HOW SCENT RELATES TO CONSUMER BEHAVIOR AND POTENTIALLY INFLUENCE CONSUMER PURCHASE INTENTION IN THAI RETAIL STORES

PAPAVEE DAMSUKREE

A THEMATIC PAPER SUBMITTED IN PARTIAL
FULFILLMENT OF THE REQUIREMENTS FOR
THE DEGREE OF MASTER OF MANAGEMENT
COLLEGE OF MANAGEMENT
MAHIDOL UNIVERSITY
2017

Thematic paper
entitled
HOW SCENT RELATES TO CONSUMER BEHAVIOR AND POTENTIALLY INFLUENCE CONSUMER PURCHASE INTENTION IN THAI RETAIL STORES

was submitted to the College of Management, Mahidol University
for the degree of Master of Management
on
January 7, 2017

…………………….…...………......
Miss Papavee Damsukree
Candidate

....
Assoc. Prof. Vichita Ractham,
Ph.D.
Advisor

....
Asst. Prof. Randall Shannon,
Ph.D.
Chairperson

....
Assoc. Prof. Annop Tanlamai,
Ph.D.
Dean
College of Management
Mahidol University

....
Worapong Janyangyuen,
D.B.A.
Committee member

ACKNOWLEDGEMENTS

HOW SCENT RELATES TO CONSUMER BEHAVIOR AND POTENTIALLY INFLUENCE CONSUMER PURCHASE INTENTION IN THAI RETAIL STORES

PAPAVEE DAMSUKREE   5749243

M.M. (MARKETING AND MANAGEMENT)

THEMATIC PAPER ADVISORY COMMITTEE: ASSOC. PROF. VICHITA RACTHAM, Ph.D., ASST. PROF. RANDALL SHANNON, Ph.D., WORAPONG JANYANGYUEN, D.B.A.

ABSTRACT

This purpose of this study aims to explore the relationship between how scent relates to consumer behavior and potentially influence consumer purchase intention to buy products Thailand retail stores. The research aim to examine how scents relate to consumer in aspects of personal factors, attitude toward psychological factors such as hedonic motivation, consumer perception, consumer emotion and brand recognition and lastly impulse buying that influences purchase intention to buy products in Thailand. The scope of the study is based on those people in the population with experience in purchasing from retail stores. This study collects data in the form of relevant primary data and data from previous researches related to the subject of study.

The research results reveal that the psychological factors which are consumer perception, brand recognition and impulse buying had potential effect to customer purchase intention to buy product in Thailand retail store.

KEY WORDS: Scent / Retail Store / Purchase intention / Hedonic Motivation / Impulse buying

63 pages

CONTENTS

CONTENTS (cont.)

LIST OF TABLES

LIST OF FIGURES

CHAPTER I

INTRODUCTION

In recent years, shopping centers and retail stores have experienced continuous growth in many channels such as direct catalog shopping, online sales and outdoor markets (Laisawat, 2012). From research by CBRE (Thailand) Co., Ltd., retail market supply in Thailand has grown rapidly and increased tremendously over the past year. The retail sales index in January showed the amount of increase was 0.9% during the 1st quarter (Stan Lin, 2016), as shown in Figure 1.1.
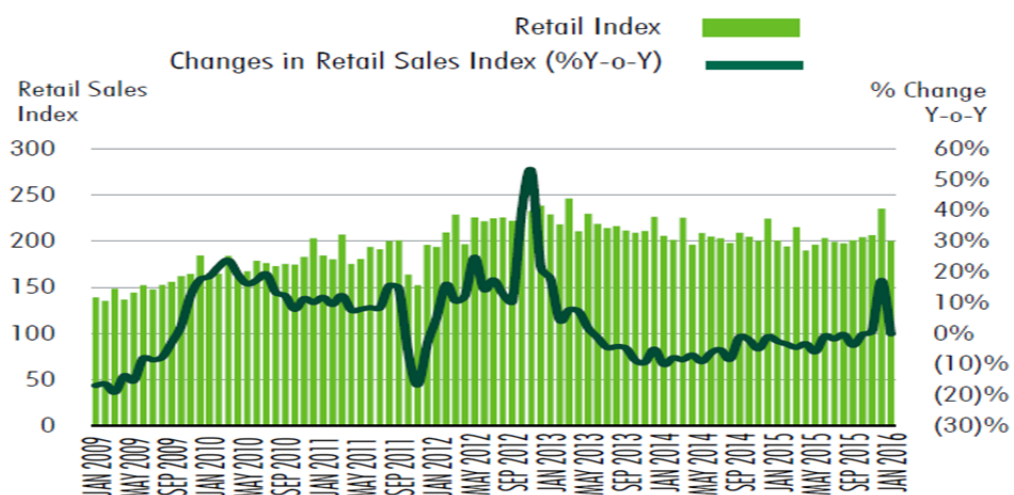
Source: Bank of Thailand, Q1 2016

Figure 1.1 Thailand's Retail Sales Index
Source: CBRE (Thailand) Co., Ltd. (2016)

The report shows competition in Thailand has intensified in the retail business due to rapidly evolving marketing channels and new environments. Therefore, it is very important for retailers to find a new strategy or tactic in order to gain the attention of consumers and build strong brands by creating differentiated products (Ellis & Calantone, 1994).

During the past several years, consumers have increased the level of their demands and expectations. Moreover, new and unexpected competition from various sources has further increased the choices available for consumers regarding products from retail organizations. Therefore, retail stores should adapt their sale strategies to support new consumer demand, shopping trends, and lifestyles in order to satisfy the increasing demands and changing preferences of shopping motivation (Jantarat, 2013). Thereby, marketers gain increased understanding of the importance of high competition in retail marketing and can try to adopt new tools to help them achieve enhanced business productivity (Desrochers, 2009). According to the intense competition among each store category, retailers should seek competitive advantages, cost to benefit ratio, and product differentiation by attempting to stimulate and draw interest from the target consumer groups in order to entice them to become purchasers (Philippa Ward and Barry J. Davies, 2003). There are many approaches to marketing strategy that may gather attention from consumers. In recent times, retail stores have not only been a place to buy products, but also a place that provides social activities, events, and even hedonic consumer needs for leisure time (Bloch P. H., 1994). Therefore, atmospheric and physical design has become significant to directly influence consumer behavior. Marketing professionals can modify and control the physical settings of stores and create specific images and themes for retail stores and other service-oriented businesses such as hotels, restaurants and shopping centers in an effort to influence purchasing behavior and attract interest (Zidansek, 2013).

Over the last decade, marketer adopts many strategies for the visual merchandise (Philippa Ward and Barry J. Davies, 2003) with a focus on store location and the display as well as layout of a product, which can influence consumer behavior and the intention to purchase (Zidansek, 2013). In recent years, marketers have expanded the scope from visual merchandising and employed multi-sensory experiences with sight, taste, sound, touch and smell combining together to promote a product or brand. Despite a product itself not being a major factor in attracting consumers to visit a retail store, the goals of such merchandising are product purchasing, recognition and repurchasing in the future (Madzharov, 2013). From previous research, many marketers have been interested in multi-sensory marketing regarding the creation of their own unique consumer brand. The multi-sensory project requires more time and budget to promote than individual

budget promotion, with no guarantee that the result of the additional resource allocation will be better (Hulten, 2009)

       This study aims to explore the relationship between how scent relates to consumer behavior and potentially influence consumer purchase intention to buy products in retail stores in Thailand. The study will examine recent research in Thailand concerning the consumer aspects that senses can affect, including 1) personal factors, 2) attitude toward psychological factors such as hedonic motivation, consumer perception, consumer emotion and brand recognition, and 3) impulse buying that influences purchase intention to buy products in Thailand. The scope of the study is based on those people in the population with experience in purchasing from retail stores. This study collects data in the form of relevant primary data and data from previous researches related to the subject of study.

CHAPTER II
LITERATURE REVIEW

This chapter provides more information concerning how scent influences consumer behavior related to purchase intention in retail stores in Thailand. In recent years, consumers have not only paid for the product itself. In fact, people are willing to pay more for a product and service that satisfies their needs (Roger D. Blackwell, 2012). Therefore, the retail store not only provides consumers with products, but also offers a place for social activities and meeting other people who have similar preferences in order to enjoy their leisure time (Laisawat, 2012). Bertil (2009) indicated that most companies are coming into the new age of sensory marketing, which combines all sensory techniques to stimulate consumers in order to provide a memorable purchasing experience. This study focuses on scent marketing, which has received increased attention and investment from marketers during the past few years.

Regarding the previous research, most studies have indicates that scent marketing affects individual perception and consumer behavior, which in turn impact consumer purchase intention. Additional details are given as follows:

2.1 Effect of scent to consumer behavior

Blackwell, Miniard and Engel (2012) indicate that marketers should study consumer insight and the environment in order to get consumers to buy their products. The consumer environment includes the demographic trends, personal and group preferences, attitudes and motivations that consumer use to go through their purchase decision-making process, which can change consumer demands and lifestyles (Roger D. Blackwell, 2012). The study of Blackwell, Miniard and Engel (2012) also indicates the market segments for consumers who have similar preferences and behaviors but different needs from the mass market, as indicated in Table 2.1

Table 2.1 How to segment consumer market

Demographics		Psychographics	Purchase and Consumption behaviors	Others Consumer Characteristic
Age	Income	Interests	Shopping location Reference	Values
Gender	Nationality	Activities	Brand Royalty	Culture
Education	Religion	Opinions	Frequency of Purchase	Personality
Marital Status	Life stage		Benefit sought	
Family size	Living Arrangement		Price sensitive	
Occupation	Ethnicity			

Market segmentation can identify and group the people who have similar preferences and behaviors so marketers can develop the product and marketing strategy closely to their consumer insight and fit them to their individual needs and tastes (Roger, 2012).

According to the study of Jacoby (1975), consumer behavior is related to consumer marketplace and individual decision making concerning whether or not to buy the subject product (Jacoby, 1975). The study also indicates consumer behavior is specified by acquisition, consumption, types and ideas for products, as well as services and time of decision. Moreover, the shopping experience is a common activity for people nowadays as a practical activity that is done every day in order to gain experience and "social interaction" (Jantarat, 2013). From the research of Fanny Perreau (2013) and Asifo Shah (2010) is the suggestion that the model of buyer behavior affects buyer decision making. There are variable characteristics that influence consumer behavior to purchase, grouped into four sets as described in the figure below.

