



A STUDY OF THE RELATIONSHIP BETWEEN CUSTOMER PERCEPTION
OF KEY SUPERMARKET ATTRIBUTES AND SELECTED DEMOGRAPHIC
VARIABLES

By

WAN FEI

A Thesis submitted in partial fulfillment
of the requirements for the degree of

Master of Business Administration

Graduate School of Business
Assumption University
Bangkok, Thailand

May 2004

1.4564130

**A STUDY OF THE RELATIONSHIP BETWEEN CUSTOMER PERCEPTION
OF KEY SUPERMARKET ATTRIBUTES AND SELECTED DEMOGRAPHIC
VARIABLES**

By

WAN FEI

A Thesis submitted in partial fulfillment
of the requirement for the degree of

Master of Business Administration

Examination Committee :

1. Dr. Tang Zhimin (Advisor)
2. Dr. Adarsh Batra (Member)
3. Dr. Patricia Arttachariya (Member)
4. Assoc. Prof. Poonsak Sangsunt (MOE Representative)

[Signatures of Examination Committee Members]

Examined on : 31 May 2004
Approved for Graduation on :

Graduate School of Business
Assumption University
Bangkok, Thailand
May
2004

Abstract

The research objective of the study was to determine whether or not the perceived importance of supermarket attributes vary among different age and income groups.

The framework was constructed based on the assumption that there are significant differences on the perceived importance of supermarket attributes among the different age and income groups. Dependent variables consisted of 11 selected attributes (distance from home, ease of access, checkout time, ease of finding items, product arrangement, aisle width, entrance/exit, atmosphere, general price level, product quality, price reductions/sales) and independent variables included age and income of consumers.

In this study, the primary data were collected through the survey by using the self-administrated questionnaire that was distributed to the sample of 200 respondents in Tops-Ratchadapisek, Foodlion-Sukhumvit, Jusco-Ratchadapisek, Foodland-Ladprao, and Villa Market-Sukhumvit.

The results indicated that there are significant differences in perceived importance of supermarket attributes of distance between respondents' homes and supermarket, ease of access to supermarket, ease of finding items, entrance/exit, general price level and price reductions among different age groups. There are significant differences in perceived importance of supermarket attributes of ease of access to supermarkets, ease of finding items, entrance/exit, general price level and price reductions among different income groups too.

Based on the findings, the researcher recommends that the supermarket should be located near housing estates or main business districts or any place where the customers have to go. Adding more parking space for customers, posting bilingual signs anywhere for customers and providing free home delivery service or installation service. Also, offering a special discount/ coupon for customers and keeping the level of prices in the supermarket competitive.



ACKNOWLEDGEMENT

This thesis required the cooperation and assistance from a number of people and organizations. I would like to take this opportunity to thank all of them who sacrificed their valuable time for my thesis.

First of all, I express thanks to my advisor, Dr.Tang Zhimin, who has contributed and given valuable suggestions for the completion of this thesis. I also wish to express thanks to Dr. Adarsh Batra, Dr. Patricia Arttachariya and Assoc. Prof. Poonsak Sangsunt who are the committee members for their extremely thoughtful and helpful guidance and comments to make this study more complete.

I would like to thank my friends for their great help during the process of study. Many thanks are also due to all target respondents who helped me in completing the questionnaires.

Finally, I would like to express deepest gratitude to my parents, my elder sister in Beijing China, who provided me with their love, understanding, inspiration and support for my thesis.

Wan Fei
Assumption University
May 2004

TABLE OF CONTENTS

Abstract	I
Acknowledgement	III
Table of contents	IV
List of Tables	VII
List of Figures	IX
Chapter I Introduction	1
1.1 Background of the study	1
1.1.1 The food retailing sector in Thailand	2
1.1.2 Characteristics of the consumer in Thailand	9
1.2 Statement of the problem	10
1.3 Research objective	10
1.4 Research scope & limitation	11
1.5 Significance of the study	11
1.6 Definition terms	12
Chapter II Literature Review	15
2.1 Theory of consumer behavior	15
2.2 Literature to support framework	22
2.3 Previous study	28
Chapter III Research Framework	30
3.1. Conceptual Framework	30
3.2. Definition of the variables	31
3.3. Hypothesis	34

3.4 Expected Outcome	39
Chapter IV Research Methodology	42
4.1 Data source	42
4.1.1 Research Technique	42
4.1.2 Research Instruments	43
4.1.3 Sampling Method	43
4.1.4 Target population	44
4.1.5 Sampling frame	44
4.1.6 Sampling Unit	44
4.1.7 Population Element	45
4.1.8 Sample Size	45
4.2 Data collection	46
4.3 Data measurement	47
4.3.1 Operationalization of Variable	47
4.3.2 Questionnaire	48
4.4 Data analysis	49
Chapter V Data Analysis	52
5.1 Descriptive analysis	52
5.2 Results of hypothesis testing	55
5.3 Critical discussion of the finding	88
Chapter VI Conclusion and Recommendation	90
6.1 Summary of the results of the research hypothesis testing	90
6.1.1 Summary of respondents' age and income	90
6.1.2 Summary of hypotheses testing	91
6.2 Conclusion of the research	95

6.3 Recommendations of the study	96
6.4 Further research	100

Reference

Appendix ---Questionnaire



List of Tables

Table 1.1 Supermarket chains in Bangkok	4
Table 1.2 Superstore chains in Bangkok	7
Table 1.3 Convenience store chains in Bangkok	8
Table 4.1 Sample sizes used in Marketing Research Studies.	45
Table 4.2 Questionnaire design	48
Table 5.1 Age levels of respondents	53
Table 5.2 Income levels of respondents	54
Table 5.3 Hypothesis Testing Result for H1	55
Table 5.4 Hypothesis Testing Result for H2	57
Table 5.5 Hypothesis Testing Result for H3	59
Table 5.6 Hypothesis Testing Result for H4	60
Table 5.7 Hypothesis Testing Result for H5	62
Table 5.8 Hypothesis Testing Result for H6	63
Table 5.9 Hypothesis Testing Result for H7	64
Table 5.10 Hypothesis Testing Result for H8	66
Table 5.11 Hypothesis Testing Result for H9	67
Table 5.12 Hypothesis Testing Result for H10	69
Table 5.13 Hypothesis Testing Result for H11	70
Table 5.14 Hypothesis Testing Result for H12	72
Table 5.15 Hypothesis Testing Result for H13	73
Table 5.16 Hypothesis Testing Result for H14	75
Table 5.17 Hypothesis Testing Result for H15	76
Table 5.18 Hypothesis Testing Result for H16	78
Table 5.19 Hypothesis Testing Result for H17	79
Table 5.20 Hypothesis Testing Result for H18	80
Table 5.21 Hypothesis Testing Result for H19	82
Table 5.22 Hypothesis Testing Result for H20	83
Table 5.23 Hypothesis Testing Result for H21	85
Table 5.24 Hypothesis Testing Result for H22	86

Table 6.1 Summary of hypotheses testing results	91
Table 6.2 Summary of conclusion and recommendations	97



List of Figures

Figure 2.1 A Simple Model of Consumer Decision Making	17
Figure 3.1 Conceptual framework of the study	30



Chapter I

Introduction

1.1 Background of the study

The Thai retail market improved slightly in 2003 with gains in the second half offsetting the adverse affects from the SARS outbreak and the war in Iraq earlier in the year. Increased consumer purchasing power in line with the expansion in the economy and a readjustment in retailers' marketing strategies were two factors supporting the retail market. Also spurring consumer spending was the government policy to stimulate local travel and the low interest rates from hire purchase firms. (www.bangkokpost.com)

Today's consumers are complex decision-makers. They take many factors into account when buying food: Is it convenient? What is the packaging like? Is it expensive? Is it healthy? Is it delicious? Does it suit my lifestyle? Today's consumers are faced with more food options than ever before. Changes in eating patterns, more frequent eating occasions and range of eating locations, are tied to changes in daily schedules. Consumers want food that is tasty, convenient and at the right price (Mogelonsky, 1998). The major aim of marketing activities is to satisfy consumer wants and needs. The retail environment can play significant role in customer relationships (Klemz and Boshoff, 2001). It includes the things, places, and other people that influence consumer's affect and cognition and their behaviors (Peter and Oslon, 2002).

One specific form of retailing that of supermarkets has been in existence in Asia and specifically Bangkok (the location of the study). In the present decade, it can be observed from the growth in the number of supermarkets that consumers in this region are now altering their purchasing dependencies away from the traditional open market to viewing supermarkets as a viable option for obtaining daily necessities. With an increasing number of supermarkets, competition is becoming more intense and decision makers are anxious to develop competitive advantages. With the improvement of the Thai economy, consumer sentiment will increase and their shopping habits will change. They are concentrating more on their jobs and have less time to shop around. So, the supermarket business will get stronger. The year 2003, has been a very successful year. Consumers' confidence has improved because of the government's policy to stimulate spending and along with that, foreign investors' confidence has picked up. It is hoped this trend will continue well into 2004.

An analyst expects the next phase in the supermarket sector will involve intense competition to upgrade technology, along with marketing plans to gain brand loyalty. There are now over 250 big supermarkets in Thailand, many of them in Bangkok and its suburbs. In 2004, the supermarket firms are expected to go ahead with plans to open new stores.

1.1.1 The food retailing sector in Thailand

This section describes the current structure of the food retail distribution system in Thailand. The market sector concerned has undergone massive change as part of the rapid development of the economy, especially during the boom period prior to the financial

crisis in July 1997 and the major restructuring that was a result of the crisis. This study is meant to provide researchers with an understanding of the various food retail market segments in Thailand in order to assist them in the development of appropriate market penetration strategies.

The traditional food distribution system in Thailand is through so-called “wet markets” which sell fruits, vegetables, meat and fish, in addition to small ‘Mom and Pop’ food stores which distribute dry goods. However, the rapid growth of the economy in the 1980s and 1990s, particularly during the decade before the financial crisis began, led to dramatic changes in the structure of the food retailing sector. Modern supermarkets, superstores, hypermarkets and convenience stores developed at a breakneck pace to service the growing middle class with their demand for more sophisticated food stores and a greater variety of products many of which were imported.

The retail food market in Thailand can be divided into four major sub-sectors: a. supermarkets b. superstores c. convenient store chains d. traditional markets (wet markets and ‘Mom and Pop’ stores).

Most of the trade of Thai food retail is still conducted through traditional markets and is the primary reason why foreign retailers are so optimistic about future growth prospects.

A. Supermarkets

In Thailand the supermarket developed as an integral part of the department store which is the primary retail distribution channel for the growing middle class. The vast

majority of retail food distribution is done through supermarket chains (see table1.1) and very little food distribution is channeled through department stores.

Table1.1 Supermarket chains in Bangkok

Rank	Name	Country of origin	No. of store(end of 2002)
1	Tops	Netherlands	48
2	Foodlion	Belgium	32
3	Jusco	Japan	10
4	Foodland	Thailand	8
5	Villa Market	Thailand	8
	Total		106

<http://www.siamfuture.com/RetailBusCenter/RetailersCenter/Supermarket/Supermarket.asp>

The stand-alone supermarket and supermarket chain has been slow by developing in Thailand. With the exception of TOPS with 48 supermarkets, there are no supermarket chains of significant size. It is anticipated that supermarket development in the medium term will be largely in stand-alone stores since economic factors severely restrict the construction of large and expensive new department stores. TOPS have plans to continue to open new stand-alone supermarkets to compete with the rapidly developing superstores.

TOPS supermarkets

Tops supermarkets are operated by CRC Ahold, a joint venture between Central Retail Corporation and the international food provider Royal Ahold. Royal Ahold is expanding Tops in the Asian region in other countries such as Indonesia and Malaysia with major local partners. Most of the Tops supermarkets are located in the Central and Robinson department stores. The stores range in size from 1,500 to 5,000 square meters in floor area. There are also free-standing supermarkets that range from

800 to 4,000 square meters in floor area. Tops is a one-stop-shop supermarket carrying a wide range of fresh vegetables and fruits, meat, fish, seafood, groceries, dairy and bakery products. The stores also carry a great range of international food items and a line of Tops-branded products. In addition to providing one-stop shopping and quality fresh products, Tops is the home of super cheap pricing with Everyday low prices on 7,000 key items. (http://www.tops.co.th/about_pro.htm)

Food Lion supermarkets

Founded in 1957 as Food Town in Salisbury, North Carolina, U.S.A. Food Lion's success is based on the principle of offering customers quality products at Extra Low Prices (ELP) in clean, conveniently located stores. The company maintains its low price leadership and quality assurance through technological advances and operating efficiencies such as standard store formats, innovative warehouse design and management, energy efficient facilities and data synchronization and integration with suppliers. (http://www.foodlion.com/cor_coinfo.asp) food lion is owned by the Delhaize Group of Belgium which is taking a very aggressive development stance in Thailand. The total number of food lion supermarkets in Bangkok is 32 stores at the end of 2002 (see table 1.1)

Siam Jusco

This Japanese owned supermarket chain operates as the food arm of the Jusco department store chain. It has 4 stores in Jusco department stores, 6 stand-alone supermarkets and 4 which are part of a retail complex. There is little expectation of

significant expansion by this chain in the medium term as they were seriously affected by the economic crisis. The total number of Siam Jusco supermarkets in Bangkok is 10 stores at the end of 2002 (see table 1.1)

Foodland supermarket

Foodland is a small privately-owned supermarket chain similar to Villa with many customers and a wide range of imported products. There are no significant plans for expansion on the horizon. The total number of Foodland supermarkets in Bangkok is 8 stores at the end of 2002 (see table 1.1)

Villa market

Villa is a small high-end supermarket chain with a large portion of its business coming from expats. Because of this fact it has the largest range of imported products of any market chain. The total number of Villa supermarket in Bangkok is 8 stores at the end of 2002 (see table 1.1)

B. Superstores

In the mid of 1990's, the rage in retailing across Asia was the rapid development of superstores, and nowhere was the competition more intense than in Thailand. The superstores, typically 15-20,000 square meters, provided all the basic needs of the consumer under one roof and at prices that are very competitive, emulating the successful Wal-Mart model in the United States.

Superstores can generally offer products at prices 20-30% below those at department stores and 15-20% lower than supermarket prices. Unlike most department stores which tend to target the middle and upper middle classes, the superstore is targeted at the masses. As such, the majority of superstores have opened in the provinces where this concept is seen to have enormous growth potential in the longer term. The table 1.2 as follows, shows the country of origin and numbers of store of all superstores in Bangkok in 2002. Tesco lotus opened the most branches among superstores and had already opened 56 stores at the end of 2002.

Table 1.2 Superstore chains in Bangkok

Rank	Name	Country of origin	No. of store(end of 2002)
1	Tesco Lotus	UK.	56
2	Big-C	France	34
3	Makro	Netherlands	21
4	Carrefour	France	17
	Total		128

<http://www.siamfuture.com/RetailBusCenter/RetailersCenter/Superstore/Superstore.asp>

C. Convenience stores

Convenience stores are also relatively new to Thailand with the first convenience store chain, 7-Eleven, having begun operations only in 1989. However, the convenience store quickly found a solid niche in the Thai market and there are plans to open more branches in the future.

The targeted consumer group at convenience stores is lower middle income families. As such, most of the products carried in the stores are produced in Thailand to keep prices down and they carry a minimum amount of imported products. The following table 1.3 shows the total numbers of convenience stores in Bangkok from 1999-2002.

Table1.3 Convenience store chains in Bangkok

name	Country of origin	2002			2001	2000	1999
		BKK	Provinces	Total			
7-Eleven*	US			2050	1800	1520	1200
FamilyMart	Japan			250	150	100	
Fresh Mart	Thailand			117			
AM/PM*	US	53	44	97	100	130	300
Central Minimart	Thailand					22	
Total				2514			

* Including in PTT (PTT is the only integrated gas company in Thailand)

<http://www.siamfuture.com/RetailBusCenter/RetailersCenter/ConvenStore.asp>

d. Traditional wet markets/ Mom and Pop stores

There are an estimated 300,000 small “Mom and Pop” stores in Thailand selling rice and dry grocery products and some 600,000 ‘wet market’ vendors selling mainly fruits and vegetables, meat and fish.

