A STUDY OF IMPULSE BUYING BEHAVIOR IN THE PURCHASE OF MOBILE COMMERCE SERVICES (SHORT MESSAGE SERVICES AND MULTIMEDIA MESSAGE SERVICES)

By

SANJEENA TULADHAR

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

Master of Business Administration

Graduate School of Business
Assumption University
Bangkok, Thailand

August 2004

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Abstract

Impulse purchasing has been long considered a significant form of consumer buying action. Yet today, a few researches have empirically examined consumers' impulse buying tendencies in service environment. The primary aim of this quantitative research is to leverage impulse purchase to satisfy consumers in a service environment specifically in a mobile commerce environment, considering two applications of m-commerce as short message service (SMS) and multimedia messaging service (MMS).

The objectives of this research are to study the effect of general impulse buying tendency and service involvement in impulse buying tendency of SMS and MMS services. It also identifies the difference in impulse purchase of SMS and impulse purchase of MMS.

The research instrument used to study the two services is self-administered questionnaires. The totals of 784 students of Assumption University, Thailand of age between 14-49 years were considered as respondents for data collection purchase. Among the total respondents, the sample size for each category of services was 392 respondents. The sample unit covers all desired ages and possesses highly advanced mobile phones that support text messaging and multimedia messaging. The results of this face to face interview with the respondents lead to identification and study of impulse purchasing behavior of young age group.

The statistical tool used to test the hypotheses in this study is Pearson's Correlation Coefficient. The results of the tested hypotheses lead to its key findings.

The key findings from two studies across SMS and MMS services provide insights to the marketers regarding the factors that influence impulse purchases of these services. The general buying tendency that the consumers possess influence impulse purchase of SMS but it does not influence impulse purchase of MMS. Whereas, consumers' level of involvement in these services directly influence the impulse purchases of these services. The other key finding of the research that may generate interest to the marketers is the fact that consumers send a majority of these messages to their friends rather than family members or work colleagues and the majority of these consumers are occasional impulse buyers.

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Special gratitude is due to my dear friends, Sumana Dhakhwa, Avisha Tuladhar and Reetu Shakya, who have made my stay in Thailand memorable. They have been my constant support in sharing my agony during data collection of the research. Thank you very much.

- Sanjeena Tuladhar

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CHAPTER 1
GENERALITIES OF THE STUDY

1.1 Background of the study

McGoldrick (1990) accepted that impulse purchasing is an important feature of consumer behavior. User Interface Engineering defines it as a spontaneous purchase, an item the shopper hadn't planned to buy when they began their shopping task. It is an unplanned spur of the moment decision to purchase (Davidson and Jaccard, 1979).

The idea that impulse spending is on the rise is supported by research from the Future Foundation nVision. It shows that, over the past two decades, the proportion of consumers who admit to giving into temptation and buying things because they like them rather than because they need them has risen from 31% to 45%[1]. Welles (1986) reports most shoppers at least occasionally buy on impulse. Impulse purchasing has long been considered a significant form of consumer buying action. Marketing and researchers have classified it as a very powerful influence in consumer buying behavior process (Hausman, 2000; Bayley and Nancarrow, 1998). Past researchers agree that it occurs when an individual makes an unintended, unreflective, and immediate purchase (Rook, 1987: Rook and Fisher, 1995). It is an immediate purchase (Barratt, 1985; Rook, 1987), where the time interval between seeing the item and buying it is very short and the decision to buy are made quickly. Furthermore, an individual making such a purchase is not likely to postpone the purchase in order to gather more information about the product or service or to compare them.

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[1] Marking Week. (4th March,2004). (http://gateway.proquest.com/openurl?url_ver=Z39.88-2004&res_dat=xri:pqd&rft_val_fmt=info:ofi/fmt:kev:mtx:journal&genre=article&rft_dat=xri:pqd:did=000000572717281&svc_dat=xri:pqil:fmt=text&req_dat=xri:pqil:pq_clntid=58702)
Retrieved on 27th May, 2004

It is common to enter in a retail store with the intension to buy products listed in a shopper's list and leave with additional items in his shopping cart. Surely everyone has bought an item on impulse before. However, when a person starts having urges to spend money they don't have, such as using credit cards to make luxurious purchases, then acts on those urges regularly, they could allow themselves to fall under the spell of impulse buying. It is not always bad when there are times that some good deals just cannot be passed by though it has a long history of being associated with immaturity, primitivism and foolishness (Rook and Fisher, 1995). Dittmar and Drury (2000) observe that in more developed countries the consumption of products is a means of acquiring and expressing a sense of self- identity. This adds to the explanation of increase in unplanned purchases. Impulse buying is fueled by the uncontrollable urge to spend money. It can develop into a compulsive behavior where the act of spending money becomes the reward for the spender regardless of whether they can afford the purchases. The items bought on impulse may or may not be the items that an individual needs but those he desires to spend.

Impulse buying behavior has been an area of reasonable research (Rook, 1987; Rook and Fisher, 1995; Dittmar, 1995). Existing literature of impulse buying is exclusively focused on physical products rather than services. Impulse buying of services has hardly been explored. Since services are the growth engine (Agrawal and Schmidt, 2003), this research studies the impulse buying of mobile services. The research of Yung (2003) found that impulse buying forms an ever increasingly important component of m-commerce. The value of m-commerce will increase when offerings are designed to fulfill impulsive and spontaneous consumption behaviors (Yung, 2003). Sending a funny picture message to a friend, while waiting for the train

or sending an SMS while your car stops in a traffic light illustrate the concept of impulse purchases in services. Thus, the urge to purchase is felt suddenly and strongly and is often irresistible (Beatty and Ferell., 1998).

1.2 Background of M-Commerce Industry

Mobile commerce (m-commerce) refers to an ability to conduct wireless commerce transactions using mobile applications in mobile devices. The name m-commerce arises from the mobile nature of the wireless environment that supports mobile electronic transactions (Coursaris, Hassanein and Head, 2003). Devices, including digital cellular phones, PDAs, pagers, notebooks, and even automobiles, can already access the Internet wirelessly and utilize its various capabilities, such as e-mail and Web browsing.

The recent hype surrounding wireless networks revolves around the third generation (3G) systems. It is one of the most challenging areas in the wireless business. A lot of operators and service providers have been planning to purchase a major part of infrastructure needed to deliver m-commerce applications in near future (Siemens Mobile Marketing Intelligence Department, 2002). In Asia, people are more comfortable with a lot of different, small electronic devices and appear to be more comfortable with wireless phones (Drew, 2001). The driving force for the rapid acceptance rate of small wireless phones is the capability to get services and run applications at any time and at any place, especially when they are on the move.

M-commerce as defined by Clarke III (2001) is "ability to purchase goods anywhere through a wireless Internet-enabled device". It has been further explained

by Paavilainen (2001), as "exchange of goods, services and information using mobile technology". According to Siau and Shen (2001), it is "conducting transactions via mobile terminals". This can mean different things to different category of people: to customers it represents convenience, marketers associate it with a huge earning potential and service providers view it as a large unexplored market (Siau and Shen, 2001). Some examples of m-commerce services include all non voice services categorized as mobile information (General news, Personal information, Travel/ City guide, Business and financial news), mobile entertainment (Games, Ringtones, Logo, Video, Cartoon, Karaoke, Horoscope etc), mobile communication and messaging (MMS, SMS, Email, Unified messaging, Video telephony), Location base services (Person Finder, Product/ Service finder, Emergency Services, Traffic Information.), mobile commerce and financial applications (M-shopping, m-payment, Reservations/ Ticketing, Auctioning, Banking).

The financial estimate of the m-commerce industry in the year 2004 was predicted to be worth US$ 200 Billion, it is expected to grow annually by 50 percent (Yung, 2003). There were 94.9 million m-commerce users in 2003 and that segment will grow to 1.67 billion users by 2008, according to a Telecom Trends International study[2]. IDC Research predicts the demand in Asia alone for downloadable products, for instance, ringtones, software and screen wall papers to rise from US$ 1.3 billion, in 2003 to US$ 3.6 billion by 2008 (Yung, 2003). By 2007, IDC Research predicts that mobile revenue in Japan is expected to reach US$ 67 billion, of which US$ 54

[2] Wireless Week (15th April, 2003).(http://gateway.proquest.com/openurl?url_ver=Z39.88-2004&res_dat=xri:pqd&rft_val_fmt=info:ofi/fmt:kev:mtx:journal&genre=article&rft_dat=xri:pqd:did=000000618555821&svc_dat=xri:pqil:fmt=text&req_dat=xri:pqil:pq_clntid=58702)
Retrieved on 27th May, 2004.

billion is expected to originate from 3G services (Yung, 2003). Asia remains the most successful region in mobile communications. In 2002, seven of the most profitable telecommunication companies resided in Asia, according to ITU (International Telecommunication Union; Yung, 2003). China experiences a huge growth in mobile communications. It has recorded seven million text messages sent during the Chinese New Year festive period that generated US$ 12.56 million in revenue (Year of Text message 2003, April/May). Thailand is seen to experience growth of 410 percent in mobile users since 2000. In August 2002, Thailand recorded 14.96 million mobile subscribers, outnumbering the 6.12 million landline connections (Yung, 2002). By September 2002, mobile subscribers increased once more to reach 15.77 billion users, adding success of m-commerce in Asia (Siemens Mobile Marketing Intelligence Department, 2002).

M-commerce is taking off due to confluence of several factors- enhanced devices and availability of content. Market research projects the growth over next five years, both in terms of subscribers and revenues.[3] The industry is trying to change the concept of M-commerce as non voice communication. For this application, the important players in Thailand are AIS (Advanced Info Services Public Company Limited) and DTAC (Total Access Communication). The key drivers of m-commerce services are ease of use and convenience, keeping the security in mind, and consumer service.

[3] Market Search (www.marketresearch.com) retrieved on 12, Jan 2004

1.2.1 Consumers and M-commerce

Technology needs to be transparent, users should be able to learn technology, and they should be able to use it right away (Yung, 2003). The content providers, operators and handset manufacturers create awareness with the consumer. Basically, consumers want Microsoft in their handsets. Consumers expect to surf, have the same look and feel as in their computer, and have their outlook and browser. Electronic commerce on mobile phone is combined with advertising. Consumers get started from corporations to consumers by exporting news about their business to certain target group, and then create some advertising through SMS or MMS. The mobile phone users take time to have them integrated in a higher level. It's a new phone, so the consumer has to upgrade or to purchase. This involves that they have to see value in that system (Yung, 2003).