FACTORS AFFECTING CONSUMER BUYING BEHAVIOR

Consumer Buying Behavior

Cultural factors	Social factors	Personal factors	Psychological factors
▪ Culture ▪ Subculture ▪ Social Class	▪ Reference group ▪ Family ▪ Role and status	▪ Age & life style ▪ Occupation ▪ Economic situation ▪ Lifestyle ▪ Personality ▪ Self-Concept	▪ Motivation ▪ Perception ▪ Learning ▪ Attitudes
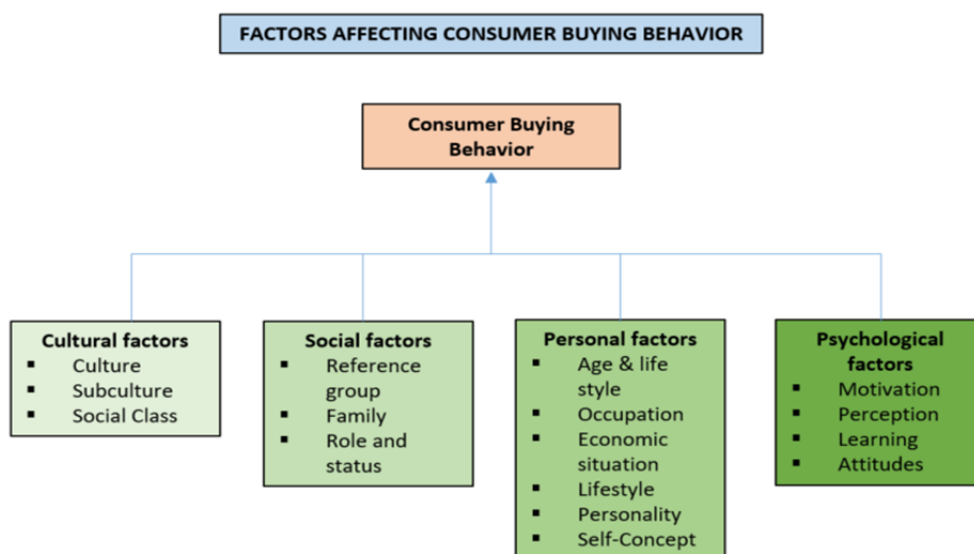
Figure 2.1 Model of buyer Behavior

This study focuses on how scent is related to consumer behavior and able to influence consumer purchase intention to buy products in a retail store in Thailand based on 2 types of factors, including 1) personal factors and 2) attitude toward psychological factors such as hedonic motivation, consumer perception, consumer emotion and brand recognition, that influences purchase intention to buy products in Thailand.

2.1.1   Attitude towards personal Factors

The factors of buying decision can vary according to the age of consumers, purchasing power and revenue, their lifestyle activities, and their own personality behavior such as sociability, ambition, charisma and others. Blackwell, Miniard and Engel (2012) indicate that personal factors at a high level relate to outcome depending on variable factors such as self-image, health and beauty, and the physical condition of individual consumers.

Gulas and Bloch (1995) indicated that scent was the least understood factor and lacked understanding for development. The results of their framework showed that scent could vary influence from individual and particular stimuli (Philippa Ward and Barry J. Davies, 2003). Moreover, Mehrabian and Russel (1974) indicated in their study that the environment impacted individual arousal and personal pleasure toward purchasing experience. Scent can affect consumer intentions depending on age, gender and former

experiences (Kemal Yildirim, 2013). Furthermore, some previous research found that suitability to scent was different based on gender. As the case study found, females were positively impacted by scent in a clothing store, while males were not. The results showed the store received more favorable attention and increased sales by more than fifty percent, as well as increasing the number of repurchase consumers. Conversely, the age of consumers appeared to have no significant effect on scent and its ability to influence shopping behavior. This may be due to decreased sensitivity of the senses with increasing age (Desrochers, 2009). Moreover, the research showed a difference in preference atmosphere attributes regarding color, lighting type and music, as well as climate condition and ambient scent related to different consumer ages, genders and education levels (Kemal Yildirim, 2013).

In addition, research by Morin & Chebat (2005) found that ambient scent had a moderate effect on the older population's expenditures when compared to other age groups. Therefore, consumer behavior can be affected by many factors, with age having a varying effect depending on the period of time (Shah, 2010).

H1: Personal factors including demographic characteristics have a positive relationship with consumer behavior in order to affect consumer purchase intention for retail stores in Thailand with ambient scent.

2.1.2 Attitude towards psychological Factors

Psychological factors influence consumer behavior motivation, perception, emotion and brand recognition, which impact the consumer decision-making process. Such factors depend on each consumer's situation and individual preference, which has a tendency to change depending on the current situation and trends (Shah, 2010). From the research of Shah (2010), raises the hypothesis regarding to the hedonic motivation, customer perception, customer emotion and brand recognition as following;

2.1.2.1 Hedonic Motivation

According to previous research, shoppers have individual aspects relevant to behavior and effect with variable actors. Furthermore, shopping motivation is different from the characteristics of individual shoppers (Jantarat, 2013). Therefore, shopping motivation is the driver behavior that brings consumers to a place so they can satisfy their shopping needs (Jin, 2003). Jaratchwahn (2013) indicate the

shopping activities parallel related the hedonic shopping motive which two driven dimension of personal and social motives. Personal motive can identity that related to the daily routine, individual satisfaction and sensory incentive of people. Additionally, self-gratification also represents feeling of people when emotional or relaxing while sensory stimulation has co-efficient with the product environments that people able to appreciate the pleasant sensory experience while shopping (Jantarat, 2013). Moreover, hedonic motivation takes place when a consumer would like to evade the daily routine and satisfy their need for enjoyment (Hirschman, 1982).

From the research, scent can influence to human emotion, memories and motivation behavior (Herz, 2010). Hirschman (1982) indicated that hedonic motivation stimulated consumers to gain benefits from shopping. Besides, hedonic motivation is the desire for fun and enthusiasm through shopping experiences, whereby consumers are able to gain enjoyment without commitment to an actual purchase(Fischer, 1990). Previous research has shown that scent can create hedonic need in consumers in order to promote pleasantness, familiarity, and intensity for shopping and browsing products in retail stores. From earlier research, scent affects consumer evaluation (Bone, 1992). It also affects consumers' attitudes and intentions to spend more time in the store than in odorless stores (Zidansek, 2013).

H2: Hedonic motivation has a positive relationship with consumer behavior in order to affect consumer purchase intention in retail stores in Thailand with ambient scent.

2.1.2.2 Customer Perception

Throughout history, humans have used their primary senses such as sight, taste, hearing, touch and smell to receive basic information and gain sensory experience of the surrounding environment (Zidansek, 2013). Desrochers (2009) indicates the human body has numerous receptors for scent, three times more than for vision. The human body's potential to process scent information allows it to distinguish between more than 10,000 different scents. The sense of smell is different from the other four senses. When a person smells something, the smell receptors estimate and react immediately (Vlahos.J, 2007). The smell will transmit to the olfactory bulb in the brain, which relates it to memory and emotion (Steve, 2014). Humans have the capacity to remember things over a long period. Scent is one of the multi-sensory

experiences that can create a long-lasting first impression (Ruffolo, 2011). Moreover, the part of the brain for smell prompts an immediate response and cannot turn off (Desrochers, 2009). Steve (2014) indicates that smell links to both pleasant and unpleasant experiences for consumers.

Earlier research indicates that scent is valuable for marketers regarding first-time introduction, which appears to be disadvantageous in some store research. However, some suggest that scent becomes a stimulant and advantage in a suitable store atmosphere for consumers, causing quick responses and the influence to re-visit the store. The sense of smell affects consumers differently depending on the color of a store display, product layout, lighting and other factors, since they can easily "switch off" (Parsons, 2008).

H3: Store atmosphere includes scent in the environment, product layout, function, symbols, lighting, temperature and music has a positive relationship to consumer perceptions that influence consumer purchase intention to buy products in retail stores in Thailand with ambient scent.

2.1.2.3 Consumer Emotion

From the theory of Stimulate-Organism-Response (S-O-R) paradigm, the indication is that stimuli (S) influence the organism (O) response, which will produce the approach and avoidance behavior (R) (Mehrabian, 1974). Bitner (1992) suggests two general and opposite factors that stimulate consumer cognitive and physiological response, which is *Approach and Avoidance behavior*. The definition of avoidance behavior includes all aspects opposite to the approach behavior, such as a tendency to leave a place and environment, decreased interaction with a lack of motivation to return, and avoidance of a place altogether (Bitner, 1992). From previous literature study, most marketers focused on how to stimulate consumers and build consumer engagement for products through visual and auditory stimulation to engage consumers (Madzharov, 2013). Zidansek (2013) suggests to combine multi-sensory experiences in combination such as lighting, temperature, noise, music and scent beside from the sight of well design of decoration and layout in order to attraction consumer (Zidansek, 2013). People may react differently based on different arousal or stimulants in the environment, as illustrated in Figure 2.2 below.

The Mehrabian-Russell Stimulus-Response Model (Figure 10.2)
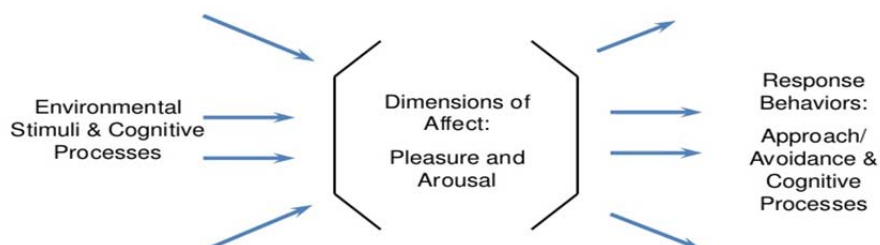
Figure 2.2 The Mehrabian-Russell Stimulus response model

Source: Utsav Mahendra: Planning the Service Environment

Zidensek (2013) indicated that scent can stimulate people arousal qualities and increase consumer satisfaction for the shopping experience when matching with other sensory factors such as music. Consumer behavior trend has higher approach behaviors and impulse buying (Zidansek, 2013). Some research has demonstrated the matched conditions of Christmas scent with music in retail stores, with the results showing that people were more willing to visit and shop for merchandise in the retail store (Mattila, 2001). In an experiment showing scent congruity influence, the perception of the store, merchandise and actual sale mattered when scent was coherent with the product class (Spangenberg, 2006). Consumers were more willing to spend time processing information then in odorless retail locations (Mitchell, 1995). Scent varies among products for consumer needs and more choices are made from available products (Mitchell, 1995).

In the last few years, consumers have increased the effect by ambient scent from the retail environment and service sector (Desrochers, 2009). Scent has potential to persuade and communicate consumer intention to buy products. From recent research, scent influences human behavior for a long time in both approach (e.g. food, flower) and avoidance (e.g. distinguish smells, poison) (Morrin M. , 2010). Moreover, creating scent in the atmosphere is an optional way to create long-lasting first impressions and is capable of stimulating consumer ability to remember past experiences related to scent (Zidansek, 2013) and effect to human awareness and emotion (Philippa Ward and Barry J. Davies, 2003). Ward, Davies & Kooijman (2003) suggest

that scent is an effective and powerful tool for retailers to connect with consumer emotions and memory since it will strongly stimulate memories related to past experience and emotion (Philippa Ward and Barry J. Davies, 2003). The power of scent becomes interesting for marketers because of its potential to send uncensored influence to consumers and its close relation to consumer emotional reactions (Desrochers, 2009).

Scent prompts immediate reactions and cannot be turned off (Desrochers, 2009). Thus, most people receive smells and gain attention before they are "aware" of it (Lorig. T.S.(Ed.), 2001). Scent is only one element of the information that can be accepted from the various senses and results in the final perception. Therefore, scents are the most closely related factors connected to emotion that consumers remember (Philippa Ward and Barry J. Davies, 2003). Moreover, scent can affect and provide particularly powerful experiences and recall of particular events for individual consumers. Product categories regarding scent can create varying emotional effect (Philippa Ward and Barry J. Davies, 2003). Therefore, scent is interesting for marketers to use for the stimulus of uncensored reactions from consumers. Most marketers realize the importance of building a memorable physical surrounding in order to provide a positive consumer experience, brand recognition and create a supportive atmosphere for stimulation of consumer purchases (Bitner, 1992). In addition, scent connect from olfactory memories directly to limbic system which mean this provide the powerful tools for retailer to affected customer. The demonstrated show that scent closely linked to remembered emotion more than "Facts" (Philippa Ward and Barry J. Davies, 2003)

H4: Scent in an environment of a retail store has a positive relationship with consumer emotion that influences consumer purchase intention to buy products in retail stores in Thailand with ambient scent.