As the Thai economy continues to develop there will be a significant shift in consumer buying habits from the traditional markets to the new supermarkets and superstores.

The trade media suggests that as much as 60% of the food retail trade in the Bangkok area is now through supermarkets, superstores, or convenience stores with the traditional wet markets now accounting for about 40% of the volume. The percentage of food distribution through the wet markets is, however, much higher in the provinces (<http://atn-riac.agr.ca/asean>).

1.1.2 Characteristics of consumers in Thailand

Thailand's consumers, like those in other developing Asian countries, are getting used to pleasure and leisure. Many Thais, especially younger middleclass Bangkokians are indulging in buying behavior. Their purpose in life is to have fun- '*sanuk*'. Taxis, bars, restaurants, department stores and supermarkets are crammed with young people in search of a good time, on paying days. This formalized group behavior (known as '*pai thiao*' – go out and have fun) among well-to-do urban folk is very pervasive.

Like consumers everywhere, male and female alike, the Thais get highly involved in purchases. Thai consumers typically study the alternatives on the shelves, read the packing carefully and weigh the options before making a choice when making purchases in supermarkets. Observable research conducted through one-way mirrors in supermarkets reveals that shampoos are the main product that consumers spend the most amount of time in considering to purchase, for this product, consumers would typically spend 5-10 minutes making a choice.

Thai consumers remain close to their farming roots and are especially sensitive to the notion of value for money. This has some interesting manifestations. Branding is important, but as an element to estimate value. Although well-known brands are popular, the Thai consumer does not necessarily equate an expensive brand with superior quality, indeed purchases are more value-driven (Reid 1995).

1.2 Statement of the problem

One specific form of retailing, supermarket retailing, has been in existence in Asia for quite some time, specifically in the Bangkok area. It could be observed from the growth in the number of supermarkets that consumers in this region are now altering their purchasing dependencies away from the traditional open market to viewing supermarkets as a viable option for obtaining daily necessities. With an increasing number of supermarkets, competition is becoming more intense and decision makers are anxious to develop competitive advantages. Therefore, the statement of problem of this research is "what is the relationship between factors of age and income differences toward selected supermarket attributes?"

1.3 Research objectives

The very high competition in the food retailing sector, together with lower interest rates, has created restrictions in price and quality competition among supermarkets. There has been a gradual shift in strategic focus on supermarket attributes. This empirical study investigates the influence of supermarket store attributes on customer perception moderated by the independent variables of age & income. The objective of the study was

41886

to determine whether or not the perceived importance of store attributes mentioned, vary among different age and income groups.

1.4 Research scope & limitation

This research investigated the relationship supermarket attributes (distance from home, ease of access, checkout time, ease of finding items, arrangement, aisle width, entrance/exit, atmosphere, general price level, product quality, price reductions/sales) have on perceived customer perception .

Only five supermarkets in Bangkok were chosen for this study. Because of time constraints, the researcher could not distribute the questionnaire across all branches of the supermarkets in Bangkok. Convenience sampling was used where the researcher randomly solicited consumers to complete a self-administered questionnaire; the number of the sample size was 200 respondents.

1.5 Significance of the study

Here we can draw some useful conclusions about the relationship between key supermarket attributes and perceived customer perception. The major research findings, conclusion and recommendations could be beneficial to supermarket marketing managers by providing another viewpoint towards developing their marketing strategies, while also

pointing out some areas that could be improved in their current system. Providing this information is aimed at helping to develop a more efficient marketing system for supermarkets. It also provides a system of more accurate measurement and contributes to the literature for further related research.

1.6 Definition of Terms

Attributions towards things

Consumers judge a product's performance and attribute its success or failure to the product itself.

(Schiffman and Kanuk. 2000)

Competitive advantage

It is a company's ability to perform in one or more ways that competitors cannot or will not match. Companies strive to build sustainable competitive advantages, those that succeed deliver high customer value and satisfaction, which leads to high repeat purchases and therefore high company profitability. One of the major values that customers expect from vendors is high product and service quality

(Kotler, et al 1999)

Consumer Behavior

The behavior that consumers display in searching for, purchasing, using, evaluating, and disposing of products, services, and ideas. (Schiffman and Kanuk 2004)

Market Penetration

The term market penetration refers to a strategy aimed at increasing sales of existing products in the current markets. Typically, market strategies is achieved by increasing the level of marketing effort (as by increasing advertising or distribution) or by lowering prices.

(Guiltinan, et al 1997)

Perception

The process by which an individual selects, organizes, and interprets stimuli into a meaningful and coherent picture of the world.

(Schiffman and Kanuk, 2004)

Supermarket

A departmentalized food store with minimum annual sales of \$2 million that offers for sale a wide range of food and related products.

(Evans and Berman 1997)

Wet market

The wet markets are often a congregation point where news and gossip are exchanged over the activities of buying and selling at its very best - with low overheads and the many wares sold at bargain prices too.

(<http://www.terengganu.gov.my/visittg/sights-wet-markets.htm>)

Mom and pop food stores

A mom-and-pop grocery, family owned, located in the middle of town. Some who frequent the store are children asking parents to buy them candy, and they follow the footsteps of their parents and grandparents. Another convenience is that the location of the store is in the center of the community. (<http://www.cityofspringfield.com/snooks/>)

Dry goods

The supermarket includes ready-made food, condiments, beverage, snack, liquor, personal effects; chemical products for cleaning, food and general articles for pets, the sales of the dry food department are 50% of the total sales.

Fresh food

The supermarket department includes meats, seafood, vegetables, ready-to-cook and ready-to-eat food, dairy products, frozen food, bakery and other various ingredients. The sales of the fresh food department are 10 % of the total sales.

Chapter II

Literature Review

This chapter focuses on theory of consumer behavior and literature to support the framework listing the biographical data such as age and income combined with various supermarket market factors which include location, product presentation, physical size and layout, and the price and quality of the products along with empirical findings and literature to support methodology. All of this will aid in establishing behavioral purchasing patterns of present and prospective customers, while at the same time, provide supporting information when supermarkets plan their marketing strategy.

2.1 Theory of consumer behavior

Consumer behavior was a relatively new field of study in the mid-to late 1960s. Because it had no history or body of research of its own, marketing theorists borrowed heavily from concepts developed in other scientific disciplines, such as psychology (the study of the individual), sociology (the study of groups), social psychology (the study of how an individual operates in groups), anthropology (the influence of society on the individual), and economics to form the basis of this new marketing discipline. Many early theories concerning consumer behavior were based on the economic theory on the notion that individuals act rationally to maximize their benefit (satisfactions) in the purchase of goods and services. Later research discovered that consumers are just as likely to purchase impulsively and to be influenced not only by family and friends, but by

advertisers and role models, and also by mood, situation and emotion. All of these factors combine to form a comprehensive model of consumer behavior that reflects both the cognitive and emotional aspects of consumer decision making and importance of consumer behavior.

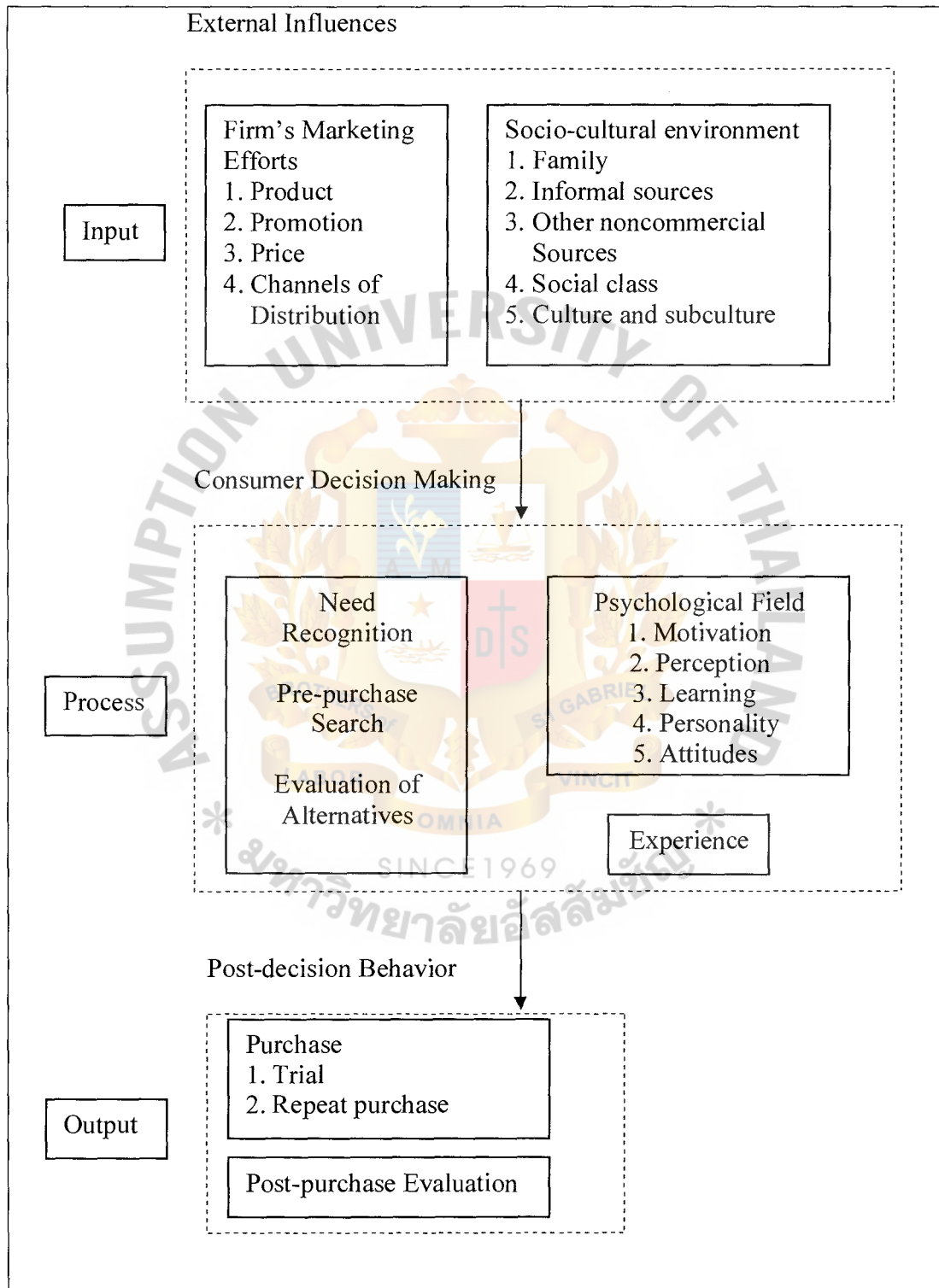
2.1.1 A simplified model of consumer decision making

The process of consumer decision making can be viewed as three distinct but interlocking stages: the input stage, the process stage, and the output stage. These stages are depicted in the simplified model of consumer decision making in Figure 2.1.

The input stage influences the consumer's recognition of a product need and consists of two major sources of information: the firm's marketing efforts (the product itself, its price, its promotion, and where it is sold) and the external sociological influences on the consumer (family, friends, neighbors, other informal and noncommercial sources, social class, and cultural and sub-cultural memberships). The cumulative impact of each firm's marketing efforts, the influence of family, friends, and neighbors, and society's existing code of behavior, are all inputs that are likely to affect what consumers purchase and how they use what they buy.

The process stage of the model focuses on how consumers make decisions. The psychological factors inherent in each individual (motivation, perception, learning, personality, and attitudes) affect how the external inputs from the input stage influence the consumer's recognition of a need, pre-purchase search for information, and evaluation of alternatives. The experience gained through evaluation of alternatives, in turn, affects the consumer's existing psychological attributes.

Figure 2.1 A Simple Model of Consumer Decision Making.



The output stage of the consumer decision-making model consists of two closely related post-decision activities: purchase behavior (e.g., a new shampoo) may be influenced by a manufacturer's coupon and may actually be a trial purchase; if the consumer is satisfied, he or she may repeat the purchase. The trial is the exploratory phase of purchase behavior in which the consumer evaluates the product through direct use. A repeat purchase usually signifies product adoption. For a relatively durable product such as a laptop ("relatively" durable because of the rapid rate of obsolescence), the purchase is more likely to signify adoption (Schiffman and Kanuk, 2004).

2.1.2 Importance of consumer behavior

Consumer behavior is the study of how individuals make decisions to spend their available resources (time, money, effort) on consumption-related items. It includes the study of what they buy, why they buy it, when they buy it, where they buy it, how often they buy it and how often they use it. All business success rests on something labeled a sale, which at least momentarily weds the company and the customer. Understanding and properly interpreting consumer wants is a whole lot easier said than done. Every week marketing researchers try to find out:

- What consumers think of the products and those of the products competitor
- What they think of possible improvements in the products
- How consumers use the products
- What attitudes consumers have about the products and the advertising
- What consumers feel about their "role" in the family and society
- What their hopes and dreams are for themselves and their families

Today as never before, we cannot take our business for granted. That is why understanding and therefore learning to anticipate consumer behavior is our key to planning and managing in this ever-changing environment.

Consumer behavior is defined as the behavior that consumers display in searching for purchasing, using, evaluating, and disposing of products and services that they expect will satisfy their needs (Schiffman and Kanuk, 2004). We can identify two broad types of consumer behavior variables that directly affect how persons make purchase decisions. They are (1) variables that are internal to the individual –basic determinants and (2) variables that are external to the individuals—environmental determinants or influences.

(1) Basic Determinants

There are six basic consumer variables that control internal thought processes. They are needs, motives, personality, learning, attitudes and perception.

A need is defined as any physical or emotional body requirement. A need describes a condition that is necessary for sound mental and physical health.

A motive is an impulse or feeling that causes one to do something or act in a certain way. Motives make us aware of our needs and give us a reason for acting on these needs.

Personality is defined as the human characteristics or traits built into a person that make each person different from every other person. Motives cause the individual to act on their needs, but it is personality which makes an individual act in a specific manner.

Perception is defined as the particular interpretation one gives to objects or ideas observed or otherwise brought to the consumer's attention through the senses.

Learning means any change in the consumer's thoughts, response or behavior as the result of practice, experience or intuition. In the sense, it tells us what was unknown before. Attitude is used to mean a broad group of learned predispositions to behave in a certain way.

A key element of consumer behavior lies with the individual. One may accept advice or even yield to outside pressure, but the final purchase decision rests with the individual. Marketing managers cannot make an individual to buy products. What happens is that the individual takes in information from the environment and integrates it into his or her frame of reference.

(2) Environmental Determinants

There are five broad environmental determinants of consumer behavior: (1) family influences, comes from household members. This usually has the greatest total influence on a consumer. (2) Social influences arise from workplace, church, neighborhood, school, friends and peers. (3) Business influences, refer to the direct contact, either at the store or through personal selling, sales promotion, and advertising that the consumer has with business firms. (4) Culture influences, are the innate beliefs and sanctions developed over time by the social system. The cultural, ethnic, and religious variables, taken together, constitute a system of sanctions, biases, mores, and life-styles that become a part of the person, but these variables are manifested through

human contact. (5) Economic influences are the constraints placed on the consumer by money and related factors (Oumlil, 1985)

We cannot view the basic determinants and external influences separately. They interact simultaneously and continuously. Furthermore, there is interaction between the individual's needs, motives, personality, learning, attitudes, and perceptions. Each influences the other, and every individual decision influenced by all six factors (Walters & Bergiel 1989).