In Thailand, consumers are impulsive towards purchases of m-commerce. They can buy it at that moment and don't really worry about it. If they have to think longer, thinking of purchasing it later, usually they won't do it. People are price-conscious (Yung, 2003). In general sense, the "ultimate mobile experience" for the consumer would be easy to use, its got to be cheap, cost effective, it is got to have a good result and very easy to access. Consumers do not particularly care about one application, such as: MMS, they simply care that a big screen is provided for them, that it's easy to see, easy to use and easy to understand. These kinds of people are spread over the world quite a lot. In Asia, Japan is one of the leaders on mobile experience, followed by Thailand and Philippines (Yung, 2003). Through research conducted by several content providers of Thailand, consumers are impulse oriented with regard to distribution of their content through advertising. These researches have resulted mostly teenagers of age between 15-27 years are

fairly impulse oriented (Yung, 2003). This age group is attracted towards leaflets, brochure, postcards in theatres, and usually content providers get automatic response from them (Yung, 2003). So it is seemed to be highly impulsive.

Regarding mobile data business in Thailand, AIS is the biggest spender (Yung, 2003). Consumers are not really ready for GPRS until now. There is a maximum of 30,000 users for GPRS but it can serve millions (Siemens Marketing Intelligence Department, 2002). In order to get best user experience for consumers, the service providers, and content providers including vendors which mean Siemens, Nokia, Ericcson together work to provide with easy to use functions. This is a critical issue for mobile data services to use. It is more complicated than using a voice which is just pressing the numbers.

The most powerful people are consumers. For them quality is the whole value chain. Consumers targeted to be young people of age between 15-25 years are different segment in the market. They do not pay for what they are doing, but sometimes they do not realize how much they pay for the services that they use. If introduction of a new thing for them work well, then it becomes very famous and trend of everyone must have it (Yung, 2003). It is just like in the fashion trend where one seems to follow others, and then everybody must have it (Yung, 2003). It does not matter a boy or a girl; they have a pattern and everyone must come out from the same mould. Asian young consumers spend when it falls in the definition of fun. For most of them it is an entertainment that pacifies them for a while and they don't mind spending.

1.2.2 M-Commerce Applications- SMS/MMS

SMS (Short Message Service)

SMS is a service for sending messages of up to 160 characters to mobile phones that use global system for mobile (GSM) communication. With an estimated of 15 billion SMS messages being sent throughout the world every month, SMS has proved extremely popular among GSM subscribers (Novak and Svensson, 2001). Users appreciate the simple, convenient and personal communication medium SMS messaging provides. SMS is similar to paging, do not require mobile phone to be active and within range and will be held for a number of days until it will be active and within range. SMS can also be sent to mobile phones from a website equipped with PC link or from one mobile phone to another. Generally, the cost of sending each message is as low as 3 baht in Thailand. The cost may be high in case of sending pictures messages.

SMS allows users to directly transmit the messages to each other. It is however necessary to have underlying operator controlled wireless services[4]. SMS is a store forward service, which means that the messages are not sent directly between users but rather via SMS center (Mantipp, 2001). SMS is able to support any language, but that language is dependent more on how the handset is configured. Every region supports different languages and each software build for every phone is different. In the Americas, phones typically support English, Spanish, and Portuguese[5].

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[4] GSM-Technology (www.gsm-technology.com) Retrieved on 12 Jan, 2004

[5] GSM Technology (www.gsm-technology.com) Retrieved on 12,Jan 2004

MMS (Multimedia Messaging Service)

One of the most recent developments in mobile messaging is known as multimedia messaging service (MMS). Just as the traditional short message service (SMS), multimedia messaging provides automatic and immediate delivery of personal messages. Unlike the SMS however, MMS allows mobile phone users to enhance their messages by incorporating sound, images, and other rich content, transforming it into a personalized visual and audio message (Novak and Svensson, 2001). MMS is positioned as a core enabling technology for service delivery over both 2.5G and 3G networks (Mantripp, 2003).

MMS technology offers more than just a broadening of message content. With MMS, it is not only possible to send your multimedia messages from one phone to another, but also from phone to email, and vice versa. This feature dramatically increases the possibilities of mobile communication, both for private and corporate use. It allows users to express themselves more clearly, making mobile messaging more creative and entertaining. It is more than just messaging: it is a service environment that facilitates the creation of a new wave of interactive applications and services, such as maps, postcards, screensavers and business cards.

Multimedia messaging reshapes the landscape of mobile communication, making it more personal, more versatile, and more expressive than ever before. It builds on the staggering success of short message service (SMS), moving beyond the latter's ability to send only written text. It is very likely that MMS will build upon this growing trend and benefit from 2.5G and 3G technology, just as SMS has done with 2G.

Mobile industry believes that MMS has rapidly evolved into a true mass-market technology for both personal and professional use. The fact that the business and leisure identities of users are not separated by the service means that MMS are capable of meeting the needs of a wide spectrum of users. Phone users find it easy to adapt to MMS, since it can simply be treated as an advanced form of SMS. As such, MMS technology has brought us one step closer to 3G communication and services. The push capabilities of MMS will also open up a new communication channel through which companies can send promotions and other information that consumer's request (Novak and Svensson, 2001).

For network providers, MMS promises additional revenue as a result of increased air time, heavier all around usage, service differentiation and customer loyalty (Mantripp, 2001). The following message options are currently covered by MMS are text, graphics, audio, samples, images, synchronized multimedia presentation, video, streaming media

1.2.3 Difference in SMS and MMS

One clear difference between SMS and MMS is that, SMS is an easily grasped concept, and is comfortably synonymous with text messaging, MMS has image problem. SMS, in terms of its design objectives, was a misused technology which became a major unheralded success, while MMS was, from the outset, planned for greatness (Mantripp, 2001). Another major difference is the high level of complexity of MMS compared to SMS. It is also worth noting that SMS took the best part of a decade to gain wide acceptance. SMS does one thing and does it well. MMS can do many things.

MMS can offer area a remarkably cheap way to send long messages, 1KB MMS can transport more text than six SMS messages, typically at a much lower charge. This flexibility also lends itself well to news and information delivery services (Mantripp, 2001).

The basic principles of SMS and MMS are similar but the difference in content is dramatic. The size of average SMS is about 140 bytes, whereas in early stages, the average size of a MMS was likely to be around 30,000 bytes and currently is 100,000 bytes.

As with SMS, MMS does not require a network mailbox, so users do not have to log on to receive message. Each message is automatically pushed to user's MMS enabled mobile device. MMS overcomes the character limit of SMS. It allows formatted texts, photos, drawings, graphic animations, power point style presentation, video clips, and audio samples to be woven into the message.

1.3 Problem Orientation

Impulse purchasing has long been considered a significant form of consumer buying action. It accounts for a substantial value of goods and services sold every year. This type of purchase behavior is not confirmed to any particular type of product or service, but depends on consumers' buying behavior. It is a pervasive aspect of consumers' behavior and a focal point for considerable marketing activity (Rook, 1987). Despite its importance to marketers, it has not been encouraged in the past. This study perceives that impulse buying is an important consumer behavior, which requires to be leveraged by marketers.

In an observational study, Weinberg and Gottwald (1982) found that impulse buyers exhibited greater feelings of amusement, delight, enthusiasm and joy while Donovan and Rossiteer (1982) found that pleasure was positively associated with a likelihood of overspending in the shopping environment. Therefore, this research also perceives impulse buying is important as it satisfies hedonic desires, and thus it needs to be encouraged for revenue generating purpose.

Most studies in the past were conducted for physical products. Research on services or mobile commerce applications has hardly been explored. The mobile commerce market is getting more intense since it is the target of many operators to set up innovative marketing strategy. All of these situations have influenced consumers' behavior and their purchasing decision.

This study thus, emphasizes on the importance of impulse purchase in mobile commerce applications, specifically on SMS and MMS, which are a significant source of revenue in the industry. Therefore, considering all the details above, this research identifies the problem as:

- How to leverage impulse buying behavior to satisfy the consumers in a service environment, specifically in a mobile commerce environment considering two services, SMS and MMS.

1.4 Objectives of the Research

The objective of this study is to understand how respondents perceive and account for impulse buying tendency of m-commerce services. This research is focused on consumers who buy m-commerce services that are either SMS or MMS oriented. Thus the researcher has to define the specific objective as follows:

1. To study the effect of general impulse buying tendency in impulse buying tendency services, either SMS or MMS.
2. To investigate the effect of service involvement in impulse buying tendency of SMS and MMS.
3. To study the difference in impulse buying tendency of SMS and impulse buying tendency of MMS.

1.5 Scope of the research

This research is intended to study and measure impulse buying tendency of consumers in the purchase of m-commerce services that are either SMS or MMS oriented. The research provides better understanding of consumers' buying behavior with regard to the given two services.

This research is conducted in Assumption University of Thailand (ABAC), with respondents as students of the University by using research instrument as self-administered questionnaire (English Version), personally interacting with respondents. The reason for choosing students of Assumption University of Thailand is because the data collection covers all ages. It is carried out even during weekends and public holidays. Adding to the reason, respondents of the research are required to possess highly advanced mobile devices that support multimedia picture messaging

and text messaging. The researcher views Assumption University students as a perfect sample for the research, as almost all students possess mobile device. The sample is the representative of the demographic.

1.5 Limitations of the Research

This research has some limitations associated with population, such as the findings of this research apply to students of Assumption University, Bangkok, Thailand.

There were also concerns involving time pressure of the respondents. The respondents interviewed during class breaks or lunch breaks were seen not quite keen in responding to the interviewer in detail. The researcher attempted to carefully supervise the activities of respondents but felt that these factors may have affected the quality of the data.

This study is exploratory since it is one of the first studies to investigate the service specific impulse buying tendencies. The problem identified in the study is therefore never been studied. Thus, the result, in no circumstances are generalized to all the industries or people whatsoever. Also the findings hold true only during the particular time period that the research was conducted, because it is expected that the customers' behavior and expectations change over time. The research cannot be conducted by including customers from all the locations because of constraints such as: limited budget, time, cost, feasibility etc.

1.6 Contribution

This research will make a managerial contribution to business practitioners in understanding impulse purchase behavior and influencing it in m-commerce applications. It will contribute to a fuller theoretical understanding of impulse buying behavior in service environment, specially SMS and MMS mobile commerce services. Existing researches on impulse buying is exclusively focused on physical products or goods. Impulse buying of services has hardly been explored (Agrawal and Bapat, 2000). Thus, this research contributes to the literature of m-commerce as well as impulse buying behavior in service sector. It adds valuable knowledge to marketers of m-commerce services regarding consumers' purchase behavior in SMS and MMS. Thus the m-commerce industry may benefit in maximizing their profit in further years.