2.1.2.4 Brand recognition

The scent power helps to create both a distinctive atmosphere and dominance in the retail brand and service. However, scent power can shape consumer behavior and enhance the broader area of sensory research (Madzharov, 2013). It also impacts the memory and intentions of consumer (Desrochers, 2009). Research has confirmed that scent has the strongest relation to the memory more than other senses of touch, hearing and sight (Vlahos.J, 2007). The research investigated scent as being able to affect consumers at the beginning stage. When a person smells something, the

receptors will respond to the scent immediately and "Your brain will respond before you think" (Vlahos.J, 2007). The scent power has become an interest for marketers because of its potential for uncensored transfer of information to consumers and close relation to consumer emotional reactions. (Desrochers, 2009)

Besides the visual merchandising that receives attention in previous study, there are combinations of multi-sensory inputs used in order to gain attention from consumers (Philippa Ward and Barry J. Davies, 2003). Bone and Ellen (1999) indicated that smell could influence consumer intention to elaborate with brand image, affect consumer emotion, purchase and repeat visit intention and behavior such as time and money spent, as well as the decision making of consumers (Philippa Ward and Barry J. Davies, 2003). Moreover, the consumers of today are stimulated by 75% of all the emotions generated every day regarding to smell. They receive more than what they see (Lindstrom, 2005). Meanwhile, Fioroni & Titterton (2009) indicate that most marketing and commercials still use visual merchandising by up to 83%.

Scent marketing has applied ambient scent in retail stores and service businesses such as hotels by pumping scent into the air-condition systems (Vlahos.J, 2007). The scent creates a significant and unique ambience for the brand. Furthermore, Morrin (2010) indicates that some retail stores create their *"signature scent"* from a combination of many scents in order to promote differentiation and brand uniqueness for consumers' ease of recognition. Not only with scent, some retail stores and service businesses use multi-sensory scents with music in order to create distinguishing characteristics over the other senses (Herz, 2010). People cannot ignore it. The scent also increases consumer attention and effort to spend more time in the retail stores (Madzharov, 2013). Moreover, scent creates impulsive responses in the retail stores from consumers (Steve, 2014). In order to build a strong brand, marketers need to find a significant linkage between consumer emotion and the brand itself, which provides a distinct opportunity to create a unique brand image (Hulten, 2009). This is important since consumers not only buy the product itself, but also the ambient surrounding (Brembeck, 2004).

Scent marketing can enhance brand recognition and increase brand image depending on individual consumer experience (Zidansek, 2013). Branding is not just about the sales numbers, but is associated with consumer mindset, emotions

and their sense of self. Therefore, marketers should consider the scent of a product or shopping environment since consumers differ in their individual needs (Zidansek, 2013). Koller et al. (2013) recently developed a tool to capture this personality trait on a measurement scale called "Need-for-Smell" to help identify the differential role for the need for olfactory cues among consumers. From Koller (2013), it was found consumers will expect a discomforting experience and feel hesitant about a product or refuse to buy the product when it or the atmosphere cannot satisfy consumer needs (Koller M., 2013).

Likewise, Ghosh (1994) indicated eight elements for the hotel marketing mix are location, product merchandise, store atmosphere, consumer service and price (Ghosh, 1994) Berman and Evans (1995) further categorized these into four elements: external variables and internal variables such as interior design and layout of clothing store (Berman, 1995), while D'Astous (2000) categorized store attributes into three elements: irritation of ambient factors, design and social factors (D'Astous, 2000).

Recent research by Kevin and Debra (2009) indicates that the scent of smell is the strongest sense related to human memory, even more than the other sensory inputs of touch and sight. It also stimulates the attention process and recognition memory as well as escalates the response speed. One of the scent marketers has explored the ability of scent to be "everything you want for your product": pleasant, emotive, suggestive, intangible, attractive and tempting, mouthwatering, susceptible and unforgettable.

In addition, scent is a powerful tool for marketers to recall memories, past experiences and emotions. Research by Michell (1994) indicates scent can associate itself with a product in an ambient manner. If a scent connects to the promotion of specific goods, it can enhance the desired atmosphere for marketers to trigger memories that influence consumer behavior.

H5: Sent environment in retail stores have a positive relationship with consumer brand recognition and image emotions that influence consumer purchase intention to buy products in retail stores in Thailand using ambient scent.

2.2 Impulse buying

Normally, people purchase based on the concept of consumer rational decision to satisfy utilitarian needs, which they plan before shopping. In the contrary, impulse buying is a type of consumer purchasing without a rational approach (Jantarat, 2013). Tversky and Kahaneman (1981) indicate that impulse buying is a choice without careful consideration of other alternatives, without sufficient information or the predetermined intent to buy a product (Tversky, 1974). From the research of several marketers, it has been found that impulse buying behavior is actually powerful and can significantly influence consumer behavior (Bayley, 1998). Kacen and Lee (2002) indicate that most consumers buy new products as the result of impulse buying rather than planning behavior.

From current research exploring other ambient scent factors, consumer behavior can be affected in other ways such as the amount of spending related to ambient scent (Koller M., 2013). Furthermore, Hirsh (1995) indicates that gamblers paid out more money on slot machines in the casino when receiving a pleasurable scent. Different scents also found moderate effect on consumer intention and impulsive buying among the older population. This demonstrates the result that other scents can increase consumer expenditure as well, not only for impulse buying of unplanned purchases (Morrin M. , 2010).

Some research has found that combining music with ambient scent has had a negative effect on shoppers, making them decrease their spending due to too much stimulation. This creates a disadvantage for retailers and an unpleasant shopping experience (Morrin M. R., 2003). Moreover, the previous case of Wal-Mart in North Spokane serves as a cautionary tale. A consumer had to be sent to hospital due to having symptoms of headaches and dry mouth after receiving smell from a Wal-Mart bathroom (Steve, 2014). Furthermore, marketers also use scent as an element of advertising and sales promotions in order to drawn attention from consumers (Morrin M. R., 2003). Steve (2014) indicates that scent marketing is very effective to improve sales figures. Bosmans (2006) indicates that the pleasant nature of scent can correlate with people who have a low motivation process. A simple scent can boost spending due to enlarged general processing fluency (Herrmann, 2012).

On the contrary, the research of Parsons (2008) suggests that appropriate scent in retail stores can enhance consumer shopping behavior and create impulse buying. The retailers need to be aware of how to provide non-associated scents that "turn on" consumers but not "turn off" others. The examples of previous research demonstrate this fact. Nike was able to increase the intent to purchase by up to 80% by the introduction of ambient scent in their store. Furthermore, mini-marts in petrol stations have reported they could improve sales by 300% when using the aroma of coffee (Steve, 2014). Most marketers and retail businesses realize the significance of scent marketing with their brand recognition and boosted sales. Steve (2014) indicates the Time Magazine forecast for consulting firm in New York and that the expenditures if scent marketing expanded from $50 million in 2012 to $80 million in 2013. The numbers are expected to rise over $500 million in the next 10 years (Steve, 2014)

H6: Scent environment in retail stores has a positive relationship with consumer impulse buying that influences consumer purchase intention to buy products in retail stores in Thailand using ambient scent.

## 2.3 Proposed Framework Model

Regarding the study to explore the relationship of scent that influences consumer intention to purchase goods in retail stores in Thailand, the scope of the study is based on the framework shown in Figure 2.3.
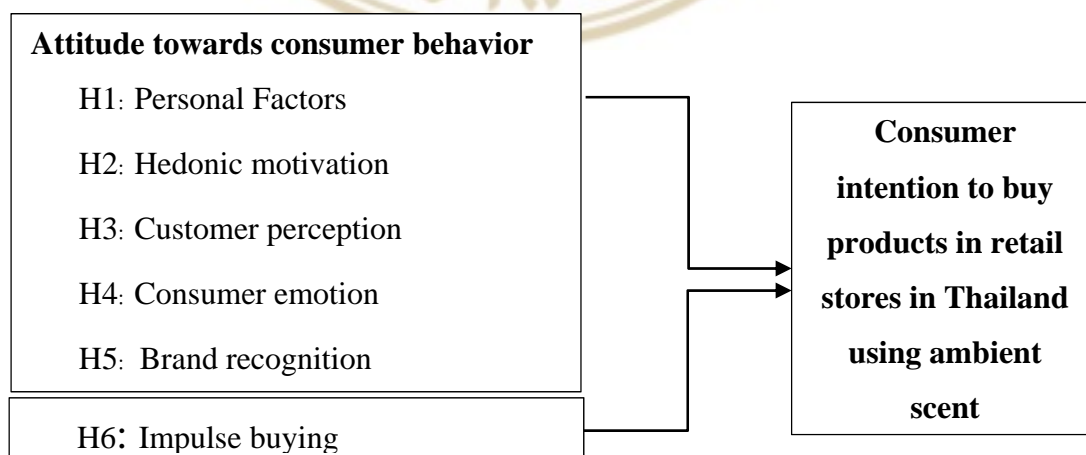
Figure 2.3 Framework model for influential factors that impact consumer purchase intention to buy products in retail stores in Thailand using ambient scent

CHAPTER III
RESEARCH METHODOLOGY

This paper study to explore how scent effect to consumer behavior which influence to customer purchase intention to buy product in retail store, Thailand. The multi-sensory create the unforgettable brand experience that able to maximize sale. Some of retail store in Thailand used scent marketing for creating store uniqueness and memorable to customer. In United States of America, the teen fashion brand such as Hollister and Abercrombie & Fitch also used the scent marketing with the low light of window display, store layout and music for gain attention from customer. They claimed that sale increase after use the scent marketing to build their brand uniqueness and become the first brand in customer mind. In Thailand, some of fashion retail store also use the scent marketing to drawn attention from customer such as CC-OO and Chaps for gains customer attention especially when have sale promotion.

As the assumption, store with ambient scent able to influence consumer intention to buy product in retail store, which will increase sales and customer recognition of the brand. Moreover, not only for the fashion brand the scent marketing can adaptable to use with the other service business such as restaurant and hotel as well.

3.1 Research design

This study research uses the qualitative method by using software SPSS the interpret the data in order to analyze the relationship of scent effect to customer behavior which influence to customer purchase intention to by product in the retail store, Thailand. In order to gather data via online questionnaire with closed-end question type. In order to gathering data in the time limited this research also conduct to the other channel for collect number of survey respondent as much as possible.

3.2 Sampling

The sampling targets primarily on people who use to visit the retail store and received service offer in retail store within the past 90 days of the date surveyed. The author believes that this group makes up a majority of potential target customers. This group has the highest spending power and able to make choice to visit retail store by their own decision.

3.3 Data Collection

The data collect from estimate 200 people of respondent. The online questionnaire survey will have sent through other social network of friends and accompanies who qualified the sampling target.

3.4 Questionnaire Design

The questionnaire design and composition correlate to the objective of this research by referring to the literatures that had reviewed. The questionnaire survey consists of four main parts as below

Part 1:   The screening question

Part 2:   The general question about the respondent's behavior

Part 3:   The specific questions

Part 4:   The demographic question

Example of questionnaire

1. The screening question: The screening question is only one question asking whether a respondent has visited any retail store within the past 3 months. All of the respondents must selected yes for this question. Due to the majority of respondents is person who use to visit retail store in in Bangkok area and live in Bangkok.

2. The second set of question: The second set of questions intended to determine the behavior of department store customers. related to influencing factors. To ensure the usefulness of collected data, respondents must be eligible according to

the sampling target. The questions asked respondents to choose multiple choice question and how much do they agree on the factor in the scale of 1 to 5, which no.1 is strongly disagree and no. 5 is strongly agree.

