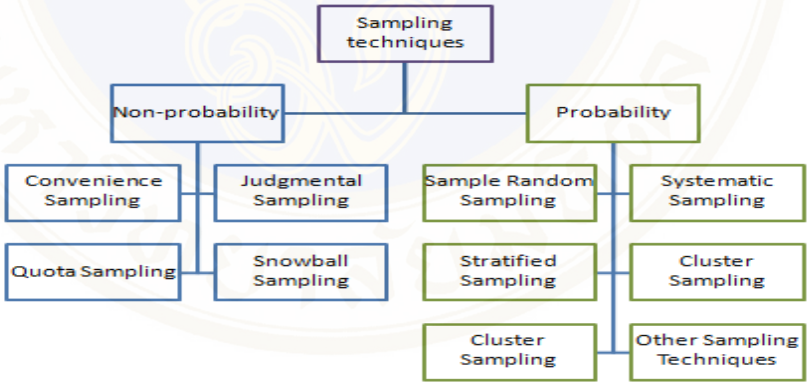

Figure 3.3 Sampling techniques (Hair, 2010)

Convenience sampling is to obtain a sample of convenient elements. The selection of subject depends on interviewers. It is the least expensive and least time-consuming of all sampling techniques. Its main advantage is enabling a large number of respondents to be interviewed in a relatively short time. It generally involves the use of construct and scale measurements. Its disadvantage is the argument raised about the issue of generalizability. This method is perceived as the most appropriate for the study. Target populations are hypermarket customers and to become the

generalizability issue, a large number of respondents were anticipated. With convenience sampling, it allowed trained interviewers to select respondents who have spare minutes and are comfortable to participate in the questionnaire survey. (Hair, 2010)

Judgmental sampling takes place when respondents are selected because the researcher believes they meet the requirements of the study. If the judgment of the researcher is correct, the sample will be better than the one used convenience sampling. It cannot measure the representativeness of the sample therefore an data interpretation must be done carefully. (Hair, 2010)

Quota sampling includes the selection of prospective participants according to prespecified quotas for either demographic, characteristics or specific behaviors. The objective is to assure that prespecified characteristics subgroups of respondents are represented. (Hair, 2010)

Snowball sampling identifies a set of respondents who can refer to subsequent respondents. It is also called referral sampling. It is used to approach respondents who belong to a unique small group and hard to reach. (Hair, 2010)

Simple random sampling is where every sampling possess equal chance of being selected. With the use of this technique, the data from questionnaire can be generalized to the defined target population with an estimated error. The difficulty of this technique lies in the method to obtain an accurate listing of the target population elements. (Hair, 2010)

Systematic sampling is similar to simple random sampling but the target population which are in a certain order. It is commonly used as it is easy to draw a sample while ensuring randomness. One weakness of this technique is the possibility of hidden patterns in the list of names that create bias. (Hair, 2010)

Stratified random sampling involves the separation of the target population into different groups, called Strata, and the selection of samples from each stratrum. It is similar to segmentation of the defined target population into smaller, more homogeneous sets of elements. The fact to divide defined target population into homogeneous groups helps assuring representativeness of the sample and reducing estimated errors. (Hair, 2010)

Cluster sampling is similar to stratified random sampling but is different in that the sampling units are divided into mutually exclusive and collectively exhaustive subpopulations, called clusters. Each cluster is assumed to represent the heterogeneity of the target population. It is widely used thanks to its ease to implement and effectiveness. A disadvantage is that sampling containing in a cluster are homogeneous. The more homogeneous the cluster, the less precise, the sample estimates. (Hair, 2010)

3.7.1 Population sampling

Based on Yamane (1967)'s theory of a simplified formula to calculate a sample size, the researcher has followed below formula with a classic 95% confidence level.

$$n = \frac{N}{1 + N(e^{2})}$$

Where; n = sample size

N = population size

e = level of confidence

Based on the expert interview, we were able to determine the sample size with a rough estimated target population. Allowing 5% confidence interval and 10% additional contingency, we decided to conduct 450 questionnaire surveys in the pre-selected clustered hypermarkets. Time interval was split into three periods per day; from the opening till the closing of store. In addition, the expert indicated that to identify the actual number of customers visiting a store per month might be challenging since a repeated customer would be counted as one single customer. A transaction is acceptable to be used as a unit of customers.

The key respondents of this research are store customers of the hypermarkets. A proof of purchase, for instance, a store shopping bag was used as a proof. All of the customers were post experience because they could only be satisfied or dissatisfied by the service being provided. Before starting a data collection in real sites, a pilot study was conducted with 48 respondents. A Cronbach's alpha was 0.911 on evaluated attributes of the two hypermarkets.

3.7.2 Location sampling

Successful clustering is depending on having the appropriate mix of businesses in any cluster that will create market synergies and the uninterrupted grouping of businesses which draw customers to and through the entire cluster (Day et al, 1971). Why are stores located together in one area when they are each other's competitors? Some of answers focused on the scale of economies that agglomeration allows, grocery retailers being able to share the customer catchments. Others explanations are on the increased attractiveness for consumers.

The context of this study is the hypermarkets locating in clustered areas in Bangkok Central Business District. Prior to a data collection step, a study of hypermarket settings are carried out. The purpose is to select qualified hypermarket locations to be studied. At an early stage, the scope of study was extended to cover Central Bangkok and the outskirt of Bangkok where located residential areas, in order to cover a broader type of consumers.

Based on information retrieved from the official websites of the three leading modern grocery trader in Bangkok, fifty four different locations are identified. The interest of this study is to emphasize on the consumer store choice on clustered grocery stores in Central Business District of Bangkok. Due to city zoning law, most clustered target studies are found with two grocery chain stores at maximum, while three clustered stores are located mainly in outskirt of Bangkok. A further analysis was conducted to identify the areas where exist more than two grocery chains. The analysis displays four locations with three grocery chains and twelve locations with two major grocery store chains.

Due to limited resource, the scope of study was narrowed to only focus in Central Business District of Bangkok. Out of thirteen locations, three locations, Ratchadapisek, Rama 4 and On-Nuch, have been selected into the category. Three locations have identical hypermarket brands which are Tesco Lotus and Carrefour. In Ratchadapisek area two hypermarkets are located on the same side of the road, only 1.124 kms. between the stores. The location can be accessed by car and a subway; Tesco Lotus at Rama 9 station and Carrefour Ratchadapisek at Thai Cultural Center. The second location sampling is Rama 4 which is in Sukhumvit area. It can be accessed by car and the nearest subway is Queen Sirikit National Convention Center.

The distance from the subway station to these stores is 1.061 kilometers. One unique characteristic of this location sampling is that the two stores locating opposite right in front the other. Customers can use a pedestrian bridge to cross to the other side of the road. The last selected location is On-Nuch area where found the On-Nuch station as the nearest skytrain station. The two stores are only 430 metres apart and easily accessible by car.

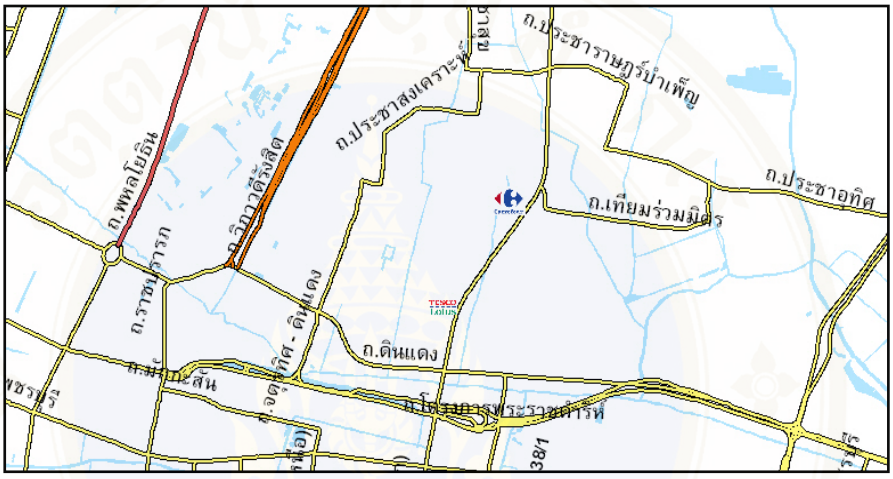

Figure 3.4 Location sampling - Ratchadapisek

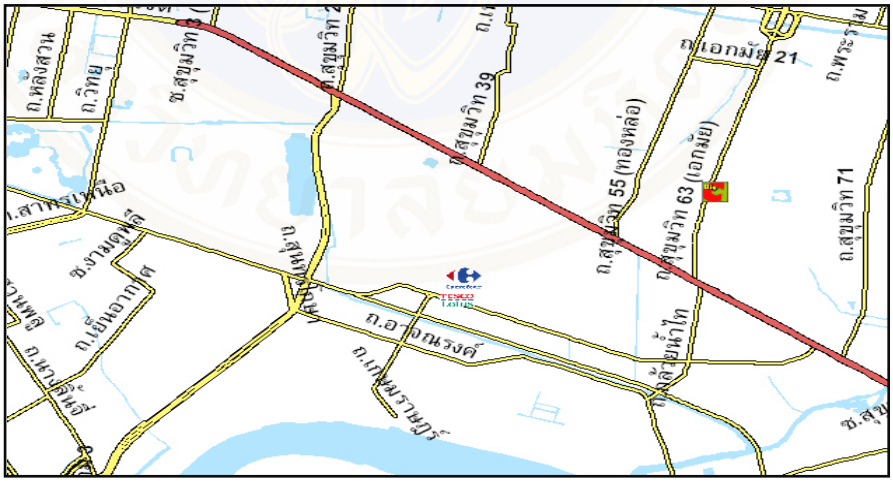

Figure 3.5 Location sampling – Rama 4

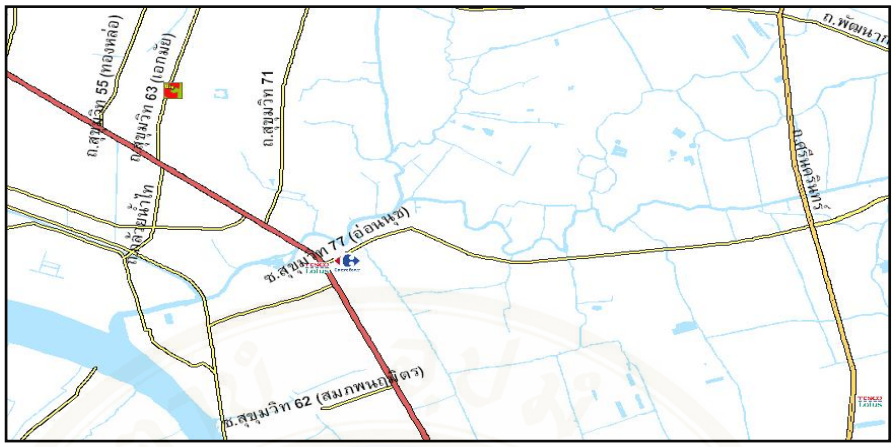

Figure 3.6 Location sampling – On-Nuch

Big C (Carrefour)

Carrefour is a French national hypermarket chain. It is one of the largest hypermarket chains in the world (1,395 hypermarkets at the end of 2009, the second largest retail group in the world in terms of revenue and third largest in profit after Wal-Mart and Tesco) (Wikipedia, May 2011). Carrefour offers a large selection of meats and produce similarly to a wet market. They distinguished themselves from the other hypermarkets by providing wide selections of imported goods. During the first three years, Carrefour expanded rapidly in the number of stores. Their expansion slowed down, allowing Tesco Lotus and Big C to widen the gap in terms of number of stores. The Carrefour's president stated that they were missing investment opportunities of 5 billion baht to open four or five stores per year (Shannon, 2009). Until November 2010, Big C announced an acquisition of Carrefour's operation in Thailand for a total of 35.5 billion baht. It is the strategic plan to accelerate and strengthen their market leadership. Carrefour operates with 42 branches nationwide, of which 34 hypermarkets and 37 shopping centers. Big C and Carrefour present strong geographical complementarities enabling Big C to double its presence in Greater Bangkok (www.bigc.co.th, May 2011). In this research, when Carrefour is mentioned, it is currently acquired by Big C.

Big C itself has been one of the most players in the market, with aggressive expansion of stores, new formats and private label brands. The company launched what they call their fourth generation stores, aiming to offer a fun shopping experience with low prices, which they hope to attract younger consumers. The new

fourth generation is more like a shopping development than a hypermarket – 78,108 square meters in total, 9.412 for sales area, 3,500 square meters of shopping plaza and a 1,400 square meter food court (Shannon, 2009). With this trend, Big C seems to develop to become an entertainment complex and landlord as opposed to pure hypermarkets. It is interesting to see if Big C would implement its strategies with Carrefour.

Tesco Lotus

Tesco Lotus has expanded its operation more aggressively in terms of market expansion, both in fill sized hypermarkets and with discount convenience stores. It was indicated to have 18% of the modern trade and 6% of the total retail market share in Thailand (Shannon, 2009). In 2005, Tesco Lotus introduced the concept of 'green' market; environmentally friendly. Existing hypermarkets will eventually be upgraded to become green stores. Value stores are smaller sized than hypermarkets, major focusing in upcountry. Tesco continue to expand with 100 Lotus Express outlets, 20 supermarkets and 12 hypermarkets, six full sized and six smaller value store format (Bangkok Post, 2008). Tesco Lotus also has its own store card, not linked to any commercial bank. The hypermarkets have a section of bulk packaged goods targeted at supplying traditional traders. It is not common to receive products in a Tesco Lotus bag when purchasing from a mom and pop store.

As earlier mentioned that convenience sampling could cause interviewer bias, the researcher had further studied the criteria to mitigate this drawback by allocating an equal number of questionnaires surveys to be spread throughout store business hours on seven days of the week.