1.8 Definition of Terms

2.5G – It describes the state of wireless technology and capability usually associated with General Packet Radio System (GSM) that is between second generation and third generation of wireless technology.[6]

3G – It is a short term for third generation wireless, and refers to near future development in personal and business wireless technology, especially mobile communication. This phase is expected to reach maturity between the years 2003 and 2005[7].

E-commerce – It is the buying and selling of goods and services on the internet, especially World Wide Web[8]

Games – Games are entertainment in mobile phones. New games can be downloaded via GPRS.

General Impulse Buying Tendency – The degree to which consumers are likely to purchase products and services in general (Jones, Reynolds, Weun and Beatty, 2003).

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6 Techtarget,(http://searchmobilecomputing.techtarget.com/sDefinition/0,,sid40_gci214486,00.html) Retrieved on 31st May, 2004.

7 Techtarget (,http://searchmobilecomputing.techtarget.com/sDefinition/0,,sid40_gci214486,00.html) Retrieved on 31st May, 2004.

8 what is, (www.whatis.com) Retrieved on 12 Jan,2004

GPRS - General Packet Radio Service is a wireless data transmission service based on packet transmission. For example, if an email is sent by GPRS it will be reduced into packets of information. Each individual packet travels to its destination by the quickest possible route[9].

GSM - Global Systems for Mobile Communication (GSM) is the digital transmission technique.[10]

JAVA- It is a programming language developed by Sun Microsystems. Some versions of Java are used in the creation of wireless services.[11]

Impulse Buying Tendency in Specific Service – The degree to which consumers are likely to make impulse purchases of particular service (Jones, Reynolds, Weun and Beatty, 2003).

MMS – Multimedia Messaging Service (MMS) is a new standard that is being defined for use in advanced wireless terminals. MMS allows messaging of multimedia contents like images, audio, video clips to SMS.[12]

Mobile Data Services - It is non-voice services of a mobile phone that includes mobile messaging, mobile payment, mobile information etc.[13]

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[9] Search mobile computing, (http://searchmobilecomputing.techtarget.com/sDefinition) Retrieved on 12 Jan,2004
[10] Ringnow, (http://www.ringnow.com/GSM.html) Retrieved on 15 March, 2004
[11] Nokia, (www.nokia.com), Retrieved on 15 March, 2004
[12] Mobile mms, (http://www.mobilemms.com/mmsfaq.asp#1.2) Retrieved on 15 March, 2004
[13] Siemens, (www.siemens.com) Retrieved on 17 March, 2004

Mobile Phone - A term often used interchangeably with cellular phone or wireless phone. It is transportable, portable, cordless and personal phones.[14]

M-Shopping – Mobile phones enabled mobile data services are enabled to shop through the devices, either purchase Ringtones, send SMS, MMS or vend drinks.

Network - In the wireless industry, a network refers to the infrastructure enabling the transmission of wireless signals. A network ties things together and enables resource sharing.[15]

Picture Messaging – It is used to send and received messages with pictures, graphics or images as well as text chosen from several preset and/or received pictures stored in the Phone.[16]

Ringtones – Ringtones are tones that are saved in mobile phones. It can be selected among variety and can also be downloaded or bought from its service provider.[17]

Service provider – Those who provide mobile data services to reach out its customers.

SMS- SMS (short message service) is a feature available with some wireless phones that allow users to send and/or receive short alphanumeric messages.[18]

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[14] Nokia, www.nokia.com Retrieved on 15 March, 2004
[15] Nokia, www.nokia.com Retrieved on 15 March, 2004
[16] Nokia, www.nokia.com Retrieved on 15 March, 2004
[17] Nokia, www.nokia.com Retrieved on 15 March, 2004
[18] GSM-Technology, (www.gsm-technology.com) Retrieved on 12 Jan, 2004

WAP – Wireless Application protocol (WAP) is the first global standard Internet services over mobile phones networks. It is capable of displaying "mini websites", providing a variety of services, including banking, ticket purchase, news update and more.[19]

Wireless – Wireless is a term used to describe telecommunications in which electromagnetic waves (rather than some form of wire) carry the signal over part or the entire communication path. It is communication without any physical connections between the sender and the receiver.[20]

[19] Ring now, (http://www.ringnow.com/WAP.html) Retrieved on 15 March, 2004
[20] Search mobile Computing, (http://searchmobilecomputing.techtarget.com/sDefinition) Retrieved on 12 Jan, 2004

CHAPTER 2

A REVIEW OF LITERATURE

This Chapter reviews theories and literature to support the research in section one. It includes defining the variables, and explanation to it. A critical review of impulse buying is stated in section two, including its modern and traditional views. To build a strong foundation on literature, the chapter discusses relationships between the independent and the dependent variables in the third section. Section four states the four types of impulse buying. Section five is the model of the research and finally section six discusses previous empirical research and methodologies used, including a table for summary of these empirical researches.

2.1 Literature to support the Framework

2.1.1 Impulse Buying Behavior

Impulse buying behavior has been considered a significant form of consumer buying action (Cobb and Hoyer, 1986). It has been an area of reasonable research in the decades of eighties and early nineties (Rook, 1987; Rook and Fisher, 1995). Existing literature on impulse buying is exclusively focused on physical products. Impulse buying of services has hardly been explored. In the best of our research, there is just little study that investigates impulse buying of services.

Earlier researches described impulse buying behavior as unplanned purchases (Cobb and Hoyer, 1986); however this has been criticized in the literature (Rook and Hoch, 1985; Rook and Gardner, 1993). An impulse buying behavior is not just an unplanned purchase; it is further explained as an urge to buy (Beatty and Ferrell, 1998). This urge is felt suddenly, strongly and often irresistible. Rook (1987) described impulse buying as "when a consumer experiences a sudden, often powerful and persistent urge to buy something immediately." This definition is slightly extended by Beatty, Ferrell and Elizabeth, (1998) as "sudden and immediate purchase with no pre-shopping intensions either to buy a specific product category or to fulfill a specific buying task. The behavior occurs after experiencing an urge to buy and it tends to be spontaneous and without a lot of reflection. This definition insures that the shopper did not intend to buy the item before entering the shopping area. This buying behavior has a long history of being associated with immaturity, primitivism, foolishness and defects of will (Rook and Fisher, 1995). It is a kind of behavior which the literature and consumers both state is normatively wrong, yet accounts for a substantial volume of the goods sold every year across a broad range of product categories (Bellenger, Robertson and Hirshman, 1978; Cobb and Hoyer, 1986; Rook and Fisher, 1995). But studies of Rook (1987) indicates that individual consumers do not view their specific purchases as wrong and indeed report a favorable evaluation of their behavior. His study resulted that only 20 percent of respondents reported feeling bad about their impulse buying, but 41 percent reported that they actually feel good about their impulse purchases.

Impulse buying is variously defined. When such definitions are brought together, it is characterized as encompassing purchases with high emotional activation, low cognitive control, and largely reactive behavior. According to the study conducted by Weinberg and Gottwald (1982), the results indicated that impulse buyers see themselves as being more emotionalized from non buyers and information processing does not play a part in the purchasing decision. According to Rook and Fisher (1995), impulse buying is unidimentional construct that embodies consumers' tendencies both to think and to act in identifiable and distinctive ways. This behavior is a consumers' tendency to buy spontaneously, unreflectively and immediately. Impulsive buyers are more likely to act on whim and to respond affirmatively and immediately to their impulses. Moreover, they are likely to experience buying impulses more frequently and strongly than other consumers. However, it is important to note that, to have an impulse, it is not necessary to act on it, as various other factors may intervene between the impetus and the action. Even highly impulsive buyers do not give in to every spontaneous buying demand.

Following scenario is presented as an example of impulse buying behavior.

- After a difficult day at work, Mary needed something to lift her spirits. So she headed for her favorite boutique to do some browsing. One hour later, she had purchased a scarf, a belt, and a pair of earrings – none of which she needed, but all of which made her feel immensely better (Cobb and Hoyer, 1986).

2.1.2 General Impulse Buying Tendency

General impulse buying tendency refers to the degree to which consumers are likely to make impulse purchases of products in general (Jones, Reynolds, Wuen and Beatty, 2003). It is an individual difference variable as it addresses the differential proclivity of individuals to buy on impulse (Rook, 1987; Beatty and Ferell, 1998). It is a tendency to respond quickly to a given stimulus without deliberation and evaluation of consequences. Thus the research also defines general impulse buying tendency as spontaneous behavior to make on the spot purchase of products or services of any category. People who tend to have general proclivity to buy will have greater susceptibility to purchase items on impulse (Adelaar and Lancendorfer, 2003).

Previous studies have treated the impulse buying tendency as a generalized consumer trait consistent across product categories (Jones, Reynolds, Wuen and Beatty, 2003). Rook and Fisher, (1995) measured buying impulsive tendency through nine-item scale developed in his study, for products such as CD, and sweater purchases. The scale was proved reliable to measure buying tendency of all product or service categories. Thus, the research uses Rook and Fisher (1995), nine-item scale to measure general impulse buying tendency.

2.1.3 Involvement

Involvement is a variable relevant to the notion of service-specific impulse buying tendency. It is defined as a person's perceived relevance of the object based on inherent needs, values, and interests (Zaichkowsky, 1985). This definition recognized past definitions of involvement (Engel and Blackwell, 1994). It is also

the state of being involved with the object (Zaichkowsky, 1985). Individual who have a high level of involvement are more likely to experience strong emotions in response to a given product or service category. Thus, they are more likely to generate the emotion needed for an impulse purchase. Moreover, consumers who are involved in such service category are more likely to be frequent consumers in the same service category (Jones, Reynolds, Wuen and Beatty, 2003).