- How often do you visit the retail store in a month?
- How long do you usually spend time at a retail store?
- Who do you usually attend a retail store with?
- I generally go to retail store only to buy things that I am looking for.
- I generally go to retail store when I am bored.
- Have you ever heard about SCENT being used as a marketing tools in retail store?
- Please choose any of scent diffusions that you're aware of

3. The Specific questions: Third part is the specific questions related to influencing factors of choosing to visit retail store. The questions asked respondents to choose how much do they agree on the factor in the scale of 1 to 5, which no.1 is strongly disagree and no. 5 is strongly agreeing. The specific questions categorized in major sections of factors.

Table 3.1 Example of questionnaire question

1. Personal Factor	1. Personal Factor
H1: Personal factors including demographic characteristics have a positive relationship with consumer behavior in order to affect consumer purchase intention for retail stores in Thailand with ambient scent.	The location of retail store has an influence on my purchasing decision. My family has an influence on my purchasing decision. My friends have an influence on my purchasing decision. My lover has an influence on my purchasing decision.

Table 3.1 Example of questionnaire question (cont.)

2. Hedonic Motivation	2. Hedonic Motivation
H2: Hedonic motivation has a positive relationship with consumer behavior in order to affect consumer purchase intention in retail stores in Thailand with ambient scent.	I feel more stimulated to shop in a retail store that has scent in ambient area rather than not. I feel more relaxed in a retail store that has scent in ambient area rather than not. I feel more motivated to keep updated with new products in a retail store that has scent in ambient area rather than not. I feel more enjoyed to shop with friend in a retail store that has scent in ambient area rather than not. I feel more enjoyed to hunt for bargaining in a retail store that has scent in ambient area rather than not.
3. Consumer Perception	**3. Consumer Perception**
H3: The store atmosphere in retail stores includes the scent in the environment, product layout, function, symbols, lighting, temperature and music and has a positive relationship to consumer perceptions that influence consumer purchase intention to buy products in retail stores in Thailand with ambient scent.	The product layout and decoration in retail store has stimulated me to buy product. The lighting in retail store has stimulated me to buy product. The temperature in retail store has stimulated me to buy product. The scent-ambient in retail store has stimulated me to buy product. The space in retail store has stimulated me to buy product. The music in retail store has stimulated me to buy product. The signed in retail store has stimulated me to buy product.

Table 3.1 Example of questionnaire question (cont.)

4. Customer Emotion	4. Customer Emotion
H4: Scent in an environment of a retail store has a positive relationship with consumer emotion that influences consumer purchase intention to buy products in retail stores in Thailand with ambient scent.	I feel that scent has affected on my emotion. I feel that scent in a retail store attracts to me to purchase product. I feel that time flies when I am browsing for products in a retail store that has scent in ambient area. I feel annoyed in a retail store that has scent in ambient area. I feel ignored in a retail store that has scent in ambient area. I feel confused in a retail store that has scent in ambient area.
5. Brand Recognition	**5. Brand Recognition**
H5: Scent environment in retail stores have a positive relationship with consumer brand recognition and image emotions that influence consumer purchase intention to buy products in retail stores in Thailand using ambient scent.	I can recognize particular retail store brand that has scent in ambient area. I can distinguish retail store brand that has scent in ambient area. I feel that the image of retail store that has scent in ambient area differs from others retail store. I feel particular scent represents particular image of each retail store. I feel good when buying from a retail store that has particular scent. I feel that retail store that has scent in ambient area is unique from the other retail stores. I can distinguish the signature scent of a retail store.

Table 3.1 Example of questionnaire question (cont.)

6. Impulse Buying	3. Impulse Buying
H3: Scent environment in retail stores has a positive relationship with consumer impulse buying that influences consumer purchase intention to buy products in retail stores in Thailand using ambient scent	I feel that scent attracts me to a retail store without planning. I feel that scent stimulates me to buy product from a retail store without planning. I feel that scent in ambient area in a retail store stimulates me to spend more time at the store. I feel scent in ambient area in a retail store stimulates me to buy more products than originally planned.
7. Purchase Intention	**7. Purchase Intention**
N/A	In my opinion, I think scent in a retail store affects my purchasing behavior. In my opinion, I think scent in a retail store affects my purchasing intention. In my opinion, I have intention to buy product from a retail store that has scent in the next 3 months.

4. The Demographic questions: The fourth part is the question for suggestion. This part asked respondents to tell their general demographic. In order to record the proportion of respondents.

Table 3.2 Example of Demographic questions

Factors	Questions
Gender	What is your gender?
Age	What is your aged?
Occupation	What is your occupation?
Education	What is your educational level?
Income	What is your current income?
Personal	Do you normally wear perfume?

3.5 Data Analysis Method

After collected data from respondents, the sampling data will analyze by Statistical Package for the Social Science (SPSS) Program, applying the factor analysis to sort out what are the factors that how scent effect consumer behavior to purchase intention to buy product in retail store, Thailand. This research will measure the relationship of variable factors by use following method;

1. Descriptive analysis
2. Cronbach's alpha
3. Correlation coefficient analysis
4. Multiple linear regressions

CHAPTER IV
RESEARCH FINDINGS AND DATA ANALYSIS

This research paper studied how scent effect consumer behavior to purchase intention to buy product in retail store, Thailand. An online survey was conducted in November 2016 and there were 202 respondents who completed the questionnaire. The main research question was to identify the influential predictors that affected purchase intention scores by using correlation and linear regression analyses. The hypotheses were tested at a conventional alpha level i.e. 5% significance level. Research findings are reported in this chapter as following

    1. Demographic profile and general behavior of respondents

    2. General behaviors regarding shopping and scent in retail stores

    3. Factors that relate to consumer that influence consumer purchase intention to buy product in retail store

    4. The significance tests from correlation and linear regression models.

4.1 Demographic of respondents' information

The total of 202 respondents collected from online questionnaire of people who live in Bangkok, Thailand. All the respondents had visited the retail store in the past 90 days which this demographic profiles including gender, age, occupation, education level, and personal income per month (THB).

    1. Gender: From the survey 61.4 percent or 124 respondents were female while 38.6 percent or 78 respondents were male of the total 202 respondents collected from online questionnaire.

    2. Age: From the survey the majority of respondents were age group 31-40 years (36.6%), 41- 50 years (34.2%), 30 years or lower (17.8%) and more than 50 years (11.4%) from the total of 202 respondents respectively.

3. Occupation: From the survey the majority of respondents were public officer/employee (68.3%), government officer (17.8%), business owner (10.9%) while other (3%) from the total of 202 respondents respectively.

4. Education: From the survey the majority of respondents were bachelor degree (64.9%), master degree or above (29.7% and below bachelor (5.4%) from the total of 202 respondents respectively.

5. Income: From the survey the majority of respondents had income higher than 55,000 THB (27.2%), 35,001-45,000 THB (25.2%), 25,001-35,000 THB (16.8%), 15,000-25,000 THB (13.4%), 45,001-55,000 THB (12.9%) and Below 15,000 THB (4.5%) from the total of 202 respondents respectively.

Table 4.1 Summary of demographic profiles – gender, age, occupation, education level, and monthly personal income

| Demographic		No. of respondents	Percentage
Gender	Female	124	61.4
	Male	78	38.6
Age	30 years or lower	36	17.8
	31-40 years	74	36.6
	41-50 years	69	34.2
	More than 50 years	23	11.4
Occupation	Public officer / Employee	138	68.3
	Government officer	36	17.8
	Business owner	22	10.9
	Other	6	3
Education level	Below bachelor	11	5.4
	Bachelor degree	131	64.9
	Master degree or higher	60	29.7
Monthly personal income	Below 15,000 THB	9	4.5
	15,000-25,000 THB	27	13.4
	25,001-35,000 THB	34	16.8
	35,001-45,000 THB	51	25.2
	45,001-55,000 THB	26	12.9
	Higher than 55,000 THB	55	27.2
Total no. of respondents		**202**	**100**
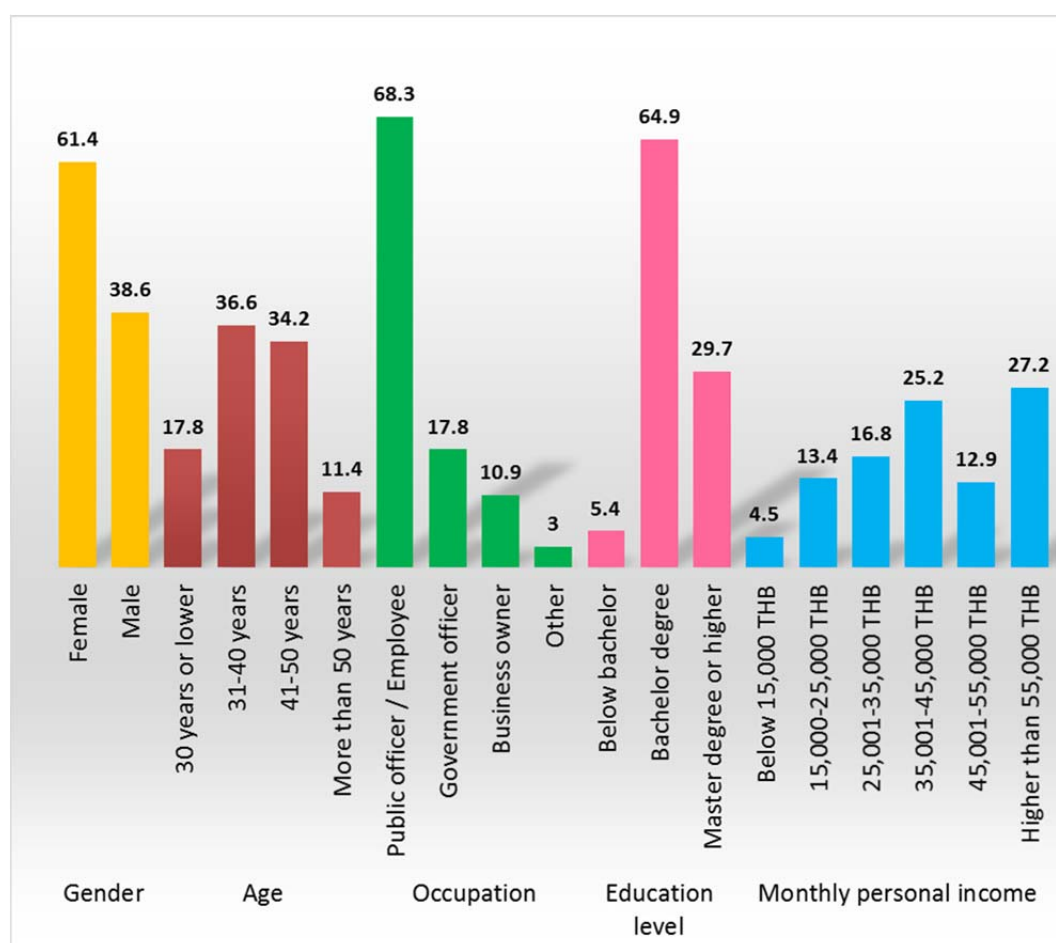
Figure 4.1 Demographic profiles graph

4.2 General behaviors regarding shopping and scent in retail stores

Moreover, this section reports the frequency and percentage of the respondent behavior regarding the shopping experience and scent used in retail stores. Table 4.2 presents the frequency that a respondent visited a retail store in a month. More than seventy percent of the respondents went to retail stores between 2-3 times a month (73.3%).

Table 4.2 How often do you visit the retail store in a month?

	Frequency	Percentage
Once a month	24	11.9
2-3 times a month	148	73.3
More than 3 times a month	30	14.9
Total	**202**	**100.0**

Table 4.2 presents time spent in a retail store for shopping. Most of the respondents spent more than 45 minutes (48.0%) followed by between 16-45 minutes (41.1%) and 10-15 minutes (10.9%) respectively.