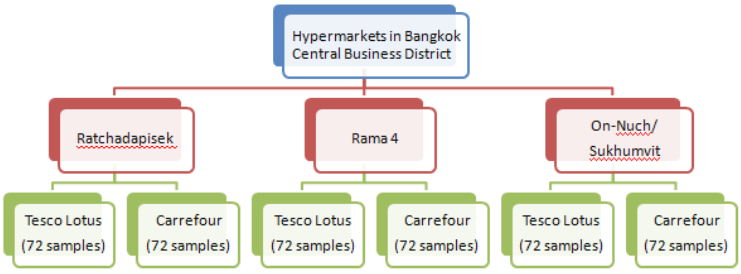

Figure 3.7 Target sample allocation by sites (Author, 2011)

Though consumer and market surveys have been conducted in Thai hypermarkets, namely in Bangkok and nationwide, information on consumers remain undisclosed and limited to the public due its business confidentiality. To replicate questionnaires that have been used in the Western countries, it would raise an issue of culture differences, consumer mentality and behaviors. To strictly use a single research approach might omit some factors being considered important to consumer decision-making. Hanson et al. (2005) proposes a mixed research approach to fulfill these criteria. The mixed approach argues a research piece which does not have to be pure qualitative or quantitative. A good research piece should employ both qualitative and quantitative data to use against one another. The different nature between qualitative and quantitative can provide a good cross-analysis of research outcome and a good argument of research validity. Hair et al (2010) supports that a qualitative research often is used in exploratory research designs when the research objectives are to gather background information and clarify the research problems. Quantitative research may then be used to follow-up and quantify the findings. Having consulted with the advisor, the researcher decided to use a combination of research methods; exploratory design (a structured interview with an expert) to identify the number of entire population and store attributes that they have been providing and descriptive design to determine store attributes which have influences on their store selection (questionnaire surveys).

3.8 Research tools

For quantitative research method, the survey methods of collecting information is based on the questioning regarding respondents' behavior, intention and attitudes, awareness, motivations and demographics and lifestyle characteristics. The questioning is structured. Structure refers to a degree of standardization imposed on the data collection process. In structured data collection, a formal questionnaire is prepared and the questions are asked in a prearranged order.

The survey method has several advantages. It is simple to administer. The data obtained are reliable because the responses are limited to the alternatives stated. The used of fixed-response questions reduces the variability in the results that may be

caused by differences in interviewers. Coding, analysis and interpretation of data are relatively simple. Disadvantages are that respondents may be unable or unwilling to provide the desired information. Respondents may be unwilling to respond if the information is perceived sensitive to their personal. Also structured questions and fixed response alternatives may result in a loss of validity for certain types of beliefs and feelings. There are a set of survey methods, illustrated in below figure.

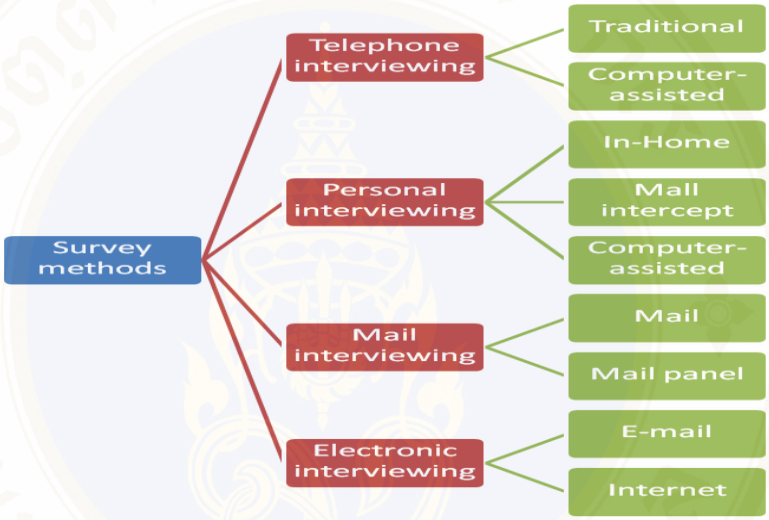

Figure 3.8 A classification of Survey Methods (Malhotra, 2010)

Self-administered survey has several advantages and has increasingly become popular. This method is much less expensive than person-administered survey as there is no interviewer-related cost. Respondents can advance at their own pace in completing questionnaires. It eliminates respondent-interviewer bias and maintains respondents' anonymity. Nevertheless, this type of survey method is limited to specific questions and it is not possible to add in-depth questions pre-determined from the initial questionnaire design. Major drawbacks are high non-response and possible response errors. Researcher has to bear in mind that the response rate for this type of survey method is considered low. The researcher would have to use a large sample size in order to obtain a required amount of information. Below figures illustrate advantages and disadvantages of both survey methods. With the minimal ability to

control, there is a high possibility that error occur in data collection process (Hair, 2010)

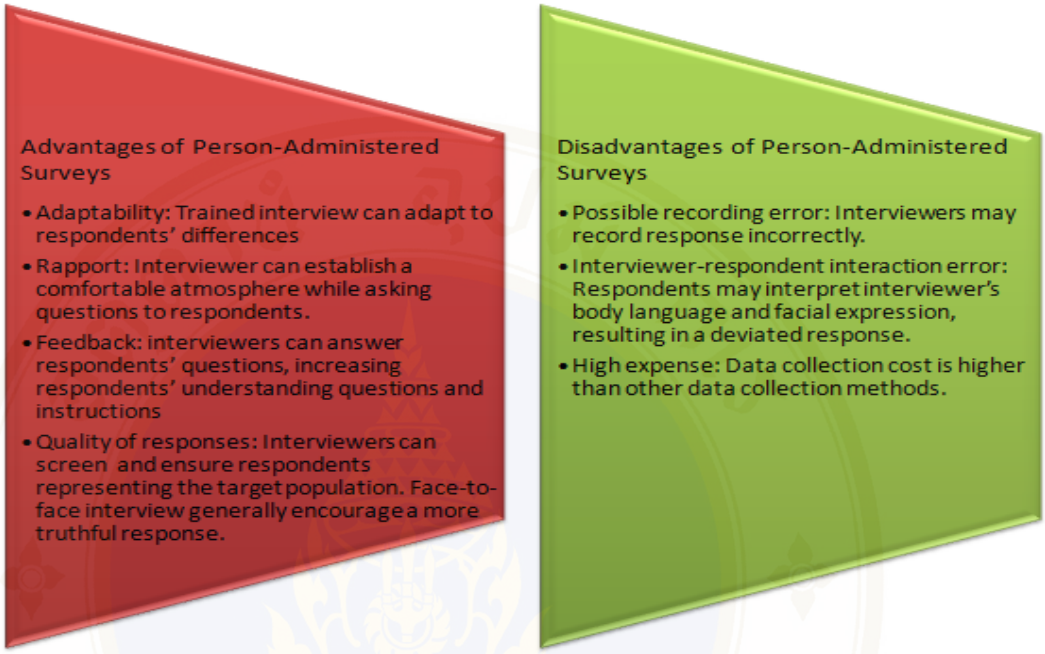

Figure 3.9 Advantages and disadvantages of Person-Administered Survey Methods (Hair, 2010)

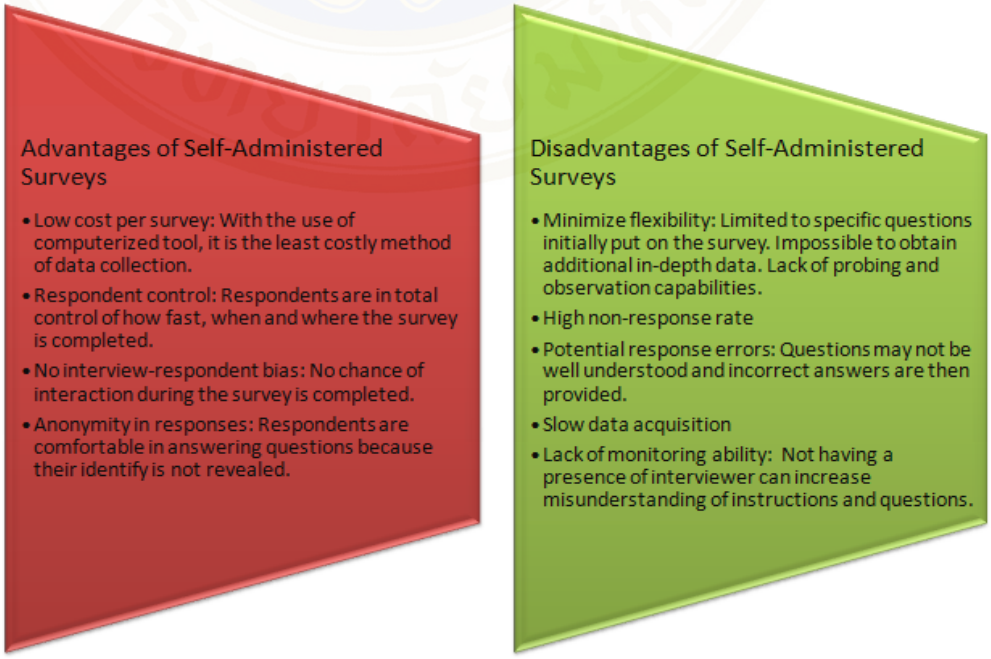

Figure 3.10 Advantages and disadvantages of Self-Administered Survey Methods (Hair, 2010)

The main purpose of the research is to investigate factors that consumers consider as priorities in choosing a store. Interaction between interviewer and respondents are important in order to respondents to represent target population. It helps ensure a correct understanding of questions, especially when the questions are translated from English to Thai. The study intends to cover all demographic types of respondents. To minimize response errors possibly during a data collection period, interviewers can clarify questions and exemplify to give respondents better understanding prior providing definitive answers. Errors in completing questionnaires are reduced as interviewers are to ensure completeness of all questions.

It is appropriate to use a person-interviewed method; mall-intercept interview. In an unfamiliar environment, it is not always easy for respondents to stop and being interviewed. Experienced interviewers act as the researcher's representative to conduct interview survey. The researcher has determined one main criterion of target population. Respondents must be store customers in that specific day, by being seen with store shopping bag(s) regardless the value of purchase. This requirement reinforces that respondents are eligible to represent the population being studied and could affirm a generalization of the project.

Questionnaire design

Questionnaire is an important tool in quantitative research. It is served as an equipment to collect data from respondents. Generally, a questionnaire can include a fieldwork procedure, some reward or gifts and communication aids such as maps or pictures. Small gift; pens are offered at the end of questionnaire survey, to respondents who sacrificed their time in completing our questionnaire. The questionnaire is consisted of two pages of structured questions divided into three sections; demographic, consumer behaviors and satisfaction of store attributes. These measures were partially taken from previous research developed by Yavas (2003) on the importance of fifteen store attributes. They were later adapted to correspond to Thai local context and the theory of Levy and Weitz on retail strategy management.

The section 1 aims at collecting respondents 'general information. Questions include gender, age, education, profession, monthly household income, household size and purpose of grocery shopping.

The section 2 intends to obtain information on respondents' grocery purchase behavior. Respondents are inquired about their most visited grocery store, the number of visits per month, the distance of their residence and home, the time spent on commuting, the mode of travel to store, an average grocery budget per month, single-multiple trip to hypermarket. The respondents are asked to name hypermarkets locating in their residence. The question ensures respondents' awareness of existing stores in an agglomeration. If a respondent is not able to answer the question, a questionnaire administrator has to exclude the respondent from the survey.

The section 3 focuses on acquiring respondents' perception on existing store attributes. Subjects were asked for their willingness to participate in questionnaire survey. They would be requested to confirm of having made a purchase at the store. Only those with positive answers would continue with the survey. Trained interviewer read questions to subjects by section: demographics, consumer behaviors and evaluation of store attributes. Clarification could be provided in case respondents showing doubts or uncertainty. Respondents were asked to rank from one (least satisfied) to seven (most satisfied). Questions on store attributes are categorized into five groups, accordance to retail strategies; price and promotion, merchandise assortment, store design and layout, communication and customer service.

The first section of the questionnaire was set to explore respondents' demographic information. Based on an expert interview conducted at an initial stage, demographics seemed to have influence on the brand of hypermarket chosen. The hypermarket which frequently advertised as 'every day low price' or 'the cheapest or guaranteed money back' were found to be popular among customers with a certain level of income. Customers who are less price sensitive and place more importance on the time value tend to visit the stores which promote a fast check-out and convenient parking.

The second section of the questionnaire focused on consumer behavior and an awareness of store in a pre-determined clustered location. The expert indicated that locating in proximity was a strategy to share consumer catchments where population was dense. As Bangkok residence tend to have less time in visiting several places to do their errand, hypermarkets responded to their needs by making available other shops and services that were not hypermarket core business, in their hypermarket

store, such as banks, bookstores and restaurants. These shops were considered as attractive reason for consumers to visit the store. Many ended up making a purchase at a hypermarket even without their initial intention. As a result, questions listed were to validate consumers' awareness of hypermarket brands in the sampling location, their estimated time and distance travelling, travel means to store, average monthly grocery budget, intention of a visit; a single or multi-purpose trip.

The third section studied the importance of store attributes influencing consumer decision-making in selecting a store. The section was developed based on Retail mix strategy by Levy and Weitz (2009). The store attributes were also found in the questionnaire launched by Jason Carter (2006). His study involved impacts of consumer demographics, store attributes on grocery retail format in the U.S market. The tested store attributes were arranged into five parts; price, promotion, store layout, communication and customer service.

Measurement and Scaling

Measurement means assigning numbers or other symbols to characteristics of objects according to certain pre-specified rules whereas scaling involves generation of a continuum upon which measured objects are located (Malhotra, 2010). Primary scales of measurement can be classified into four types: nominal, ordinal, interval and ratio scales.

Nominal scale is a figurative labeling scheme in which the numbers serve only as labels for identifying and classifying objects. In marketing research, nominal scales are used for identifying respondents, brands, attributes, stores and other objects.

Ordinal scale is a ranking scale in which are assigned to objects to indicate the relative extent to which the objects possess some characteristics. It can determine whether an object has more or less of a characteristic than some other objects. Ordinal scales are generally used in quality ranking, socioeconomics, and occupational status.

Interval scale is a scale in which the numbers are used to rate objects such that equal distances on the scale represent equal values in the characteristics being measured. In marketing research, interval scale involves in attitudinal data obtained from rating scales.

Ratio scale is the highest scale. It identifies objects, rank-order the objects and compare intervals or differences. In marketing, sales, cost, market share, number of customers are measured on a ratio scale. Figure below summarizes the characteristics of primary scales of measurement.