The construct of involvement in various products have received considerable attention by academic researchers. During past two decades, various types of involvement have been described and attempts have been made at measurement. McQuarrie (1992) studied how enduring and situational involvement combine to contribute to create involvement responses. But past researches have not much emphasized on the relationship of service involvement and impulse buying. In a study of Jones, Reynolds, Wuen and Beatty (2003) impulse buying tendency of two specific product categories and product involvement of consumers was measured. Researchers of consumer behavior have historically developed a number of complex theories in the attempt to explain and predict this behavior of the consumer (Engel, Kollat and Blackwell, 1978). Their theories propose that consumers actively search for and use information to make informed choices. This implies that consumer is intelligent, who make reasonable decision (Zaichkowsky, 1985). However, a great deal of consumer behavior does not involve extensive search for information even for the purchase of major items (Zaichkowsky, 1985). Consumers involved with a particular product or service category receive a great deal of pleasure from those products or services (Bloch, Bruce and Ridgway, 1986). The past researches have applied the term "involvement" in different applications. Clarke and Belk, (1978) states that involvement with purchases leads

one to search for more information and spend more time searching for the right selection. The resulting behavior of the state of being involved with the object is generally considered as level of involvement. In conceptualizing involvement, Zaichkowsky (1985) and Bloch & Rinchin (1983) viewed as having three major antecedent factors. The first factor related to the characteristics of the person, the second factor related to the characteristics of the stimulus and third factor related to the characteristics of the situation. It is a motivational construct which partly relies on the antecedent factor of the person's values and needs (Zaichkowsky, 1985).

Previous researchers have examined involvement with advertisements via a five point scale that measures a degree to attention to the add (Wright 1973). Involvement with products has been measured by several methods: rank or ordering products. Zaichkowsky (1985) developed a context-free twenty item scale called the Personal Involvement Inventory (PII) which measures the motivational state of involvement. Further studies conducted by Zaichkowsky (1994) extend to reliably reduce PII from twenty item scale to ten items. This research measures involvement on services via Zaichkowsky (1994), Revised Personal Involvement Inventory (RPII) scale.

2.1.4 Service-Specific Impulse Buying Tendency

Impulse buying tendency can be defined as the degree to which an individual is likely to make unintended, immediate, and unreflective purchases (Jones, Reynolds, Wuen and Beatty, 2003). It is unreflective, because the purchase is made without engaging in a great deal of evaluation. The person's attention is focused on immediate gratification of responding to the urge to buy. It is

immediate, as the time interval between seeing the item and buying it is very short and the decision to buy is made hastily. It is also unintended as the urge for tendency to purchase arises suddenly. The desire and decision to buy occurs after the person encounters with the product. Individuals vary in their proclivity to act impulsively, consumer researchers contend that consumers vary in their impulse buying tendency (Beatty, Ferrell, and Elizabeth 1998; Puri, 1996; Rook, 1987; Rook and Fisher, 1995; Rook and Gardner, 1993; Weun, Jones and Beatty, 1998). Rook and Fisher (1995) argue that individuals' impulse buying tendencies can be conceptualized as a consumer trait.

Several scales have been developed to measure consumers' impulse buying tendency (Puri, 1996; Rook and Fisher, 1995; Rook and Gardner, 1993; Weun, Jones and Beatty, 1998). This research uses Rook and Fisher (1995), nine-item scale to measure impulse buying tendency of specific services of two categories.

The research studies impulse buying tendency in two specific service categories of m-commerce which are SMS and MMS. Service-specific impulse buying tendency is defined as the tendency to which consumers are likely to make impulse purchases of services of a specific service (Jones, Reynolds, Wuen and Beatty, 2003), that are either SMS or MMS. It can be viewed as a manifestation of the general impulse buying tendency which is the tendency to purchase any item in general. Thus, to measure service specific impulse buying tendency, the research uses the same scale as to measure general impulse buying tendency.

2.2 A Critical Analysis on Impulse Buying Research

Research on impulse buying sought to investigate those purchase decisions made after the consumer enters a retail environment. The Dupont Consumer Buying Habit Studies (1948-1965), and also studies sponsored by the point-of purchase Advertising Institute (Patterson, 1963), gave an impetus to impulse buying research during past researches. Numerous studies investigated the frequency of "unplanned" impulse buying behavior across various product categories and in different retail settings (Clover, 1950).

Rook's (1987) study on how consumers cope with their impulsive urges to buy and the types of negative consequences that incur as a result of their impulse buying founded that people vary in their proclivity to purchase impulsively and the consumers vary in their ability to control these impulses. His research with Fisher (1995) studied normative moderators of impulse buying and the development of nine-items scale to measure buying impulsiveness. In his past research, he derives that consumer's impulse buying tendencies and their impulse buying behavior is strong when some normative evaluations are approving.

Cobb and Hoyer (1986) studied purchase planning prior to entering the store in terms of product category and specific brand intend to purchase. The types of purchasers identified in his study are planners, partial planners and impulse purchasers. The impulse purchasers, engage in very little information processing. Similarly, Beatty Ferrell and Elizabeth (1998) developed models of precursors of impulse buying and empirically tested the data drawn at pre-shopping and post-

shopping. They result that situation variables produce positive influence on actual impulse buying and in-store browsing is positively affected by one's available time.

Impulse buying research extended to investigate the notion of product-specific nature of impulse buying tendency that results from generalized impulse buying tendency and product involvement. Previous researches have measured consumers' impulse buying behavior in regard to buying "things", not specifying a particular product category (Beatty and Ferrell, 1998; Rook and Fisher, 1995; Rook and Gardner, 1993: Wuen, Jones and Beatty, 1998). But the study by Jones, Reynolds, Wuen and Beatty, (2003) measures impulse buying behavior in terms of two specific product categories. Unlike other researches, its findings that the product specific nature of impulse buying tendency results from generalized impulse buying tendency and product involvement is a unique theoretical contribution to the impulse buying research. Involvement on product was found to have significant influence on consumers' product-specific impulse buying tendencies.

Most early research has defined impulse buying as an "unplanned" purchase. There is an absence of an adequate theoretical framework to guide empirical work. Some shopping behavior that was characterized as unplanned or impulse buying may actually be a form of in-store planning that a shopper uses to finalize his intensions. Stern (1962), Kollat and Willett (1969) both criticized the "unplanned purchase" definition too vague. When defined as the difference between actually concluded and previously planned acquisitions, impulse buying is difficult to measure accurately because consumers may be unable or unwilling to

fully articulate their pre-purchase intensions. Not all unplanned purchases are impulsively decided. Impulse purchase estimates will be attenuated when a product item is on the planning list, but the actual brand purchase was made on impulse.

Despite all of this criticism, impulse buying is still widely characterized as "unplanned" purchase behavior (Bellenger, Robertson and Hirshman, 1978; Cobb and Hoyer 1986; Engel, Blackwell and Kollat 1978). There have been other attempts to reexamine the impulse buying concept, by Jones, Reynolds, Wuen and Beatty (2003). It indicated that a product- specific conceptualization of the impulse buying behavior was a better predictor of actual impulse purchase behavior when compared to general impulse buying tendency for two product categories. In his study, involvement was found to be an important variable impacting consumers' tendency to purchase products of a particular category on impulse. Impulse buying is reactive behavior and often involves an immediate action response to a stimulus.

2.2.1 Traditional view of impulse buying

Impulsive behavior has a longstanding negative association. Social and psychological studies have discussed it in terms of immaturity, primitivism, and foolishness (Rook and Fisher, 1995), defects of will, lower intelligence and social deviance and criminality (Scherhorn, 1990).

In terms of consumption, impulsive behavior has been linked with 'being bad' (Rook and Hoch, 1985) and invoking negative consequences in the areas of personal finance, post- purchase satisfaction, social reactions, and overall self-esteem (Rook, 1987).

According to Rook and Fisher (1995), when impulse shopping is more virtuously motivated it is likely to elicit more positive normative evaluations. However if negative normative evaluations arise in a situation, the shopper's trait tendencies may be frustrated and even a highly impulsive shopper will be less likely to act on his/her buying impulses.

To summarize, the historical research in this area found that society consider impulsive traits to be 'bad', 'immature', 'irrational', 'wasteful' and` 'risky'.

2.2.2 Modern View of Impulse Buying

In contradiction to the traditional and extreme societal view of impulsive nature some researchers, such as Hausman (2000) and Bayley and Nancarrow (1998), have reviewed the situation differently and have specifically examined impulsive purchasing behavior. Hausman (2000), considers it 'an enigma within the marketing world'. It accounts for a large percentage of sales internationally. Researchers maintain that normative evaluations act to moderate individual impulsive traits and thus reduce impulsive purchase behavior.

Rook in his early work explored the underlying nature of impulse buying (Rook, 1987) and later focused on the normative influences affecting it (Rook and Fisher, 1995) Rook and Gardner (1993) examined and discussed the influence of affect on impulse purchasing. Impulse buying has been treated as an individual difference variable, which is likely to influence individuals across situations (Rook

and Fisher, 1995; Wuen, Jones and Beatty, 1998). Previous research did not focus fully on understanding the antecedents of impulse buying which was studied by Beatty, Ferrell and Elizabeth, (1998).

Recent research suggests that consumers do not view individual purchases as wrong and thus report a favorable evaluation of their behavior. In Rook's (1987) study only twenty percent reported feeling bad about their impulse purchase and forty one percent reported they felt good about impulse purchases.

2.3 Relationships Discussed

2.3.1 Relationship between Service-Specific Involvement and Service-Specific Impulse Buying Tendency

Involvement is hypothesized to have a direct influence on service-specific impulse buying tendency. Individuals buy on impulse in response to the strong emotions generated from the close proximity with a product or service (Rook, 1987; Rook and Gardner, 1993). Therefore, individuals who possess a high level of involvement for specific service category or who are more likely to experience strong emotions in these service category are more likely to generate the emotions needed for an impulsive tendency to purchase these services. Also, those consumers who are involved in specific service category are more likely to browse more, influencing impulse buying tendency more frequently. An individual's perceived relevance of SMS and MMS induces the individual to the degree to which he is likely to make impulse purchases of these services.

2.3.2 Relationship between General Impulse Buying Tendency and Service-Specific Impulse Buying Tendency

General impulse buying tendency and service-specific impulse buying tendency is considered to mean similar except that later is defined to the degree to which consumers are likely to make impulse purchases of specific item. Whereas, the formal is defined as the degree to which consumers are likely to make impulse purchases of items in general. The research hypothesizes; the higher the general impulse buying tendency of consumers, the higher will be the impulse buying tendency of specific services. It is studied to have positive relation between them.

2.4 Types of Impulse Buying (Stern, 1962)

1. **Pure Impulse**

   A novelty or escape purchase, which breaks a normal buying pattern. The most easily distinguished kind of impulse buying is pure impulse buying.

2. **Reminder Impulse**

   A shopper sees an item and is reminded that the stock at home needs replenishing, or recalls an advertisement or other information about the item and a previous decision to purchase. The prior experience with the product is remembered, which sparks the impulse purchase.