Table 4.3 How long do you usually spend time at a retail store?

Spend Time	Frequency	Percentage
10-15 minutes	22	10.9
16-45 minutes	83	41.1
More than 45 minutes	97	48.0
Total	**202**	**100.0**

Table 4.4 presents whom they usually went to store with. About thirty percent went to store alone (32.2%), and nearly forty percent went to store with family (36.6%). About one-fourth usually went to store with boy or girlfriend (24.3%)

Table 4.4 Who do you usually attend a retail store with?

	Frequency	Percentage
Alone	65	32.2
Friend	14	6.9
Family	74	36.6
Boyfriend / Girlfriend	49	24.3
Total	**202**	**100.0**

Table 4.5 reports the experience with scent used in a retail store as a marketing tool. Nearly seventy of the respondents claimed to have no experience with scent used in a retail store (67.8%). Only 12.9 percent claimed to have experience such stimuli in a retail environment.

Table 4.5 Have you ever heard about SCENT being used as a marketing tools in retail store?

	Frequency	Percentage
Yes	26	12.9
No	137	67.8
Unsure	39	19.3
Total	**202**	**100.0**

Table 4.6 reports the store's atmosphere and environment. Almost fifty percent perceived a retail store to have interesting atmosphere (45.0%), followed by relaxing (40.1%), and stimulating (8.4%) respectively.

Table 4.6 The retail store atmosphere is

	Frequency	Percentage
Calm	5	2.5
Exciting	4	2.0
Dull	1	.5
Interesting	91	45.0
Relaxing	81	40.1
Stimulating	17	8.4
Uncomfortable	3	1.5
Total	**202**	**100.0**

Table 4.7 reports whether a respondent could detect a scent i.e. the name of the scent used in a retail store he/she had visited. Nearly seventy percent could not detect the scent (67.8%) which only (12.9%) claimed to be able to detect it and Unsure (19.3) respectively.

Table 4.7 Have you detected a particular scent in the retail store that you had visited?

	Frequency	Percentage
Yes	26	12.9
No	137	67.8
Unsure	39	19.3
Total	**202**	**100.0**

Table 4.8 reports three-fourth of the participants usually wore perfume (76.2%) and about one-fourth did not wear perfume (23.8%) on a regular basis.

Table 4.8 Do you normally wear perfume?

	Frequency	Percentage
No	48	23.8
Yes	154	76.2
Total	**202**	**100.0**

Table 4.9 reports approach half of respondents received scent from nebulization and product itself in the retail store (41.85%) and about one-fourth of the participants

usually vaporization, nebulization and product itself in retail store (23.27%) on regular basis.

Table 4.9 Scent diffusions that respondents are aware in retail store

	Count of no. of	Percentage
Nebulization (เครื่องพ่นปรับอากาศในร้านค้า), Product itself (ตัวผลิตภัณฑ์)	84	41.58%
Vaporization (เครื่องหอมระเหย), Nebulization (เครื่องพ่นปรับอากาศในร้านค้า), Product itself (ตัวผลิตภัณฑ์)	47	23.27%
Product itself (ตัวผลิตภัณฑ์)	15	7.43%
Vaporization (เครื่องหอมระเหย)	13	6.44%
Dry Air Diffusion (เครื่องกรองอากาศ)	10	4.95%
Nebulization (เครื่องพ่นปรับอากาศในร้านค้า)	5	2.48%
Dry Air Diffusion (เครื่องกรองอากาศ), Nebulization (เครื่องพ่นปรับอากาศในร้านค้า), Product itself (ตัวผลิตภัณฑ์)	4	1.98%
Nebulization (เครื่องพ่นปรับอากาศในร้านค้า), Scented Sticks in Oil (แท่งหอมระเหย), Product itself (ตัวผลิตภัณฑ์)	4	1.98%
Scented Sticks in Oil (แท่งหอมระเหย), Product itself (ตัวผลิตภัณฑ์)	3	1.49%
Vaporization (เครื่องหอมระเหย), Product itself (ตัวผลิตภัณฑ์)	3	1.49%
Dry Air Diffusion (เครื่องกรองอากาศ), Vaporization (เครื่องหอมระเหย), Nebulization (เครื่องพ่นปรับอากาศในร้านค้า), Product itself (ตัวผลิตภัณฑ์)	2	0.99%
Scented Sticks in Oil (แท่งหอมระเหย)	2	0.99%
Vaporization (เครื่องหอมระเหย), Nebulization (เครื่องพ่นปรับอากาศในร้านค้า)	2	0.99%
Dry Air Diffusion (เครื่องกรองอากาศ), Nebulization (เครื่องพ่นปรับอากาศในร้านค้า)	1	0.50%
Dry Air Diffusion (เครื่องกรองอากาศ), Nebulization (เครื่องพ่นปรับอากาศในร้านค้า), Scented Sticks in Oil (แท่งหอมระเหย), Product itself (ตัวผลิตภัณฑ์)	1	0.50%
Dry Air Diffusion (เครื่องกรองอากาศ), Product itself (ตัวผลิตภัณฑ์)	1	0.50%
Dry Air Diffusion (เครื่องกรองอากาศ), Vaporization (เครื่องหอมระเหย), Scented Sticks in Oil (แท่งหอมระเหย)	1	0.50%
Vaporization (เครื่องหอมระเหย), Nebulization (เครื่องพ่นปรับอากาศในร้านค้า), Scented Sticks in Oil (แท่งหอมระเหย)	1	0.50%
Vaporization (เครื่องหอมระเหย), Nebulization (เครื่องพ่นปรับอากาศในร้านค้า), Scented Sticks in Oil (แท่งหอมระเหย), Product itself (ตัวผลิตภัณฑ์)	1	0.50%

Table 4.9 Scent diffusions that respondents are aware in retail store (cont.)

	Count of no. of	Percentage
Vaporization (เครื่องหอมระเหย), Scented Sticks in Oil (แท่งหอมระเหย)	1	0.50%
Vaporization (เครื่องหอมระเหย), Scented Sticks in Oil (แท่งหอมระเหย), Product itself (ตัวผลิตภัณฑ์)	1	0.50%
Grand Total	**202**	**100.00%**

4.3 The reliability of factors that relate to consumer that will influence consumer purchase intention to buy product in retail store.

This third section reports mean and standard deviation of each factor asked in the online survey. The factor analysis to sort out what are the factors that scent has affected consumer behavior to purchase intention to buy product in retail store, Thailand.

The table 4.10 reported mean and standard deviation of psychological factor as 4.20 and 0.82 respectively. *"I generally go to retail store only to buy things that I am looking for"* received highest mean response as 4.63. The Cronbach's alpha was also reported in the table as 0.900 which passed the minimum .700 criterion indicating a good reliability of this factor i.e. all stat00ements formed this factor were consistent.

Table 4.10 Mean and Standard deviation of general question factor

	QUESTION	Mean	Std. Deviation	Cronbach's Alpha	Reliability Level
Psychological Factor					
5	I generally go to retail store only to buy things that I am looking for.	**4.63**	0.73	0.900	Reliability
6	I generally go to retail store when I am bored.	3.37	1.37		
7	I generally go to retail store to enjoy browsing products.	4.17	0.98		
8	I generally go to retail store to use my privilege offer (discount, member card).	4.33	1.03		
9	I generally go to retail store to enjoy the atmosphere.	4.22	1.1		

Table 4.10 Mean and Standard deviation of general question factor (cont.)

	QUESTION	Mean	Std. Deviation	Cronbach's Alpha	Reliability Level
10	I generally go to retail store because of the retail decoration.	4.25	1.16		
11	I generally go to retail store for relaxing	4.22	1.09		
12	I generally go to retail store when they are on sale	4.43	0.93		
	Total	**4.2**	**0.82**		

Table 4.11 reports the compound mean and standard deviation of personal factor as 4.15 and 0.88 respectively. The alpha was reported as 0.791 which passed a minimum criterion indicating a reliable consistency within this factor. *"The location of retail store has an influence on my purchasing decision"* received highest mean response as 4.58.

Table 4.11 Mean and Standard deviation of personal factor

	QUESTION	Mean	Std. Deviation	Cronbach's Alpha	Reliability Level
Personal Factor					
17	The location of retail store has an influence on my purchasing decision.	**4.58**	0.78	0.791	Reliability
18	My family has an influence on my purchasing decision.	4.14	1.15		
19	My friends have an influence on my purchasing decision.	3.86	1.24		
20	My lover has an influence on my purchasing decision.	4.01	1.24		
	Total	**4.15**	**0.88**		

Table 4.12 reports the compound mean and standard deviation of hedonic motivation as 4.24 and 0.78 respectively. The alpha was reported as 0.933 which passed a minimum criterion indicating a highly reliable consistency within this factor. *"I feel more relaxed in a retail store that has scent in ambient area rather than not"* received highest mean response as 4.33.

Table 4.12 Mean and Standard deviation hedonic motivation

	QUESTION	Mean	Std. Deviation	Cronbach's Alpha	Reliability Level
Hedonic Motivation					
21	I feel more stimulated to shop in a retail store that has scent in ambient area rather than not.	4.29	0.83	0.933	Reliability
22	I feel more relaxed in a retail store that has scent in ambient area rather than not.	**4.33**	0.79		
23	I feel more motivated to keep updated with new products in a retail store that has scent in ambient area rather than not.	4.26	0.90		
24	I feel more enjoyed to shop with friend in a retail store that has scent in ambient area rather than not.	4.20	0.89		
25	I feel more enjoyed to hunt for bargaining in a retail store that has scent in ambient area rather than not.	4.09	0.94		
	Total	**4.24**	**0.78**		

Table 4.13 reports the compound mean and standard deviation of consumer perception as 4.43 and 0.69 respectively. The alpha was reported as 0.935 which passed a minimum criterion indicating a highly reliable consistency within this factor. *"The lighting in retail store has stimulated me to buy product"* received highest mean response as 4.48.

Table 4.13 Mean and standard deviation of consumer perception

	QUESTION	Mean	Std. Deviation	Cronbach's Alpha	Reliability Level
Consumer Perception					
26	The product layout and decoration in retail store has <u>stimulated</u> me to buy product.	4.46	0.80	0.935	Reliability
27	The lighting in retail store has <u>stimulated</u> me to buy product.	**4.48**	0.79		
28	The temperature in retail store has <u>stimulated</u> me to buy product.	4.44	0.80		
29	The scent-ambient in retail store has <u>stimulated</u> me to buy product.	4.40	0.87		
30	The space in retail store has <u>stimulated</u> me to buy product.	4.45	0.82		
31	The music in retail store has <u>stimulated</u> me to buy product.	4.41	0.92		
32	The signed in retail store has <u>stimulated</u> me to buy product.	4.40	0.71		
	Total	**4.43**	**0.69**		

Table 4.14 reports the compound mean and standard deviation of customer emotion as 4.27 and 0.91 respectively. The alpha was reported as 0.896 which passed a minimum criterion indicating a highly reliable consistency within this factor. *"I feel*

that scent in a retail store attracts to me to purchase product" received highest mean response as 4.39.