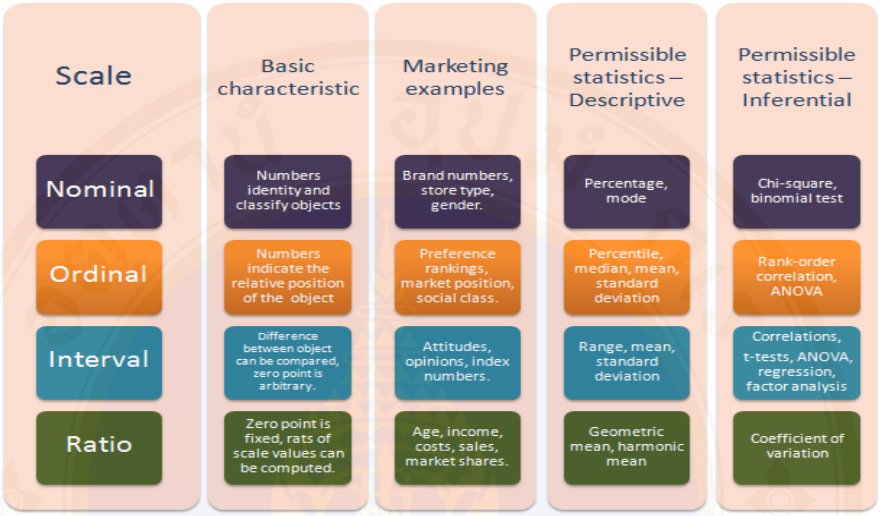

Figure 3.11 Primary Scales of Measurement (Malhotra, 2010)

The researcher decided to employ a combination of different scales in designing questionnaire. With their different purposes and suitability to various questions, it is more appropriate to be used in, for instance, demographics and satisfaction questions.

Data analysis tool

The data was analyzed by the use of SPSS program. Descriptive statistics and factor analysis were used in data interpretation. A descriptive method was used to report the characteristics of subjects. Demographic information such as age, gender, educational level and income are reported with the use of descriptive analysis and frequency. Means on satisfactions by hypermarkets were reported with paired t-test results.

Confirmatory factor analysis has been used to test the relationships of determined store attributes. Factory analysis seeks to identify common factors. Extraction factor reduces factors which may be originally incorrectly determined at early stage. With extraction and rotation methods, they improve the interpretation of factor analysis and eliminate ambiguities (Child, 1990). Reliability was examined by

confirmatory factor analysis. Factor analysis with varimax rotation was used to assess dimensionally to determine significance of each store attributes to the consumer store selection. Paired t-test was used as independent statistics.

CHAPTER IV
RESULTS

The chapter aims to present quantitative results from 450 collected person-administered questionnaire surveys being conducted in Bangkok Central Business District. Participants were identified store customers with a proof of purchase, regardless of transaction value. The surveys were carried out with 450 participants at three different locations where found two hypermarkets located in a near proximity. The data are presented in three sections; demographics, exploratory factor analysis on store attributes and effects of store attributes on store selection.

4.1 Profile of total population

			(n = 450)
Gender	Male	182	40.4%
	Female	268	59.6%
	Total	450	100.0%
			(n = 450)
Age	Less than 20	46	10.2%
	21-30	206	45.8%
	31-40	144	32.0%
	41-50	48	10.7%
	51-60	6	1.3%
	Total	450	100.0%
Gender by age			(n = 450)
Male	Less than 20	26	14.3%
	21-30	87	47.8%
	31-40	53	29.1%
	41-50	14	7.7%
	51-60	2	1.1%
	Total	182	100.0%
Female	Less than 20	20	7.5%
	21-30	119	44.4%
	31-40	91	34.0%
	41-50	34	12.7%
	51-60	4	1.5%
	Total	268	100.0%
			(n = 450)
Education	Below Bachelor	163	36.2%
	Bachelor or equivalent	262	58.2%
	Higher than Bachelor	24	5.3%
	Others	1	0.2%
	Total	450	100.0%
Occupation			(n = 450)
	Student	77	17.1%
	Employee	229	50.9%
	Government/State officer	41	9.1%
	Self-employed professior	52	11.6%
	Housewife	37	8.2%
	Retired	1	0.2%
	Others	13	2.9%
	Total	450	100.0%

Figure 4.1 Profile of the total respondents

Examination of the respondents (N= 450) indicated a majority of 268 females (59.56%) compared to 182 males (40.44%). Ages of the respondents range from 15 to 60, with a median age of 29. The majority of respondents (45.80%) falling in the age of 21-30, followed by the range of 31-40, accounted for 32.00%. In gender categories, male respondents were accounted for 47.80% having the age between 21-30 and 29.10% in the age between 31-40. Similarly to female respondents, 44.40% were found between the age of 21-30 and 34.00% in 31-40 respectively.

In other age range, the percentages of male and female participants were distributed equally. Interestingly that in the range of 41-50 years of age, female respondents were more than 60% higher than male respondents in the same age range. More than 58% of the respondents indicated having completed Bachelor degree or equivalent educational level and 36% had some education below Bachelor degree. Only 5% of the participants possessed higher post-graduate certificates or equivalent. Approximate 50% of the respondents had profession as employees, 17% were students and 11% were self-employed. Other occupation, government officer, housewives, retired and other occupation which was not pre-determined in the questionnaire was accounted for 20.44%.

			(n = 450)
Domestic income	Less than 10,000	23	5.1%
	10,001-20,000	77	17.1%
	20,001-30,000	90	20.0%
	30,001-40,000	80	17.8%
	40,001-50,000	65	14.4%
	50,001-60,000	22	4.9%
	60,001-70,000	31	6.9%
	70,001-80,000	21	4.7%
	Higher than 80,000	41	9.1%
	Total	450	100.0%
			(n = 450)
Household size	Less than 3	289	64.2%
	4-6	150	33.3%
	More than 6	11	2.4%
	Total	450	100.0%
			(n = 450)
Purpose of grocery shopping	Personal/Family use	440	97.8%
	Corporate use	7	1.6%
	Resale	3	0.7%
	Total	450	100.0%
			(n = 450)
Most frequently visited store	Carrefour	220	48.9%
	Tesco Lotus	230	51.1%
	Total	450	100.0%
			(n = 450)
Number of visits per month	Less than 4	319	70.9%
	4-6	101	22.4%
	More than 6	30	6.7%
	Total	450	100.0%

Figure 4.2 Profile of the total respondents (cont.)

Income levels were distributed across the sample with 37.8% claiming to have an average monthly household income between 20,001-40,000 baht. The income included all family members living permanently in the same household and at least 4 days per week. 21% reported having an average monthly income of less than 20,000 baht, 14.4% with an average of 40,001-50,000. Merely 9% were identified as high earners with an average income of more than 80,000 baht per month while the average income per household was 39,020 baht (National Statistical Office, 2007). In relation to household size, 64.22% reported having 1 -3 family members, 33.33% with 4-6 members and 2.44% with more than 6 members. The average number of persons in a family was 3.6 in 2007 (National Statistical Office, 2007).

More than 97% of the respondents answered that their grocery shopping was mainly for personal and family use whereas less than 2% aimed for corporate use. Out of 48% responded Carrefour as their most frequently visited store. Slightly more

than half of the total respondents admitted that they traveled to Lotus more frequently than to Carrefour. About 70% of the sample visited the stores up to three times in a month, 22% 6 times and surprisingly almost 6% visited the store in average more than 9 times per month.

			(n = 438)
Distance to store	Less than 1 kilometer	190	43.4%
	1-3 kilometers	145	33.1%
	3.01-6 kilometers	62	14.2%
	6.01-9 kilometers	4	0.9%
	More than 10 kilometers	37	8.4%
	Total	438	100.0%
			(n = 450)
Time to store	Less than 20 minutes	361	82.4%
	21-40	68	15.5%
	41-60	8	1.8%
	More than 1 hour	1	0.2%
	Total	438	100.0%
			(n = 450)
Travel mode to store	On walk	58	12.9%
	Car	118	26.2%
	Public transport	130	28.9%
	Motorcycle	87	19.3%
	Others	57	12.7%
	Total	450	100.0%
			(n = 450)
Grocery budget per month	Less than 2,000 baht	325	73.5%
	2,001-4,000 baht	76	17.2%
	4,001-6,000 baht	31	7.0%
	6,001-8,000 baht	2	0.5%
	8,001-10,000 baht	8	1.8%
	More than 10,000 baht	0	0.0%
	Total	442	100.0%
			(n = 450)
Single/Multiple intentions of store visit	Single purpose	235	52.2%
	Multiple purposes	215	47.8%
	Total	450	100.0%

Figure 4.3 Profile of the total respondents (cont.)

Approximately 43% traveled less than 1 kilometer to the store, 33% with a distance between 1 to 3 kilometers and 14% between 3.01 to 6 kilometers. Time spent on traveling to the store was found with 82% less than 20 minutes, 15% between 21 – 40 minutes. Car and public transport were widely considered as travel mode to store; 26.2% and 28.9% respectively. Motorcycle was used by 19% of the respondents while

12% preferred to walk. In terms of grocery expenditure, more than 70% spent in average less than 2,000 baht per month. 17% spent between 2,001-4,000 baht and 7% between 6,001 – 8,000 baht. The figure from Thai National Statistical Office showed that in 2010, an average spending per household was 16,819 baht. The figure consisted of all sorts of household spending. The latest figure on an average food and grocery expense per household was 19,842 baht comparing to the total expenditure of 22,892 baht (NSO, 2004). NSO revealed further that an average household income was 29,843 baht. When visiting a store, more than half of respondents had one unique purpose which was grocery purchase. 47% of the respondents were multi-purpose shoppers. More than 48% chose dining as their first reason, followed by other shopping than grocery (27%), and banking (25%)

4.1.1 Sample characteristics by store – Tesco Lotus

			(n = 220)
Gender	Male	90	40.9%
	Female	130	59.1%
	Total	220	100.0%
			(n = 220)
Age	Less than 20	18	8.2%
	21-30	99	45.0%
	31-40	73	33.2%
	41-50	27	12.3%
	51-60	3	1.4%
	Total	220	100.0%
Gender by age			*(n = 220)*
Male	Less than 20	11	12.2%
	21-30	43	47.8%
	31-40	26	28.9%
	41-50	9	10.0%
	51-60	1	1.1%
	Total	90	100.0%
Female	Less than 20	7	5.4%
	21-30	56	43.1%
	31-40	47	36.2%
	41-50	18	13.8%
	51-60	2	1.5%
	Total	130	100.0%
			(n = 220)
Education	Below Bachelor	85	38.6%
	Bachelor or equivalent	128	58.2%
	Higher than Bachelor	7	3.2%
	Others	0	0.0%
	Total	220	100.0%
Occupation			*(n = 220)*
	Student	33	15.0%
	Employee	112	50.9%
	Government/State officer	21	9.5%
	Self-employed professional	24	10.9%
	Housewife	22	10.0%
	Retired	8	3.6%
	Others	0	0.0%
	Total	220	100.0%

Figure 4.4 Profile of the respondents – Tesco Lotus

In relation to the samples selected Tesco Lotus as their first most visited store, almost 60% were female and 40% were male. The majority of the respondents were between 21-30 years of age, followed by 33% in between 31-40 years of age. Considering gender by age, the ratio of male and female did not have a significant difference in terms of age. Both genders still fell into the 21-30 age range. However, female tend to have higher ratios in age between 31-40 and 41-50. About 38% reported having certificates below Bachelor degree. 58% have completed Bachelor degree or equivalent and only 3% have pursued higher post-graduate education. In terms of profession, half of the respondents were employees, 15% students, 10% self-employed and 10% housewives.

			(n = 220)
Domestic income	Less than 10,000	16	7.3%
	10,001-20,000	41	18.6%
	20,001-30,000	42	19.1%
	30,001-40,000	48	21.8%
	40,001-50,000	26	11.8%
	50,001-60,000	7	3.2%
	60,001-70,000	9	4.1%
	70,001-80,000	11	5.0%
	Higher than 80,000	20	9.1%
	Total	220	100.0%
			(n = 220)
Household size	Less than 3	144	65.5%
	4-6	71	32.3%
	More than 6	5	2.3%
	Total	220	100.0%
			(n = 220)
Purpose of grocery shopping	Personal/Family use	216	98.2%
	Corporate use	2	0.9%
	Resale	2	0.9%
	Total	220	100.0%
			(n = 220)
Number of visits per month	Less than 4	155	70.5%
	4-6	56	25.5%
	More than 6	9	4.1%
	Total	220	100.0%

Figure 4.5 Profile of the respondents – Tesco Lotus (cont.)

The figured showed that 21.82% earning between 31,000-40,000 baht per month in average whereas 19% earned between 20,001-30,000 baht and 18.6% earned between 10,001-20,001 baht per month. On the other hand, we have found two extreme ends, 7.27% claimed having earned less than 10,000 baht and 9% earned

higher than 90,000 baht. In average, a household size was in between 1-3 persons (65.5%), 4-6 (32.3%) persons were also found and the small fraction of the family size higher than 6 persons (2.3%). The main purpose of grocery purchase was for family or personal use, accounted for 98.2% and other purposes such as corporate use and resale were found with 1.8% only. The respondents stated that they visited 1-3 times in average per month (70.5%), 4-6 times visit was found with 25.5% and frequent visitors more than 9 times per month were 4.10 %.

			(n = 220)
Distance to store	Less than 1 kilometer	42	19.1%
	1-3 kilometers	109	49.5%
	3.01-6 kilometers	35	15.9%
	6.01-9 kilometers	3	1.4%
	More than 10 kilometers	31	14.1%
	Total	220	100.0%
Time to store	Less than 20 minutes	183	83.2%
	21-40	30	13.6%
	41-60	6	2.7%
	More than 1 hour	1	0.5%
	Total	220	100.0%
			(n = 220)
Travel mode to store	On walk	27	12.3%
	Car	54	24.5%
	Public transport	62	28.2%
	Motorcycle	45	20.5%
	Others	32	14.5%
	Total	220	100.0%
			(n = 220)
Grocery budget per month	Less than 2,000 baht	170	77.3%
	2,001-4,000 baht	31	14.1%
	4,001-6,000 baht	10	4.5%
	6,001-8,000 baht	1	0.5%
	8,001-10,000 baht	0	0.0%
	More than 10,000 baht	8	3.6%
	Total	220	100.0%
			(n = 220)
Single/Multiple intentions of store visit	Single purpose	111	50.5%
	Multiple purposes	109	49.5%
	Total	220	100.0%

Figure 4.6 Profile of the respondents – Tesco Lotus (cont.)