3. **Suggestion impulse**

   A shopper having no previous knowledge of a product sees the item for the first time and visualizes a need for it. Suggestion buying is distinguished from

reminder buying in that the shoppers have no prior knowledge of the product to assist her in the purchase.

4. **Planned impulse**

It occurs when a shopper enters the store with the expectation and intension of making some specific purchases on mind, but with the expectation and intention to make other purchases on the basis of price specials, coupons.

2.5 Model

The current view of the impulse buying tendency is relatively stable, highly consistent and responsible for exerting a generalized causal effect on behavior (Mischel, 1973; Rook and Fisher, 1995). The model in this research states general impulse buying factors and involvement by shoppers in specific service area is a better predictor of impulse buying tendency in the same service area.

As this research studies on two specific service areas of M-commerce, general impulse buying tendency and involvement in two services- SMS and MMS are the predictors of impulse buying tendency of the same service category- SMS and MMS.

Involvement, which is the state of being involved with the object, is a relevant variable to the notion of impulse buying tendency (Jones, Reynolds, Wuen and Beatty, 2003). Highly involved consumers are more likely to browse in categories that they are highly involved and engage in higher ongoing search. Thus involvement is seen to have direct influence on service specific impulse buying tendency. Individuals buy on impulse in response to the strong emotion generated from the close proximity

with a product or service (Rook, 1987; Rook and Gardner, 1993). Thus, individuals who have a high level of involvement are more likely to generate emotions needed for impulse purchase. Therefore, involvement is predicted to have influence in impulse buying tendency in specific items.

2.6 Previous Empirical Research and Methodology

The process of literature review consisted of learning previous researches conducted by various authors. These previous work was studied for knowledge on methodology, and emphasis on data source, data collection method, data measurement and data analysis method. Some of the more important ones are discussed under the above heading.

Jones, Reynolds, Wuen and Beatty (2003) extends previous studies on impulse buying tendency conceptualizations and treats it as context or product category specific. This study is the first to investigate the notion of a product-specific impulse buying tendency results from generalized impulse buying tendency and product involvement. Furthermore, it proposes that the concept of product involvement play an important role in the impulse buying process. Specifically, the study empirically assesses the relationships among general impulse buying tendency, product-specific impulse buying tendency, product involvement, and impulse buying behavior for two product categories. Consumer shopping diaries and questionnaires were used to collect the data in the study. Undergraduate marketing students were asked to recruit two non students each willing to maintain shopping diaries and complete surveys. Respondents were provided with diary forms and instructed to complete a form after every shopping trip for a 4 week period. The diary forms were simple to maintain and

a cash prize was awarded to all the respondents completing the diaries and survey. Respondents were also asked to provide information on all stores visited during a shopping trip and to complete a separate form for every shopping trip made during the data collection period. At the end of 4 week period respondents completed a survey questionnaire that contained measures of impulse buying tendencies, enduring involvement with two product categories, and demographics. The study's findings supported the hypotheses that product-specific impulse buying tendency results from generalized impulse buying tendency and product involvement. Furthermore, the study demonstrated that product-specific impulse buying tendency is more strongly related to product-specific impulse buying than the generalized impulse buying trait. The conceptual and empirical treatment of impulse buying tendency as a consumer trait generalizable across all product categories should be further evaluated and investigated since the product-specific measures were associated with actual impulse buying behavior while the generalized measures was not. Involvement was found to have significant influence on consumer's product-specific impulse buying tendencies. The results of this study also offer implications for retailers on understanding and encouraging impulse buying in their stores.

Beatty, Ferrell and Elizabeth (1998) develops a model of precursors of impulse buying and empirically tests the data drawn at two points of time (during pre- and post shopping interviews) from a regional shopping mall setting. It studies antecedents of impulse purchases that are situational factors (time and money available), individual difference variable (shopping influences and impulse buying tendency), in-store browsing. It proposes that these variables influence a set of exogenous variables, including positive and negative affect, browsing activity, felt

urge to buy impulsively and whether or not impulse purchases occurs. In-class student survey was conducted with undergraduate business students. They were asked to respond to items based on a recent shopping trip. Based on these in-class surveys, traditional scale development procedures, exploratory factor analysis, coefficient alphas, and item to total correlations were used to eliminate items that did not adequately contribute to the proposed scales. The results of the study concluded following;

- In-store browsing appeared to be positively affected by one's available time and impulse buying tendency, and in turn has positive impact on one's positive feelings and impulse buying urges.
- Felt urge appeared to be an important intervening variable between an actual impulse purchases and several precursors such as: browsing, positive affect, and tendency to engage in impulse buying.
- Individual difference variables: Shopping enjoyment failed to impact in-store browsing.
- Situational variables: Time available and money available tend to produce positive influence on actual impulse purchasing.
- Positive affect was influenced by one's shopping enjoyment, in-store browsing, and money available.
- Negative affect reduced an individual's tendency to actually act on their urges.

Rook and Fisher's (1995) study of normative influences on impulse buying behavior was a valuable contribution in the consumer behavior concept. This study presents conceptual and empirical evidence that consumers' normative evaluations moderate the relationship between the impulsive buying trait and consumers' buying

behavior. It emphasizes that relationship between buying impulsiveness trait and related buying behavior is significant only when consumers believe that acting on impulse is appropriate. The findings from two studies across student and retail consumer samples converge and support the hypothesized moderating role of consumers' normative evaluations. The research develops nine-item scale to measure buying impulsiveness. This study used a convenience sample of 212 undergraduate business students. Thirty five items measuring buying impulsiveness were generated from a review of prior research of impulse buying phenomenology and from literature on general measure of impulsiveness. Exploratory factor analysis, correlation tests and confirmatory factor analysis were used to purify the measure across pretest and samples. The findings contribute that consumers' impulse buying tendencies may be more likely to express themselves in actual impulsive purchases only when some normative threshold is reached.

Zaichkowsky (1994) conducted research to fulfill three fold. First, it extended the construct validation of the Product Involvement Inventory (PII) to involvement with advertisements. Second, it demonstrated that the PII may be reliably reduced from twenty items to ten items. This revised PII measures the motivational state of involvement. And third, it developed affective and cognitive subscales of the PII. .

McQuarrie (1992) studies how enduring involvement (EI) and situational involvement (SI) combine to create involvement responses. It investigates three combination models. In particular, an additive model is compared with two interaction models, and three models are tested empirically using field survey. The results suggest that preexisting levels of enduring involvement neither magnify nor

suppress situational involvement effects occurring around the time of purchase, thus supporting the simple additive model. The lack of interaction between EI and SI indicates that EI does not have a net effect on SI. The data examined in the study show that EI and SI combine in a straightforward manner to influence involvement outcomes. Individual consumers who differ in involvement before purchase will continue to differ during the purchase process, and the degree of difference between them remains the same.

Rook (1987) identifies the subjective experiences that distinguish the concept of the buying impulse. It studies how consumers cope with their impulsive urges to buy and the types of negative consequences that incur as a result of their impulsive buying. The methodology used in this research is questionnaire, using both personal interview and self-completion approaches. It asked respondents three open-ended questions about their impulse buying followed by several demographic questions. The total of 133 respondents (65 male, 68 female) were selected from classrooms and off campus field settings in southwestern United States. Respondents were selected using quota sampling procedures that were designed to guarantee approximately equal representation between the sexes and also across age groups. The data from the study suggest that people vary in their impulse proclivities. The buying impulses vary in perceived intensity and the consumers vary in their ability to control these impulses.

Cobb and Hoyer (1986) take a look at in-store decision making with or without some intent to purchase. This study identifies three types of grocery shoppers, based on the amount of product category and specific brand planning which occurs prior to entering the store. They are: planners, partial planners, and impulse

purchasers. The study goes beyond the existing literature in examining the influence of decision task variables, shopping lifestyles, general shopping behavior, personality, and demographics. The findings provide insights into planned versus impulse purchase behavior. The study employed direct observation of shoppers as one of the three data collection. The other two are: personal interview and self-administered questionnaire. The total of 227 sample completed all three phase of study, which resulted that majority of consumers were planners, impulse purchases engaged in very little in-store information processing. Impulse purchasers valued quality as much as planners, which suggests that advertising is more effective than point of purchase. The planners appeared to view product image and performance as the key factors in the purchase decision. The levels of impulse purchasing observed in the present study are considerably lower than those found in prior investigations. This study therefore distinguishes between planners, partial planners and impulse purchasers.

Zaichkowsky (1985) developed Personal Involvement Inventory (PII) to capture the concept of involvement for products. The scale successfully met standards for internal reliability, reliability over time, content validity, criterion validity, criterion-related validity and construct validity. The scale was developed over four data sets of 268 undergraduate psychology students, two data sets with 49 MBA students; and two data sets with 57 clerical and administrative staff members. The scale was demonstrated to have content validity by expert judges at two phases of the scale development. The reliability of stability of the scale over time was checked over two subject populations for an average test rests correlation. The criterion related validity of the scale was checked by demonstrating agreement with the order of various products as found in previous studies. The scale of construct validity was administered to clerical and administrative staff and covered three different product

categories and several statement. Over all three product categories, there was a positive relationship between the scale scores and the subjects' responses to the statements of theoretical propositions pertaining the involvement.

Bellenger, Robertson and Hirshman, (1978) studies some useful approaches of impulse purchasing that may be implemented at the retail level. This study of 1,600 customers of a large south-eastern department store was conducted to show that variations in the extent of impulse purchasing within a given merchandise line can be accounted for by selected shopper characteristics such as age and race. The primary insight from this study is that impulse purchasing, as defined in the study, is more important in some merchandise line than in others. For those merchandise lines with high impulse purchasing the retailer should consider strategies that emphasize point-of-purchase advertising and merchandise display. Moreover, the extent of impulse purchasing by merchandise line will vary as the environment changes. Retailers should monitor impulse purchasing over time and adjust the emphasis of in-store promotion to stress merchandise lines with a higher percentage of impulse purchasing.

Stern (1962) conducts a study on the significance of impulse buying today that describes four types of impulse buying. They are: pure impulse, reminder impulse, suggestion impulse, and planned impulse buying. This study focuses on the factors that influence impulse buying, which are: low price, marginal need for item, mass distribution, self-service, mass advertising, prominent store display, short product life cycle, small size and light weight and ease of storage. The research concluded that impulse buying despite certain connotations attached to the term, has become sensible

way to buy goods. Impulse buying will continue to grow as consumers have adapted the methods of buying to certain merchandising innovations.