Table 4.14 Mean and standard deviation of customer emotion

QUESTION		Mean	Std. Deviation	Cronbach's Alpha	Reliability Level
Customer Emotion					
33	I feel that scent has affected on my emotion.	4.30	0.82	0.896	Reliability
34	I feel that scent in a retail store attracts to me to purchase product.	**4.39**	0.88		
35	I feel that time flies when I am browsing for products in a retail store that has scent in ambient area.	4.25	0.89		
36	I feel annoyed in a retail store that has scent in ambient area. (Reverse)	4.15	1.02		
37	I feel ignored in a retail store that has scent in ambient area. (Reverse)	4.24	0.96		
38	I feel confused in a retail store that has scent in ambient area. (Reverse)	4.26	0.90		
	Total	**4.27**	**0.91**		

Table 4.15 reports the compound mean and standard deviation of brand recognition as 3.97 and 0.56 respectively. The alpha was reported as 0.854 which passed a minimum criterion indicating a highly reliable consistency within this factor. *"I feel that retail store that has scent in ambient area is unique from the other retail stores"* received highest mean response as 4.31.

Table 4.15   Mean and standard deviation of brand recognition

QUESTION		Mean	Std. Deviation	Cronbach's Alpha	Reliability Level
Brand Recognition					
39	I can recognize particular retail store brand that has scent in ambient area.	3.63	0.72	0.854	Reliability
40	I can distinguish retail store brand that has scent in ambient area.	3.48	0.73		
41	I feel that the image of retail store that has scent in ambient area differs from others retail store.	3.92	0.75		
42	I feel particular scent represents particular image of each retail store.	4.24	0.76		
43	I feel good when buying from a retail store that has particular scent.	4.21	0.86		
44	I feel that retail store that has scent in ambient area is unique from the other retail stores.	*4.31*	0.74		
45	I can distinguish the signature scent of a retail store.	4.01	0.83		
	Total	**3.97**	**0.56**		

Table 4.16 reports the compound mean and standard deviation of impulse buying as 4.00 and 0.80 respectively. The alpha was reported as 0.892 which passed a minimum criterion indicating a highly reliable consistency within this factor. *"I feel that scent in ambient area in a retail store stimulates me to spend more time at the store"* received highest mean response as 4.27.

Table 4.16 Mean and standard deviation of impulse buying

	QUESTION	Mean	Std. Deviation	Cronbach's Alpha	Reliability Level
Impulse Buying					
46	I feel that scent attracts me to a retail store without planning.	3.43	0.87	0.892	Reliability
47	I feel that scent stimulates me to buy product from a retail store without planning.	4.11	0.96		
48	I feel that scent in ambient area in a retail store stimulates me to spend more time at the store.	*4.27*	0.86		
49	I feel scent in ambient area in a retail store stimulates me to buy more products than originally planned.	4.20	0.98		
	Total	**4.00**	**0.80**		

Table 4.17 reports the compound mean and standard deviation of purchase intention as 4.29 and 0.92 respectively. The alpha was reported as 0.943 which passed a minimum criterion indicating a highly reliable consistency within this factor. *"In my opinion, I think scent in a retail store affects my purchasing intention"* received highest mean response as 4.31.

Table 4.17 Mean and standard deviation of purchase intention

	QUESTION	Mean	Std. Deviation	Cronbach's Alpha	Reliability Level
Purchase Intention					
50	In my opinion, I think scent in a retail store affects my purchasing behavior.	4.27	0.94	0.943	Reliability

Table 4.17 Mean and standard deviation of purchase intention (cont.)

	QUESTION	Mean	Std. Deviation	Cronbach's Alpha	Reliability Level
51	In my opinion, I think scent in a retail store affects my purchasing intention.	*4.31*	1.00		
52	In my opinion, I have intention to buy product from a retail store that has scent in the next 3 months.	4.29	0.97		
	Total	**4.29**	**0.92**		

4.4   The significance tests from correlation and linear regression models.

4.4.1 Correlation Coefficient Analysis

This final section presents the results from correlation and multiple linear regression modellings. A dependent variable was claimed purchase intention and seven independent variables included personal factor, psychological factor which include hedonic motivation, consumer perception, customer emotion, brand recognition, and impulse buying. Correlation analysis was used to test the relationship between dependent and independent variables as reported in table 4.18.

Table 4.18 Correlation matrix

		Personal factor	Hedonic motivation	Consumer perception	Customer emotion	Brand recognition	Impulse buying	Purchase intention
Personal factor	Pearson Correlation	1	.695**	.629**	-.069	.419**	.462**	.537**
	Sig. (2-tailed)		.000	.000	.327	.000	.000	.000
Hedonic motivation	Pearson Correlation		1	.766**	.096	.658**	.678**	.719**
	Sig. (2-tailed)			.000	.176	.000	.000	.000
Consumer perception	Pearson Correlation			1	.123	.714**	.738**	.764**
	Sig. (2-tailed)				.080	.000	.000	.000
Customer emotion	Pearson Correlation				1	.178*	.177*	.098
	Sig. (2-tailed)					.011	.012	.166
Brand recognition	Pearson Correlation					1	.750**	.757**
	Sig. (2-tailed)						.000	.000
Impulse buying	Pearson Correlation						1	.833**
	Sig. (2-tailed)							.000
Purchase intention	Pearson Correlation							1
	Sig. (2-tailed)							
**. Correlation is significant at the 0.01 level (2-tailed).								
*. Correlation is significant at the 0.05 level (2-tailed).								

Table 4.18 reports the correlation coefficients and their associated p-value. One asterisk (*) indicates a significance at 95% confidence level, and two asterisks (**) indicates a significance at 99% confidence level. Looking at the far-right column, all explanatory variables, except for customer emotion, were positively and statistically correlated with the purchase intention scores at .01 alpha level (i.e. p-values were lower than .01). The correlation coefficients were all greater than .500 level indicating a strong correlation.

According to the result of the factor analysis report factor that has significant positive relationship which the regression coefficients are reported in the table 4.18. The most correlated factor to purchase intention was impulse buying (r = .833), followed by consumer perception (r = .764), brand recognition (r = .757), hedonic motivation (r = .719) and personal factor (r = .537) respectively. Since most explanatory variables

were correlated with purchase intention well, linear regression was suggested to assess the impact of these variables.

H1: Personal factors including demographic characteristics have a positive relationship with consumer behavior in order to affect consumer purchase intention for retail stores in Thailand with ambient scent. (r = .537)

H2: Hedonic motivation has a positive relationship with consumer behavior in order to affect consumer purchase intention in retail stores in Thailand with ambient scent. (r = .719)

H3: The store atmosphere in retail stores includes the scent in the environment, product layout, function, symbols, lighting, temperature and music and has a positive relationship to consumer perceptions that influence consumer purchase intention to buy products in retail stores in Thailand with ambient scent. (r = .764)

H4: Scent environment in retail stores have a positive relationship with consumer brand recognition and image emotions that influence consumer purchase intention to buy products in retail stores in Thailand using ambient scent. (r = .757)

H5: Scent environment in retail stores has a positive relationship with consumer impulse buying that influences consumer purchase intention to buy products in retail stores in Thailand using ambient scent. (r = .833)

4.4.2 Multiple Regression Analysis

Table 4.19 report the final table reports the linear regression coefficients and model summary statistics. The r square 'goodness of fit' of the model was reported as .772, adjusted r square as .765 respectively. The high r square (closer to one) was preferable as this means the model can be used to explain the variance in dependent variable with greater accuracy.

Table 4.19 Model Summary

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.879[a]	.772	.765	.44496
a. Predictors: (Constant), impulse buying, customer emotion, personal factor, brand recognition, hedonic motivation, consumer perception				

Table 4.20 report the overall significance of the model was tested by the ANOVA, F statistics. The F statistics was reported as 110.172 and its associated p-value was statistically significant at .05 alpha level indicating a good fit of the model and that at least one predictor in the model was statistically significant as well.

Table 4.20 Anova of overall significance of the model

ANOVA[a]						
	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	130.879	6	21.813	110.172	.000[b]
	Residual	38.609	195	.198		
	Total	169.488	201			
a. Dependent Variable: purchase intention						
b. Predictors: (Constant), impulse buying, customer emotion, personal factor, brand recognition, hedonic motivation, consumer perception						

Table 4.21 reports the statistically significant at .05 alpha level of the total six hypotheses. The result report consumer perception, brand recognition, and impulse buying factors were reported statistically significant at .05 alpha level (i.e. p-values were lower than .05), and hedonic motivational factor was statistically significant at .10 alpha level (i.e. p-value was lower than .10).

By looking at the size of the standardized beta, the most impactful factor was impulse buying (standardized beta = .473), followed by brand recognition (standardized

beta = .203), consumer perception (standardized beta = .157) and hedonic motivation (standardized beta = .112) respectively as report on table 4.21.

The estimated regression coefficient is presented in the B column of table 4.21. All of the significant predictors were positive which mean that their impacts to purchase intention were positive i.e. changed in the same direction. The interpretation for B was straightforward. For example, as impulse buying increased by one unit, other factors in the model remained unchanged, claimed purchase intention would increase by .541 unit [95% CI .409 .674]. When hedonic motivation increased by one unit, other variables remained constant, claimed purchase intention would increase by .132 unit [95% CI -.014, .278].

The final regression model that can be used to predict future purchase intention is as follows. If the values of all predictors were known, researcher could use this information to predict future purchase intention of a respondent.

$$Y = (-.584) + .057(X_1) + .132(X_2) + .208(X_3) + (-.107)(X_4) + .331(X_5) + .541(X_6)$$

Y = Purchase intention to buy product in retail store, Thailand in the next 3 months

X_1 = Personal factor

X_2 = Hedonic motivation

X_3 = Consumer perception

X_4 = Customer emotion

X_5 = Brand recognition

X_6 = Impulse buying

Table 4.21 Linear regression coefficients

		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Collinearity Statistics	
Model		B	Std. Error	Beta			Lower Bound	Upper Bound	Tolerance	VIF
1	(Constant)	-.584	.319		-1.830	.069	-1.214	.046		
	Personal factor	.057	.053	.055	1.083	.280	-.047	.162	.459	2.177
	Hedonic motivation	.132	.074	.112	1.779	.077	-.014	.278	.297	3.365
	Consumer perception	.208	.085	.157	2.442	.016	.040	.377	.283	3.538
	Customer emotion	-.107	.079	-.048	-1.354	.177	-.263	.049	.927	1.079
	Brand recognition	.331	.092	.203	3.579	.000	.148	.513	.364	2.751
	Impulse buying	.541	.067	.473	8.074	.000	.409	.674	.341	2.933

a. Dependent Variable: purchase intention

4.5 Hypotheses Summary

Regarding to this research of factor analysis and multiple regression methods from questionnaire of total 202 respondents in order to test the relationship between all variable factor with the purchase intention of customer in retail store, Thailand. The summary of research finding shown in table 4.22.

Table 4.22 Hypotheses Summary

	Hypothesis	Method test	Result
1. Personal Factor	*H1:* Personal factors including demographic characteristics have a positive relationship with consumer behavior in order to affect consumer purchase intention for retail stores in Thailand with ambient scent	Multiple regression	Rejected
2. Hedonic Motivation	*H2: Hedonic Motivation apparel positive relationships to consumer behavior in order to affect to customer purchase intention in retail store that has scent in ambient in Thailand.*	Multiple regression	Rejected
3. Consumer Perception	*H3: The Store Atmosphere include scent environment, product layout, function signed, symbol, lighting, temperature and music in the retail store apparel positive relationships to customer perception that influence to customer purchase intention to buy product in retail store that has scent in ambient, Thailand*	Multiple regression	Accepted

Table 4.22 Hypotheses Summary (cont.)