Most shoppers tend to travel to the store with the distance between 1-3 kilometers (49.55%), followed by less than 1 kilometers (19.09%). Those traveling more than 10 kilometers were not to be excluded as they were accounted for 14.09%. The duration shoppers intended to take varied, 83.2% with less than 20 minutes, 13.64% took between 21-40 minutes to reach the store. The majority of the

respondents used public transport (28.2%), car (24.5%), and motorcycle (20.5%) as their vehicle. 77.3% reported having less than 2,000 baht for their average grocery budget, followed by 14.1% with budget of 2,001-4,000 baht. The customers preferring Tesco Lotus admitted that they had only one intention to visit the store (50.5%). Those with more than one trip-purpose answered that they would dine out (47.27%), do other shopping than grocery (26.36) and complete banking tasks (21.82%).

4.1.2 Sample characteristics by store – Carrefour

			(n = 230)
Gender	Male	92	40.0%
	Female	138	60.0%
	Total	230	100.0%
			(n = 230)
Age	Less than 20	28	12.2%
	21-30	107	46.5%
	31-40	71	30.9%
	41-50	21	9.1%
	51-60	3	1.3%
	Total	230	100.0%
Gender by age			*(n = 230)*
Male	Less than 20	15	16.3%
	21-30	44	47.8%
	31-40	27	29.3%
	41-50	5	5.4%
	51-60	1	1.1%
	Total	92	100.0%
Female	Less than 20	13	9.4%
	21-30	63	45.7%
	31-40	44	31.9%
	41-50	16	11.6%
	51-60	2	1.4%
	Total	138	100.0%
			(n = 230)
Education	Below Bachelor	78	33.9%
	Bachelor or equivalent	134	58.3%
	Higher than Bachelor	17	7.4%
	Others	1	0.4%
	Total	230	100.0%
Occupation			*(n = 230)*
	Student	44	19.1%
	Employee	117	50.9%
	Government/State officer	20	8.7%
	Self-employed professional	28	12.2%
	Housewife	15	6.5%
	Retired	1	0.4%
	Others	5	2.2%
	Total	230	100.0%

Figure 4.7: Profile of the respondents – Carrefour

Consumers participating in the questionnaire survey Carrefour were divided into 60% female and 40% male. 46.5% were having the age range of 21-30,

30.9% in 31-40 and 12.2% less than 20 years of age. Looking into the ratio of gender by age, male respondents represented mostly in the age of 21-30, the second largest group was in 31-40 years old. Most female representing 45.7% were in the age of 21-30, followed by 31.9% in the age range of 31-40. 58.3% have completed Bachelor degree or equivalent, 33.91% reported having education below Bachelor degree and only 7.4% having post-graduate education level. Half of the respondents were employees (50.9%), the second largest indicated students (19.1%) and self-employed professionals represented the third largest group (12.2%).

			(n = 230)
Domestic income	Less than 10,000	7	3.0%
	10,001-20,000	36	15.7%
	20,001-30,000	48	20.9%
	30,001-40,000	32	13.9%
	40,001-50,000	39	17.0%
	50,001-60,000	15	6.5%
	60,001-70,000	22	9.6%
	70,001-80,000	10	4.3%
	Higher than 80,000	21	9.1%
	Total	230	100.0%
			(n = 230)
Household size	Less than 3	145	63.0%
	4-6	79	34.3%
	More than 6	6	2.6%
	Total	230	100.0%
			(n = 230)
Purpose of grocery shopping	Personal/Family use	224	97.4%
	Corporate use	5	2.2%
	Resale	1	0.4%
	Total	230	100.0%
			(n = 230)
Number of visits per month	Less than 4	164	71.3%
	4-6	45	19.6%
	More than 6	21	9.1%
	Total	230	100.0%

Figure 4.8: Profile of the respondents– Carrefour (cont.)

The respondents at Carrefour accounted for 20.87% had an average income of 20,001-30,000 baht, 16.96% receiving 40,001-50,000 and 15.65% earning between 10,001 – 20,000 baht. The size of family was found between 1-3 members, accounted for 63.04% and 3-6 members for 34.35%. The main purpose of grocery

purchase was for family or personal use (97.39%). Corporate use and resale purpose were shown as 2.17% and 0.43% respectively. Out of the total respondents, more than 70% visited the store between 1- 3 times, followed by 4-6 times (19.57%).

			(n = 226)
Distance to store	Less than 1 kilometer	64	28.3%
	1-3 kilometers	120	53.1%
	3.01-6 kilometers	27	11.9%
	6.01-9 kilometers	1	0.4%
	More than 10 kilometers	14	6.2%
	Total	226	100.0%
Time to store	Less than 20 minutes	189	82.2%
	21-40	35	15.2%
	41-60	6	2.6%
	More than 1 hour	0	0.0%
	Total	230	100.0%
			(n = 230)
Travel mode to store	On walk	31	13.5%
	Car	64	27.8%
	Public transport	68	29.6%
	Motorcycle	42	18.3%
	Others	25	10.9%
	Total	230	100.0%
			(n = 230)
Grocery budget per month	Less than 2,000 baht	155	67.4%
	2,001-4,000 baht	45	19.6%
	4,001-6,000 baht	20	8.7%
	6,001-8,000 baht	2	0.9%
	8,001-10,000 baht	3	1.3%
	More than 10,000 baht	5	2.2%
	Total	230	100.0%
			(n = 230)
Single/Multiple intentions of store visit	Single purpose	106	46.1%
	Multiple purposes	124	53.9%
	Total	230	100.0%

Figure 4.9: Profile of the respondents – Carrefour (cont.)

More than half of the respondents showed that an average distance from home to store was between 1-3 kilometers (53.10%). An average time use to travel was less than 2 minutes (82.2%), 21-40 minutes (15.2%) and 41-60 minutes (2.6%). The survey participants reported having use public transport (29.6%), car (27.8%) and motorcycle (13.5%). The majority answered an average of grocery budget of less than 2,000 baht (67.4%) and 2,001-4,000 baht (19.6%). More than half of the participants had more than one intention for grocery shopping (53.91%). Their other intentions

were dining out (48.70%), banking (28.70%), other purchase (27.83%) and other purpose (1.30%).

4.2 Evaluation of store attributes

To commence analysis of the measured attributes, it was wise to conduct a reliability analysis. It aims to determine the proportion of systematic variation in a scale. It is done through determination of the association between scores obtained from different administration of scales. We were to test the coefficient alpha, or Cronbach's alpha. It is the average of all possible split-half coefficients resulting from different ways of spiltting the scale items. The coefficient varies from 0 to 1, and a result value of 0.6 or higher is generally satisfactory for internal consistency reliability. Having the factors being investigated based on the respondents from two different hypermarket brands, it was wise not to mix the data and report them altogether. The Cronbach's alphas were displayed by hypermarket as well as the sections of questions being asked. The sections were price, promotion, store layout, communication and customer service.

Cronbach's alphas

	Carrefour	Tesco Lotus	No. of items
Price	0.910	0.920	5
Promotion	0.904	0.907	7
Store layout	0.894	0.872	5
Communication	0.818	0.850	3
Customer service	0.886	0.868	11

Table 4.10 Cronbach's alphas

From the above table, we remarked that the values of Cronbach's alphas were greater than the benchmark of 0.6. It could be presumed that the variables in the factors being tested were valid and consistent. With the initial reliability test being satisfied, we did not have obligations to revisit the questionnaire and thus continued with data collection.

A principal component of factor analysis with varimax rotation was conducted to identify the dimensions of attributes that grocery consumers perceived

importance in hypermarkets locating in a clustered area or in a near proximity in Bangkok Central Business District. To begin with, it is important to measure key statistics associated with factor analysis. There are several key statistics available; we selected the two well-known ones: Bartlett's test of sphericity and Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy. Bartlett's test of sphericity is a test statistic used to examine the hypothesis that the variables are uncorrelated in the population. Each variables correlates perfectly with itself (r = 1) but has no correlation with the other variables (r = 0). Kaiser-Meyer-Olkin (KMO) is an index used to examine the appropriateness of factor analysis. High values (Between 0.5 and 1.0) indicate factor analysis is appropriate. Generally, a value greater than 0.5 is desirable (Malhotra, 2010). To ensure consistency, we decided to process data according to the hypermarket brands. The value of KMO in regards to Carrefour was 0.947 with approximate chi-square of 9675.739 while the KMO value of Tesco Lotus was 0.949 with approximate chi-square of 9290.627.

KMO and Bartlett's Test

		Carrefour	Tesco Lotus
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.947	.949
Bartlett's Test of Sphericity	Approx. Chi-Square	9675.739	9290.627
	df	465	465
	Sig.	.000	.000

Figure 4.11 Results of Bartlett's Test of Sphericity and KMO

4.2.1 Factor analysis

Factor analysis was performed on the explanatory variables with the primary goal of data reduction. A principal component of factor analysis with varimax rotation was conducted to identify the dimensions of grocery shoppers' perceived importance of store attributes on hypermarkets locating in a clustered area of Bangkok Central Business District. The aim was to reduce 31 variables per hypermarket being asked to six factors, having eigenvalues greater than 1.0, for Carrefour and five factors for Tesco Lotus. The factors with eigenvalues greater than 1.0 and items with rotated factor loadings of 0.50 or higher were retained because factors loadings of 0.50 or

greater are considered statistically and practically significant (Hair et al., 1998). Below table summarized the communalities of both hypermarkets.

Communalities

		Carrefour	Tesco Lotus
	Initial	Extraction	Extraction
Satisfaction on Price competitiveness	1.000	.717	.694
Satisfaction on Price promotion	1.000	.816	.752
Satisfaction on Store campaign	1.000	.743	.728
Satisfaction on Campaign frequency	1.000	.764	.733
Satisfaction on participated goods in campaign	1.000	.670	.727
Satisfaction on variety of merchandise	1.000	.716	.679
Satisfaction on product bundling	1.000	.689	.586
Satisfaction on national-branded products available	1.000	.665	.682
Satisfaction on store-branded products available	1.000	.607	.531
Satisfaction on product quality	1.000	.733	.684
Satisfaction on value for money	1.000	.713	.634
Satisfaction on product freshness	1.000	.664	.580
Satisfaction on store accessibility and entrance	1.000	.635	.648
Satisfaction on store decoration	1.000	.789	.673
Satisfaction on product searching time	1.000	.671	.639
Satisfaction on distance between store and entrance and parking	1.000	.606	.549
Satisfaction on place of promotional signs	1.000	.628	.635
Satisfaction on store reputation	1.000	.593	.692
Satisfaction on store brochures, leaflets	1.000	.790	.740
Satisfaction on store advertisements (excluding brochures)	1.000	.736	.740
Satisfaction on courtesy of personnel	1.000	.763	.624
Satisfaction on helpfulness of personnel	1.000	.797	.691
Satisfaction on number of personnel	1.000	.755	.654
Satisfaction on parking facilities	1.000	.497	.481
Satisfaction on store cleanliness	1.000	.653	.592
Satisfaction on malls in store	1.000	.649	.645
Satisfaction on guarantee and return policy	1.000	.637	.563
Satisfaction on store credit card with commercial banks	1.000	.769	.738
Satisfaction on store loyalty card	1.000	.615	.615
Satisfaction on opening hours	1.000	.577	.488
Satisfaction on store atmosphere	1.000	.723	.582

Extraction Method: Principal Component Analysis.

Figure 4.12: Communalities (Carrefour and Tesco Lotus)

In addition, since communality of a variable represents the amount of variance in the factor solution explained by that variable, variables with communalities

less than 0.40 were deleted for reasons of insufficient contribution to explain the variance. Variables that did not meet the criteria were eliminated from the analysis. From the study, the number of factors extracted was determined so that the cumulative percentage of variance extracted by the factors reaches a satisfactory level. It is suggested that the factors extracted should account for at least 60 percent of the variance (Malhotra, 2010).

In regards to Carrefour hypermarket, it was found that all six factors could explain 68.971% of the total variance whereas five factors were found explainable accounted for 64.511% of total variance.

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	13.472	43.459	43.459	13.472	43.459	43.459	6.179	19.931	19.931
2	2.893	9.333	52.792	2.893	9.333	52.792	4.053	13.073	33.004
3	1.665	5.373	58.165	1.665	5.373	58.165	3.991	12.873	45.878
4	1.216	3.923	62.088	1.216	3.923	62.088	2.493	8.042	53.920
5	1.086	3.504	65.592	1.086	3.504	65.592	2.392	7.717	61.637
6	1.047	3.379	68.971	1.047	3.379	68.971	2.274	7.334	68.971

Figure 4.13 Total variance explained factors (Carrefour)

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	13.489	43.514	43.514	13.489	43.514	43.514	5.555	17.919	17.919
2	2.593	8.365	51.879	2.593	8.365	51.879	5.506	17.760	35.680
3	1.460	4.709	56.588	1.460	4.709	56.588	4.361	14.067	49.746
4	1.271	4.099	60.687	1.271	4.099	60.687	2.680	8.645	58.391
5	1.186	3.824	64.511	1.186	3.824	64.511	1.897	6.120	64.511

Figure 4.14 Total variance explained factors (Tesco Lotus)

Rotated Component Matrix[a]

	Component					
	1	2	3	4	5	6
Satisfaction on store decoration	.823					
Satisfaction on store atmosphere	.778					
Satisfaction on store cleanliness	.747					
Satisfaction on store accessibility and entrance	.722					
Satisfaction on distance between store and entrance and parking	.702					
Satisfaction on product searching time	.700					
Satisfaction on malls in store	.675					
Satisfaction on product freshness	.634					
Satisfaction on place of promotional signs	.620					
Satisfaction on Price promotion		.838				
Satisfaction on Price competitiveness		.805				
Satisfaction on Campaign frequency		.785				
Satisfaction on Store campaign		.775				
Satisfaction on participated goods in campaign		.689				
Satisfaction on product bundling			.703			
Satisfaction on variety of merchandise			.701			
Satisfaction on product quality			.683			
Satisfaction on value for money			.663			
Satisfaction on national-branded products available			.661			
Satisfaction on store-branded products available			.638			
Satisfaction on helpfulness of personnel				.753		
Satisfaction on courtesy of personnel				.665		
Satisfaction on number of personnel				.615		
Satisfaction on guarantee and return policy				.524		
Satisfaction on store advertisements (excluding brochures)					.761	
Satisfaction on store brochures, leaflets					.734	
Satisfaction on store reputation					.633	
Satisfaction on parking facilities						
Satisfaction on store credit card with commercial banks						.839
Satisfaction on store loyalty card						.663
Satisfaction on opening hours						.490

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
a. Rotation converged in 7 iterations.