2.1.3 Consumer behavior in the retail context

In the food retail business, the retailer needs to understand the market in order to develop a successful business. If potential customers do not respond to a store's retail offering by coming there to shop, the operation will lack the needed revenue to be profitable. An understanding of the customer behavior within this market allows the retailer to select a target group of potential customers and build a store image that will attract the target group.

Bellenger and Goldstucker (1993) lists some key questions that a retailer needs to answer relative to customer behavior as follows:

1. What customers do we want to concentrate on attracting to our store?
2. How do these customers get their information about alternative stores?
3. What do our target customers expect or want from a store of our type?
4. Who are our competitors for the target groups' business?
5. How does the target group perceive us relative operation to competition?

6. What changes, if any, are needed in our retail operation to shift the store's image to a more favorable position in comparison with our competitors?

2.2 Literature to support framework

Age

Age is the length of time that one has existed. People buy different goods and services over their lifetime many firms identify market segments on the basis of age (Kotler, 1997). Indeed, some products are marketed only to specific age groups. Age distribution and projected changes in each age group are important to marketers because consumer needs and wants differ notably among age groups (Boone and Kurtz 1995). Age is powerful determinant of consumer behavior. A person's age affects his or her interests, tastes, purchasing ability, political preferences, and investment behavior (Hawkins, Best and Coney 1992)

McDonald (1991) investigated the influence of supermarket store attributes on Chinese (Macau) customer satisfaction classified by age. The researcher indicated that the age groups between 30-49 years spend more than other age groups at supermarkets. As for the study of behavior, Wisetraksakul (2002) examined the effects of complainant feelings and beliefs on responsive behavior focusing on the shoppers of hypermarkets in Bangkok. The researcher found age relates to purchase amount that consumer spends in hypermarket. The group aged between 26-35 years, working people, prefer convenience and speed. Therefore, they purchase a larger amount in comparison to other age groups. Oates, Shufeldt and Vaught (1996) suggest that age relates positively to the use of money

saving sales promotion offers, such as cents off and/or coupons. There is an opportunity to increase the purchase amount by offering value price promotion.

Income

Income is the amount of money or its equivalent received during a period of time in exchange for labor or services, from the sale of goods or property, or as profit from financial investment. Consumers' abilities to buy are their controlled by their buying power, the financial resources that are available to the consumer for making purchases. Total income refers to the amount of money received from salaries, wages, interest investments, pensions and profit making activities (Lewison, 1994). Income is another important factor in the marketing economic environment because it influences consumers' buying power. Studying income statistics and trends, helps marketers to estimate market potential and develop plans for targeting specific market segment, Engel's Law, explicates three general statements on spending behavior. As a family's income increases, the percentage spent (1) on food increases, (2) on household operations, housing, and clothing remains constant, and (3) on other items increases (Boone and Kurtz, 1995).

McDonald (1994) found that income is particularly important because financial limitations can determine the range of alternatives available to consumers in budgeting their spending. McDonald (1991) found that consumers with different levels of incomes have different buying behaviors. The researcher indicated that consumers with income below 3000 Pataca (1 Pataca = 0.126 US dollars) have higher spending in supermarkets than other income levels.

Supermarket factors

Location

A retail location, as defined by Statistics Canada (2001), as a “business location (usually a store) in which the principal activity is the sale of merchandise and related services to the general public, for household or personal consumption” and a place able to match selection criteria for establishing or expanding the operations of an enterprise.

A community is called a location when its name serves as a point of reference for a place where an enterprise is started up or expanded, or when a real estate site or property is selected in its vicinity for use by an entrepreneur or company on the move.

For instance, hospitality customers today have both many other choices and many other reasons for choosing a property. Location plays a major role in the minds of many hospitality industry as well as hospitality customers. The customers immediately think of what is most convenient for choosing a supermarket or staying in a city away from home. So location trends in many cases become a consideration.

Whether it is the final consideration depends on two factors first, the observation of the customer to determine what else is available in relatively the same location. Second, the customer’s examination of any other criteria that is important to them. The supermarket that is built at a good location should have a competitive advantage because of the customer contact component, convenience for customers. To study the customer attitude towards location, as this study depicts the relationships between the attributes of the store (i.e., location) and age & income of the consumer, the information is extracted from research of McDonald (1991).

Supermarket convenience

Supermarket convenience is service the store provides, inventiveness of presentation, comfort and convenience for customer to select merchandise, (Stuart 2000). Parasuraman (1996) states that customers consistently expect very specific attributes in virtually all products and services. Their top priorities include ease of use, timeliness, certainty, consistency, and more.

Freeman (1994) considers store convenience as a factor in the study of customer attitude to store refurbishment because the effective store convenience will classify goods by department and shape customer flow by merchandise arrangement that allows easier search of products. This research surveys customer attitudes conducted before and after two of the chain's traditional town center outlets had been upgraded in the Northwest, England, the result identify that store convenience can create a favorable store image which is considered as one of the most important strategic options available to retailers to hold or improve market position and it also influences both store patronage and customer loyalty.

Physical environment

The visibility and tangibility of the supermarket can normally be explained in terms of physical environment, (Southwood 2000). The physical environment includes

aisle width, location of the entrance/exit, atmosphere and shopper density. These attributes have an impact on the customer's mind, so they are considered as the powerful tools in attracting and satisfying the customer (McDonald 1991).

Aylott and Mitchell's (1999) exploratory study of grocery shopping stresses store behavior in Sunderland City, UK. Factors such as lighting, as a factor of store design, and atmosphere which includes heat, music and crowd were of importance, because these factors affect emotional states of pleasure, arousal and dominance which determine the response of either approach or avoidance behavior. This research examines that store design and atmosphere can cause consumer stress, when the store has too high temperatures, irritating music and annoying messages and bright lighting and high retail density conditions.

Price and quality

Price refers to a reasonable price, which customers will compare against the amount of money paid with the service that they get and price, is a marketing tool that can be used creatively to help attract customer traffic, create customer satisfaction and build customer loyalty (Garton 1995).

Garton's (1995) research focused on the effect general price levels have on long term customer relationships. Customer will usually expect more services from a store with a high-price image than from a discounted store. The results show that price is a critical factor to the achievement of store loyalty.

Merriless and Miller (2001) consider that price level has an influence in customers' choice of store. They developed constructs of price and retail service and analyzing its impact on store loyalty of superstores and traditional specialist in the Australian context. The study compared the perception of price differences between the two stores formats showing that superstores offer merchandise with lower prices than the traditional specialist store.

Quality of food is evaluated according to the appearance (size, shape, and color), flavor and cleanliness of food. The quality of food, a meal of quality food, well cooked and beautifully presented will build a good reputation with guests and local people (Fottler 2003). High quality of products is considered an essential determinant of the long-term profitability. Also product quality affects the repurchase intentions of both existing and potential customers.

Product quality and product selection are the factors in the study of customer attitude toward store refurbishment in Northwest, England. Product quality mentioned is based on standard performance. Image of brand assortment, durability, and product features add more to basic quality of the product. Product selection is considered by variety of the product lines, brands, and quantity of products available. Results of the study identify that product quality and product selection are able to create a favorable store image that aids retailers to improve market position and it also influence both store, patronage and customer loyalty with consequent repeat sales and profitability (Freeman, 1994).

2.3 previous studies

Other previous empirical research are considered to be secondary data for this research. Since they are data gathered through such readily available sources, they also provide information on study variables as well as sources of references regarding concepts that the researcher would like to study. Many previous research studies along with the relevant theories helped the researcher to conceptualize her particular interest in the framework that has been developed in the next chapter.

McDonald (1991) studied “the influence of supermarket attributes on perceived customer satisfaction: an East Asian study.” The objective was to investigate the influence of supermarket store attributes on Chinese (Macau) customer satisfaction moderated by the factors of age and income. The data was collected in May 1989. Following determination of basic frequencies and means, the hypotheses concerning age and income were tested by ANOVA with a 95 per cent confidence level. The results indicated that store attributes of distance and speed of check out are significant for age and that delivery service and price reductions were significant for income.

Merriless (2001) studied “superstore interactivity: a new self-service paradigm of retail service”. He developed constructs of price and retail service and analyzed its impact on store loyalty of superstores and traditional specialists in Australian context. Their results showed that the price level has an influence on customer choice of store by income. Different income level customers have different opinions of price.

Bellizzi (2004) studied “An assessment of supermarket loyalty in one major US market”. The objective of the study was to determine if loyalty cards issued by supermarkets are actually associated with customer loyalty and how loyalty cards

compare with other factors that retailers could use to enhance supermarket loyalty. The results indicate that loyalty cards are not associated with supermarket loyalty. The respondents indicated that there are a number of factors other than having a supermarket loyalty card that would be more likely to increase their loyalty to any one supermarket. Besides confirming the universally accepted belief that consumers would be more loyal to conveniently located supermarkets, the respondents identified a few other factors that would enhance their supermarket loyalty, such as, stores that offer fast check-out lanes. Loyalty factors were cluster analyzed into three categories, those most important, those least important, and those of moderate importance.

Conclusion

From the information provided in this chapter, it is possible to see how optimization of the various supermarket attributes can combine to form a pleasant atmosphere for consumers and can help establish their continual patronage. Combining this information with biographical data to include age and income of the customer can assist in providing a good basis for mapping out a successful marketing strategy.

Chapter III

Research Framework

This chapter presents the research framework of this study. It is subdivided into four parts: conceptual framework, definition of the variables, hypothesis statements and expected outcome.

3.1 Conceptual Framework

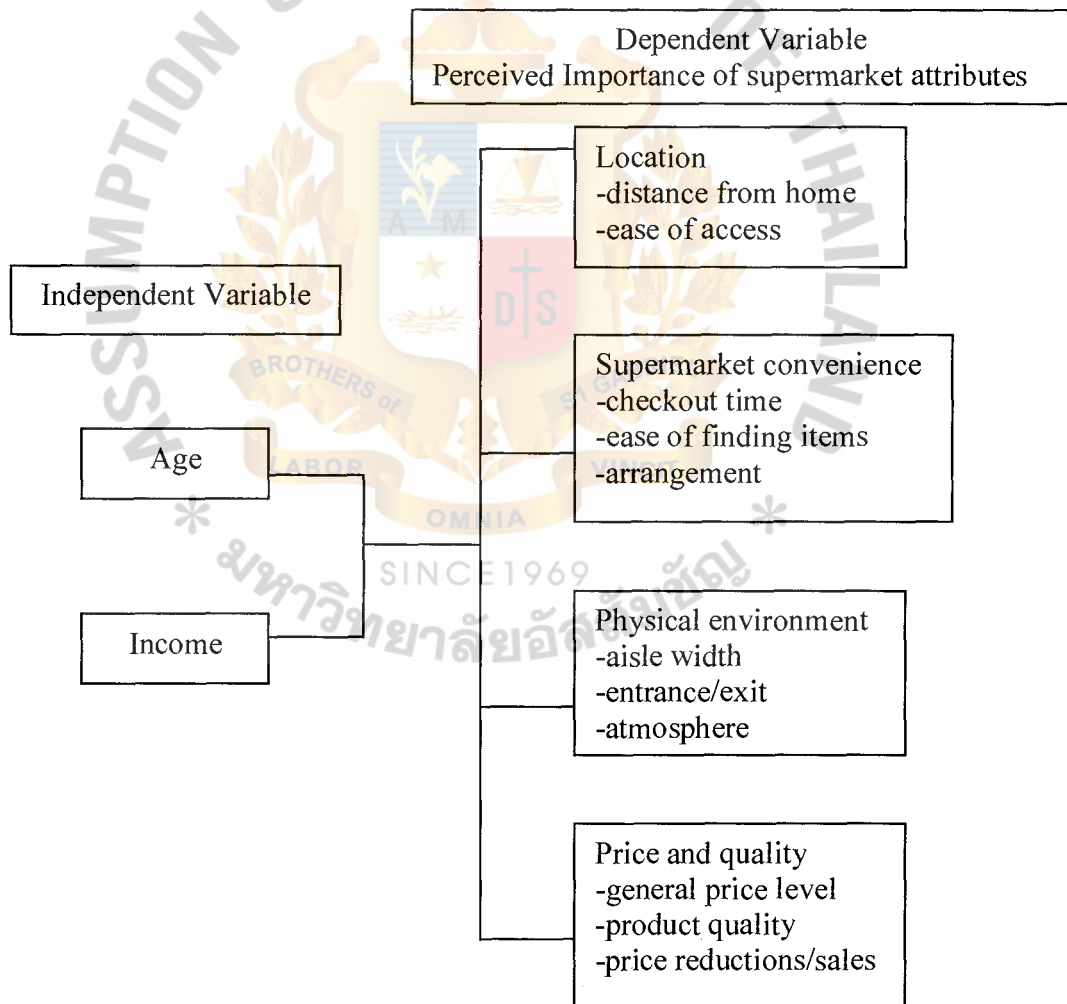


Figure 3.1 Conceptual framework of the study

This framework is designed according to the literature reviewed that was carefully selected from various books and journals as described in Chapter 2.

Diagram of framework in figure 3.1 is constructed based on the assumption that among different age and income groups, there are significant differences on the perceived importance of supermarket attributes.

The Dependent variable consists of 11 selected attributes (distance from home, ease of access, checkout time, ease of finding items, product arrangement, aisle width, entrance/exit, atmosphere, general price level, product quality, price reductions/sales). The supermarket attributes could affect customer perception. The Independent variable includes age and income of consumers. These independent variables are expected to influence supermarket attributes. For the measurement of two variables, the respondents' answers indicated whether there is difference or not in key supermarket attributes among different age & income groups.

3.2 Definition of the variables

The following is a list of words that show the operational component variables, and their definitions.

Age: Age is the length of time that one has existed. Age is powerful determinant of consumer behavior. A person's age affects his or her interests, tastes, purchasing ability, political preferences, and investment behavior.

Income: Income is the amount of money or its equivalent received during a period of time in exchange for labor or services, from the sale of goods or property, or as

profit from financial investment. Income is another important factor in marketing's economic environment because it influences consumers buying power.

Location: a place able to match selection criteria for establishing or expanding the operations of an enterprise. A community is called a location when its name serves as a point of reference for a place where an enterprise is started up or expanded, or when a real estate site or property is selected in its vicinity for use by an entrepreneur or company on the move.

Distance from home: The distance from home affects the shoppers that reside in the local vicinity of the market; the shorter the distance the more convenient. It is said of retailing that the distance is the most important for stores. Choosing the site for the supermarket is of critical importance and the correct choice will have the impact on the ultimate success of the enterprise. That significance of the distance is also emphasized by the research results that the supermarket location convenience is the most influential factor affecting buying behaviors.

Ease of access: Approachability and ease of contact, such as convenient operating hours, manager available to discuss problems (Paraguayan and Berry, 1990).

Supermarket convenience: supermarket convenience is whether the supermarket provides service, invention, comfort and convenience for customer to select merchandise. Supermarket convenience is a factor in the study of customer attitude toward store loyalty. The store owners try to create store convenience on the physical environment in terms of professional decoration, the cleanliness, fast check-out time, the furnishing and the temperature. These aspects will make the store a pleasant place for customers to visit.

Checkout time: The amount of time it takes one to pay for the items one has selected to purchase. Ease of checking out definitely is a contributing factor in customers' selection of where they are going to shop.

Ease of finding items: Convenience of locating the item one wishes to purchase. The supermarket owner arranges all kind of goods on the suitable shelves according to the customer's needs.

Arrangement: How a product is displayed, its presentation to the customer. Arrangement is part of service with which customers directly interacts.

Physical environment: The visibility and tangibility of the supermarket can normally be explained in terms of physical environment. Physical environment is part of service with which customers directly interacts.

Aisle width: "main streets" as the most traveled paths in the store—"secondary streets" As the perimeter paths and "pathways" as the aisles (Pegler 1996).