Table: 2.1 Summaries of Articles

Article	Research Objective	Methodology	Findings
Jones, Reynolds, Wuen and Beatty, (2003). **The product-specific nature of impulse buying tendency**. Journal of Business Research. Vol: 56.	• To investigate the notion of a product-specific impulse buying tendency that results from generalized impulse buying tendency and product involvement.	• Consumer shopping diaries • survey questionnaires.	• The product specific impulse buying tendency results from generalized impulse buying tendency and product involvement. • Involvement was found to have significant influence on consumers' product-specific impulse buying tendencies.
Beatty, Ferrell and Elizabeth, (1998). **Impulse Buying : Modeling its precursors**. Journal of Retailing. Vol: 74	• To develop a model of precursors of impulse buying and empirically test the data drawn at two points of time (pre- and post shopping interviews) from a shopping mall settings.	• In-class student survey was conducted with undergraduate business students.	• In-store browsing is positively affected by one's available time. • Shopping enjoyment failed to impact in-store browsing. • Situational variables produce positive influence on actual impulse buying.
Rook and Fisher (1995). **The normative influences on impulse buying behavior.** Journal of Consumer Research. Vol: 22.	• Study Normative moderators of impulse buying. • Study 2: Trait behavior relationships in a retail setting	• Survey on undergraduate business students and a field study conducted at a Mall in Southwestern United States.	• The development of nine-item scale to measure buying impulsiveness. • The relationship between consumers' impulse buying

Article	Research Objective	Methodology	Findings
			tendencies and their impulse buying behavior is strong when some normative evaluations are approving.
Zaichkowsky (1994). **The Personal Involvement Inventory: Reduction, Revision and Application to Advertising.** Journal of Advertising, vol: 23.	• To revise PII and reduce 20 item scale to 10 item scale. • To apply Revised PII in advertising.		• Developed revised PII to measure the motivational state of involvement. • Extended the construct validation of PII to involvement with advertising. • Developed affective and cognitive subscales of the PII.
McQuarrrie (1992). **How Enduring and Situational Involvement Combine to Create Involvement Responses**. Journal of Consumer Pshychology.	• To study how enduring involvement (EI) and situational involvement (SI) combine to create responses.	• Field survey.	• The lack of interaction between EI and SI indicate that EI does not have a net effect on SI. EI and SI combine to straightforward manner to influence involvement outcomes.
Rook (1987). **The Buying Impulse,** Journal of Consumer Research. Vol: 14.	• To study how consumers cope with their impulsive urges to buy and the types of negative consequences that incur as a result of their impulse buying.	• Questionnaire using both personal interview and self completion approach.	• People vary in their proclivity to buy impulsively. • The buying impulses vary in perceived intensity and the consumers vary in their ability to control these impulses.
Cobb and Hoyer (1986). **Planned verses Impulse**	• To study the extend of purchase planning, prior to	• Direct observation of shoppers. • Personal interview	• Purchasers identified as planners, partial

Article	Research Objective	Methodology	Findings
purchase behavior. Journal of Retailing. Vol: 62.	entering the store in terms of product category intend and specific brand intend for two product categories: Tissue and Coffee.	• Self-administrated Questionnaires through mail.	planners and impulse purchases. • Impulse purchasers engaged in very little information processing
Zaichkowsky (1985). **Measuring the Involvement Construct.** Journal of Consumer Research. Vol: 12.	• To develop a scale to measure the construct of involvement.	The scale was developed over four data sets 268 psychology students, 49 MBA students and two data sets with 57 clerical and administrative staffs.	• Developed Personal Product Involvement Inventory (PII) to capture the concept of involvement products.
Bellenger, Robertson and Hirshman, (1978). **Impulse Buying Varies by Product.** Journal of Advertising Research. Vol: 18.	• The useful approach to study impulse purchasing that may be implemented at the retail level.	• Personal interviews. • In-store promotions was carefully observed.	• 38.7 % were impulse purchases. • With regard to race, blacks tended to be more impulse oriented for Men's apparel and furnishing than white men.
Stern (1962). **The Significance of Impulse Buying Today**. Journal of Marketing, Vol: 62.	• To study the factors that influences impulse buying.	• Shoppers are queried upon entering the store as to what they intent to buy, and are checked again before leaving to know the actual purchase.	• Four types of impulse buying are identified as: pure, reminder, suggestion and planned impulse buying. • Factors that influence impulse buying are: low price, marginal need for item, mass distribution, self-service, mass advertising, prominent store display, short product life cycle, light weight and ease of storage.

CHAPTER 3

THE RESEARCH FRAMEWORK

The purpose of this chapter is to provide an overview of research framework in the study. The researcher relates the theories which are drawn from the literature to develop the conceptual model. This chapter consists of five sections, which are theoretical framework, conceptual framework, research hypothesis, operationalization of variables and expected outcome from the study.

Section one states theoretical framework which is the model of previous research conducted by various authors. Section two, the conceptual frameworks are researcher's own model developed from its theoretical model that explains the independent and dependent variables. The third section studies operationalization of variables that translates all variables and sub-variables into action. Section Four describes the research hypothesis. The final part states the expected results.

3.1 Theoretical Framework

The model is the theoretical support of this research, which is studied to conduct a research on impulse buying of a specific product category. Its independent variables, general impulse buying tendency and product involvement are expected to have positive influence on impulse buying tendency of the specific services, which directly influenced service-specific impulse buying behavior.

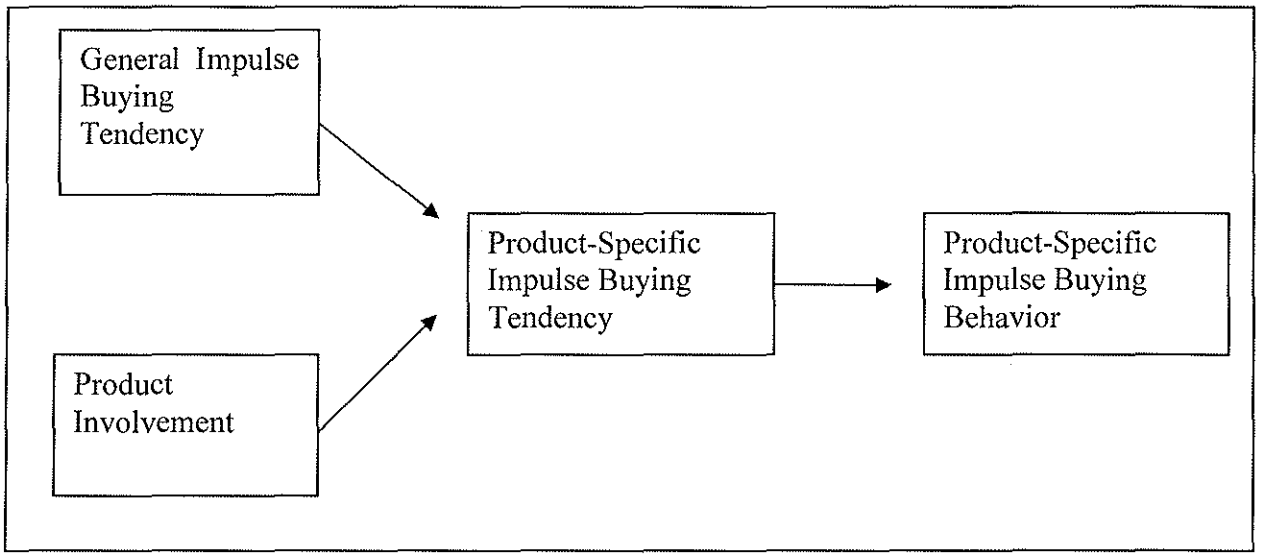


Figure 3.1: Modeling the product specific nature of Impulse Buying

Source: "The product-specific nature of Impulse Buying Tendency", Jones, Reynolds, Weun and Beatty (2003); Journal of Business Research 56, 505-511.

3.2 Conceptual Framework

The framework of the research is presented, based on its theoretical model of pervious research conducted by Jones, Reynolds, Weun and Beatty (2003). The framework intends to study impulse buying tendency in purchase of two specific mobile commerce services that are SMS and MMS. Referring to the theoretical framework of the study, independent variable, 'General Impulse Buying Tendency' is considered to positively affect its dependent variable, 'Impulse Buying Tendency in SMS' and 'Impulse Buying Tendency in MMS'.

'Product Involvement' variable from theoretical framework is altered to 'Service Involvement in two specific services', as the research studies about two specific mobile commerce services, which are SMS and MMS. Therefore, the second independent variables are 'Service Involvement in SMS' and 'Service Involvement in

MMS'.

The research presents two conceptual frameworks, each studying dependent variables 'Impulse Buying Tendency in SMS' and 'Impulse Buying Tendency in MMS' separately.

3.2 Conceptual Frameworks

Fig 3.2 Conceptual Framework 1 (SMS)