	Hypothesis	**Method test**	**Result**
4. Customer Emotion	*H4: Scent environment in retail store apparel positive relationships to customer emotion that influence to customer purchase intention to buy product in retail store that has scent in ambient, Thailand*	Multiple regression	Rejected
5. Brand Recognition	*H5: Scent environment in retail store apparel positive relationships to customer brand recognition and image emotion that influence to customer purchase intention to buy product in retail store that has scent in ambient, Thailand*	Multiple regression	Accepted
6. Impulse Buying	*H6: Scent environment in retail store apparel positive relationships to customer impulse buying that influence to customer purchase intention to buy product in retail store that has scent in ambient, Thailand*	Multiple regression	Accepted

4.6 Discussion

This study explored the relationship between how scent relates to consumer behavior and its ability to influence consumer purchase intention to buy products in retail stores in Thailand. This research aimed to focus on 3 categories of 'personal factors', 'psychological factors' and 'impulse buying', separated into 6 hypotheses for personal factors, hedonic motivation, consumer perception, consumer emotion, brand recognition and impulse buying.

From the study, 'personal factors' have a negative relationship to consumer purchase intention in retail stores in Thailand, aligns with the study by Gulas and Bloch (1995) and Kemal Yildirim (2013), which indicated that scent could influence individuals variably depending on personal preference and gender. Contrarily, the study of Desrochers (2009) indicated that, when consumers got older, it would decerase the effect of scent on purchase intention due to the decreases potentail of smell receptors. Moreover, such preference change over time depends on the age and experience of individuals.

The 'hedonic motivation' has a negative relationship to consumer purchase intention in retail stores in Thailand. From the study of Hirschman (1982) and Fischer (1990), the indication is that hedonic motivation stimulated consumers to gain more benefits from shopping besides just buying products. Enjoyment in the store environment became a factor. From the results of research, it was found that most people felt more relaxed in a retail store that had an atmosphere with scent.

Furthermore, 'consumer perception' has a positive relationship with consumer purchase intention in retail stores in Thailand. From the results of research, it was found that lighting, product layout, space, temperature, music, scent-ambience and signage in retail stores was attractive to consumers, which aligns with the study of Zidensek (2013) and Mitchell (1995), who indicated that the atmosphere in retail stores impacted and stimulated cosumers to spend more time browsing and purchase more in the retail stores.

On the other hand, the linear regression result found that ' consumer emotion' has a negative relationship to consumer purchase intention in retail stores in Thailand. This is contrary to the previous studies of Zidensek (2013) and Ward, Davies & Kooijman (2003), which indicated that scent is a powerful tool for retailers to connect with consumer emotion, memory and the ability to influence consumer intentions to buy products.

In addition, 'brand recognition' has a positive relationship to consumer purchase intention in retail stores in Thailand. The study of Morrin (2010) indicated scent created a signature image for a brand in order to differentiate and promote brand uniqueness for consumers to recognize a brand.

Lastly, 'impulse buying' has a positive relationship to consumer purchase intention in retail stores in Thailand. From the study of Hirsh (1995) and Koller M., (2013) scent can stimulate and impact consumers by making them spend more time for browsing and increase expenditures when shopping. Such research also found that impulse buying was the most impactful to consumer purchase intention to buy products in retail stores in Thailand.

CHAPTER V
CONCLUSION AND RECOMMENDATIONS

5.1 Conclusion

This research studies and explores how scent is related to consumer behavior regarding purchase intention among different factors in retail stores in Thailand. This research adapted elements from previous researches regarding scent influence on consumer behavior for personal factors, psychological factors and impulse buying. The research was deeper in some specific aspects such as hedonic motivation, consumer perception, consumer emotion, brand recognition and impulse buying. From the study of previous literature, 7 hypotheses were created to test with correlation and linear regression analysis methods. This research used a quantitative method to collect data for a (n=202) sample size living in Bangkok, Thailand.

From the overall respondents' profile, 124 respondents were female and 78 were male, which is equal to 61.4% and 38.6%, respectively. The majority of respondents who responded to the questionnaire were 31-40 years old, or 36.6%. The majority of respondents had a bachelor degree level education at 64.9%. Most of the respondents were public officers and employees at 68.3%. The largest percentage of respondents received a monthly income more than 55,000 THB (27.2%), followed by 35,001-45,000 THB (25.2%).

Regarding the section of general questions, it was found that 73.3% of respondents normally visited retail stores 2-3 times a month. Most of the respondents spent more than 45 minutes in retail stores, which accounted for 48% of the total respondents. The majority of the respondents usually went to retail stores with their family (36.6%), while less went to retail stores alone (32.2%). From the overall respondent sampling, it was shown that more than half of respondents (67.8%) had no idea about scent and its use as a marketing tool in retail stores, despite most respondents feeling that the atmosphere in retail stores was interesting (45%) and relaxing (40.0%). Most of the respondents claimed they were unable to detect a particular scent in retail stores

they had visited (67.8%). Moreover, most of the respondents normally wore perfume (76.2%), while others did not (23.8%). Lastly, the results showed most of the respondents generally went to retail stores to buy things they were already looking for before entering (4.63%).

From the results of the questionnaire study and hypotheses test linear regression method, the results show **H3:** consumer perception, **H5:** brand recognition and **H6:** impulse buying had positive relationships with consumer purchase intention to buy products in retail stores with a scent in the store atmosphere. On the contrary, the results showed **H1:** personal factors, **H2:** hedonic motivation, and **H4:** consumer emotion, had negative relationship with consumer purchase intention to buy products in retail stores that contained a scent in the atmosphere.

The results of the research showed that the key factor of scent could influence consumer purchase intention to buy products in retail stores. The results showed H3: consumer perception, H5: brand recognition and H6: impulse buying was a strong factor to influence consumer purchase intention to buy products in retail stores in Thailand. As mentioned previously, scent is a powerful tool for marketers to make products attractive by differentiating the brand and creating a signature brand image. Scent is one of the five human sensory inputs that are unable to be ignored or refused. People normally receive particular scents, then process them to the olfactory bulb, which processes and automatically connects with a former experience. The scent receiver can feel pleasure in the atmosphere or avoid the atmosphere, depending on current consumer perceptions and personal preferences.

5.2 Recommendation

According to the results of research, the trend is rapid growth in retail stores and increasingly intensive competition in the market each year. Therefore, scent marketing trend is an efficient marketing tool for marketers in order to increase attention from consumers' involuntary stimulation. Scent is one of the sensory inputs that provide information to the human sense receptors, which is directly connected through the olfactory bulb and links to the limbic system, finally connecting to the part of the human brain used for emotion and memory. It should be a good tactic for marketers to increase

consumer recognition without notice or give a hint to consumer. Scent can engage anywhere and is directly connected to consumer memory. The retailers should create an ambient scent for special events or promotions in order to create the desired store atmosphere.

From research studies, ambient scent affects consumer behavior, which influences consumer purchase intention in retail stores. The research also shows other related factors in the atmosphere such as lighting, product layout, space, temperature and music affect consumer behavior to purchase products as well. Therefore, marketers should consider combining multi-sensory inputs to influence consumers and increase more efficiency for a good atmosphere in retail stores, which will promote spending.

The management of retailers should consider scent marketing as an alternative tool to increase the strength of a brand by creating brand identity and atmosphere. Scent-marketing can help retailers to build brand image and brand identity for communication to consumers via the product itself as well as the store environment.

As the results show for the demographic analysis section, most respondents felt more relaxed and stimulates by the right scent. Most of the respondents wore perfume, which might create the assumption that people are aroused by scent and feel good about receiving certain smells. People are also likely pleased to live in a scent-filled atmosphere. Therefore, scent marketing can benefit marketers and owners of retail stores by using scent as an alternative marketing tool to manage a brand and store with more proficiency in many dimensions. According to previous research, scent can help improve sales by influencing impulse buying for people that is unplanned. Scent in an ambient area can stimulate them to spend more time and leads to increased spending behavior. Thus, scent might be a good option for marketers to easily boost sales numbers. Not only for impulse buying, the results of research show that the significant factors that influence purchase intention are brand recognition, consumer perception, hedonic motivation and personal factors.

Hence, companies should build strong brand image by creating differentiation for consumer memory and ease of recognition. The more people know and remember your brand, the better the advantage in the long run and good for the business. Moreover, retailers should create a hedonic motivation atmosphere in order to satisfy consumers

since people nowadays not only buy the product they require. They are also willing to pay for a desirable atmosphere.

Marketers should consider improving in all dimensions of personal factors, hedonic motivation, consumer perception, consumer emotion, brand recognition and impulse buying. Moreover, marketers should develop a strategy and tactic to support consumer demand and advantages for unexpected competition from other brands with similar products.

5.3 Limitations and Suggestions

Firstly, a limitation of this study is the lack of questionnaire pilot testing. This was due to limited time. Therefore, the questionnaire cannot ensure that it is easy to understand for all questions and for all respondents. For example, the retail stores in the questionnaire were quite bordered for the respondents. The scope should be narrowed in future research. Moreover, this questionnaire was launch in English, which narrowed the scope and size of respondents, meaning the questions and answers were restricted to a particular group of samples. Secondly, there is the limitation of time for gathering data information. Moreover, most of the respondents (98%) lived in the Bangkok area. Therefore, the results of respondents who live in Bangkok may not be generalized to the larger population. As such, the questionnaire should be given to other provinces over Thailand for more corrective results and non-bias in future studies. Lastly, the questions and results of the questionnaire showed only the big picture of how scent related to consumer behavior and its effect on consumer purchase intention in general factors. It did not focus on more precise details, such as which age group was most affected by ambient scent in an environment.

5.4 Future Research

For future research, various information should be integrated further. Subsequent researchers should expand the number of samples and conduct a pilot questionnaire survey to ensure understanding of the questions about ambient scent. The researchers should improve the questions in the questionnaire to be more precise in order to better

identify consumer insights and the factors of consumer behavior that affect consumer purchase intention. Alternatively, a qualitative method should be conducted in order to find customer insight and gain more detailed information to increased accuracy.

Moreover, the future research should be conducted to focus on the customer emotion since most of previous research show emotion had strong relationship with customer decision and intention to buy product which this research not show result not align with the it. Therefore, the future researcher should study further in this emotion section to find out more accurate result of the study.

REFERENCES

Bayley, G. a. (1998). *Impluse purchasing: A qualitative exploration of phenomenon.* Qualitative Market Research, 99-114.

Bensafi, M. &. (2007). Individual differences in odor imaging ability reflect differences in olfactory and emotional perception. *Chemical Senses*, 237-244.

Berman, B. a. (1995). *Retail Management: A Strategic Approach*, 6th ed. London: Prentice-Hall,.

Bitner, M. J. (1992). Servicescapes: The impact of physical surroundings on customers and. Journal of Marketing, 56(April), 57-71.

Bloch, P. H. (1994). The shopping maill as consumer habitat. *Journal of Retailing*, 23-42.

Bone, P. F. (1992). Olfaction as a cue for product quality. *Marketing Letters*, 289-296.

Brembeck, H. a. (2004). *Elusive Consumption*. Berg: Oxford.

D'Astous, A. (2000). Irritating aspects of the shopping environment. *Journal of Business Research*, 49(2), 149-156.

Desrochers, K. D. (2009). The Use Of Scents to Influence Consumer: The Sense of Using Scents to Make Ccents. *Journal of Bussiness Ethics*, 141-153.

Ellis, B., & Calantone, R. (1994). Understanding competitive advantage through a strategic retail typology. *Journal of Applied Business Research*, 23.

Fischer, E. a. (1990). More than a labor of love: Gender roles and Christmas shopping. *Journal of Consumer Research*, 333-345.

Ghosh, A. (1994). *Retail Management*. Chicago, IL.: The Dryden Press,.

Herrmann, A. M. (2012). The Power of Simplicity: Processing Fluency and the Effects of Olfactory Cues on Retail Sales. *Journal of Retailing*.