Entrance/exit: The main entrance into the store is designed on a larger scale and thus helps direct the customers from the parking lot—and then along a path which provides the most exposure to all the departments throughout the store (Pegler 1996).

Atmosphere: the sum total of the physical attributes of a retail store or group of stores that are used to develop an image and draw customers.

Price: the monetary value assigned by the seller to something purchased, sold or offered for sale and on a transaction by a buyer, to demonstrate their willingness to pay for the benefits the product and channel service delivers (Gilbert, 1999).

Quality: quality of food is evaluated according to the appearance (size, shape, and color), flavor and cleanliness of food.

General Price level: The interval between the high and low prices which a store has traded over a particular period of time. It is important to maintain competitive price levels, although the differential impact to the all consumers of an established and maintained middle price level as opposed to occasional sales.

Product quality: The characteristics of a product or service that bears on its ability to satisfy stated or implied needs. High quality of products is considered an essential determinant of the long-term profitability. Also product quality affects the repurchase intentions of both existing and potential customers.

Price reductions: Special sales, or promotional prices to attract the consumer to by a particular product. Pricing reduction is to ensure customer satisfaction in order to create a customer base and to achieve a substantial percentage of market share.

3.3 Hypotheses

Hypotheses is an assumption that is proved or disproved by the data collected by a researcher.

Hypothesis 1

H01 There is no difference in perceived importance of distance among different age groups.

Ha1 There is difference in perceived importance of distance among different age groups.

Hypothesis 2

H02 There is no difference in perceived importance of ease of access among different age groups.

Ha2 There is difference in perceived importance of ease of access among different age groups.

Hypothesis 3

H03 There is no difference in perceived importance of the fast check-out time among different age groups.

Ha3 There is difference in perceived importance of the fast check-out time among different age groups.

Hypothesis 4

H04 There is no difference in perceived importance of ease of finding items among different age groups.

Ha4 There is difference in perceived importance of ease of finding items among different age groups.

Hypothesis 5

H05 There is no difference in perceived importance of arrangement among different age groups.

Ha 5 There is difference in perceived importance of arrangement among different age groups.

Hypothesis 6

H06 There is no difference in perceived importance of aisle width among different age groups.

Ha6 There is difference in perceived importance of aisle width among different age groups.

Hypothesis 7

H07 There is no difference in perceived importance of entrance/exit among different age groups.

Ha7 There is difference in perceived importance of entrance/exit among different age groups.

Hypothesis 8

H08 There is no difference in perceived importance of atmosphere among different age groups.

Ha8 There is difference in perceived importance of atmosphere among different age groups.

Hypothesis 9

H09 There is no difference in perceived importance of general price level among different age groups.

Ha9 There is difference in perceived importance of general price level among different age groups.

Hypothesis 10

H010 There is no difference in perceived importance of product quality among different age groups.

Ha10 There is difference in perceived importance of product quality among different age groups.

Hypothesis 11

H011 There is no difference in perceived importance of price reductions among different age groups.

Ha11 There is difference in perceived importance of price reductions among different age groups.

Hypothesis 12

H012 There is no difference in perceived importance of distance among different income groups.

Ha12 There is difference in perceived importance of distance among different income groups.

Hypothesis 13

H013 There is no difference in perceived importance of ease of access among different income groups.

Ha13 There is difference in perceived importance of ease of access among different income groups.

Hypothesis 14

H014 There is no difference in perceived importance of the fast check-out time among different income groups.

Ha14 There is difference in perceived importance of the fast check-out time among different income groups.

Hypothesis 15

H015 There is no difference in perceived importance of ease of finding items among different income groups.

Ha15 There is difference in perceived importance of ease of finding items among different income groups.

Hypothesis 16

H016 There is no difference in perceived importance of arrangement among different income groups.

Ha16 There is difference in perceived importance of arrangement among different income groups.

Hypothesis 17

H017 There is no difference in perceived importance of aisle width among different income groups.

Ha17 There is difference in perceived importance of aisle width among different income groups.

Hypothesis 18

H018 There is no difference in perceived importance of entrance/exit among different income groups.

Ha18 There is difference in perceived importance of entrance/exit among different income groups.

Hypothesis 19

H019 There is no difference in perceived importance of atmosphere among different income groups.

Ha19 There is difference in perceived importance of atmosphere among different income groups.

Hypothesis 20

H020 There is no difference in perceived importance of general price level of supermarket among different income groups.

Ha20 There is difference in perceived importance of general price level of supermarket among different income groups.

Hypothesis 21

H021 There is no difference in perceived importance of product quality among different income groups.

Ha21 There is difference in perceived importance of product quality among different income groups.

Hypothesis 22

H022 There is no difference in perceived importance of price reductions among different income groups.

Ha22 There is difference in perceived importance of price reductions among different income groups.

3.4 Expected Outcome.

- The researcher expects that there will be a difference in perceived importance of distance among different **age** groups.
- The researcher expects that there will be a difference in perceived importance of ease of access among different **income** groups.
- The researcher expects that there will be a difference in perceived importance of the fast check-out time among different **age** groups.

- The researcher expects that there will be a difference in perceived importance of ease of finding items among different **age** groups.
- The researcher expects that there will be a difference in perceived importance of arrangement among different **age** groups.
- The researcher expects that there will be a difference in perceived importance of aisle width among different **income** groups.
- The researcher expects that there will be a difference in perceived importance of entrance/exit among different **income** groups.
- The researcher expects that there will be a difference in perceived importance of atmosphere among different **income** groups.
- The researcher expects that there will be no difference in perceived importance of general price level among different **income** groups
- The researcher expects that there is no difference in perceived importance of product quality among different **income** groups

- The researcher expects that there will be a difference in perceived importance of price reductions among different **income** groups.



Chapter IV

Research Methodology

In this part of the study, the researcher will determine the research methodology used in the study, in order to collect information which includes data source, data collection procedure, data measurement and statistics used.

4.1 Data Source

4.1.1 Research Technique

In order to clarify the hypotheses, the sample survey was used. Data were collected from individual consumers who have been shopping in the selected supermarkets in Bangkok.

The sample survey was limited only in Bangkok to the following locations: Tops-Ratchadapisek, Foodlion-Sukhumvit, Jusco-Ratchadapisek, Foodland-Ladprao, and Villa Market-Sukhumvit. Questionnaires were used in quantitative field research surveys. The main advantages of questionnaire are that it can be collected after they are completed within a short period of time. All questions also helped the researcher to code the information easily for subsequent analysis.

4.1.2 Research Instruments.

The researcher used “self-administrated questionnaires” which the respondents who have been customers of supermarkets in Bangkok, Thailand within the past 1 year could easily use for expressing their opinions.

4.1.3 Sampling Method

For this study, the sample design was a non-probability sampling. Non-probability sampling is a sampling technique in which units of the sample are selected on the basis of personal judgment or convenience. These are samples in which the population does not have any probabilities attached to their being chosen as sample subjects. Every element of the population does not need to closely adhere to precise selection procedures to avoid arbitrary or biased selection elements (Zikmund 1997).

Non-probability samples that are unrestricted are called convenience samples. They are least reliable design but normally the cheapest and easiest to conduct. Researchers have the freedom to choose whomever they find, thus the term "convenience". Examples include “man-on-the-street” intercept interviews (Cooper, 2001). Convenience sampling is appealing because it seems simple and meets all necessary requirements of non-probability samples. The primary reason for using this approach is that it is less time consuming, and is possible to accomplish with a limited budget.

4.1.4 Target Population

This consists of adult males and females who have been customers of supermarkets in Bangkok, Thailand within the past 1 year. The respondents were first asked if they have been shopping in supermarkets and how frequently they visited a supermarket each week. This question was asked in order to test those who were qualified as respondents.

4.1.5 Sampling Frame

Sampling frame is closely related to the population, it is the list of elements from which the sample is actually drawn (Cooper and Schindler, 2001). In this research, there is no sampling frame due to the unavailability of consumer list.

4.1.6 Sampling Unit

Sampling unit is a single element or group of elements subject to selection in the sample (Zikmund, 1997). In this research, the sampling units are the individual consumers who have been shopping in Tops-Ratchadapisek, Foodlion-Sukhumvit, Jusco-Ratchadapisek, Foodland-Ladprao, Villa Market-Sukhumvit. These supermarkets were selected based on their similarities in their product ranges, category and importance of location.

4.1.7 Population Element

Population element is an object that possesses the information sought by the researcher and about which inferences are to be made. In survey research, the element is usually the respondent (Zikmund, 1997). The population element in this study, were consumers who have been shopping in the selected supermarkets in Bangkok.

4.1.8 Sample Size

In marketing research studies, typical ranges of sample size are used as shown in Table 4.1. These numbers are based on experience and can serve as rough guidelines, particularly when non-probability sampling is used (Malhotra, 2000)

Table 4.1 sample sizes used in Marketing Research Studies.

Type of Study	Minimum Size	Typical Range
Problem Identification Research (e.g. Market Potential)	500	1,000-2,500
Problem Solving Research (e.g. pricing)	200	300-500
Product Tests	200	300-500
Test Marketing Studies	200	300-500

Source: Adapted from Marketing Research: An Applied Orientation, third edition, by

Naresh K. Malhotra copyright@2000 by Prentice Hall.

The researcher subjectively determined the sample size as 200 samples. This figure is also appropriate for the time and budget affordable for the study.

4.2 Data Collection

To accomplish the research objective, surveys were used in order to collect primary data for this study. Primary data were collected via structured (self-administrated questionnaires) at Tops-Ratchadapisek, Jusco-Ratchadapisek, Foodland-Ladprao, Villa Market-Sukhumvit. These supermarkets were selected based on their similarities in their product range, category and importance of location. The questionnaires were handed to all respondents with clear explanations as to the purpose of this research. The questionnaires were sent to 20 consumers for pretest in November 2003. In order to ensure that the respondents understand terminologies used in the questionnaire, the primary data collection process was collected during the different business timing in February 2004. The reliability was done after consolidating all the returned questionnaires. This approach is the most flexible method of data collection, easy to provide and interpret by computer.

Secondary data is any data originally generated for some purpose of the research objectives. A search for secondary data generally follows the statement of objectives; these data can be quickly and inexpensively obtained (Malhotra 2000). For secondary data, the collection is from several sources, such as, foreign and local journals, research reports, textbooks and websites.

4.3 Data Measurement

4.3.1 Operationalization of variable

Variable	Variable	Operational components	Level of measurement
Personal data	Age	20 below, 21-30,31-40, 41-50,51-60, 61above	Ordinal
	Income (in Baht)	5000 below, 5001-10,000, 10,001- 20,000, 20,001-30,000,30001-40,000, 40,001 above	Ordinal
Supermarket attributes	Location	Distance from home Ease of access	Interval
	supermarket convenience	Checkout time Ease of finding items Arrangement	Interval
	Physical environment	Aisle width Entrance/exit Atmosphere	Interval
	Price and quality	General price level Product quality Price reductions/sales	Interval

4.3.2 Questionnaire

Table 4.2 Questionnaire design

Parts	Main Variable	Sub-variable	Question No. in Questionnaire
I	Location factor	Distance from home	Part I No.1 (rating 4 selected attributes)
		Ease of access	Part I No.2 (rating 4 selected attributes)
	Supermarket convenience factor	Checkout time	Part I No.3 (rating 4 selected attributes)
		Ease of finding items	Part I No.4 (rating 4 selected attributes)
		Arrangement	Part I No.5 (rating 4 selected attributes)
	Physical environment factor	Aisle width	Part I No.6 (rating 4 selected attributes)
		Entrance/exit	Part I No.7 (rating 4 selected attributes)
		Atmosphere	Part I No.8 (rating 4 selected attributes)
	Price and quality factor	General price level	Part I No.9 (rating 4 selected attributes)
		Product quality	Part I No.10 (rating 4 selected attributes)
		Price reductions/sales	Part I No.11 (rating 4 selected attributes)
II	Personal data	Age	Part II, No.1 (with 6 choices)
		Income	Part II, No.2 (with 6 choices)

Respondents were asked to rate the perceived importance of supermarket attributes. Altogether there were 11 attributes (distance from home, ease of access, checkout time, ease of finding items, arrangement, aisle width, entrance/exit, atmosphere, general price level, product quality, price reductions/sales.) on a 4-point Likert scale ranging from 1 (least important) to 4 (most important).

Personal characters data were collected based on pretest measures, which focused on age and income. The measure for “age” is classified into 6 levels scale (20 below, 21-30,31-40,41-50,51-60, over 61 years of age) the measure for “ personal monthly income” is classified into 6 levels scale (5,000 Baht and under, 5,001-10,000, 10,001-20,000, 20,001-30,000, 30,001-40,000, over 40,001 Baht) / per month.

4.4 Data analysis

Several methods of statistical analysis were applied in this study through encoding and processing by SPSS statistical software for data evaluation and analysis. Descriptive statistics ANOVA with a 95% per cent confidence level was the method of statistical analysis applied in this study to test the hypotheses.

4.4.1 Statistics Used

Descriptive statistics were used to describe summarized information about a population of sample. We used percentage distribution, which was the organization of a frequency distribution into a table (or graph) that summarized percentage values associated with particular values of a variable.

In this study, we used descriptive statistics in order to summarize the characteristics of the respondents in terms of age and income.

ANOVA is an analysis of the effects of one treatment variable on an interval-scaled or ratio scaled dependent variable; a technique to determine of statistically significant differences of means occur between two or more groups (Zikmund,1997).

It was used to test the relative importance of the four principal attribute factors. Supplementary hypotheses were proposed, relating to the factor items and variables of age and income.

4.4.2 Pre-test

Zikmund (1997) mentioned that pretests are trial runs with a group of respondents for the purpose of detecting problem in the questionnaire instructions or design. Pre-testing of this research study was done with the data collecting tool in order to test the reliability of the questionnaire by distributing copies of the questionnaire to the randomly selected respondents who were customers of the supermarket.

The researcher conducted the pre-test by using a small sub-sample of 20 respondents shopping in 5 supermarkets located in Bangkok, for the purpose of detecting the problems in the questionnaire design or instructions and to see whether the data collection plan for the main study follows an appropriate procedure.

To assess the reliability of the questionnaire, calculation of Cronbach Alpha was utilized in this study. Reliability analysis allowed the researcher to study the properties of measurement scales and the items that make them up. When calculating the overall standardized alpha of supermarket attributes, the results showed a standardized alpha of 0.7401. According to Sekaran (1992) if a value of reliability estimate is 0.7 or more, it is

considered that the instrument is reliable. Therefore the questionnaire could be used as a valid instrument for this research study.



Chapter V

Data Analysis

This chapter deals with analysis of collected data. An analysis is the application of data that has been collected about the subject. Descriptive analysis and hypothesis testing using the One-Way analysis of variance (ANOVA) are two statistical techniques used in this study, as they are best fit for providing optimal results that can meet the research problems and objectives.

Two sorts of analytical tools have been applied to pave the foundation for the data analysis part:

1. Descriptive Analysis
2. Analysis of Variance (ANOVA)

5.1 Descriptive Analysis.

When data are collected, the obtained scores are arranged as a distribution (i.e., arranged in order of size) and viewing a list of scores is rather uninformative. As a result, descriptive statistics are statistical indices that summarize and communicate basic characteristics of a distribution which are used to verbally communicate features of a distribution (Grimm,1993). On the other hand, according to Cooper and Emory (1995), distribution is the most famous distribution in statistics that is a standard of comparison

for describing distribution of sample data. The characteristics of location, spread and shape describe distributions and their definitions, applications, and formulae fall under the heading of descriptive statistics. Similarly, Descriptive analysis refers to the transformation of the raw data into a form that will make them easy to understand and interpret (Zikmund 2000). The data in this section are presented in the form of frequency distribution and percentage distribution.