Figure 4.15 Rotated component mix (Carrefour)

Taking a close look in the analysis from Carrefour, we obtained six factors derived from factor analysis. Out of the total explained variance of 68.971%, the first factor with 19.931% of explained variance consisted of product freshness, store accessibility and entrance, store decoration, product searching time, distance between store and parking, place of promotional signs, store cleanliness, malls locating in store and overall atmosphere of store. Among the variables in the first factor, we identified

five variables containing loadings greater than 0.7 which are store decoration, store atmosphere, store cleanliness, accessibility and entrance, distance between store and parking and product searching time.

The second factor was reported with 13.073% and variables were price promotion, price competitiveness, frequency of campaign, store campaign and participated product in a campaign. The variables with loading greater than 0.7 were price promotion, price competitiveness, frequency of campaign and store campaign.

The third factor was observed with 12.873% explained variance. They relate mainly to product aspects; product bundling, variety of merchandise, product quality, product valued for money, availability of national and branded-products. Only two variables having loading greater than 0.7 were listed; product bundling and variety of merchandise.

The fourth factor explained 8.042% of total variance. There were four variables listed mostly relevant to staff and after-sale service. Only one variable reported with loading higher than 0.7 which was helpfulness of staff. The other three variables were courtesy of personnel, number of personnel and guarantee and return policy.

The fifth factor could explain 7.717% of total variance. Three variables were listed and two out of three had loadings higher than 0.7. These were store advertisement (excluding brochures) and brochures and leaflets. The last variable with loadings below 0.7 was store reputation.

The last factor found from the database being collected at Carrefour hypermarkets contained three variables. One of the three variables possessed loading higher than 0.7, which was store credit card with commercial banks. The other two variables were store loyalty card and opening hours.

Factor	Factor interpretation (% variance explanation)	Loading	Variables included in the factor
F1	Item store environment and accessibility (19.931%)	.823	Satisfaction on store decoration
		.778	Satisfaction on store atmosphere
		.747	Satisfaction on store cleanliness
		.722	Satisfaction on store accessibility and entrance
		.702	Satisfaction on distance between store and entrance and parking
		.700	Satisfaction on product searching time
		.675	Satisfaction on malls in store
		.634	Satisfaction on product freshness
		.620	Satisfaction on place of promotional signs
F2	Price and promotional campaign (13.073%)	.838	Satisfaction on Price promotion
		.805	Satisfaction on Price competitiveness
		.785	Satisfaction on Campaign frequency
		.775	Satisfaction on Store campaign
		.689	Satisfaction on participated goods in campaign
F3	Product variety and brand products (12.873%)	.703	Satisfaction on product bundling
		.701	Satisfaction on variety of merchandise
		.683	Satisfaction on product quality
		.663	Satisfaction on value for money
		.661	Satisfaction on national-branded products available
		.638	Satisfaction on store-branded products available
F4	Store personnel (8.042%)	.753	Satisfaction on helpfulness of personnel
		.665	Satisfaction on courtesy of personnel
		.615	Satisfaction on number of personnel
		.524	Satisfaction on guarantee and return policy
F5	Store adverstisement and comunication (7.717%)	.761	Satisfaction on store advertisements (excluding brochures)
		.734	Satisfaction on store brochures, leaflets
		.633	Satisfaction on store reputation
F6	Loyalty and store commercial credit cards (7.334%)	.839	Satisfaction on store credit card with commercial banks
		.663	Satisfaction on store loyalty card
		.490	Satisfaction on opening hours

Figure 4.16 Factors influencing hypermarket selection - Carrefour

Rotated Component Matrix[a]

	Component				
	1	2	3	4	5
Satisfaction on Price promotion	.810				
Satisfaction on Price competitiveness	.796				
Satisfaction on Store campaign	.794				
Satisfaction on Campaign frequency	.790				
Satisfaction on participated goods in campaign	.763				
Satisfaction on variety of merchandise	.554		.571		
Satisfaction on product bundling	.528		.498		
Satisfaction on national-branded products available	.495		.646		
Satisfaction on helpfulness of personnel		.778			
Satisfaction on number of personnel		.734			
Satisfaction on malls in store		.712			
Satisfaction on courtesy of personnel		.699			
Satisfaction on store cleanliness		.677			
Satisfaction on store atmosphere		.618			
Satisfaction on guarantee and return policy		.595			
Satisfaction on store decoration		.519	.605		.853
Satisfaction on store accessibility and entrance			.602		
Satisfaction on product searching time			.597		
Satisfaction on product quality			.574		
Satisfaction on value for money			.549		
Satisfaction on place of promotional signs			.539		
Satisfaction on distance between store and entrance and parking			.530		
Satisfaction on store reputation				.732	
Satisfaction on store advertisements (excluding brochures)				.720	
Satisfaction on store brochures, leaflets				.677	
Satisfaction on store loyalty card				.511	.493
Satisfaction on store credit card with commercial banks					.535
Satisfaction on store-branded products available					
Satisfaction on product freshness					
Satisfaction on parking facilities					
Satisfaction on opening hours					

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
a. Rotation converged in 11 iterations.

Figure 4.17 Rotated component mix (Tesco Lotus)

The factor analysis on Tesco Lotus has shown that 64.511% could be explained from the total variance. The first factor listed eight variables. The variables with factor loading greater than 0.7 were price promotion, price competitiveness, store campaign, frequency of organized campaign, participated products in a campaign. Variety of merchandise, product bundling and availability of national branded-product were also found but with loading value below 0.7. The first factor could explain 17.919% where as the second factor could explain 17.760%. The second factor was

comprised of helpfulness of personnel, number of personnel, malls in store as loadings higher than 0.7. The other variables with loading below 0.7 were courtesy of personnel, store cleanliness, store atmosphere, guarantee and return policy and store decoration.

Interestingly in the third factor being found with seventeen variables, four of which were also found in the first and second factors mentioned earlier. The third factor explained 14.067% of the total variance. The variables being present in the first factor were variety of merchandise (0.571), product bundling (0.498) and availability of national-branded product (0.646). A variable being shared in the second factor was store decoration (0.605). Looking at the third factor itself, it contained six variables, namely store accessibility and entrance, product searching time, product quality, product valued for money, place of promotional signs and distance between store, entrance and parking. None of these six variables were reported with loading greater than 0.7.

The fourth factor explained 8.645% of the total variance with four variables. Two variables with loading above 0.7 were store reputation and store advertisement (excluding brochures and leaflets). The rest were store brochures and leaflets and store loyalty card. The last factor for Tesco Lotus explained 6.120%. One reported variable, store decoration, was found being shared in the second and third factors. However, its loading value in the fifth factor was the highest among its values, 0.853. In addition, two variables in the last factor were store loyalty card and store credit with commercial banks. Both of these variables had loading value less than 0.7.

Factor	(% variance explanation)	Loading	Variables included in the factor
F1	Promotion and product (17.919%)	.810	Satisfaction on Price promotion
		.796	Satisfaction on Price competitiveness
		.794	Satisfaction on Store campaign
		.790	Satisfaction on Campaign frequency
		.763	Satisfaction on participated goods in campaign
		.554	Satisfaction on variety of merchandise
		.528	Satisfaction on product bundling
		.495	Satisfaction on national-branded products available
F2	Personnel, store environment and after-sale service (17.760%)	.778	Satisfaction on helpfulness of personnel
		.734	Satisfaction on number of personnel
		.712	Satisfaction on malls in store
		.699	Satisfaction on courtesy of personnel
		.677	Satisfaction on store cleanliness
		.618	Satisfaction on store atmosphere
		.595	Satisfaction on guarantee and return policy
		.519	Satisfaction on store decoration
F3	Brand product, store layout and product variety (14.067%)	.646	Satisfaction on national-branded products available
		.605	Satisfaction on store decoration
		.602	Satisfaction on store accessibility and entrance
		.597	Satisfaction on product searching time
		.574	Satisfaction on product quality
		.549	Satisfaction on value for money
		.539	Satisfaction on place of promotional signs
		.530	Satisfaction on distance between store and entrance and parking
		.571	Satisfaction on variety of merchandise
		.498	Satisfaction on product bundling
F4	Store communication and loyalty card (8.645%)	.732	Satisfaction on store reputation
		.720	Satisfaction on store advertisements (excluding
		.677	Satisfaction on store brochures, leaflets
		.511	Satisfaction on store loyalty card
F5	Store decoration and store credit card (6.120%)	.853	Satisfaction on store decoration
		.535	Satisfaction on store credit card with commercial banks
		.493	Satisfaction on store loyalty card

Figure 4.18 Factors influencing hypermarket selection (Tesco Lotus)

4.2.2 Means statistics

The means and rankings of each store attributes are presented in below tables. From the 450 respondents, the most five important attributes were available national-branded product, product searching time, store accessibility, store decoration and place of promotional signs. Among the consumers with Carrefour as their first most frequently visited store, the most five store attributes impacting their decision-making were store overall atmosphere, cleanliness, available national-branded product, store decoration and malls. Whilst the consumers who patronage Tesco Lotus as their preferred hypermarkets found the most five influencing attributes on store selection were store advertisement, available national branded-product, product quality, product freshness and product valued for money.

Store attribute	Overall (N = 450)	Carrefour consumers (N = 220)	Tesco Lotus consumers (N = 230)
Accessibility	4.96 (3)	4.76 (11)	4.61 (12)
Brochures and leaflets	4.79 (16)	4.39 (29)	4.74 (9)
Cleanliness	4.87 (12)	4.88 (2)	4.46 (24)
Courteous personnel	4.68 (22)	4.65 (15)	4.44 (25)
Decoration	4.95 (4)	4.83 (4)	4.60 (14)
Distance between store and parking	4.85 (14)	4.68 (14)	4.60 (15)
Frequency of campaign	4.72 (19)	4.55 (21)	4.57 (18)
Guarantee return policy	4.47 (30)	4.47 (27)	4.23 (31)
Helpful personnel	4.62 (27)	4.57 (19)	4.41 (26)
Malls	4.86 (13)	4.81 (5)	4.28 (29)
National branded-product	5.01 (1)	4.86 (3)	4.86 (2)
Number of participated items in campaign	4.71 (20)	4.58 (18)	4.60 (16)
Number of personnel	4.58 (29)	4.51 (24)	4.38 (27)
Opening hours	4.91 (9)	4.80 (6)	4.77 (6)
Overall atmosphere	4.91 (10)	4.89 (1)	4.54 (20)
Parking facilities	4.64 (25)	4.55 (23)	4.37 (28)
Place of promotional signs	4.95 (5)	4.77 (10)	4.77 (7)
Price competitiveness	4.59 (28)	4.49 (26)	4.49 (23)
Price promotion	4.69 (21)	4.56 (20)	4.61 (13)
Product bundling	4.75 (17)	4.59 (16)	4.63 (11)
Product freshness	4.94 (6)	4.78 (8)	4.80 (4)
Product quality	4.91 (8)	4.72 (12)	4.86 (3)
Product searching time	4.99 (2)	4.78 (7)	4.76 (8)
Product valued for money	4.90 (11)	4.70 (13)	4.80 (5)
Product variery	4.84 (15)	4.78 (9)	4.66 (10)
Store advertisement	4.92 (7)	4.42 (28)	4.93 (1)
Store branded-product	4.74 (18)	4.58 (17)	4.57 (17)
Store campaign	4.67 (23)	4.55 (22)	4.56 (19)
Store credit card	4.28 (31)	4.08 (31)	4.25 (30)
Store fidelity card	4.67 (24)	4.50 (25)	4.53 (21)
Store reputation	4.64 (26)	4.39 (30)	4.52 (22)

Figure 4.19 Means and ranks of store attributes among studied hypermarkets in Bangkok

The factor analysis has produced different number of factors dominating hypermarket store choice as well as the components constituting in each factor. We computed means and standard deviation on factors under each attribute and consequently paired t-test method in order to identify whether these differences were significant.

CARREFOUR	Satisfaction (1 - Least, 7 - Highest)							Means		Std. Deviation
PRICE	1	2	3	4	5	6	7	Statistic	Std. error	Statistic
Satisfaction on Price competitiveness	2 0.4%	4 0.9%	27 6.0%	200 44.4%	151 33.6%	56 12.4%	10 2.2%	4.56	.044	.926
Satisfaction on Price promotion	2 0.4%	4 0.9%	20 4.4%	191 42.4%	148 32.9%	69 15.3%	16 3.6%	4.67	.046	.969
Satisfaction on Store campaign	2 0.4%	4 0.9%	22 4.9%	186 41.3%	152 33.8%	71 15.8%	13 2.9%	4.66	.045	.959
Satisfaction on Campaign frequency	2 0.4%	2 0.4%	26 5.8%	174 38.7%	153 34.0%	74 16.4%	19 4.2%	4.72	.047	.992
Satisfaction on participated goods in campaign	2 0.4%	2 0.4%	23 5.1%	197 43.8%	127 28.2%	80 17.8%	19 4.2%	4.69	.047	1.003
								4.66		

TESCO LOTUS	Satisfaction (1 - Least, 7 - Highest)							Means		Std. Deviation
PRICE	1	2	3	4	5	6	7	Statistic	Std. error	Statistic
Satisfaction on Price competitiveness	2 20.0%	5 50.0%	32 320.0%	187 1870.0%	139 1390.0%	63 630.0%	22 220.0%	4.63	.049	1.035
Satisfaction on Price promotion	2 12.5%	2 12.5%	26 162.5%	174 1087.5%	151 943.8%	76 475.0%	19 118.8%	4.72	.047	.995
Satisfaction on Store campaign	2 15.4%	2 15.4%	18 138.5%	202 1553.8%	132 1015.4%	77 592.3%	17 130.8%	4.69	.046	.973
Satisfaction on Campaign frequency	2 10.5%	4 21.1%	24 126.3%	178 936.8%	139 731.6%	83 436.8%	20 105.3%	4.73	.048	1.025
Satisfaction on participated goods in campaign	2 10.5%	3 15.8%	25 131.6%	179 942.1%	131 689.5%	91 478.9%	19 100.0%	4.74	.048	1.028
								4.70		

Figure 4.20 Means and standard deviation – Price attribute

From the table 4.20 the results have shown that respondents at Carrefour and Tesco Lotus had been relatively satisfied with price strategies being offered, with a means value of 4.66 for Carrefour and 4.70 for Tesco Lotus. Taking a look at them separately, the score for campaign frequency was the highest score given at Carrefour (4.72), followed by participated goods in campaign (4.69) and price promotion (4.66). The highest rank at Tesco Lotus was participated goods in campaign (4.74), followed by campaign frequency (4.73) and price promotion (4.72).