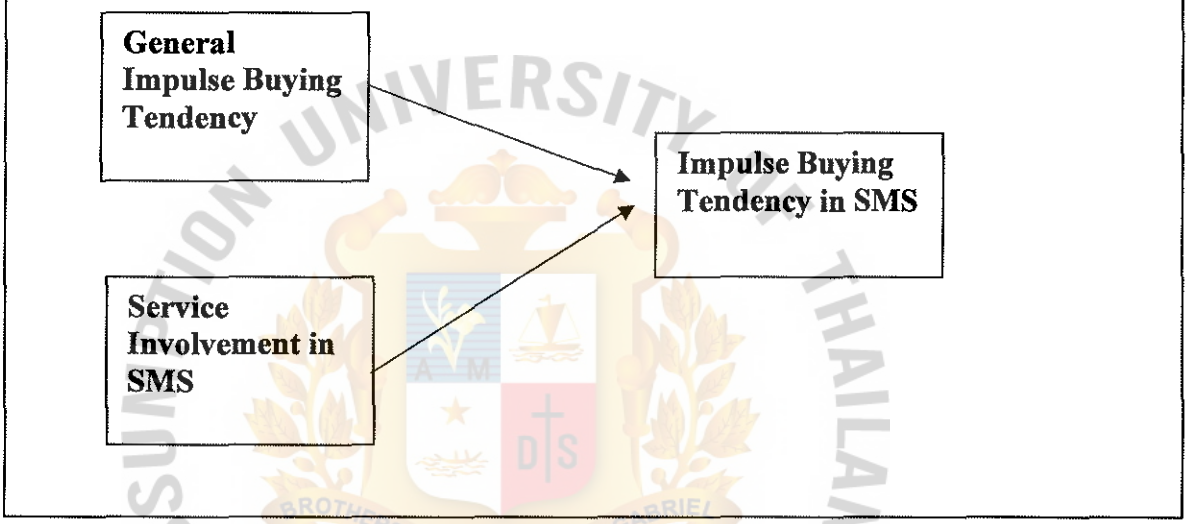
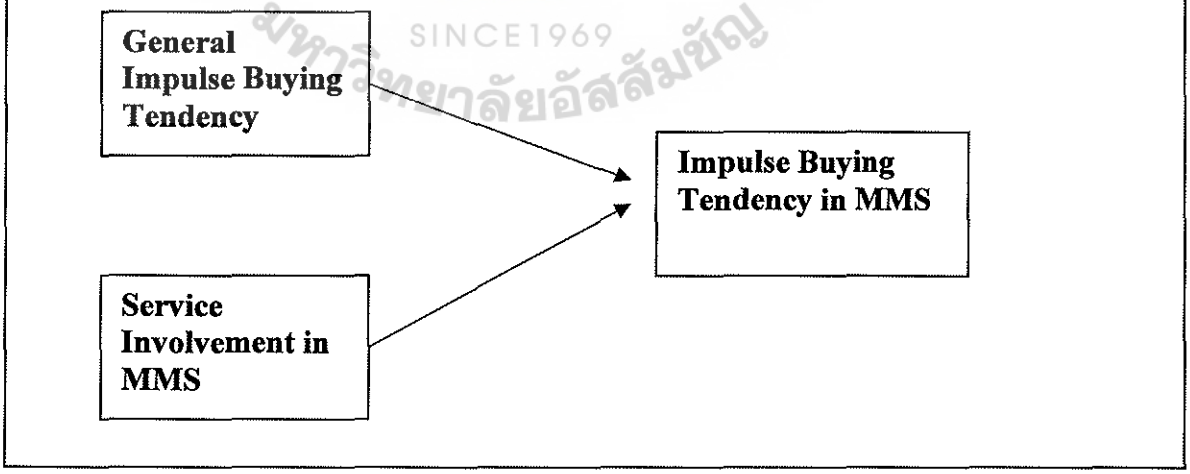


Fig: 3.3 Conceptual Framework 2 (MMS)



3.3 Definition of Selected Variables

- **General Impulse Buying tendency**

  The degree to which consumers are likely to make impulse purchase products and services in general (Jones, Reynolds, Weun and Beatty, 2003)

- **Service involvement in SMS**

  It is defined as person's perceived relevance of SMS services, based on inherited needs, values and interests (Zaichkowsky, 1985).

- **Service involvement in MMS**

  Service involvement is defined as person's perceived relevance of MMS services, based on inherited needs, values and interests (Zaichkowsky, 1985).

- **Impulse buying Tendency in SMS**

  The degree to which consumers are likely to make impulse purchases of SMS services (Jones, Reynolds, Weun and Beatty, 2003)

- **Impulse buying tendency in MMS**

  The degree to which consumers are likely to make impulse purchases of MMS services (Jones, Reynolds, Weun and Beatty, 2003)

3.4 Operationalization of Variables

The concepts can be made operational in order to be measured. Operational definition states in terms of specific testing criteria or operations.

Table 3.1 has operationalized the variables that influence impulse purchase of SMS and MMS services.

Table 3.1 Operationalization Table 1.

Labeling	Definition	Operational Components	Scale	Question No.
General Impulse Buying Tendency	The degree to which consumers are likely to make impulse purchases in general (Jones, Reynolds, Weun and Beatty, 2003)	• Spontaneous purchase behavior of m-commerce services in general.	Interval	(PART-A) 1 to 10
Service Involvement -SMS	A person's perceived relevance on an object based on inherited needs, values and interests (Zaichkowsky, 1985).	• The state of being involved with sending SMS.	Interval	(PART-A) 11 to 20
Impulse buying Tendency SMS	The degree to which consumers are likely to make impulse purchases of items of a specific object (Jones, Reynolds, Weun and Beatty, 2003)	• Spontaneous temptation to send SMS.	Interval	(PART-A) 21-32

Table 3.2 Operationalization Table 2.

Labeling	Definition	Operational Components	Scale	Question No.
General Impulse Buying Tendency	The degree to which consumers are likely to make impulse purchases in general (Jones, Reynolds, Weun and Beatty, 2003)	• Spontaneous purchase behavior of m-commerce services in general.	Interval	(PART-B) 1 to 10
Service Involvement -MMS	A person's perceived relevance on an object based on inherited needs, values and interests (Zaichkowsky, 1985).	• The state of being involved with sending MMS.	Interval	(PART-B) 11 to 20
Impulse buying Tendency - MMS	The degree to which consumers are likely to make impulse purchases of items of a specific object (Jones, Reynolds, Weun and Beatty, 2003)	• Spontaneous temptation to send MMS.	Interval	(PART-B) 21-32

3.5 Statements of Hypothesis

This section studies the proposed hypotheses of the research that is stated in a statistically testable form. From conceptual framework (figure 3.2), the hypothesis statements are set up in accordance with the objectives of this research.

Individuals who, in general, have a tendency to buy products and services on impulse are more likely to possess a great tendency to buy products and services of a particular category on impulse. They purchase on impulse due to emotions generated with the item (Rook and Gardner, 1993). Individuals who have high level of involvement are more likely to experience strong emotion in response to a given

product or service category, and thus they are likely to generate the emotions needed for an impulsive purchase. Thus, the hypotheses are offered for SMS and MMS.

Hypothesis 1

H_a- High levels of generalized impulse buying tendency are associated with high levels of impulse buying tendency in SMS.

H_o- High levels of generalized impulse buying tendency are not associated with high levels of impulse buying tendency in SMS.

Hypothesis 2

H_a - High levels of service involvement in SMS are associated with higher levels of impulse buying tendency in SMS.

H_o - High levels of service involvement in SMS are not associated with higher levels of impulse buying tendency in SMS.

Hypothesis 3

H_a - High levels of generalized impulse buying tendency are associated with high levels of impulse buying tendency in MMS.

H_o- High levels of generalized impulse buying tendency are not associated with high levels of impulse buying tendency in MMS.

Hypothesis 4

H_a - High levels of service involvement in MMS are associated with higher levels of impulse buying tendency in MMS.

H_o - High levels of service involvement in MMS are not associated with higher levels if impulse buying tendency in MMS.

3.6.1 Expected Outcome

The outcome expected by the researcher on this study is dependent on previous researches.

- General impulse buying tendency is expected to positively influence impulse buying tendency in the specific services (such as SMS and MMS). People who tend to have general proclivity to buy will have greater susceptibility to purchase items on impulse (Adelaar, Lancendorfer, 2003). Jones, Reynolds, Weun and Beatty, (2003), in their research founded that product-specific impulse buying tendency results from generalized impulse buying tendency of the same product.

- Service- involvement is expected to have positive influence in impulse buying tendency of specific services (such as SMS and MMS). Jones, Reynolds, Weun and Beatty, (2003) founded that involvement have a significant influence on consumers' product-specific impulse buying tendencies.

CHAPTER 4
RESEARCH METHODOLOGY

The purpose of this study is to assess the significance of factors affecting impulse buying tendency of consumers in mobile commerce. This chapter provides an overview of methodology that is used in the research. It discusses the process of the research study and statistics used in the test in order to set the research results.

Section one states the research's method, followed by section two which defines the sampling procedures. Section three highlights research instrument of the study, section four is the data collection procedures, section five states how the data will be analyzed in the study. Further sections of the chapter explain, Pre test, Statistical treatment of data, hypothesis testing and statistical interpretation of data.

4.1 Research Design- Descriptive Study

The research used descriptive study to analyze the data and to describe impulse buying behavior of consumers. The descriptive research is used to estimate the proportion of people in a specified population who behave in a certain way (Churchill, 1999).

Moreover, the exploratory research is another method which has been applied to this study. It is because the objective of exploratory data analysis is to learn about the data and since this area of research is new, the researcher needs to do an exploration to learn more about the data. Important variables may not be known. Also, the researcher may explore to be sure it is practical to do a study in the area.

Questions were planned to derive answer on, if impulse buying behavior occurs in consumers who use SMS or MMS mobile services. It is an exploration to discover if the consumers would divulge enough information about their decision making on this topic essential for the study's success.

This research depends on primary and secondary data, those are through personal interview with the respondents and researches conducted in the past, published articles prepared by authors.

4.2 Respondents and Sampling Procedures

4.2.1 Target Population

The entire group of people, events or things of interest that researcher wishes to investigate is called population and the target population is the specific complete group relevant to this project (Zikmund, 2000).

The target population of this research is both undergraduate and graduate students of Assumption University of Thailand, age between 14-49 years. The first category of age 14-19 years is a representative of teen age group. This particular age group is taken because it was applied by Siemens mobile phone in their mobile commerce research as well as Yung (2003) showed the fact that young people at this age are more probable to impulse purchases of mobile data services than older groups. The studies in Yung (2003) further states the difference in attitude and behavior towards m-commerce services and applications is significant between younger and older age groups. And also that older group does not integrate mobile phones in their lives as much as younger age groups.

4.2.2 Sampling Element

A sampling element is the object or person from which the information is desired. Sampling element for this research is both male and female students of Assumption University, Thailand (both the Bangna and Huamak Campus) currently studying in graduate or undergraduate level, of age between 14-49 years.

4.2.3 Sampling Unit

A sampling unit may be an element itself, or it may be more readily available entity containing the element. It is a place where researcher found and contaceds the respondents.

For this research, sampling Unit is Assumption University, Thailand (Bangna and Huamak Campus) where the research has been being conducted.

4.2.4 Sampling Method

The sampling method used in the study is non-probability sampling, which is a sampling technique in which unit of the sample is selected on the basis of personal judgment or convenience. The probability of a particular member of the population being chosen is unknown (Zikmund, 2000). The technique relies in the personal judgment of the researcher in selecting sampling element. Non probability sampling allows researcher to choose sample elements "at random" (meaning, "as they wish" or "where they find them").In this research the probability of choosing each element in the population is not specified.

The probability sampling technique considered in this research is convenience sampling. It is a non-probability sampling technique that attempts to obtain a sample

of convenient elements. It allows researchers to obtain target respondents most conveniently available and the researcher can obtain a large number of completed questionnaires quickly and economically. The respondents selected for the questionnaires were those who were found outside the classrooms and campuses, those who were on class breaks and lunch breaks were selected randomly.