Table 5.1 Age Levels of Respondents

		AGE	
		Frequency	Percent
Valid	20 below	7	3.5
	21-30	23	11.5
	31-40	34	17.0
	41-50	66	33.0
	51-60	45	22.5
	61 above	25	12.5
	Total	200	100.0

Table 5.1 represents the age of the respondents, the **highest** percentage of the respondents is 41-50 years old, representing 33% followed by those between 51-60 years old as 22.5%. The age group between 31-40 years old is represented by 17% and the age group more than 61 years old is represented by 12.5%. The age group between 21-30 years old as 11.5% and the **lowest** percentage of the respondents is below 20 years old or 3.5%.

Table 5.2 Income Levels of Respondents.

		INCOME	
		Frequency	Percent
Valid	5000 below	7	3.5
	5001-10,000	20	10.0
	10,001-20,000	58	29.0
	20,001-30,000	69	34.5
	30,001-40,000	34	17.0
	40,001 above	12	6.0
	Total	200	100.0

Table 5.2 represents the income of the respondents; the **highest** percentage is 34.5%. There are respondents who receive a monthly income of 20,001-30,000 Baht whereas the next level of income of 10,001-20,000 Baht is represented by 29% and the following level of income of 30,001-40,000 Baht 5,001-10,000 Baht and 40,001 Baht above is represented by 17% 10% and 6%, respectively. Moreover, the **lowest** group of respondents who have an income per month of below 5000 Baht is represented by 3.5%.

5.2 Results of Hypothesis Testing

Hypothesis 1

H01 There is no difference in perceived importance of distance among different age groups.

Ha1 There is difference in perceived importance of distance among different age groups.

Table 5.3 Hypothesis Testing Result for H1

ANOVA					
DISTANCE					
	Sum of Squares	D f	Mean Square	F	Sig.
Between Groups	76.140	5	15.228	37.578	.000
Within Groups	78.615	194	.405		
Total	154.755	199			

As presented in table 5.3, the H1 hypothesis was tested by using One-Way Analysis of Variance (ANOVA) analysis to test the significant differences in perceived distance among different age groups. The result indicated that there is difference in perceived importance of distance among different age groups at the ANOVA significance of **0.000**, which is less than 0.05 ($0.000 < 0.05$). Therefore, the Ha1 is **accepted**, showing that there is difference in perceived importance of distance among different age groups at the 0.05 level of significance.

Multiple Comparisons

Dependent Variable: DISTANCE
LSD

(I) AGE	(J) AGE	Mean Difference (I-J)	Sig.
20 below	21-30	.65(*)	.019
	31-40	.21	.437
	41-50	.59(*)	.021
	51-60	-.71(*)	.007
	61 above	-.88(*)	.001
21-30	20 below	-.65(*)	.019
	31-40	-.45(*)	.010
	41-50	-.06	.691
	51-60	-1.36(*)	.000
	61 above	-1.53(*)	.000
31-40	20 below	-.21	.437
	21-30	.45(*)	.010
	41-50	.39(*)	.005
	51-60	-.92(*)	.000
	61 above	-1.09(*)	.000
41-50	20 below	-.59(*)	.021
	21-30	.06	.691
	31-40	-.39(*)	.005
	51-60	-1.30(*)	.000
	61 above	-1.47(*)	.000
51-60	20 below	.71(*)	.007
	21-30	1.36(*)	.000
	31-40	.92(*)	.000
	41-50	1.30(*)	.000
	61 above	-.17	.289
61 above	20 below	.88(*)	.001
	21-30	1.53(*)	.000
	31-40	1.09(*)	.000
	41-50	1.47(*)	.000
	51-60	.17	.289

* The mean difference is significant at the .05 level.

From this table, we can see that the age group of 61 and above places the highest perceived importance on distance because the age group of 61 and above has a mean difference which is all positive compared with other groups.

Hypothesis 2

H02 There is no difference in perceived importance of ease of access among different age groups.

Ha2 There is difference in perceived importance of ease of access among different age groups.

Table 5.4 Hypothesis Testing Result for H2

ANOVA					
ACCESS					
	Sum of Squares	D f	Mean Square	F	Sig.
Between Groups	18.177	5	3.635	11.156	.000
Within Groups	63.218	194	.326		
Total	81.395	199			

As presented in table 5.4, the H2 hypothesis was tested by using One-Way Analysis of Variance (ANOVA) to test the significant differences in perceived importance of ease of access among different age groups. The result indicated that there is difference in perceived importance of ease of access to the supermarket among different age groups at the ANOVA significance of **0.000**, which is less than 0.05 ($0.000 < 0.05$). Therefore, the Ha2 is **accepted**, showing that there is difference in perceived importance of ease of access to supermarket among different age groups at the 0.05 level of significance.

Multiple Comparisons

Dependent Variable: ACCESS
LSD

(I) AGE	(J) AGE	Mean Difference (I-J)	Sig.
20 below	21-30	-.01	.960
	31-40	-.11	.633
	41-50	-.22	.337
	51-60	-.54(*)	.020
	61 above	-.98(*)	.000
21-30	20 below	.01	.960
	31-40	-.10	.513
	41-50	-.21	.137
	51-60	-.53(*)	.000
	61 above	-.97(*)	.000
31-40	20 below	.11	.633
	21-30	.10	.513
	41-50	-.11	.384
	51-60	-.43(*)	.001
	61 above	-.87(*)	.000
41-50	20 below	.22	.337
	21-30	.21	.137
	31-40	.11	.384
	51-60	-.32(*)	.004
	61 above	-.76(*)	.000
51-60	20 below	.54(*)	.020
	21-30	.53(*)	.000
	31-40	.43(*)	.001
	41-50	.32(*)	.004
	61 above	-.44(*)	.002
61 above	20 below	.98(*)	.000
	21-30	.97(*)	.000
	31-40	.87(*)	.000
	41-50	.76(*)	.000
	51-60	.44(*)	.002

* The mean difference is significant at the .05 level.

From this table, we can know the age group of 61 and above places the highest importance on the perceived important of ease of access to supermarket because the age group of 61 above, shows mean differences which are all positive compared with other groups.

Hypothesis 3

H03 There is no difference in perceived importance of the fast check-out time among different age groups.

Ha3 There is difference in perceived importance of store attributes of the fast check-out time among different age groups.

Table 5.5 Hypothesis Testing Result for H3

ANOVA					
CHECKOUT					
	Sum of Squares	D f	Mean Square	F	Sig.
Between Groups	.228	5	.046	.310	.906
Within Groups	28.492	194	.147		
Total	28.720	199			

Based on table 5.5, the null hypothesis was tested by using One-Way Analysis of Variance (ANOVA) analysis to test the significance difference in perceived importance of the fast check-out time among different age groups. The result indicated that there is no difference in perceived importance of the fast check-out service among different age groups at the ANOVA significance of **0.906**, which is less than 0.05 ($0.906 > 0.05$). Therefore, the H03 is failed to **reject**, showing that there is no difference in perceived importance of the fast check-out service among different age groups at the 0.05 level of significance.

Hypothesis 4

H04 There is no difference in perceived importance of ease of finding items among different age groups.

Ha4 There is difference in perceived importance of ease of finding items among different age groups.

Table 5.6 Hypothesis Testing Result for H4

ANOVA					
FINDING	Sum of Squares	D f	Mean Square	F	Sig.
Between Groups	39.716	5	7.943	12.662	.000
Within Groups	121.704	194	.627		
Total	161.420	199			

As presented in table 5.6, the H4 hypothesis was tested by using One-Way Analysis of Variance (ANOVA) analysis to test the significant difference in perceived importance of ease of finding items among different age groups. The result indicated that there is difference in perceived importance of ease of finding items among different age groups at the ANOVA significance of **0.000**, which is less than 0.05 ($0.000 < 0.05$). Therefore, the Ha4 is **accepted**, showing that there is difference in perceived importance of store attributes of ease of finding items among different age groups at the 0.05 level of significance.

Multiple Comparisons

Dependent Variable: FINDING
LSD

(I) AGE	(J) AGE	Mean Difference (I-J)	Sig.
20 below	21-30	-.23	.502
	31-40	-.44	.185
	41-50	-.87(*)	.006
	51-60	-1.39(*)	.000
	61 above	-1.38(*)	.000
21-30	20 below	.23	.502
	31-40	-.21	.334
	41-50	-.64(*)	.001
	51-60	-1.16(*)	.000
	61 above	-1.15(*)	.000
31-40	20 below	.44	.185
	21-30	.21	.334
	41-50	-.43(*)	.010
	51-60	-.95(*)	.000
	61 above	-.95(*)	.000
41-50	20 below	.87(*)	.006
	21-30	.64(*)	.001
	31-40	.43(*)	.010
	51-60	-.52(*)	.001
	61 above	-.51(*)	.006
51-60	20 below	1.39(*)	.000
	21-30	1.16(*)	.000
	31-40	.95(*)	.000
	41-50	.52(*)	.001
	61 above	.00	.982
61 above	20 below	1.38(*)	.000
	21-30	1.15(*)	.000
	31-40	.95(*)	.000
	41-50	.51(*)	.006
	51-60	.00	.982

* The mean difference is significant at the .05 level.

From this table, we can know the age group of 61 and above once again places the highest importance on the perceived importance of ease of finding items because the age group of 61 above, show mean differences which are all positive compared with other groups.

Hypothesis 5

H05 There is no difference in perceived importance of arrangement among different age groups.

Ha5 There is difference in perceived importance of arrangement among different age groups.

Table 5.7 Hypothesis Testing Result for H5

ANOVA					
ARRANGE					
	Sum of Squares	D f	Mean Square	F	Sig.
Between Groups	.440	5	.088	.418	.836
Within Groups	40.840	194	.211		
Total	41.280	199			

Based on table 5.7, the null hypothesis was tested by using One-Way Analysis of Variance (ANOVA) analysis to test the significant difference in perceived importance of arrangement among different age groups. The result indicated that there is no difference in perceived importance of arrangement among different age groups at the ANOVA significance of **0.836**, which is less than 0.05 ($0.836 > 0.05$). Therefore, the H05 is failed to **reject**, showing that there is no difference in perceived importance of arrangement among different age groups at the 0.05 level of significance.

Hypothesis 6

- H06 There is no difference in perceived importance of store attributes of aisle width among different age groups.
- Ha6 There is difference in perceived importance of store attributes of aisle width among different age groups.

Table 5.8 Hypothesis Testing Result for H6

ANOVA					
AISLE					
	Sum of Squares	D f	Mean Square	F	Sig.
Between Groups	1.590	5	.318	.846	.518
Within Groups	72.890	194	.376		
Total	74.480	199			

Based on table 5.8, the null hypothesis was tested by using One-Way Analysis of Variance (ANOVA) analysis to test the significant difference in perceived importance of aisle width among different age groups. The result indicated that there is no difference in perceived importance of aisle width among different age groups at the ANOVA significance of **0.518**, which is less than 0.05 ($0.518 > 0.05$). Therefore, the H06 is failed to **reject**, showing that there is no difference in perceived importance of aisle width among different age groups at the 0.05 level of significance.

Hypothesis 7

H07 There is no difference in perceived importance of entrance/exit among different age groups.

Ha7 There is difference in perceived importance of entrance/exit among different age groups.

Table 5.9 Hypothesis Testing Result for H7

ANOVA					
ENTRANCE					
	Sum of Squares	D f	Mean Square	F	Sig.
Between Groups	10.557	5	2.111	2.757	.020
Within Groups	148.563	194	.766		
Total	159.120	199			

As presented in table 5.9, the H7 hypothesis was tested by using One-Way Analysis of Variance (ANOVA) analysis to test the significant difference in perceived importance of entrance/exit among different age groups. The result indicated that there is difference in perceived importance of entrance/exit among different age groups at the ANOVA significance of **0.020**, which is less than 0.05 ($0.020 < 0.05$). Therefore, the Ha7 is **accepted**, showing that there is difference in perceived importance of entrance/exit among different age groups at the 0.05 level of significance.

Multiple Comparisons

Dependent Variable: ENTRANCE
LSD

(I) AGE	(J) AGE	Mean Difference (I-J)	Sig.
20 below	21-30	.30	.431
	31-40	-.31	.399
	41-50	-.42	.229
	51-60	-.15	.675
	61 above	-.01	.976
21-30	20 below	-.30	.431
	31-40	-.60(*)	.011
	41-50	-.72(*)	.001
	51-60	-.45(*)	.048
	61 above	-.31	.222
31-40	20 below	.31	.399
	21-30	.60(*)	.011
	41-50	-.11	.541
	51-60	.16	.429
	61 above	.30	.202
41-50	20 below	.42	.229
	21-30	.72(*)	.001
	31-40	.11	.541
	51-60	.27	.111
	61 above	.41(*)	.048
51-60	20 below	.15	.675
	21-30	.45(*)	.048
	31-40	-.16	.429
	41-50	-.27	.111
	61 above	.14	.529
61 above	20 below	.01	.976
	21-30	.31	.222
	31-40	-.30	.202
	41-50	-.41(*)	.048
	51-60	-.14	.529

* The mean difference is significant at the .05 level.

From this table, we know the age group of 41-50 places the highest importance on the perceived entrance/exits because the age group of 41-50 shows mean differences which are all positive compared with other groups.

Hypothesis 8

H08 There is no difference in perceived importance of atmosphere among different age groups.

Ha8 There is difference in perceived importance of atmosphere among different age groups.

Table 5.10 Hypothesis Testing Result for H8

ANOVA					
ATMOSPHE					
	Sum of Squares	D f	Mean Square	F	Sig.
Between Groups	1.275	5	.255	.653	.659
Within Groups	75.328	193	.390		
Total	76.603	198			

Based on table 5.10, the null hypothesis was tested by using One-Way Analysis of Variance (ANOVA) analysis to test the significant difference in perceived importance of atmosphere among different age groups. The result indicated that there is no difference in perceived importance of atmosphere among different age groups at the ANOVA significance of **0.659**, which is less than 0.05 ($0.659 > 0.05$). Therefore, the H08 is failed to **reject**, showing that there is no difference in perceived importance of atmosphere among different age groups at the 0.05 level of significance.

Hypothesis 9

H09 There is no difference in perceived importance of general price level among different age groups.

Ha9 There is difference in perceived importance of general price level among different age groups.

Table 5.11 Hypothesis Testing Result for H9

ANOVA					
PRICE					
	Sum of Squares	D f	Mean Square	F	Sig.
Between Groups	30.924	5	6.185	7.370	.000
Within Groups	161.117	192	.839		
Total	192.040	197			

As presented in table 5.11, the H9 hypothesis was tested by using One-Way Analysis of Variance (ANOVA) analysis to test the significant difference in perceived importance of general price level among different age groups. The result indicated that there is difference in perceived importance of general price level among different age groups at the ANOVA significance of **0.000**, which is less than 0.05 ($0.000 < 0.05$). Therefore, the Ha9 is **accepted**, showing that there is difference in perceived importance of general price level among different age groups at the 0.05 level of significance.

Multiple Comparisons

Dependent Variable: PRICE
LSD

(I) AGE	(J) AGE	Mean Difference (I-J)	Sig.
20 below	21-30	.68	.086
	31-40	1.03(*)	.007
	41-50	1.42(*)	.000
	51-60	1.46(*)	.000
	61 above	1.81(*)	.000
21-30	20 below	-.68	.086
	31-40	-.35	.158
	41-50	.73(*)	.001
	51-60	.77(*)	.001
	61 above	1.13(*)	.000
31-40	20 below	-1.03(*)	.007
	21-30	-.35	.158
	41-50	.38(*)	.048
	51-60	.42(*)	.043
	61 above	.78(*)	.002
41-50	20 below	-1.42(*)	.000
	21-30	-.73(*)	.001
	31-40	-.38(*)	.048
	51-60	.04	.824
	61 above	.40	.076
51-60	20 below	-1.46(*)	.000
	21-30	-.77(*)	.001
	31-40	-.42(*)	.043
	41-50	-.04	.824
	61 above	.36	.131
61 above	20 below	-1.81(*)	.000
	21-30	-1.13(*)	.000
	31-40	-.78(*)	.002
	41-50	-.40	.076
	51-60	-.36	.131

* The mean difference is significant at the .05 level.