CARREFOUR	Satisfaction (1 - Least, 7 - Highest)							Means		Std. Deviation
PRODUCT	1	2	3	4	5	6	7	Statistic	Std. error	Statistic
Satisfaction on variety of merchandise	2	1	16	147	163	97	24	4.90	.047	.990
	0.4%	0.2%	3.6%	32.7%	36.2%	21.6%	5.3%			
Satisfaction on product bundling	3	2	15	166	167	84	13	4.77	.045	.949
	0.7%	0.4%	3.3%	36.9%	37.1%	18.7%	2.9%			
Satisfaction on national-branded products available	1	0	16	119	170	115	29	5.04	.046	.978
	0.2%	0.0%	3.6%	26.4%	37.8%	25.6%	6.4%			
Satisfaction on store-branded products available	8	4	22	165	134	100	17	4.74	.052	1.110
	1.8%	0.9%	4.9%	36.7%	29.8%	22.2%	3.8%			
Satisfaction on product quality	1	1	16	146	153	110	23	4.94	.046	.984
	0.2%	0.2%	3.6%	32.4%	34.0%	24.4%	5.1%			
Satisfaction on value for money	1	2	18	143	146	116	24	4.94	.048	1.012
	0.2%	0.4%	4.0%	31.8%	32.4%	25.8%	5.3%			
Satisfaction on product freshness	2	2	19	129	149	119	30	5.00	.049	1.049
	0.4%	0.4%	4.2%	28.7%	33.1%	26.4%	6.7%			
								4.90		

TESCO LOTUS	Satisfaction (1 - Least, 7 - Highest)							Means		Std. Deviation
PRODUCT	1	2	3	4	5	6	7	Statistic	Std. error	Statistic
Satisfaction on variety of merchandise	1	3	15	164	171	79	17	4.79	.044	.937
	0.2%	0.7%	3.3%	36.4%	38.0%	17.6%	3.8%			
Satisfaction on product bundling	1	1	20	165	175	81	7	4.74	.042	.881
	0.2%	0.2%	4.4%	36.7%	38.9%	18.0%	1.6%			
Satisfaction on national-branded products available	0	0	13	135	166	118	18	4.98	.043	.916
	0.0%	0.0%	2.9%	30.0%	36.9%	26.2%	4.0%			
Satisfaction on store-branded products available	7	4	24	158	139	100	18	4.75	.052	1.110
	1.6%	0.9%	5.3%	35.1%	30.9%	22.2%	4.0%			
Satisfaction on product quality	1	2	13	150	158	110	16	4.90	.045	.951
	0.2%	0.4%	2.9%	33.3%	35.1%	24.4%	3.6%			
Satisfaction on value for money	1	4	13	153	160	104	15	4.86	.045	.959
	0.2%	0.9%	2.9%	34.0%	35.6%	23.1%	3.3%			
Satisfaction on product freshness	1	6	14	145	159	105	20	4.86	.047	1.002
	0.2%	1.3%	3.1%	32.2%	35.3%	23.3%	4.4%			
								4.84		

Figure 4.21: Means and standard deviation – Product attribute

The above table has shown that Carrefour and Tesco Lotus had been offering merchandises which relatively satisfied customers, with a means value of 4.90 for Carrefour and 4.84 for Tesco Lotus. The availability of national branded-product was given the highest score given at Carrefour (5.04), followed by an equal score of 4.94 for two product attributes: which were product quality and value for money. The third highest score was a variety of merchandise (4.90). Whilst Tesco Lotus was found with an average score of 4.84 for product attributes. The highest score was assigned to a similar factor as Carrefour which was availability of national branded-product (4.98). Product quality was placed in the second rank (4.90) and value for money and product freshness both shared the third rank (4.86).

CARREFOUR	Satisfaction (1 - Least, 7 - Highest)							Means		Std. Deviation
STORE LAYOUT	1	2	3	4	5	6	7	Statistic	Std. error	Statistic
Satisfaction on store accessibility and entrance	3	2	19	109	158	118	41	5.08	.051	1.087
	0.7%	0.4%	4.2%	24.2%	35.1%	26.2%	9.1%			
Satisfaction on store decoration	2	2	17	123	126	121	59	5.15	.054	1.144
	0.4%	0.4%	3.8%	27.3%	28.0%	26.9%	13.1%			
Satisfaction on product searching time	2	2	11	120	152	134	29	5.08	.048	1.013
	0.4%	0.4%	2.4%	26.7%	33.8%	29.8%	6.4%			
Satisfaction on distance between store and entrance and parking	6	1	20	125	158	106	34	4.96	.052	1.108
	1.3%	0.2%	4.4%	27.8%	35.1%	23.6%	7.6%			
Satisfaction on place of promotional signs	2	1	18	123	172	110	24	4.97	.047	.992
	0.4%	0.2%	4.0%	27.3%	38.2%	24.4%	5.3%			
								5.05		

TESCO LOTUS	Satisfaction (1 - Least, 7 - Highest)							Means		Std. Deviation
STORE LAYOUT	1	2	3	4	5	6	7	Statistic	Std. error	Statistic
Satisfaction on store accessibility and entrance	2	3	21	144	164	99	17	4.84	.047	.993
	0.4%	0.7%	4.7%	32.0%	36.4%	22.0%	3.8%			
Satisfaction on store decoration	0	7	29	155	151	94	14	4.75	.048	1.008
	0.0%	1.6%	6.4%	34.4%	33.6%	20.9%	3.1%			
Satisfaction on product searching time	0	4	23	123	180	99	21	4.91	.046	.979
	0.0%	0.9%	5.1%	27.3%	40.0%	22.0%	4.7%			
Satisfaction on distance between store and entrance and parking	6	2	25	137	182	89	9	4.76	.047	1.000
	1.3%	0.4%	5.6%	30.4%	40.4%	19.8%	2.0%			
Satisfaction on place of promotional signs	0	2	20	126	175	115	12	4.93	.044	.925
	0.0%	0.4%	4.4%	28.0%	38.9%	25.6%	2.7%			
								4.84		

Figure 4.22 Means and standard deviation – Store layout attribute

The result has shown that respondents at Carrefour and Tesco Lotus had been somewhat highly satisfied with store layout with a means value of 5.05 for Carrefour and 4.84 for Tesco Lotus. The store decoration scored highest at Carrefour (5.15), followed by product searching time sharing the score with store accessibility and entrance in the second position (5.08). The third-rated attribute was place of promotional signs (4.97). Tesco Lotus had a lower means of 4.84. Place of promotional signs was ranked first (4.93), followed by ease of product search (4.91) and store accessibility and entrance (4.84).

CARREFOUR	Satisfaction (1 - Least, 7 - Highest)							Means		Std. Deviation
COMMUNICATION	1	2	3	4	5	6	7	Statistic	Std. error	Statistic
Satisfaction on store reputation	5	3	28	194	114	87	19	4.64	.051	1.088
	1.1%	0.7%	6.2%	43.1%	25.3%	19.3%	4.2%			
Satisfaction on store brochures, leaflets	4	6	54	136	122	106	22	4.72	.056	1.182
	0.9%	1.3%	12.0%	30.2%	27.1%	23.6%	4.9%			
Satisfaction on store advertisements (excluding brochures)	3	6	44	126	141	109	21	4.79	.053	1.134
	0.7%	1.3%	9.8%	28.0%	31.3%	24.2%	4.7%			
								4.72		

TESCO LOTUS	Satisfaction (1 - Least, 7 - Highest)							Means		Std. Deviation
COMMUNICATION	1	2	3	4	5	6	7	Statistic	Std. error	Statistic
Satisfaction on store reputation	4	5	26	194	121	81	19	4.65	.050	1.064
	0.9%	1.1%	5.8%	43.1%	26.9%	18.0%	4.2%			
Satisfaction on store brochures, leaflets	2	8	36	132	127	112	33	4.87	.055	1.172
	0.4%	1.8%	8.0%	29.3%	28.2%	24.9%	7.3%			
Satisfaction on store advertisements (excluding brochures)	1	3	26	128	128	108	56	5.06	.055	1.161
	0.2%	0.7%	5.8%	28.4%	28.4%	24.0%	12.4%			
								4.86		

Figure 4.23 Means and standard deviation – Communication attribute

The results from questionnaire survey reported that customers at both Carrefour and Tesco Lotus had been somewhat satisfied with store communication with a means value of 4.72 for Carrefour and 4.86 for Tesco Lotus. Carrefour was ranked the highest for store advertisements (excluding brochures) (4.79), followed by store brochures and leaflets (4.72) and store reputation (4.64). Tesco Lotus had a much higher mean score for the first rank: store advertisement excluding brochures (5.06), followed by store brochures and leaflets (4.87) and store reputation (4.65).

CARREFOUR	Satisfaction (1 - Least, 7 - Highest)							Means		Std. Deviatio
CUSTOMER SERVICE	1	2	3	4	5	6	7	Statistic	Std.	Statistic
Satisfaction on courtesy of personnel	2 0.4%	5 1.1%	27 6.0%	151 33.6%	167 37.1%	83 18.4%	15 3.3%	4.74	.047	1.001
Satisfaction on helpfulness of personnel	4 0.9%	6 1.3%	23 5.1%	176 39.1%	147 32.7%	78 17.3%	16 3.6%	4.68	.049	1.035
Satisfaction on number of personnel	7 1.6%	2 0.4%	33 7.3%	176 39.1%	128 28.4%	83 18.4%	21 4.7%	4.66	.052	1.111
Satisfaction on parking facilities	12 2.7%	7 1.6%	46 10.2%	133 29.6%	126 28.0%	97 21.6%	29 6.4%	4.69	.061	1.291
Satisfaction on store cleanliness	2 0.4%	3 0.7%	16 3.6%	134 29.8%	115 25.6%	141 31.3%	39 8.7%	5.08	.052	1.108
Satisfaction on malls in store	3 0.7%	4 0.9%	15 3.3%	136 30.2%	132 29.3%	125 27.8%	35 7.8%	5.01	.052	1.102
Satisfaction on guarantee and return policy	10 2.2%	6 1.3%	37 8.2%	192 42.7%	116 25.8%	74 16.4%	15 3.3%	4.51	.054	1.137
Satisfaction on store credit card with commercial banks	43 9.6%	8 1.8%	38 8.4%	167 37.1%	94 20.9%	79 17.6%	21 4.7%	4.29	.071	1.505
Satisfaction on store loyalty card	14 3.1%	10 2.2%	35 7.8%	148 32.9%	127 28.2%	85 18.9%	31 6.9%	4.65	.061	1.298
Satisfaction on opening hours	6 1.3%	2 0.4%	10 2.2%	130 28.9%	160 35.6%	122 27.1%	20 4.4%	4.96	.049	1.040
Satisfaction on store atmosphere	3 0.7%	1 0.2%	14 3.1%	136 30.2%	103 22.9%	144 32.0%	49 10.9%	5.14	.054	1.137
								4.77		

TESCO LOTUS	Satisfaction (1 - Least, 7 - Highest)							Means		Std. Deviatio
CUSTOMER SERVICE	1	2	3	4	5	6	7	Statistic	Std.	Statistic
Satisfaction on courtesy of personnel	1 0.2%	6 1.3%	24 5.3%	194 43.1%	142 31.6%	74 16.4%	9 2.0%	4.62	.045	.949
Satisfaction on helpfulness of personnel	2 0.4%	8 1.8%	22 4.9%	196 43.6%	151 33.6%	64 14.2%	7 1.6%	4.57	.044	.940
Satisfaction on number of personnel	5 1.1%	3 0.7%	34 7.6%	213 47.3%	114 25.3%	74 16.4%	7 1.6%	4.51	.047	.999
Satisfaction on parking facilities	13 2.9%	7 1.6%	32 7.1%	148 32.9%	154 34.2%	83 18.4%	13 2.9%	4.61	.055	1.169
Satisfaction on store cleanliness	0 0.0%	4 0.9%	34 7.6%	183 40.7%	131 29.1%	86 19.1%	12 2.7%	4.66	.047	.987
Satisfaction on malls in store	1 0.2%	6 1.3%	29 6.4%	166 36.9%	148 32.9%	84 18.7%	16 3.6%	4.71	.048	1.015
Satisfaction on guarantee and return policy	7 1.6%	7 1.6%	41 9.1%	199 44.2%	127 28.2%	63 14.0%	6 1.3%	4.43	.049	1.034
Satisfaction on store credit card with commercial banks	42 9.3%	8 1.8%	31 6.9%	174 38.7%	107 23.8%	74 16.4%	14 3.1%	4.28	.068	1.444
Satisfaction on store loyalty card	17 3.8%	6 1.3%	22 4.9%	154 34.2%	138 30.7%	79 17.6%	34 7.6%	4.70	.061	1.285
Satisfaction on opening hours	5 1.1%	2 0.4%	17 3.8%	139 30.9%	159 35.3%	113 25.1%	15 3.3%	4.88	.048	1.024
Satisfaction on store atmosphere	1 0.2%	2 0.4%	28 6.2%	197 43.8%	115 25.6%	88 19.6%	19 4.2%	4.70	.048	1.018
								4.60		

Figure 4.24 Means and standard deviation – Customer service attribute

Lastly we measured the means and standard deviation of customer service attribute. Out of 450 respondents, the means value for Carrefour was 4.77 and 4.60 for Tesco Lotus. At Carrefour, store atmosphere was ranked first (5.14), followed by store cleanliness ranked the second (5.08) and shopping malls in store ranked the third

(5.01). Tesco Lotus had store operating hours (4.88) as the first rank, followed by shopping malls in store (4.71) and store loyalty card and store atmosphere both sharing the third rank (4.70).