Herz, R. (2010). *The Emotional, Cognitive and Biological Basics of Olfaction in Sensory Marketing: Research on the Sensuality of Products*. New York : NY: Routledge.

Hirschman, E. C. (1982). Hedonic Consumption: Emerging concepts, methods and propositions. *Journal of Marketing*, 92-101.

Hulten, B. (2009). Sensory Marketing the Multi-sensory brand-experience concept. *Sensory Marketing the Multi-sensory brand-experience concept*, 256-273.

Jacoby, J. (1975). Consumer Psychologo as Asocial Psychological Sphere of Action. *Journal of Social Psychology*, 977-987.

Jantarat, J. (2013). *The effects of shopping motivations on impluse buying and loyalty intetions infashion appare context: the moderating roes of in-store socia infuence stimui.*, 34-47.

Jin, B. a. (2003). A typology of Korean discounr shoppers: Shopping motive, store attributes and outcomes. *International Journal of Service Industry Management*, 396-419.

Kemal Yildirim, K. C. (2013). *The effect of age, gender and education level on customer evaluations of retail furniture store atmospheric attributes*.

Koller M., S. T. (2013). *The individual propensity to take a smell at products*. In Z. Gurhan-Canli, C. Otnes, & J. Rui Zhu (Eds.). Advances in Consumer Research: Vol. 40.

Laisawat, S. (2012). *Shopping Mall Patronage An Explanation Based on the uses and gratifications theory.*, 1.

Lindstrom, M. (2005). *Brand Sense: Build Powerful Brands through Touch, Taste, Smell,Sight, and Sound*. New York: The Free Press.

Lorig. T.S.(Ed.). (2001). *Compendium of Olfactory Reserach, Exploration in Aroma-Chology:investing the Sense of Smell and Human Response to Oders 1995-2000*. Dubuque: Kendall-hunt Publishing Company.

Madzharov, A. V. (2013). *The Cool Scent of Power: Effects of Ambient Scent on Consumer*.

Mattila, A. S. (2001). Congruency of scent and music as a driver of in-store. *Journal of Retailing*, 273-289.

Mehrabian, A. &. (1974). *An approach to environmental psychology*. Cambridge: MA: Massachusetts Institute of Technology.

Mitchell, D. J. (1995). There's something in the air: Effects of congruent or incongruent odor on consumer decision makin. *Journal of Consumer Research*, 22(September),, 229-238.

Morrin, M. (2010). Scent marketing: An overview. In A. Krishna (Ed.). *Sensory marketing:Research on the sensuality of products*, 75-86.

Morrin, M. R. (2003). Does it make sense to use scents to enhance brand memory? *Journal of Business Research*, 10-25.

Parsons, A. G. (2008). Use of scent in a naturally odourless store. *Use of scent in a naturally odourless store*, 440-452.

Philippa Ward and Barry J. Davies. (2003). Ambient Smell and the Retail Environment Relating Olfaction Research to Consumer Behavior. *Journal of Bussiness and Management-Summer*, 9(3), 289-302.

Roger D. Blackwell, P. W. (2012). *Consumer Behavior*. Singapore: Cengage.

Ruffolo, R. (2011). *Just follow your nose*. Global Cosmetic Industry Magazine.

Shah, A. (2010). *Factors Affecting Consumer Behavior*.

Spangenberg, E. R. (2006). Gender-congruent ambient scent influences on approach and avoidance behaviors in a retail store. *Journal of Business*, 1281-1887.

Stan Lin, J. P. (2016). *Slow retail sales delay new retail project launches*. Bangkok: CBRE (Thailand) Co., Ltd.

Steve, C. (2014). *How and why businesses make use of Scent Marketing to boost sales*.

Tversky, A. a. (1974). Judgment under uncertainty: Heuristics and biases. *Science*, 1124-1131.

Vlahos.J. (2007). *Scent and Sensibility*. New York: The New York Times.

Zemke, D. M. (2003). *The Effect of Ambient Scent on Affiliation Bahavior and Social interactions*.

Zidansek, M. (2013). *What Scent Can Do For A Brand: Exploration Of Brand-Scent Boundary Conditions. Washington State University*.

APPENDICES

Appendix A: Questionnaire

QUESTIONNAIRE

"Retail Store", store or outlet store, is a business place usually owned and operated by a retailer, owned and operated by a manufacturer or by someone other than a retailer in which merchandise is sold primarily to ultimate consumers such as shop in Central department store, The Mall, Paragon, Robinson etc.

Please check ✓ **in the appropriate box that best represents your behaviors.**

Part1: The screening question

1. Have you visited any retail stores in the past 3 months (90 days)?

1. (   ) Yes IF "YES", please proceed to the next section.

2. (   ) No   IF "NO", please return this questionnaire. Thank you ☺

Part 2: General questions about the respondent's behaviors

2. How often do you visit the retail store in a month?

☐ 1. Once a month   ☐ 2. 2-3 times/month

☐ 3. More than   ☐ 4 times/month

3. How long do you usually spend time at a retail store?

☐ 1. 10-15 minutes   ☐ 2. 16-45 minutes   ☐ 3. More than 45 minutes

4. Who do you usually attend a retail store with?

☐ 1. Alone   ☐ 2. Friend   ☐ 3. Lover

☐ 4. Family   ☐ 5. Colleagues   ☐ 6. Others, please specify_____

From the statements listed below, please select the answer which best represents your opinion.

	Question	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
5	I generally go to retail store only to buy things that I am looking for.	1	2	3	4	5
6	I generally go to retail store when I am bored.	1	2	3	4	5
7	I generally go to retail store to enjoy browsing products.	1	2	3	4	5
8	I generally go to retail store to use my privilege offer (discount, member card).	1	2	3	4	5
9	I generally go to retail store to enjoy the atmosphere.	1	2	3	4	5
10	I generally go to retail store because of the retail decoration.	1	2	3	4	5
11	I generally go to retail store for relaxing	1	2	3	4	5
12	I generally go to retail store when they are on sale	1	2	3	4	5

13. Have you ever heard about <u>SCENT</u> being used as a marketing strategy in retail store?

☐ 1. No ☐ 2. Unsure

☐ 3. Yes, please specify your source_____

14. Please choose any of scent diffusions that you're aware of:

☐ 1. Dry Air Diffusion (เครื่องกรองอากาศ)

☐ 2. Vaporization (เครื่องหอมระเหย)

☐ 3. Nebulization (เครื่องพ่นปรับอากาศในร้านค้า)

☐ 4. Scented Sticks in Oil (แท่งหอมระเหย)

☐ 5. Product itself (ตัวผลิตภัณฑ์)

Part 3: Specific questions

Please choose the choice that best describes your answer

15. The retail store atmosphere is

_____

16. Have you detected a particular scent in the retail store that you had visited?

☐ 1. Yes ☐ 2. Unsure ☐ 3. No

To what extent does each statement below accurately describe your agreement or disagreement?

1. Personal Factor

	Question	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
17	The location of retail store has an influence on my purchasing decision.	1	2	3	4	5
18	My family has an influence on my purchasing decision.	1	2	3	4	5
19	My friends have an influence on my purchasing decision.	1	2	3	4	5
20	My lover has an influence on my purchasing decision.	1	2	3	4	5

2. Hedonic Motivation

	Question	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
21	I feel more stimulated to shop in a retail store that has scent in ambient area rather than not. (adventure)	1	2	3	4	5
22	I feel more relaxed in a retail store that has scent in ambient area rather than not. (Gratification)	1	2	3	4	5
23	I feel more motivated to keep updated with new products in a retail store that has scent in ambient area rather than not. (idea Shopping)	1	2	3	4	5
24	I feel more enjoyed to shop with friend in a retail store that has scent in ambient area rather than not. (Social Shopping)	1	2	3	4	5
25	I feel more enjoyed to hunt for bargaining in a retail store that has scent in ambient area rather than not. (Value Shopping)	1	2	3	4	5

3. Consumer Perception

	Question	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
26	The product layout and decoration in retail store has stimulated me to buy product.	1	2	3	4	5
27	The lighting in retail store has stimulated me to buy product.	1	2	3	4	5
28	The temperature in retail store has stimulated me to buy product.	1	2	3	4	5
29	The scent-ambient in retail store has stimulated me to buy product.	1	2	3	4	5

	Question	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
30	The space in retail store has <u>stimulated</u> me to buy product.	1	2	3	4	5
31	The music in retail store has <u>stimulated</u> me to buy product.	1	2	3	4	5
32	The signed in retail store has <u>stimulated</u> me to buy product.	1	2	3	4	5

4. Customer Emotion

	Question	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
33	I feel that scent has affected on my emotion.	1	2	3	4	5
34	I feel that scent in a retail store attracts to me to purchase product.	1	2	3	4	5
35	I feel that time flies when I am browsing for products in a retail store that has scent in ambient area.	1	2	3	4	5
36	I feel annoyed in a retail store that has scent in ambient area.	1	2	3	4	5
37	I feel ignored in a retail store that has scent in ambient area.	1	2	3	4	5
38	I feel confused in a retail store that has scent in ambient area.	1	2	3	4	5

5. Brand Recognition

	Question	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
39	I can recognize particular retail store brand that has scent in ambient area.	1	2	3	4	5
40	I can distinguish retail store brand that has scent in ambient area.	1	2	3	4	5
41	I feel that the image of retail store that has scent in ambient area differs from others retail store.	1	2	3	4	5
42	I feel particular scent represents particular image of each retail store.	1	2	3	4	5
43	I feel good when buying from a retail store that has particular scent.	1	2	3	4	5
44	I feel that retail store that has scent in ambient area is unique from the other retail stores.	1	2	3	4	5
45	I can distinguish the signature scent of a retail store.	1	2	3	4	5

6. Impulse Buying

	Question	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
46	I feel that scent attracts me to a retail store without planning.	1	2	3	4	5
47	I feel that scent stimulates me to buy product from a retail store without planning.	1	2	3	4	5

	Question	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
48	I feel that scent in ambient area in a retail store stimulates me to spend more time at the store.	1	2	3	4	5
49	I feel scent in ambient area in a retail store stimulates me to buy more products than originally planned.	1	2	3	4	5

7. Purchase Intention

	Question	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
50	In my opinion, I think scent in a retail store affects my purchasing behavior.	5	4	3	2	1
51	In my opinion, I think scent in a retail store affects my purchasing intention.	5	4	3	2	1
52	In my opinion, I have intention to buy product from a retail store that has scent in the next 3 months.	5	4	3	2	1

Part 4: Demographic Question

53. Gender

☐ 1. Male ☐ 2. Female ☐ 3. Others

54. What is your age range?

☐ 1. Below 20 ☐ 2. 20-25 ☐ 3. 26-30

☐ 4.31-35 ☐ 5.36-40 ☐ 6. 41-45

☐ 7. 46-50 ☐ 8. 51 and above

55. What is your occupation?

☐ 1. Student ☐ 2.Government Officer

☐ 3. Public Officer/Employee ☐ 4.Bussiness Owner5. Others

56. What is your educational level?

☐ 1. Below or equal to high school ☐ 2. Vocational Certificate

☐ 3. Bachelor Degree ☐ 4. Master Degree

☐ 5. Doctoral Degree ☐ 6. Others

57. What is your average personal income per month (THB)?

☐ 1. Below 15,000 THB ☐ 2. 15,000-25,000 THB

☐ 3. 25,001-35,000 THB ☐ 4. 35,001-45,000 THB

☐ 5. 45,001-55,000 THB ☐ 6. 55,001 THB and above

58. Do you normally wear perfume?

☐ 1. Yes ☐ 2. No