From this table, we can see that the age group of 20 below places the highest importance on the perceived importance of store attributes of general price level because the age group of 20 below, show mean differences which are all positive compared with other groups.

Hypothesis 10

H010 There is no difference in perceived importance of product quality among different age groups.

Ha10 There is difference in perceived importance of product quality among different age groups.

Table 5.12 Hypothesis Testing Result for H10

ANOVA					
QUALITY					
	Sum of Squares	D f	Mean Square	F	Sig.
Between Groups	.472	5	.094	.958	.445
Within Groups	19.108	194	.098		
Total	19.580	199			

Based on table 5.12, the null hypothesis was tested by using One-Way Analysis of Variance (ANOVA) analysis to test the significant difference in perceived importance of product quality among different age groups. The result indicated that there is no difference in perceived importance of product quality among different age groups at the ANOVA significance of **0.445**, which is less than 0.05 ($0.445 > 0.05$). Therefore, the H010 is failed to **reject**, showing that there is no difference in perceived importance of product quality among different age groups at the 0.05 level of significance.

Hypothesis 11

H011 There is no difference in perceived importance of price reductions among different age groups.

Ha11 There is difference in perceived importance of price reductions among different age groups.

Table 5.13 Hypothesis Testing Result for H11

ANOVA					
SALES					
	Sum of Squares	D f	Mean Square	F	Sig.
Between Groups	19.088	5	3.818	4.999	.000
Within Groups	147.394	193	.764		
Total	166.482	198			

As presented in table 5.13, the H11 hypothesis was tested by using One-Way Analysis of Variance (ANOVA) analysis to test the significant difference in perceived importance of price reductions among different age groups. The result indicated that there is difference in perceived importance of price reductions among different age groups at the ANOVA significance of **0.000**, which is less than 0.05 ($0.000 < 0.05$). Therefore, the Ha11 is **accepted**, showing that there is difference in perceived importance of price reductions among different age groups at the 0.05 level of significance.

Multiple Comparisons

Dependent Variable: SALES
LSD

(I) AGE	(J) AGE	Mean Difference (I-J)	Sig.
20 below	21-30	-.16	.669
	31-40	.41	.263
	41-50	.57	.101
	51-60	.70	.051
	61 above	.94(*)	.012
21-30	20 below	.16	.669
	31-40	.57(*)	.017
	41-50	.74(*)	.001
	51-60	.86(*)	.000
	61 above	1.10(*)	.000
31-40	20 below	-.41	.263
	21-30	-.57(*)	.017
	41-50	.17	.370
	51-60	.29	.145
	61 above	.54(*)	.021
41-50	20 below	-.57	.101
	21-30	-.74(*)	.001
	31-40	-.17	.370
	51-60	.12	.462
	61 above	.37	.074
51-60	20 below	-.70	.051
	21-30	-.86(*)	.000
	31-40	-.29	.145
	41-50	-.12	.462
	61 above	.24	.264
61 above	20 below	-.94(*)	.012
	21-30	-1.10(*)	.000
	31-40	-.54(*)	.021
	41-50	-.37	.074
	51-60	-.24	.264

* The mean difference is significant at the .05 level.

From this table, we can know the age group of 21-30 places the highest importance on the perceived important of store attributes of price reductions because the age group of 21-30, show mean differences which are all positive compared with other groups.

Hypothesis 12

H012 There is no difference in perceived importance of distance among different income groups.

Ha12 There is difference in perceived importance of distance among different income groups.

Table 5.14 Hypothesis Testing Result for H12

ANOVA					
DISTANCE					
	Sum of Squares	D f	Mean Square	F	Sig.
Between Groups	8.185	5	1.637	2.167	.059
Within Groups	146.570	194	.756		
Total	154.755	199			

Based on table 5.14, the null hypothesis was tested by using One-Way Analysis of Variance (ANOVA) analysis to test the significant difference in perceived importance of distance among different income groups. The result indicated that there is no difference in perceived importance of distance among different income groups at the ANOVA significance of **0.059**, which is less than 0.05 ($0.059 > 0.05$). Therefore, the H012 is failed to **reject**, showing that there is no difference in perceived importance of distance among different income groups at the 0.05 level of significance.

Hypothesis 13

H013 There is no difference in perceived importance of ease of access among different income groups.

Ha13 There is difference in perceived importance of ease of access among different income groups.

Table 5.15 Hypothesis Testing Result for H13

ANOVA					
ACCESS					
	Sum of Squares	D f	Mean Square	F	Sig.
Between Groups	7.658	5	1.532	4.030	.002
Within Groups	73.737	194	.380		
Total	81.395	199			

As presented in table 5.15, the H13 hypothesis was tested by using One-Way Analysis of Variance (ANOVA) analysis to test the significant difference in perceived importance of ease of access to supermarket among different income groups. The result indicated that there is difference in perceived importance of ease of access to supermarkets among different income groups at the ANOVA significance of **0.002**, which is less than 0.05 ($0.002 < 0.05$). Therefore, the Ha13 is **accepted**, showing that there is difference in perceived importance of ease of access to supermarket among different income groups at the 0.05 level of significance.

Multiple Comparisons

Dependent Variable: ACCESS
LSD

(I) INCOME	(J) INCOME	Mean Difference (I-J)	Sig.
5000 below	5001-10,000	-.04	.874
	10,001-20,000	-.18	.473
	20,001-30,000	-.43	.078
	30,001-40,000	-.53(*)	.041
	40,001 above	-.73(*)	.014
5001-10,000	5000 below	.04	.874
	10,001-20,000	-.13	.401
	20,001-30,000	-.39(*)	.014
	30,001-40,000	-.48(*)	.006
	40,001 above	-.68(*)	.003
10,001-20,000	5000 below	.18	.473
	5001-10,000	.13	.401
	20,001-30,000	-.26(*)	.021
	30,001-40,000	-.35(*)	.010
	40,001 above	-.55(*)	.006
20,001-30,000	5000 below	.43	.078
	5001-10,000	.39(*)	.014
	10,001-20,000	.26(*)	.021
	30,001-40,000	-.09	.475
	40,001 above	-.29	.130
30,001-40,000	5000 below	.53(*)	.041
	5001-10,000	.48(*)	.006
	10,001-20,000	.35(*)	.010
	20,001-30,000	.09	.475
	40,001 above	-.20	.333
40,001 above	5000 below	.73(*)	.014
	5001-10,000	.68(*)	.003
	10,001-20,000	.55(*)	.006
	20,001-30,000	.29	.130
	30,001-40,000	.20	.333

* The mean difference is significant at the .05 level.

From this table, we can know the age group of 61 above places the most importance on the perceived important of store attributes of ease of access to supermarket because the age group of 61 above, show mean differences which are all positive compared with other groups.

Hypothesis 14

H014 There is no difference in perceived importance of the fast check-out time among different income groups.

Ha14 There is difference in perceived importance of the fast check-out time among different income groups.

Table 5.16 Hypothesis Testing Result for H14

ANOVA					
CHECKOUT					
	Sum of Squares	D f	Mean Square	F	Sig.
Between Groups	.532	5	.106	.733	.600
Within Groups	28.188	194	.145		
Total	28.720	199			

Based on table 5.16, the null hypothesis was tested by using One-Way Analysis of Variance (ANOVA) analysis to test the significant difference in perceived importance of the fast check-out time among different income groups. The result indicated that there is no difference in perceived importance of the fast check-out time among different income groups at the ANOVA significance of **0.600**, which is less than 0.05 ($0.600 > 0.05$). Therefore, the H014 is failed to **reject**, showing that there is no difference in perceived importance of the fast check-out time among different income groups at the 0.05 level of significance.

Hypothesis 15

H015 There is no difference in perceived importance of ease of finding items among different income groups.

Ha15 There is difference in perceived importance of ease of finding items among different income groups.

Table 5.17 Hypothesis Testing Result for H15

ANOVA					
FINDING	Sum of Squares	D f	Mean Square	F	Sig.
Between Groups	16.193	5	3.239	4.326	.001
Within Groups	145.227	194	.749		
Total	161.420	199			

As presented in table 5.17, the H15 hypothesis was tested by using One-Way Analysis of Variance (ANOVA) analysis to test the significant difference in perceived importance of ease of finding items among different income groups. The result indicated that there is difference in perceived importance of ease of finding items among different income groups at the ANOVA significance of **0.001**, which is less than 0.05 ($0.001 < 0.05$). Therefore, the Ha15 is **accepted**, showing that there is difference in perceived importance of ease of finding items among different income groups at the 0.05 level of significance.

Multiple Comparisons

Dependent Variable: FINDING
LSD

(I) INCOME	(J) INCOME	Mean Difference (I-J)	Sig.
5000 below	5001-10,000	.19	.626
	10,001-20,000	-.40	.245
	20,001-30,000	-.57	.099
	30,001-40,000	-.48	.184
	40,001 above	-1.13(*)	.007
5001-10,000	5000 below	-.19	.626
	10,001-20,000	-.59(*)	.009
	20,001-30,000	-.76(*)	.001
	30,001-40,000	-.66(*)	.007
	40,001 above	-1.32(*)	.000
10,001-20,000	5000 below	.40	.245
	5001-10,000	.59(*)	.009
	20,001-30,000	-.17	.284
	30,001-40,000	-.08	.688
	40,001 above	-.73(*)	.009
20,001-30,000	5000 below	.57	.099
	5001-10,000	.76(*)	.001
	10,001-20,000	.17	.284
	30,001-40,000	.09	.619
	40,001 above	-.56(*)	.039
30,001-40,000	5000 below	.48	.184
	5001-10,000	.66(*)	.007
	10,001-20,000	.08	.688
	20,001-30,000	-.09	.619
	40,001 above	-.65(*)	.026
40,001 above	5000 below	1.13(*)	.007
	5001-10,000	1.32(*)	.000
	10,001-20,000	.73(*)	.009
	20,001-30,000	.56(*)	.039
	30,001-40,000	.65(*)	.026

* The mean difference is significant at the .05 level.

From this table, we can know the income group of 40,001 Baht above, places the most importance on store attributes of ease of finding items because the income group of 40,001 Baht above, show mean differences which are all positive compared with other groups.

Hypothesis 16

H016 There is no difference in perceived importance of arrangement among different income groups.

Ha16 There is difference in perceived importance of arrangement among different income groups.

Table 5.18 Hypothesis Testing Result for H16

ANOVA					
ARRANGE					
	Sum of Squares	D f	Mean Square	F	Sig.
Between Groups	.631	5	.126	.602	.699
Within Groups	40.649	194	.210		
Total	41.280	199			

Based on table 5.18, the null hypothesis was tested by using One-Way Analysis of Variance (ANOVA) analysis to test the significant difference in perceived importance of arrangement among different income groups. The result indicated that there is no difference in perceived importance of arrangement among different income groups at the ANOVA significance of **0.699**, which is less than 0.05 ($0.699 > 0.05$). Therefore, the H016 is failed to **reject**, showing that there is no difference in perceived importance of arrangement among different income groups at the 0.05 level of significance.

Hypothesis 17

H017 There is no difference in perceived importance of aisle width among different income groups.

Ha17 There is difference in perceived importance of aisle width among different income groups.

Table 5.19 Hypothesis Testing Result for H17

ANOVA					
AISLE	Sum of Squares	D f	Mean Square	F	Sig.
Between Groups	.456	5	.091	.239	.945
Within Groups	74.024	194	.382		
Total	74.480	199			

Based on table 5.19, the null hypothesis was tested by using One-Way Analysis of Variance (ANOVA) analysis to test the significant difference in perceived importance of aisle width among different income groups. The result indicated that there is no difference in perceived importance of aisle width among different income groups at the ANOVA significance of **0.945**, which is less than 0.05 ($0.945 > 0.05$). Therefore, the H017 is failed to **reject**, showing that there is no difference in perceived importance of aisle width among different income groups at the 0.05 level of significance.

Hypothesis 18

H018 There is no difference in perceived importance of entrance/exit among different income groups.

Ha18 There is difference in perceived importance of entrance/exit among different income groups.

Table 5.20 Hypothesis Testing Result for H18

ANOVA					
ENTRANCE					
	Sum of Squares	D f	Mean Square	F	Sig.
Between Groups	64.097	5	12.819	26.172	.000
Within Groups	95.023	194	.490		
Total	159.120	199			

As presented in table 5.20, the H18 hypothesis was tested by using One-Way Analysis of Variance (ANOVA) analysis to test the significant difference in perceived importance of entrance/exit among different income groups. The result indicated that there is difference in perceived importance of entrance/exit among different income groups at the ANOVA significance of **0.000**, which is less than 0.05 ($0.000 < 0.05$). Therefore, the Ha18 is **accepted**, showing that there is difference in perceived importance of entrance/exit among different income groups at the 0.05 level of significance.

Multiple Comparisons

Dependent Variable: ENTRANCE

LSD

(I) INCOME	(J) INCOME	Mean Difference (I-J)	Sig.
5000 below	5001-10,000	.09	.763
	10,001-20,000	-.13	.635
	20,001-30,000	-.32	.249
	30,001-40,000	-1.33(*)	.000
	40,001 above	-1.86(*)	.000
5001-10,000	5000 below	-.09	.763
	10,001-20,000	-.23	.215
	20,001-30,000	-.41(*)	.021
	30,001-40,000	-1.42(*)	.000
	40,001 above	-1.95(*)	.000
10,001-20,000	5000 below	.13	.635
	5001-10,000	.23	.215
	20,001-30,000	-.19	.133
	30,001-40,000	-1.19(*)	.000
	40,001 above	-1.72(*)	.000
20,001-30,000	5000 below	.32	.249
	5001-10,000	.41(*)	.021
	10,001-20,000	.19	.133
	30,001-40,000	-1.01(*)	.000
	40,001 above	-1.54(*)	.000
30,001-40,000	5000 below	1.33(*)	.000
	5001-10,000	1.42(*)	.000
	10,001-20,000	1.19(*)	.000
	20,001-30,000	1.01(*)	.000
	40,001 above	-.53(*)	.025
40,001 above	5000 below	1.86(*)	.000
	5001-10,000	1.95(*)	.000
	10,001-20,000	1.72(*)	.000
	20,001-30,000	1.54(*)	.000
	30,001-40,000	.53(*)	.025

* The mean difference is significant at the .05 level.

From this table, we can know the income group of 40,001 Baht above, places the highest importance on the perceived store attributes of entrance/exit because the income group of 40,001 Baht above, show mean differences which are all positive compared with other groups.

Hypothesis 19

H019 There is no difference in perceived importance of atmosphere among different income groups.

Ha19 There is difference in perceived importance of atmosphere among different income groups.

Table 5.21 Hypothesis Testing Result for H19

ANOVA					
ATMOSPHE					
	Sum of Squares	D f	Mean Square	F	Sig.
Between Groups	.502	5	.100	.255	.937
Within Groups	76.101	193	.394		
Total	76.603	198			

Based on table 5.21, the null hypothesis was tested by using One-Way Analysis of Variance (ANOVA) to test the significant difference in perceived importance of atmosphere among different income groups. The result indicated that there is no difference in perceived importance of atmosphere among different income groups at the ANOVA significance of **0.937**, which is less than 0.05 ($0.937 > 0.05$). Therefore, the H019 is failed to **reject**, showing that there is no difference in perceived importance of atmosphere among different income groups at the 0.05 level of significance.

Hypothesis 20

H020 There is no difference in perceived importance of general price level of supermarket among different income groups.

Ha20 There is difference in perceived importance of general price level of supermarket among different income groups.