4.2.3 Paired t-test

Having previously mentioned that it would be interesting to see how significant difference it was in each factors being identified as determinant of consumer decision making, the paired T-Test was used to investigate whether there were any significant differences between customer preferences on store attributes. The means were calculated by each attributes namely price, product, store layout, communication and customer service. Five pairs of the means of both stores were processed with 95% confidence interval.

		Mean	t	Sig (2-tailed)
Pair 1	Carrefour	4.6600	-4.118	0.15
	Tesco Lotus	4.7020		
Pair 2	Carrefour	4.9043	3.36	0.15
	Tesco Lotus	4.8400		
Pair 3	Carrefour	5.0480	3.612	0.23
	Tesco Lotus	4.8380		
Pair 4	Carrefour	4.7167	-1.908	0.197
	Tesco Lotus	4.8600		
Pair 5	Carrefour	4.7645	3.282	0.008
	Tesco Lotus	4.6064		

Figure 4.25: Paired Samples Test

From paired t-test analysis, five pairs of attributes of price, promotion, store layout, communication and customer service were shown in above table. Four pairs have indicated no significant differences between results of two hypermarkets. The pair with significant difference higher than 5% was store communication.

The first pair was price. Carrefour was found with a mean of 4.6600 and 4.7020 for Tesco Lotus. The significant value was 0.15. The second pair was promotion attribute. Carrefour had a higher mean value (4.9043) than Tesco Lotus (4.8400), with sig. of 0.15. The third pair was store layout. The result was that Carrefour (5/0480) had a higher mean than Tesco Lotus (4.8600). The fourth pair was store communication, which had a significant value higher than 5% (sig = 0.197 or 19.70%). The comparison showed that Carrefour (4.7167) had a lower mean than

Tesco Lotus (4.8600). The last pair with no significant difference was customer service. The mean at Carrefour (4.7645) was slightly higher than Tesco Lotus (4.6064).

CHAPTER V
DISCUSSION

This chapter intends to present a summary of the findings, discussion of the findings, conclusion and recommendation for hypermarket professionals, focusing in clustered locations in Bangkok metropolitan. A recommendation for future research work is also being discussed.

5.1 Recap of the study

Based on the theory of the element of retail mix (Levy and Weitz, 2009), in accordance with marketing strategies (Kotler and Keller, 2009), person-administered questionnaire surveys were conducted with 450 participants at three locations where situated hypermarkets in Bangkok Central Business District to obtain consumers' information on a pre-determine questionnaire. A consumer report conducted by AcNielsen in 2008 concluded that grocery customers voted for values for money more the first influencer of hypermarket store choice, higher than product range and location. Not only to examine store attributes that dominate consumer decision-making in selecting a store located in an agglomeration, the major objective of the paper was to provide knowledge from the consumers' perspective the factors they intended to place importance when choosing a store.

Prior the process of questionnaire design, interviews were conducted with experts in the field in the search for current situation, competition and store attributes that were considered dominating in the eyes of business operators. The focus was uniquely on the hypermarkets in Bangkok Central Business District which were situated in a near agglomeration, or called a clustered area. The analysis of location was carried out at an initial stage to identify the hypermarkets which were eligible to participate in the study. From several locations in Bangkok, three locations were selected; Ratchadapisek, Rama 4 and On-Nuch. The communalities of these three sites were that the tested hypermarkets could be accessed by public transport either skytrain

or subway or both and a distance between the two hypermarkets being tested less than 1.00 kilometer.

The opinions from the expert on the store were used to formulate the questionnaire for quantitative measurement. The non-probability was used with a convenience sampling and with voluntary respondents. The respondents were identified as consumers having purchased at a specific store on a particular day. To determine the total population at a hypermarket was very difficult to obtain an accurate figure due to business confidentiality. Thus an estimated number of populations were calculated before determining a sample size. Thanks to the information received from the expert interview, a number of purchase transactions per day at a selected location was given and enabled the author to calculate an approximate sample size, allowing 5% confidence interval and 10% additional contingency, ending with 450 respondents.

5.2 Research findings

5.2.1 Demographics and consumer behaviors

Demographics and grocery shopping behaviors were measured by a series of questions concerning the respondents' profile. The majority of the respondents were between 21-40 years of age and higher female ratio than male. Most of the respondents have completed Bachelor degree or equivalent. However, it is not to omit the groups with education below Bachelor degree level as it counted for 36%. Most of survey participants (69.33%) were employees and the household income was between 10,001 – 50,000 baht. An average of monthly income was 46,093.91 baht. From the survey, most respondents of both genders are between 21-40 years old, accounted for 77%, 10% with less than 20 years old and 1% above 60 years of age. An average household size of the analysis was 3.1

From the questionnaire survey, 48% of the respondents had chosen Carrefour as their preferred hypermarket whereas 51% chose to patronage Tesco Lotus. Female respondents at both Tesco Lotus and Carrefour represented

approximately 60%. At both hypermarkets, there were similarities in participants' profile.

The approximate 76% of the respondents contributed to the questionnaire surveys; aged between 21-40 years old at both hypermarkets. The majority of participants had completed Bachelor or equivalent degree. Interestingly more than 30% of the respondents were below Bachelor degree. The majority had declared themselves as employees in a private sector.

The majority patronizing Carrefour and Tesco Lotus earned between 10,000 to 50,000 baht. The family size was between 1 to 3 persons, responded from participants at both stores. The main purpose of grocery purchase was family or personal use. The number of visit was found between 1-3 times per month.

More than half of respondents indicated an average of traveling time no longer than 20 minutes with the distance between 1-3 kilometers. This was aligned with the information on traveling mode; car and public transport were most selected. With the contrast of typical Thai habit, approximately 13% preferred to walk to store. An average of grocery budget was in the range of 1 to 2,000 baht. The majority stated that they visited the store with more than one purposes. Other purposes claimed at Carrefour were dining and banking respectively while at Tesco Lotus dining was the first choice followed by other purchase intention.

5.2.2 Summary of findings on store attributes

Considering the determinant based on percentage of variance, the numbers of factors extracted were determined so that the cumulative percentage of variance extracted by the factors reached a satisfactory level. Hair (2010) recommended that the factors extracted should account for at least of 60 percent of the total variance. The variances of Carrefour and Tesco Lotus were qualified with these criteria, 68.971% and 64.511%.

For the purpose of interpretation, we had set two criterions as followings:

1. Only factors with Eigenvalue greater than 1.0 were retained; the other factors were not included in the model. An Eigenvalue representing the amount of variance associated with the factor. Hair (2010) indicated that factors with variance less than 1.0 were no better than a single

variable, because of standardization, each individual variable has a variance of 1.0. The cutoff level for factor loading varies from different authors.

2. Factor loadings greater than 0.7 were often considered indications of a close observation between a factor and an observed item. However, in some research practically accepted the factor loading value less than 0.4. In this study, we decided to include factor loading greater than 0.5.

5.2.3 Influential factor on store decision

Referring to 4.12 in Chapter four, six factors were identified for Carrefour. Below table summarizes the six factors with the highest variance explained to the lowest and five factors at Tesco Lotus.

CARREFOUR		TESCO LOTUS	
Factor interpretation (% variance explanation)	**Variables included in the factor**	**Factor interpretation (% variance explanation)**	**Variables included in the factor**
Store layout (19.931%)	Satisfaction on store decoration	Promotion and product (17.919%)	Satisfaction on Price promotion
	Satisfaction on store atmosphere		Satisfaction on Price competitiveness
	Satisfaction on store cleanliness		Satisfaction on Store campaign
	Satisfaction on store accessibility and entrance		Satisfaction on Campaign frequency
	Satisfaction on distance between store and entrance and parking		Satisfaction on participated goods in campaign
	Satisfaction on product searching time		Satisfaction on variety of merchandise
	Satisfaction on malls in store		Satisfaction on product bundling
	Satisfaction on product freshness		Satisfaction on national-branded products available
	Satisfaction on place of promotional signs		
Price (13.073%)	Satisfaction on Price promotion	Personnel, store environment and after-sale service (17.760%)	Satisfaction on helpfulness of personnel
	Satisfaction on Price competitiveness		Satisfaction on number of personnel
	Satisfaction on Campaign frequency		Satisfaction on malls in store
	Satisfaction on Store campaign		Satisfaction on courtesy of personnel
	Satisfaction on participated goods in campaign		Satisfaction on store cleanliness
			Satisfaction on store atmosphere
			Satisfaction on guarantee and return policy
			Satisfaction on store decoration
Product variety (12.873%)	Satisfaction on product bundling	Brand product, store layout and product variety (14.067%)	Satisfaction on national-branded products available
	Satisfaction on variety of merchandise		Satisfaction on store decoration
	Satisfaction on product quality		Satisfaction on store accessibility and entrance
	Satisfaction on value for money		Satisfaction on product searching time
	Satisfaction on national-branded products available		Satisfaction on product quality
	Satisfaction on store-branded products available		Satisfaction on value for money
			Satisfaction on place of promotional signs
			Satisfaction on distance between store and entrance and parking
			Satisfaction on variety of merchandise
			Satisfaction on product bundling
Customer service (8.042%)	Satisfaction on helpfulness of personnel	Store communication and loyalty card (8.645%)	Satisfaction on store reputation
	Satisfaction on courtesy of personnel		Satisfaction on store advertisements (excluding brochures)
	Satisfaction on number of personnel		Satisfaction on store brochures, leaflets
	Satisfaction on guarantee and return policy		Satisfaction on store loyalty card
Store adverstisement and comunication (7.717%)	Satisfaction on store advertisements (excluding brochures)	Store decoration and store credit card (6.120%)	Satisfaction on store decoration
	Satisfaction on store brochures, leaflets		Satisfaction on store credit card with commercial banks
	Satisfaction on store reputation		Satisfaction on store loyalty card
Loyalty and extra financial servic (7.334%)	Satisfaction on store credit card with commercial banks		
	Satisfaction on store loyalty card		

Figure 5.1: Comparison of dominating factors on consumer hypermarket choice

In relation to literature review, there was an alignment in the surfacing factors with the contemporary theories on store attributes. In general traditional five elements were said to be significant to retail marketing theories. They are price, production, assortment, atmosphere and location (Lindquist, 1974; Doyle and Fenwick, 1974; Martineau, 1958; Arnold, 1997; Sparks, 1995 and Baker et al., 1994). While ACNeilsen suggested the value for money was most valued by grocery shoppers in their research in 2008. This is true with findings at Tesco Lotus where the results at Carrefour indicated the contrary. With Carrefour, the store layout was found as the primary first factor influencing customer store choice to shop at Carrefour in Thailand. Its finding seemed to agree with Martineau (1958) that the store layout and other attributes besides price would become influential to the success of the store. In addition, the number of factors of store attributes differs for Carrefour and Tesco Lotus. At a closer look, it can be discerned that Tesco Lotus' respondents broke up the variables and regrouped them into five factors whereas six factors were for Carrefour.

At Carrefour, store layout had the highest variance explained of 19.931% in which contained store decoration, atmosphere, cleanliness, accessibility and entrance, distance between store entrance and parking, product searching time, other non-grocery shops locating in store, product freshness and place of promotional signs. On the contrary at Tesco Lotus, the first factor with the highest variance explained of 17.919% was comprised of price promotion, price competitiveness, store campaign, campaign frequency, participated goods in promotional campaign, product assortment and bundling and availability of national branded-products.

Pricing was ranked as the second most important factor for Carrefour. The components were price promotion, price competitiveness, campaign frequency, types of store campaign and participating products in the campaign. It could not be said that pricing was not one of the concern for Carrefour shoppers. Customer at Tesco Lotus placed higher importance on customer service perspective as the second rank. However, the customers still validated other aspects, namely in-store atmosphere and cleanliness as part of the customer service as well. The second important factor at Tesco Lotus was a combination of customer service, personnel and in-store environment, with variance explained of 17.760%.

The third factor at both Carrefour (variance explained of 12.873%) and Tesco Lotus (variance explained of 14.067%) was found having shared similarities; product variety, quality and range. These were product bundling, product quality, value for money and national and store branded-product. Nonetheless, the respondents shopping at Tesco Lotus considered a combination of some product element, store layout and communication as one influencing factor. Unlike Carrefour, the third factor demonstrated clearly a product-related element.

In the fourth rank, Customer service was assigned at Carrefour with variance explained of 8.042%. It consisted of aspects relating to personnel (number, courtesy, helpfulness) and guarantee and return policy. Whilst marketing communication came fourth at Tesco Lotus with variance explained of 8.645%. The last factor found item related to store credit and loyalty card for both hypermarkets.

Even though factor analysis have provided different influential factors on consumer decision making at both hypermarkets, t-test values derived from means of five attributes (price, product, store layout, communication and customer service) has revealed merely one attribute having significant difference which was communication (sig. = 0.197). The other four attributes; price product, store layout and customer service did not display any significant differences on preference means on attributes.

5.3 Conclusion

When approaching Carrefour shoppers in regards to their preferences of store attributes, each store factor was clearly evaluated by the respondents. The evaluations corresponded typically well with the theory of retail of element mix. On the other hand, Tesco Lotus' respondents seemed to have unique characteristic of their preferences which hypermarket industry professionals need to pay more attention. For instance, Tesco Lotus' respondents did prioritize the price factor yet within that need were found other elements of store layout, product assortment and store communication.

Similar to what have been mentioned the same phenomenon was found throughout the findings at Tesco Lotus. Interestingly their view on customer service extended to store decorations, store layout and other non-grocery shops selling in the hypermarket complex. A fact that may need further research.

In regards to Carrefour, to encourage store patronage, improving store atmosphere and in-store cleanliness seemed to be the key, followed by maintaining convenience parking lot and store format in order to minimize product searching time. And while Carrefour shoppers seemed to be less price conscious than Tesco Lotus, continued work on price promotion was expected to best work to attract loyal customers.

5.4 Limitations and further research

The data collection was carried at a specific point in time. Rapid change of retail environments and marketing strategies might have influenced and contributed significant impacts on consumers' perception and consumer store choice. An acquisition of Carrefour taken by Big C took place in November 2010. It thus reduced the number of players to two major ones: Big C and Tesco Lotus in Thailand. Rebranding activities by Big C that have transformed Carrefour to become Big C Extra might have impacts on consumer decision-making when choosing a store.

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APPENDICES

APPENDIX A

QUESTIONNAIRE IN ENGLISH

CONSUMER CHOICE ON GROCERY STORE IN CLUSTERED AREA

Dear Respondent,

The questionnaire is designed to complete a MBA in Business Modeling and Analysis at Mahidol University.
It aims primarily to collect information in order to analyze consumer store choice on clustered grocery stores in clustered Bangkok and surrounding areas.
Your provided information will be strictly processed with high confidentiality and for the mentioned thesis only. The estimated time to complete the questionnaire is no longer than 15 minutes.
Thank you very much for your participation in answering this questionnaire.

Sincerely yours,
Payurin Sawasdironabhakdi

PERSONAL INFORMATION

1) Gender ☐ Male (1) ☐ Female (0)

2) Age _____ years

3) Education
☐ Below Bachelor (1)
☐ Bachelor or equivalent (2)
☐ Postgraduate and higher (3)

4) Profession
☐ Student (1) ☐ Housewife (5)
☐ Employee (2) ☐ Retired (6)
☐ Government, State officer (3) ☐ Others (7), please specify.....
☐ Self-employed professional (4)

5) Monthly **household** income _____ Baht

6) Household size (no. of people living at home) _____

7) Purpose of Grocery purchase
☐ Personal / Family use (1)
☐ Corporate use (2)
☐ Resale (3)

INFORMATION ON GROCERY SHOPPING BEHAVIOUR

8) During the past one month, **which store** do you **most** visited?
☐ Tesco Lotus (1)
☐ Carrefour (2)
☐ Big C Supercenter (3)

9) **How many** are hypermarkets locating near you?
☐ =< 2 stores (1) please indicate.....
☐ 3 stores and above (2) please indicate.....

10) **How often** do you visit the hypermarket during the past one month?
_____ times

11) **How far** is the distance from home to the most visited hypermarket?
_____ kilometers

12) **How long** do you take to travel from home to the most visited hypermarket?
_____ minutes

13) **How** do you travel from home to the most visited hypermarket?
☐ On walk (1) ☐ Motorcycle (5)
☐ Car (2) ☐ Other (6), please specify.....
☐ Public transport (3)

14) What is your budget on grocery purchase **per month?**
_____ Baht

15) **Single / Multiple trip** to the most visited hypermarket?

☐ Yes (1) ☐ No (2), continue Q.16

16) Multi-purpose trip
More than one choice accepted

☐ Banking (1)
☐ Dining (2)
☐ Shopping (3)
☐ Others (4)

STORE ATTRIBUTES INFLUENCING DECISION MAKING

Based upon your most frequent visited store (Q8), please indicate how satisfactory each of the following factors is to you when selecting a grocery store. 1 the least to 10 the most

	Hypermarket 1.....							Hypermarket 2.....						
PRICE AND PROMOTION	Least satisfied			Somewhat satisfied			Most satisfied	Least satisfied			Somewhat satisfied			Most satisfied
Price competitiveness	1	2	3	4	5	6	7	1	2	3	4	5	6	7
Price promotion	1	2	3	4	5	6	7	1	2	3	4	5	6	7
Special campaign	1	2	3	4	5	6	7	1	2	3	4	5	6	7
Frequent store promotions	1	2	3	4	5	6	7	1	2	3	4	5	6	7
Number of promoted merchandises	1	2	3	4	5	6	7	1	2	3	4	5	6	7
MERCHANDISE ASSORTMENT	Least satisfied			Somewhat satisfied			Most satisfied	Least satisfied			Somewhat satisfied			Most satisfied
Variety of merchandise	1	2	3	4	5	6	7	1	2	3	4	5	6	7
Different product bundling	1	2	3	4	5	6	7	1	2	3	4	5	6	7
Many well-known brands	1	2	3	4	5	6	7	1	2	3	4	5	6	7
Store brand merchandise	1	2	3	4	5	6	7	1	2	3	4	5	6	7
High quality product	1	2	3	4	5	6	7	1	2	3	4	5	6	7
High value for money	1	2	3	4	5	6	7	1	2	3	4	5	6	7
Fresh products	1	2	3	4	5	6	7	1	2	3	4	5	6	7
STORE DESIGN & LAYOUT	Least satisfied			Somewhat satisfied			Most satisfied	Least satisfied			Somewhat satisfied			Most satisfied
Ease of moving through store	1	2	3	4	5	6	7	1	2	3	4	5	6	7
Store decoration	1	2	3	4	5	6	7	1	2	3	4	5	6	7
Ease of product searching	1	2	3	4	5	6	7	1	2	3	4	5	6	7
Distance between store and entrance / parking	1	2	3	4	5	6	7	1	2	3	4	5	6	7
Arrangement of promotional signs	1	2	3	4	5	6	7	1	2	3	4	5	6	7
COMMUNICATION	Least satisfied			Somewhat satisfied			Most satisfied	Least satisfied			Somewhat satisfied			Most satisfied
Store reputation i.e. donation programs, CSR	1	2	3	4	5	6	7	1	2	3	4	5	6	7
Attractive brochures	1	2	3	4	5	6	7	1	2	3	4	5	6	7
Store advertisements on televisions, newspapers, billboards	1	2	3	4	5	6	7	1	2	3	4	5	6	7
CUSTOMER SERVICE	Least satisfied			Somewhat satisfied			Most satisfied	Least satisfied			Somewhat satisfied			Most satisfied
Courteous personnel	1	2	3	4	5	6	7	1	2	3	4	5	6	7
Helpful personnel	1	2	3	4	5	6	7	1	2	3	4	5	6	7
Adequate number of personnel	1	2	3	4	5	6	7	1	2	3	4	5	6	7
Parking facilities	1	2	3	4	5	6	7	1	2	3	4	5	6	7
Cleanliness	1	2	3	4	5	6	7	1	2	3	4	5	6	7
Attractive malls	1	2	3	4	5	6	7	1	2	3	4	5	6	7
Return product & guarantee policy	1	2	3	4	5	6	7	1	2	3	4	5	6	7
Store credit card with commercial banks	1	2	3	4	5	6	7	1	2	3	4	5	6	7
Store loyalty card	1	2	3	4	5	6	7	1	2	3	4	5	6	7
Opening hours	1	2	3	4	5	6	7	1	2	3	4	5	6	7
Store atmospherics	1	2	3	4	5	6	7	1	2	3	4	5	6	7

APPENDIX B

RESULTS OF PILOT STUDY (DEMOGRAPHICS)

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
What sex is the respondent?	48	1	2	1.79	.410
How old is the respondent?	48	21	77	34.00	12.473
What is your educational level?	48	1	3	2.21	.798
What is your occupation?	46	1	9	2.61	1.468
What is your average domestic income?	46	10000.00	800000.00	127673.9	140590.50930
How many members are there in your house?	48	1	7	3.33	1.602
Which is your most frequent visited store?	48	1	2	1.44	.501
How many visits do you make per month?	48	0	12	3.67	2.177
How far is the store from your place?	47	.10	15.00	3.5319	3.48787
What is your average budget on grocery?	48	300.00	20000.00	4189.5833	3925.38057
Valid N (listwise)	43				

APPENDIX C

RESULTS OF RELIABILITY ANALYSIS OF PILOT STUDY (CARREFOUR)

Case Processing Summary

		N	%
Cases	Valid	46	95.8
	Excluded[a]	2	4.2
	Total	48	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.674	5

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Satisfaction on Price competitiveness	19.15	12.176	.277	.680
Satisfaction on Price promotion	19.13	10.605	.397	.637
Satisfaction on Store campaign	19.46	9.409	.498	.588
Satisfaction on Campaign frequency	19.33	10.136	.511	.586
Satisfaction on participated goods in campaign	19.54	10.120	.457	.609

Reliability Statistics

Cronbach's Alpha	N of Items
.763	7

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Satisfaction on variety of merchandise	30.19	24.070	.372	.755
Satisfaction on product bundling	30.90	20.223	.634	.701
Satisfaction on national-branded products available	30.27	23.436	.368	.756
Satisfaction on store-branded products available	31.25	20.191	.362	.781
Satisfaction on product quality	30.60	21.266	.600	.712
Satisfaction on value for money	30.60	21.053	.763	.690
Satisfaction on product freshness	30.56	20.975	.457	.741

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
35.73	28.287	5.319	7

Reliability Statistics

Cronbach's Alpha	N of Items
.847	5

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Satisfaction on store accessibility and entrance	20.56	11.996	.668	.812
Satisfaction on store decoration	20.94	12.400	.695	.805
Satisfaction on product searching time	20.81	11.815	.762	.786
Satisfaction on distance between store and entrance and parking	20.56	11.868	.656	.816
Satisfaction on place of promotional signs	20.96	14.126	.503	.852

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
25.96	18.722	4.327	5

Reliability Statistics

Cronbach's Alpha	N of Items
.926	3

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Satisfaction on store reputation	9.19	7.687	.867	.877
Satisfaction on store brochures, leaflets	9.13	7.644	.824	.915
Satisfaction on store advertisements (excluding brochures)	9.02	8.404	.861	.887

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
13.67	17.163	4.143	3

Reliability Statistics

Cronbach's Alpha	N of Items
.767	11

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Satisfaction on courtesy of personnel	49.60	50.942	.511	.740
Satisfaction on helpfulness of personnel	49.55	53.905	.275	.765
Satisfaction on number of personnel	49.66	52.360	.461	.746
Satisfaction on parking facilities	49.09	52.949	.355	.756
Satisfaction on store cleanliness	49.15	51.782	.455	.746
Satisfaction on malls in store	49.32	52.135	.356	.756
Satisfaction on guarantee and return policy	49.81	50.028	.474	.742
Satisfaction on store credit card with commercial banks	50.21	48.041	.390	.757
Satisfaction on store loyalty card	50.15	48.260	.417	.751
Satisfaction on opening hours	48.94	50.800	.388	.753
Satisfaction on store atmosphere	49.00	48.913	.603	.728

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
54.45	60.209	7.759	11

Reliability Statistics

Cronbach's Alpha	N of Items
.717	3

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Satisfaction on store reputation	8.98	7.553	.408	.770
Satisfaction on store brochures, leaflets	9.15	5.106	.673	.440
Satisfaction on store advertisements (excluding brochures)	8.88	6.707	.553	.611

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
13.50	12.723	3.567	3

Reliability Statistics

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Satisfaction on courtesy of personnel	48.87	51.209	.367	.739
Satisfaction on helpfulness of personnel	48.76	51.598	.301	.746
Satisfaction on number of personnel	48.78	50.495	.383	.737
Satisfaction on parking facilities	48.71	47.483	.492	.722
Satisfaction on store cleanliness	48.62	52.059	.343	.742
Satisfaction on malls in store	48.76	48.825	.533	.720
Satisfaction on guarantee and return policy	49.20	47.027	.518	.719
Satisfaction on store credit card with commercial banks	49.62	44.922	.469	.726
Satisfaction on store loyalty card	49.29	44.119	.473	.726
Satisfaction on opening hours	48.22	54.404	.104	.772
Satisfaction on store atmosphere	48.51	50.028	.509	.725

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
53.73	58.200	7.629	11

APPENDIX D

RESULTS OF RELIABILITY ANALYSIS OF PILOT STUDY (TESCO LOTUS)

Reliability Statistics

Cronbach's Alpha	N of Items
.910	5

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Satisfaction on Price competitiveness	19.98	20.446	.799	.884
Satisfaction on Price promotion	20.19	20.241	.801	.884
Satisfaction on Store campaign	20.60	20.755	.766	.891
Satisfaction on Campaign frequency	20.10	19.968	.834	.877
Satisfaction on participated goods in campaign	20.04	21.658	.663	.912

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
25.23	31.500	5.612	5

Reliability Statistics

Cronbach's Alpha	N of Items
.836	7

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Satisfaction on variety of merchandise	30.37	33.346	.443	.833
Satisfaction on product bundling	30.71	31.488	.533	.822
Satisfaction on national-branded products available	30.23	30.478	.675	.802
Satisfaction on store-branded products available	30.90	25.414	.657	.808
Satisfaction on product quality	30.79	27.658	.849	.772
Satisfaction on value for money	30.52	29.787	.772	.790
Satisfaction on product freshness	30.48	33.021	.319	.857

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
35.67	39.972	6.322	7

Reliability Statistics

Cronbach's Alpha	N of Items
.823	5

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Satisfaction on store accessibility and entrance	20.65	14.319	.638	.781
Satisfaction on store decoration	20.77	14.861	.726	.758
Satisfaction on product searching time	20.63	13.559	.681	.768
Satisfaction on distance between store and entrance and parking	20.56	13.996	.653	.777
Satisfaction on place of promotional signs	20.73	18.542	.406	.838

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
25.83	22.525	4.746	5

Reliability Statistics

Cronbach's Alpha	N of Items
.717	3

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Satisfaction on store reputation	8.98	7.553	.408	.770
Satisfaction on store brochures, leaflets	9.15	5.106	.673	.440
Satisfaction on store advertisements (excluding brochures)	8.88	6.707	.553	.611

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
13.50	12.723	3.567	3

Reliability Statistics

Cronbach's Alpha	N of Items
.753	11

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Satisfaction on courtesy of personnel	48.87	51.209	.367	.739
Satisfaction on helpfulness of personnel	48.76	51.598	.301	.746
Satisfaction on number of personnel	48.78	50.495	.383	.737
Satisfaction on parking facilities	48.71	47.483	.492	.722
Satisfaction on store cleanliness	48.62	52.059	.343	.742
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Satisfaction on opening hours	48.22	54.404	.104	.772
Satisfaction on store atmosphere	48.51	50.028	.509	.725

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
53.73	58.200	7.629	11

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