Table 5.22 Hypothesis Testing Result for H20

ANOVA					
PRICE					
	Sum of Squares	D f	Mean Square	F	Sig.
Between Groups	65.258	5	13.052	19.765	.000
Within Groups	126.783	192	.660		
Total	192.040	197			

As presented in table 5.22, the H20 hypothesis was tested by using One-Way Analysis of Variance (ANOVA) analysis to test the significant difference in perceived importance of general price level of supermarkets among different income groups. The result indicated that there is difference in perceived importance of general price level of supermarkets among different income groups at the ANOVA significance of **0.000**, which is less than 0.05 ($0.000 < 0.05$). Therefore, the Ha20 is **accepted**, showing that there is difference in perceived importance of general price level of supermarkets among different income groups at the 0.05 level of significance.

Multiple Comparisons

Dependent Variable: PRICE
LSD

(I) INCOME	(J) INCOME	Mean Difference (I-J)	Sig.
5000 below	5001-10,000	-.14	.689
	10,001-20,000	1.24(*)	.000
	20,001-30,000	1.59(*)	.000
	30,001-40,000	1.71(*)	.000
	40,001 above	1.44(*)	.000
5001-10,000	5000 below	.14	.689
	10,001-20,000	1.39(*)	.000
	20,001-30,000	1.74(*)	.000
	30,001-40,000	1.85(*)	.000
	40,001 above	1.58(*)	.000
10,001-20,000	5000 below	-1.24(*)	.000
	5001-10,000	-1.39(*)	.000
	20,001-30,000	.35(*)	.018
	30,001-40,000	.47(*)	.009
	40,001 above	.20	.445
20,001-30,000	5000 below	-1.59(*)	.000
	5001-10,000	-1.74(*)	.000
	10,001-20,000	-.35(*)	.018
	30,001-40,000	.12	.491
	40,001 above	-.15	.551
30,001-40,000	5000 below	-1.71(*)	.000
	5001-10,000	-1.85(*)	.000
	10,001-20,000	-.47(*)	.009
	20,001-30,000	-.12	.491
	40,001 above	-.27	.324
40,001 above	5000 below	-1.44(*)	.000
	5001-10,000	-1.58(*)	.000
	10,001-20,000	-.20	.445
	20,001-30,000	.15	.551
	30,001-40,000	.27	.324

* The mean difference is significant at the .05 level.

From this table, we can know the income group of 5001-10,000 Baht places the highest importance on the perceived store attributes of general price level of supermarket because the income group of 5001-10,000 Baht, show mean differences which are all positive compared with other groups.

Hypothesis 21

H021 There is no difference in perceived importance of product quality among different income groups.

Ha21 There is difference in perceived importance of product quality among different income groups.

Table 5.23 Hypothesis Testing Result for H21

ANOVA					
QUALITY	Sum of Squares	D f	Mean Square	F	Sig.
Between Groups	.265	5	.053	.532	.752
Within Groups	19.315	194	.100		
Total	19.580	199			

Based on table 5.23, the null hypothesis was tested by using One-Way Analysis of Variance (ANOVA) analysis to test the significant difference in perceived importance of product quality among different income groups. The result indicated that there is no difference in perceived importance of product quality among different income groups at the ANOVA significance of **0.752**, which is less than 0.05 ($0.752 > 0.05$). Therefore, the H021 is failed to **reject**, showing that there is no difference in perceived importance of product quality among different income groups at the 0.05 level of significance.

Hypothesis 22

H022 There is no difference in perceived importance of price reductions among different income groups.

Ha22 There is difference in perceived importance of price reductions among different income groups.

Table 5.24 Hypothesis Testing Result for H22

ANOVA					
SALES					
	Sum of Squares	D f	Mean Square	F	Sig.
Between Groups	18.081	5	3.616	4.703	.000
Within Groups	148.401	193	.769		
Total	166.482	198			

As presented in table 5.24, the H22 hypothesis was tested by using One-Way Analysis of Variance (ANOVA) analysis to test the significant difference in perceived importance of price reductions among different income groups. The result indicated that there is difference in perceived importance of price reductions among different income groups at the ANOVA significance of **0.000**, which is less than 0.05 ($0.000 < 0.05$). Therefore, the Ha22 is **accepted**, showing that there is difference in perceived importance of price reductions among different income groups at the 0.05 level of significance.

Multiple Comparisons

Dependent Variable: SALES
LSD

(I) INCOME	(J) INCOME	Mean Difference (I-J)	Sig.
5000 below	5001-10,000	.61	.112
	10,001-20,000	1.13(*)	.002
	20,001-30,000	1.19(*)	.001
	30,001-40,000	1.41(*)	.000
	40,001 above	.80	.057
5001-10,000	5000 below	-.61	.112
	10,001-20,000	.51(*)	.025
	20,001-30,000	.58(*)	.010
	30,001-40,000	.80(*)	.002
	40,001 above	.18	.568
10,001-20,000	5000 below	-1.13(*)	.002
	5001-10,000	-.51(*)	.025
	20,001-30,000	.06	.680
	30,001-40,000	.28	.140
	40,001 above	-.33	.236
20,001-30,000	5000 below	-1.19(*)	.001
	5001-10,000	-.58(*)	.010
	10,001-20,000	-.06	.680
	30,001-40,000	.22	.240
	40,001 above	-.39	.151
30,001-40,000	5000 below	-1.41(*)	.000
	5001-10,000	-.80(*)	.002
	10,001-20,000	-.28	.140
	20,001-30,000	-.22	.240
	40,001 above	-.61(*)	.039
40,001 above	5000 below	-.80	.057
	5001-10,000	-.18	.568
	10,001-20,000	.33	.236
	20,001-30,000	.39	.151
	30,001-40,000	.61(*)	.039

* The mean difference is significant at the .05 level.

From this table, we can know the income group of 5000 Baht below, places the highest importance on the perceived price reductions because the income group of 5000 Baht below, show mean differences which are all positive compared with other groups.

5.3 Critical Discussion of the Finding.

As supermarket competition grows, building and maintaining of long-term customers perception about stores are major concerns of many supermarkets. Supermarket attributes is an important point to keep high customer loyalty. The more supermarket retailers develop, the tighter the bond between the customers and the supermarket. This result can lead to promote loyalty and enhanced profits. That's the reason why this study focused on the relationship between supermarket attributes and customer's age and income.

From the result of respondents' age and income by descriptive analysis, it shows that the **highest** percentage of the respondents is 41-50 years old and the **highest** percentage of the income of respondents is 20,001-30,000 Baht. These demographic factors as well as consumer supermarket shopping behavior is important for strategic planning. We refer to a statement from an interview given by Mr. Guttery. Chief executive officer of CRC Ahold Co, "With the improvement of the Thai economy, consumer sentiment will increase and their shopping habits will change. They are concentrating more on their jobs and have less time to shop around. So, the supermarket business will get stronger even though the lower income customer was attracted by hypermarket; we still have the business market spaces to develop our business and provide good quality service to our customers" (<http://www.bangkokpost.com/yearend2003/retailing2.html>)

The results from the hypothesis testing show that there is a difference in perceived importance of distance among different age groups, but no difference for income groups and there are differences in ease of access to supermarket, entrance/exit,

general price level and price reductions among both age and income groups. Some of these findings are strongly supported by the research of McDonald (1991) and Merriless (2001). McDonald studied “the influence of supermarket attributes on perceived customer satisfaction: an East Asian study.” The objective was to investigate the influence of supermarket store attributes on Chinese (Macau) customer satisfaction moderated by the factors of age and income. The results indicate that store attributes of distance and speed of check out are significant for age; and that delivery service and price reductions were significant by income. Merriless studied “superstore interactivity: a new self-service paradigm of retail service”, his objective was to develop constructs of price and retail service and analyzing its impact on store loyalty of superstores and traditional specialist in Australian context. His result showed that the price level has an influence in customer choice of store by income. Different income level influences customers to have different opinions of price.

The results from the hypothesis testing show that there are no differences in checkout time, arrangement, aisle width, atmosphere and product quality among both age & income groups. According to the result of the questionnaires, the customers show no differences with these attributes and the customers do use these services or product quality but are less likely to complain about it. Most of respondents stated that they would be almost irritated by slow check out at a supermarket. Some of these findings are strongly supported by the research of McDonald (1991), his results also show that the question on shopper density was related to crowding and was found not to be significant by either age or income. Aisle width, arrangement and atmosphere were not deemed by respondents to be important attributes influencing retail satisfaction.

Chapter VI

Conclusion and Recommendations

This chapter provides the summary, conclusion of the research results along with the recommendations for this study. It comprises four sections. The first section is mainly the interpretation of the results or summary of findings. The second section draws the conclusion of the research study. The third section discusses the implications and recommendations. The last section is the suggestions for further research.

6.1 The summary of the results of the research hypothesis testing

This section interprets the results from the processed data, it includes a summary of respondents' age and income and a summary of hypothesis testing. And based on these, conclusions can be drawn.

6.1.1 Summary of respondents' age and income

From the total numbers of respondent, the **highest** percentage of the age respondents is 41-50 years old, representing 33% and the **lowest** percentage of age of respondents is below 20 years old or 3.5%; the **highest** percentage is 34.5%. There are respondents who receive a monthly income of between 20,001-30,000 Baht; and the **lowest** group of respondents who have an income per month of 5000 Baht below, are represented by 3.5%. So we know that the customers who are in the middle age level and in the middle income level are our main target group in the supermarket.

6.1.2 Summary of Hypothesizes Testing

Table 6.1 the summary of hypothesis testing results.

Hypothesis		Statistical Testing	Significance value	Results
Hypothesis 1		ANOVA	0.000	Accepted Ha1
H01	There is no difference in perceived importance of distance among different age groups.			
Ha1	There is difference in perceived importance of distance among different age groups.			
Hypothesis 2		ANOVA	0.000	Accepted Ha2
H02	There is no difference in perceived importance of ease of access among different age groups.			
Ha2	There is difference in perceived importance of ease of access among different age groups.			
Hypothesis 3		ANOVA	0.906	Reject Ho3
H03	There is no difference in perceived importance of the fast check-out time among different age groups.			
Ha3	There is difference in perceived importance of the fast check-out time among different age groups.			
Hypothesis 4		ANOVA	0.000	Accepted Ha4
H04	There is no difference in perceived importance of ease of finding items among different age groups.			
Ha4	There is difference in perceived importance of ease of finding items among different age groups.			
Hypothesis 5		ANOVA	0.836	Reject Ho5
H05	There is no difference in perceived importance of arrangement among different age groups.			
Ha5	There is difference in perceived importance of arrangement among different age groups.			

Hypothesis 6		ANOVA	0.518	Reject Ho6
H06	There is no difference in perceived importance of aisle width among different age groups.			
Ha6	There is difference in perceived importance of aisle width among different age groups.			
Hypothesis 7		ANOVA	0.020	Accepted Ha7
H07	There is no difference in perceived importance of entrance/exit among different age groups.			
Ha7	There is difference in perceived importance of entrance/exit among different age groups.			
Hypothesis 8		ANOVA	0.659	Reject Ho8
H08	There is no difference in perceived importance of atmosphere among different age groups.			
Ha8	There is difference in perceived importance of atmosphere among different age groups.			
Hypothesis 9		ANOVA	0.000	Accepted Ha9
H09	There is no difference in perceived importance of general price level among different age groups.			
Ha9	There is difference in perceived importance of general price level among different age groups.			
Hypothesis 10		ANOVA	0.445	Reject Ho10
H010	There is no difference in perceived importance of product quality among different age groups.			
Ha10	There is difference in perceived importance of product quality among different age groups.			
Hypothesis 11		ANOVA	0.000	Accepted Ha11
H011	There is no difference in perceived importance of price reductions among different age groups.			
Ha11	There is difference in perceived importance of price reductions among different age groups.			

Hypothesis 12		ANOVA	0.059	Reject Ho12
H012	There is no difference in perceived importance of distance among different income groups.			
Ha12	There is difference in perceived importance of distance among different income groups.			
Hypothesis 13		ANOVA	0.002	Accepted Ha13
H013	There is no difference in perceived importance of ease of access among different income groups.			
Ha13	There is difference in perceived importance of ease of access among different income groups.			
Hypothesis 14		ANOVA	0.600	Reject Ho14
H014	There is no difference in perceived importance of the fast check-out time among different income groups.			
Ha14	There is difference in perceived importance of the fast check-out time among different income groups.			
Hypothesis 15		ANOVA	0.001	Accepted Ha15
H015	There is no difference in perceived importance of ease of finding items among different income groups.			
Ha15	There is difference in perceived importance of ease of finding items among different income groups.			
Hypothesis 16		ANOVA	0.699	Reject H016
H016	There is no difference in perceived importance of arrangement among different income groups.			
Ha16	There is difference in perceived importance of arrangement among different income groups.			
Hypothesis 17		ANOVA	0.945	Reject Ho17
H017	There is no difference in perceived importance of aisle width among different income groups.			
Ha17	There is difference in perceived importance of aisle width among different income groups			

Hypothesis 18		ANOVA	0.000	Accepted
H018	There is no difference in perceived importance of entrance/exit among different income groups.			Ha18
Ha18	There is difference in perceived importance of entrance/exit among different income groups.			
Hypothesis 19		ANOVA	0.937	Reject Ho19
H019	There is no difference in perceived importance of atmosphere among different income groups.			
Ha19	There is difference in perceived importance of atmosphere among different income groups.			
Hypothesis 20		ANOVA	0.000	Accepted
H020	There is no difference in perceived importance of general price level of supermarket among different income groups.			Ha20
Ha20	There is difference in perceived importance of general price level of supermarket among different income groups.			
Hypothesis 21		ANOVA	0.752	Reject Ho21
H021	There is no difference in perceived importance of product quality among different income groups.			
Ha21	There is difference in perceived importance of product quality among different income groups.			
Hypothesis 22		ANOVA	0.000	Accepted
H022	There is no difference in perceived importance of price reductions among different income groups.			Ha22
Ha22	There is difference in perceived importance of price reductions among different income groups.			

6.2 Conclusion of the research

According to the results of hypothesis testing, there are 11 hypotheses that failed to reject the null hypothesis and 11 hypotheses that rejected the null hypothesis. Therefore, the results of the analyses can be concluded as follows.

- The distance to the supermarket was found to be a significant factor in respect to age but not income. The data predictably revealed that older people are less likely to patronize a supermarket located further away from their home, and that interestingly, the middle-age groups are more inclined to go further in their supermarket search to buy what they want than younger respondents. Respondents in different income groups behave in a similar pattern in respect to the store variable of distance.
- Ease of access to supermarket, ease of finding items and entrance/exit were found to be significant factors in respect to both age and income. Especially the higher income & elder age groups are more likely to take advantage of these services. Although checkout time did not show a significant difference by age and income, most of customers would like the fast checkout time and they would always be irritated by slow check-out at a supermarket; of those who did express irritation, a significant number were in the middle-age group while older people appeared to express more patience.

- Due to the heavy competition in the retail market, it is necessary for marketers of supermarkets to understand consumer's feeling and the real needs. General price level and price reductions were found to be significant factors in respect to both age and income. Most of respondents did care about the supermarket price and they would be induced to buy more if the price was marked down.

The results of this research entirely achieved all the research objectives and can be useful for the retailing business. The marketers should be more aware of the attitude, expectation and perception of the consumers in order to adapt to the marketing plan for strategy.

6.3 Recommendations of the study.

Due to the heavy competition in the retail market, it is necessary for marketers of stores to understand consumer's feeling and their real needs. Perception of supermarket attributes is one of the important factors that affect behavior and future intention of the customers toward stores. Moreover, perception can lead to better results and performances of these supermarkets, therefore, the organization should pay more attention to doing business and be well prepared in every section, in order to complete with the competitors more effectively, consequently, the marketers should be more aware of the attitude, expectation and perception of the consumers in order to adapt to a strategy for success.

Table 6.2 Summary of conclusion and recommendations

Conclusion	Recommendations
-The distance was found to be a significant factor in respect to age but not income.	-Choose a suitable store location -Expand more branches for the shoppers
-Ease of access to supermarket, ease of finding items and entrance/exit were found to be significant factors in respect to both age and income.	-Adding more parking spaces for customer s -Put up bilingual signs everywhere for customers. -Provide free home delivery service or installation service.
-General price level and price reductions were found to be significant factors in respect to both age and income.	-Offer a special discount/ coupon for customers and keep up a competitive price level.

Table 6.1 showed finding results and recommendations of the hypothesis testing. The first hypothesis relating to the distance, the recommendation for the distance is as follows:

- **Choose a suitable store location and expand more branches of supermarkets for the shoppers**

It is said of retailing that the location is the most important factor for stores. Choosing the site for the supermarket is of critical importance and the correct choice will have the impact on the ultimate success of the enterprise. That significance of the location is also emphasized by the research results that the supermarket location

convenience is the most influential factor affecting buying behaviors. Once the location is chosen, the retailer is stuck with it. Therefore, the new investor must know who the target group is. From the findings, the customers who are in the middle age level and in the middle income level are our target group in the supermarket. It implies that the supermarket should be located near mainly business districts or housing estates or any place where the customers have to go, hence a wise strategy is to expand more branches of supermarket in order to provide convenience to target customers.

For the second hypotheses related to ease of access to supermarket, ease of finding items and entrance/exit, the recommendations are as follows:

- **Adding more parking spaces for customers and improve the quality of security guards.**

The supermarket should be adding more parking spaces for customers in order to grant ease of access to supermarket. The supermarket has to make sure that access to supermarkets is easy and time of waiting to enter the store is not extensive. Meanwhile, taxi and car parking space is enough for their customers in order to make them feel comfortable to come to the supermarket. Security guards are part of supermarkets with which customers directly interact. They should be helping the customers promptly for solving their troubles inside the supermarket. High quality security will be making the customer feel safe and happy. These aspects will make the store be a pleasurable & convenient place for customers to visit.

- **Put up bilingual sign boards anywhere in supermarket for customers**

Bangkok is a fascinating city of over 600 square miles with one of the best sightseeing in the world. There are so many foreigners who live around Bangkok and shop in the supermarket too. The supermarket has to make sure that all sign boards are clear and bilingual in supermarket for customers. Sign board is any objective evidence of a subject and it can be recognized by the customers. Signboards provide convenience to them while they shopping in the supermarket. They can expand the quantity of target consumers with the growth of international marketing.

- **Provide free home delivery service or installation service for customers**

It appears evident that the supermarkets which provide free home delivery or installation service are still relatively few in Bangkok while free delivery service is now fully developed in North America. The supermarket should launch this new service to customers for increasing the customer loyalty and average expenditure. This makes the whole delivery processing go simpler, faster and more efficiently.

For the last hypotheses, general price level and price reductions, the recommendation are as follows:

- **Offer a special discount/coupon for customers**

Offer special discounts for the customers on special event. For example, for New Year, supermarket should offer special coupons for buying some foods at special prices. The supermarket owners should compare their price with their competitors, and the price should not be obviously different. It is important to maintain competitive price levels, although the differential impact to all consumers of an established and maintained middle price level as opposed to occasional sales and promotional activity

has yet to be investigated. Pricing strategy is to ensure customer perception in order to create a customer base and to achieve a substantial percentage of market shares.

All the result of this research will be beneficial to supermarket owners to understand their consumers better, and therefore, serve their needs better. The ultimate goal is to increase consumers' perception and loyalty. There are two ways of approaching the future, one is to just let it happen, and the other is to plan. At supermarket, it is possible to build a better future through creative planning, with effective analysis, goal-setting and management skills.

6.4 Further research.

This research focused on the influence of supermarket attributes on perceived customer satisfaction. These are other factors that should be investigated in the future as follows.

1. As this research is concerned only with Thai customers, further study can be extended to cover foreigners.
2. As this research studied only the influence of 11 supermarket attributes on perceived customer perception, it will be helpful for the related parties to study attitudes toward each of these factors in various supermarkets.
3. The scope of this research studied only service provided on physical store; however, the further research can study the service provided through internet, and this method of servicing customer is an alternative to do business with end-users currently.

4. This research limited the scope of the study to Bangkok metropolis only. The data were collected from target population at many supermarket stores in Bangkok. Further research should collect data from population in other important provinces such as Chiangmai or Songkla province because these provinces also have large supermarkets. The results of this research will be beneficial for marketers who want to expand their target customers to upcountry areas.



REFERENCES

- Aaker, Kumar and Day (2001) Marketing Research New York: John Wiley & Sons, Inc.
- Aylott, R and Mitchell V.W. (1999) "an exploratory study of grocery shopping stressors",
British food journal, Vol.101 No. 9, pp683-700.
- Bellenger,D.N. and Goldstucker, J.L.(1993). Retailing Basics, Homewood, IL: Richard D.Irwin.
- Bellizzi, J.A. (2004). "An assessment of supermarket loyalty in one major US market"
Journal of Consumer Marketing, Year 2004 Volume: 21 Number: 2 Page: 144 – 154
- Berenson, M.L. and Levine, D.M. (1999) Basic Business Statistics, 7th ed, New Jersey: A Simon & Schuster Company.
- Boone, L.E and Kurtz, D.L. (1995) Contemporary Marketing 8th Edition New York: Dryden Press.
- Cooper, Donald, R., Schindler, and Pamela, S. (2001), Business Research Methods. 7th Ed, Boston: McGraw-Hill IRWIN.
- Evans, J. R. and Berman, B. (1997) Marketing Canada: Prentice Hall International.
- Fottler (2003) "a Taste of Luxury" Sarasota Magazine, Apr 2003 Vol. 25 Issue 7
PP212 –217.
- Freeman, J. (1994) "Customer Attitudes to Store Refurbishment."
<http://info.sm.umist.ac.uk/wp/abstract/wp9915.htm>.
- Garton, P.A. (1995) "Store Loyal? A View of Differential Congruence " International Journal of Retail & Distribution Management, Vol. 23, No.12, pp29-35.

- Gilbert, D. (1999), Retail Marketing Management, 1st ed, Great Britain: Redwood Books.
- Guiltinan, J.P. and Paul, G.W. and Madden, T.J. (1997). Marketing Management: strategies and programs. New York: The McGraw-Hill Companies, Inc.
- Hawkins, D.L., Best, R.J. and Coney, K.A. (1992) Consumer Behavior 5th edition United States of America: Richard D. Irwin.
- Houghton Mifflin Company (2000) The American Heritage Dictionary of English Language 4th Ed. New York, Houghton Mifflin Company.
- Klemz, R.B. and Boshoff, C. (2001). Environmental and Emotional Influences on Willingness to Buy in Small and Large Retailers. European Journal Of Marketing, 35 (1/2), pp70-91
- Kotler, P. (1997) Marketing Management: Analysis, Planning, Implementation and Control, New Jersey: Prentice Hall
- Kotler, P. and Ang, S.H. and Leong, S.M. and Tan, C.T. (1999). Marketing management: An Asian Perspective. Singapore: Prentice Hall
- Lertanaprechasakul, M. (2002) "The Customer Satisfaction Toward The Nongkhai Grand Thani Hotel." MBA Assumption University
- Lewison, D.M. (1994) Retailing 5th edition New York: Von Hoffmann Press.
- Malhotra, N. K. (2000) Marketing Research: An Applied Orientation, United States Prentice Hall.
- McDonald, G. M. (1991) "The Influence of Supermarket Attributes on Perceived Customer Satisfaction: An East Asian Study." International Review of Retail, Distribution & Consumer Research Apr 91, Vol. 1 Issue 3 pp315-328.

McDonald, W. J. (1994) "Time Use in Shopping: The Role of Personal Characteristics"
Journal of Retailing 70 No 4 p346.

McDonald, M. (1996). Marketing Planning for Services, Butter Worth-heinemann, Oxford.

Merrilees, B, Miller, D. (2001) " Superstore Interactivity: A New Self-Service Paradigm of
Retail Service " International Journal of Retail & Distribution Management, Vol.
29 No. 8 pp379-389.

Mogelonsky, Marcia (1998). "Food on demand" American Demographics, 20(1), pp57-
60

Mowen, J.C. (1993) Consumer Behavior New York: Macmilian Publishing Company.

Oates, B., Shufeldt, L. and Vaught, B. (1996) "A Psychographics Study of The Elderly
and detail Store," Journal of Consumer Marketing 13(6) p16

Parasuraman, Z. and Berry (1990) Delivering Quality Service: Balancing Customer
Perceptions and Expectations, 1st Ed, New York: Free Press.

Parasuramen, A, Zeithaml, V.A. and Berry, L.L. (1996) "The Behavioral Consequences of
Service Quality" Journal of Marketing Vol. 60, April, pp35-48.

Pegler, Martin M. (1996) Supermarket Design 1 New York: Retail Reporting Corp.

Peter, J.P. and Osmon, S.C. (2002) Consumer Behavior And Marketing Strategy (6th ed)
New York: Mc Graw Hill.

Reid, D.M (1995) Consumer Marketing in Thailand Hong Kong: The Economist
Intelligence Unit

Schiffman, I.G. and Kanuk, L.L. (2004) Consumer Behavior New Jersey: Prentice Hall.

Sekaran, U. (1992). Research Method for Business. A building approach (2nd Ed.).
New York: John Wiley & Sons Inc.

Southwood, T.R.E. (2000) "The Natural Environment and Disease: an Evolutionary Perspective" British medical journal Vol. 294 Issue 6579 pp1086 –1090.

Statistics Canada (2001) definitions, retail trade Sep 2001, vol. 73 Issue 9, p33.

Stuart, Stephen (2000) "Big-box Retailers Want a Slice of Convenience Store Market." New Orleans City Business, Vol. 20 Issue 46 pp16 -18.

Wisetraksakul, O. (2002) "The Effects of Complainant Feelings and Beliefs on Responsive Behavior: A Study of Shoppers of Hypermarkets in Bangkok. MBA Assumption University

Zikmund, W.Z. (1997) Exploring Marketing Research 4th Ed , The Dryden Press International Edition.

Websites

<http://www.bangkokpost.com>

<http://www.siamfuture.com>

http://www.foodlion.com/cor_coinfo.asp

<http://atn-riac.agr.ca/asean>

<http://www.terengganu.gov.my/visittg/sights-wet-markets.htm>

<http://www.cityofspringfield.com/snooks/>

APPENDIX



Questionnaire

A Study of the Relationship between Customer Perception of Key Supermarket Attributes and Selected Demographic Variables

Dear Sir/Madam:

This questionnaire is part of the research for a thesis “**A study of the relationship between customer perception of key supermarket attributes and selected demographic variables**” As part of a Master of Business Administration in Assumption University (ABAC) Bangkok.

Please complete all questions by giving your actual information. The result of this study will be useful to development and improvement of supermarket for the purpose of being able to operate business efficiently in the markets.

Sincerely yours,

Wan Fei

Part I please use the mark “x” to indicate the level of the importance for supermarket attributes. Meaning of each level is as follows:

- 1 = least important.
- 2 = slightly important
- 3 = neutral
- 4 = important
- 5 = most important

Location factor:

Attributes:	5	4	3	2	1
1.Distance between your home and supermarket.					
2.Ease of access to supermarket.					

supermarket convenience factor:

Attributes:	5	4	3	2	1
3.checkout time					
4.ease of finding items					
5.arrangement					

Physical environment factor:

Attributes:	5	4	3	2	1
6.aisle width					
7.entrance / exit					
8.atmosphere (air condition, music. Lighting)					

Price and quality factor:

Attributes:	5	4	3	2	1
9.general price level					
10.product quality					
11.price reductions/sales					

Part II personal data (*data will be kept confidential)

1. Age
 - a) 20 below
 - b) 21-30
 - c) 31-40
 - d) 41-50
 - e) 51-60
 - f) 61 above
2. Personal monthly income (baht)
 - a) 5,000 below
 - b) 5,001-10,000
 - c) 10,001-20,000
 - d) 20,001-30,000
 - e) 30,001-40,000
 - f) 40,001 above

Thank You for Your Kind Assistance.

แบบสอบถาม

A Study of the Relationship between Customer Perception of Key Supermarkets Attributes and Selected Demographic Variables

เรียน ผู้ตอบแบบสอบถาม

แบบสอบถามฉบับนี้ คือ ส่วนหนึ่งของ วิทยานิพนธ์ เรื่อง “A Study of the Relationship between Customer Perception of Key Supermarkets Attributes and selected demographic variables.” ซึ่งเป็น ส่วน หนึ่ง ของระดับ การศึกษาใน ปริญญาโท ในมหาบัณฑิตคณะภาควิชาบริหารธุรกิจของ มหาวิทยาลัย อัสสัมชัญ, กรุงเทพฯ

กรุณาช่วยตอบแบบสอบถามให้สมบูรณ์ เป็นจริงตามความคิดส่วนตัวของจิตใจและ ตรงตามพฤติกรรมที่เป็นอยู่ ผลที่ได้จากการทำวิจัยในครั้งนี้ จะ ช่วยพัฒนาและปรับ ปรง ซูเปอร์มาร์เก็ต เพื่อ ตอบสนองต่อผู้ตอบแบบสอบถาม ในการรับบริการที่ดีขึ้นโดยรวมในคราวถัดไป

ด้วยความเคารพนับถือ

ว่าน เพย

ส่วนที่ 1: กรุณากากบาท “X” ใน ช่อง เพื่อวัด ระดับ ของ ความสำคัญใน ทศนคติที่มีต่อ ซูเปอร์มาร์เก็ต โดย ที่

หมายเลข

1 = สำคัญน้อยที่สุด

2 = สำคัญเล็กน้อย

3 = ธรรมดา

4 = มีความสำคัญ

5 = มีความสำคัญที่สุด

ปัจจัยทางด้าน สถานที่					
ทัศนคติ	5	4	3	2	1
1. ระยะทางจากบ้านมา ซูเปอร์มาร์เก็ต					
2. ความสะดวกในการเดินทาง เข้าออก ซูเปอร์มาร์เก็ต เช่น ทางเข้า-ออก, การ จราจร หน้า ซูเปอร์มาร์เก็ต					

ปัจจัย ความสะดวกสบายของร้าน					
ทัศนคติ	5	4	3	2	1
3. การรอคอยการจ่ายเงิน					
4. หาสินค้าได้ ง่าย					

5. การจัดเรียงสินค้า					
----------------------	--	--	--	--	--

ปัจจัย ด้านสภาพแวดล้อมทั่วไป					
ทัศนคติ	5	4	3	2	1
6. ความกว้าง ของชั้นวางสินค้า					
7. ทางเข้า ออก ของ ร้าน					
8. บรรยากาศ เช่น ระดับความเย็น, ในร้าน, เสียง, ไฟ					

ปัจจัย ร้านราคา และ คุณภาพ					
ทัศนคติ	5	4	3	2	1
9. ระดับราคามาตรฐาน					
10. คุณภาพสินค้า					
11. การลดราคาสินค้า หรือ มี รายการขาย พิเศษ					

ส่วนที่ 2 ข้อมูลส่วนตัว (หมายเหตุ ข้อมูล ส่วนนี้ จะ เก็บ เป็นความลับเป็นอย่างดี)

1. อายุ
 - a) ต่ำกว่า 20
 - b) 21-30
 - c) 31-40
 - d) 41-50
 - e) 51-60
 - f) มากกว่า 61
2. รายได้ ต่อ เดือน (บาท)
 - a) ต่ำกว่า 5,000
 - b) 5,001-10,000
 - c) 10,001-20,000
 - d) 20,001-30,000
 - e) 30,000-40,000
 - f) มากกว่า 40,001

ขอขอบคุณในความกรุณาการตอบแบบสอบถามฉบับนี้