4.2.5 Determining Sample Size

The size of the sample is dependent both on the size of the budget and degree of confidence that the marketer wants to place in findings. The larger the sample, the more likely the response will reflect the total universe under study. The total sample sizes of 392 students for SMS and MMS were taken from the target population. The total of 19,362 students is the total population of Assumption University (Source: Registration Department of Assumption University on 12th Nov, 2003). The principle for calculating the sample size comes from the Yamane Model of determining sample size.

Table 4.1 Determining sample size for ± 3%, ± 5%, ± 7%, ± 10% Precision Levels where confidence level is 95% and P = 0.5. (Yamane model of determining sample size).

Size of Population	**Sample Size (n) for Precision (e) of:**			
	± 3%	**± 5%**	**± 7%**	**± 10%**
3,000	811	353	191	97
4,000	870	353	191	98
5,000	909	370	196	98
6,000	938	375	197	98
7,000	959	378	198	99
8,000	976	381	199	99
9,000	989	383	200	99
10,000	1,000	385	200	99
15,000	1,034	390	201	99
20,000	**1,053**	**392**	**204**	**100**
25,000	1,064	394	204	100
50,000	1,087	397	204	100
100,000	1,099	398	204	100

Source: Yamane, Taro: Statistics, An Introductory Analysis.

4.3 Research Instrument

In regard to gather accurate information from samples, the research used self-administered questionnaire as research instrument. Questionnaire was used to present questions and record answers in quantitative field research surveys. The reason to choose self-administered questionnaire was to encourage correct answers from respondents. The data were collected through face to face interaction with respondents. For the proof of data collection, mobile number of the respondent, date and time of survey was provided.

In order to provide more stringent test of the conceptual model, data were collected so that model could be tested across two service categories (SMS and MMS) simultaneously. Two sets of questionnaires were constructed to measure SMS and MMS separately. It measured general impulse buying tendency, service involvement for SMS and MMS services and impulse buying tendency of SMS and MMS services.

- Part one- Rook and Fisher's (1995) nine-items scale was used to measure general impulse buying tendency of respondents across all categories of products and services. It is likert scale summated rating, where the data is interval scale. It is measured in 7 point scale in order to receive variety of response category.
- Part two- Zaichkowsky's (1994) Revised Personal Involvement Inventory (RPII) was used to measure service involvement of respondents towards SMS and MMS messages simultaneously. It is 7 point semantic differential scale, where the date is interval scale.
- Part three- Rook and Fisher's (1995) nine-items scale was again used to measure impulse buying tendency of two specific m-commerce services. The wording of the scale was altered to reflect impulse buying of SMS and MMS.
- Part four- This section consist of personal information of the respondents which may be useful to analyze statistical data in later chapters. It provides information such as age, gender, income, marital status, highest accomplished education of the respondents.

4.4 Data Collection

The primary data were collected through the survey which consisted of self-administered questionnaire (face to face). Altogether 394 and 392 respondents were interviewed for SMS and MMS questionnaires respectively with in the period May-July 2004. In order to achieve to gain respondents of all desired age groups of m-commerce users of Assumption University, the researcher collected the data during the campus time; starting from 9 am till 5 pm during weekdays and weekends. Along with the researcher, few other friends, students of the undergraduate and master degree, Assumption University accompanied in the survey process. Both Bangna and Huamak Campuses of Assumption University are taken into consideration. The data collection process would be face to face questioning of self-administered questionnaire which takes approximately five minutes for each respondent.

4.5 Data Analysis

The data collected would be encoded using the Statistical Package for Social Science (SPSS) version 11.5 for analysis. This computer package is necessary for accuracy in the descriptive analysis and representation of data in chart form and percentages.

4.6 Pre-test (Reliability Test)

A pretest was carried out among 10 percent of the sample, to ensure that the respondents understand the questions posed and there is no problem with the wording or measurement. Such pre- testing, according to Sekran (2001) helps to rectify any inadequacies, in time, before administering the instrument orally or through a

questionnaire to a large number of respondents, and thus reduces biases. It has been been carried out to ensure that the respondent understands the questions.

4.7 Statistical treatment of data

Statistical analysis of 392 respondents has been carried out through SPSS software, which provides research findings based on statistical results of correlation between the various variables.

Table: 4.2 Statistics Used

No.	Concept	Statistics
1	High levels of generalized impulse buying tendency are associated with high levels of impulse buying tendency in SMS.	Simple Correlation Coefficient Pearson's *r*
2	High levels of service involvement in SMS are associated with higher levels of impulse buying tendency in SMS.	Simple Correlation Coefficient Pearson's *r*
3	High levels of generalized impulse buying tendency are associated with high levels of impulse buying tendency in MMS.	Simple Correlation Coefficient Pearson's *r*
4	High levels of service involvement in MMS are associated with higher levels of impulse buying tendency in MMS.	Simple Correlation Coefficient Pearson's *r*

4.8 Decision Rule for Hypothesis Testing

Hypothesis testing has been done to determine whether the hypothesis is a reasonable statement. The hypothesis statements shown in Table 4.2 are alternative hypothesis. Null hypothesis (H_0) is a statement about the value of population parameter. Alternative hypothesis (H1) is a statement that is accepted if the sample data provide enough evidence that the null hypothesis is false. Level of significance is

the probability of rejecting the null hypothesis when it is true. Test statistic is a value derived from sample information and determines whether or not to reject the null hypothesis.

For hypothesis testing in this research, Pearson's correlation coefficient was used to derive correlation between the variables, with 2-tailed significance of 0.000. The correlation coefficient, "r" ranges from + 1.0 to -1.0. If the value of r = 1.0, there is a perfect positive correlation. If the value or r = -1.0, there is a perfect negative correlation. No correlation is indicated if r = 0. Acceptance of null hypothesis is the indication of no correlation between variables whereas acceptance of alternative hypothesis is the indication of positive correlation.

4.9 Statistical Interpretation

The formula used to calculate the correlation coefficient of two variables X and Yin this study is (Davis, 1996)

$$r_{xy} = \frac{\sum XY - (\sum X)(\sum Y)/n}{\{[\sum X^2 - (\sum X)^2/n][\sum Y^2 - (\sum Y^2/n]\}^{1/2}}$$

Where,

r_{xy} = Correlation coefficient between X and Y

n = Size of Sample

X = Individual's score on the X variable.

Y = Individual's score on the Y variable.

XY = Product of each X score and its corresponding Y score.

X^2 = Square of the individual's score on the X variable.

Y^2 = Square of the individual's score on the Y variable.

CHAPTER 5

Data Analysis and Critical Discussion of Results

This chapter presents the results of data analysis of two mobile commerce services (SMS and MMS) separately, based on the sample size of 392 respondents each. The analysis is derived from all respondents.

The first section of the chapter contains total questionnaire responses from data collection. The second section explains about the reliability test of the questionnaires. The third section display demographic profile of SMS respondents. The fourth section display demographic profile of MMS respondents and analysis of the tables. The fifth section tests the stated hypotheses and analysis of the hypotheses in brief. The other section is analyses the difference in impulse buying tendency of SMS and impulse buying tendency of MMS. The final section is the explanation of results and analysis.

5.1 Total Questionnaire Responses

The researcher distributed 394 questionnaires for SMS and 392 questionnaires for MMS. The sample size of the research is 392 respondents. Therefore the convenience sample was enough for data analysis.

5.2 Reliability of the Questionnaire

To assess the reliability of questionnaires, calculation of Cronbach Alpha was utilized in this study. Using SPSS program, the result calculated by the Cronbach

Alpha scores, shows a standardized alpha of 0.86 and 0.88 for SMS and MMS respectively.

According to Cronbach (1951), if a value of reliability estimate is 0.7 or higher, it is considered that the instrument is reliable. Therefore, the questionnaires can be used as the instrument for this research study.

5.3 Demographic Profile of SMS Respondents

Table 5.1

Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	male	169	42.9	42.9	42.9
	female	225	57.1	57.1	100.0
	Total	394	100.0	100.0	

Table 5.1 shows the gender characteristics of the target respondents of SMS users. 57.1% were female exceeding male respondents, which is 42.9%. This is to show that there are no biases in choosing male or female respondents among the population.

Table: 5.2

Age

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	14-19	147	37.3	37.3	37.3
	20-29	240	60.9	60.9	98.2
	30-39	6	1.5	1.5	99.7
	40-49	1	.3	.3	100.0
	Total	394	100.0	100.0	

The majority of 240 respondents (60.9%) that was randomly chosen were of age 20-29 years. 37.3% or 147 were 14-19 years.

Table: 5.3

Ethnicity

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Thai	307	77.9	77.9	77.9
	Non Thai	87	22.1	22.1	100.0
	Total	394	100.0	100.0	

The table above shows 77.9% of the respondents were Thai students whereas, non Thai or international students consisted of 22.1%.

Table: 5.4

Marital Status

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	single	385	97.7	97.7	97.7
	married	8	2.0	2.0	99.7
	widowed	1	.3	.3	100.0
	Total	394	100.0	100.0	

From the above table, 97.7% of the respondents were single, whereas 2% were married and only 0.3% widowed.

Table: 5.5

Employment Status

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	student	361	91.6	91.6	91.6
	employed	33	8.4	8.4	100.0
	Total	394	100.0	100.0	

The majority of the students (91.6%) who were interviewed for the research were unemployed, full time student. The remaining 8.4% were employed, part time students.

Table: 5.6

Highest accomplished educational degree

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No degree	170	43.1	43.1	43.1
	Degree	224	56.9	56.9	100.0
	Total	394	100.0	100.0	

The table indicates the highest accomplished education degree of the respondents. 56.9% of them hold any educational degree whereas 43.1% does not hold any degree and are graduates from high school.

Table: 5.7

Income per month (Baht)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	below 10,000	364	92.4	92.4	92.4
	10,000 to 17,900	16	4.1	4.1	96.4
	18,000 to 24,999	2	.5	.5	97.0
	25,000 to 34,999	5	1.3	1.3	98.2
	35,000 to 44,999	2	.5	.5	98.7
	45,000 to 54,999	4	1.0	1.0	99.7
	55,000 to 64,999	1	.3	.3	100.0
	Total	394	100.0	100.0	

The table 5.7 describes the income per month of the respondents. 92.4% of the respondents show income below 10,000 baht or equivalent to no income. Since 91.6% of respondents were full time students, income is below 10,000 baht per month or they do not have any income.

Table: 5.8 How do you pay for your mobile calls?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	prepaid	241	61.2	61.2	61.2
	postpaid	153	38.8	38.8	100.0
	Total	394	100.0	100.0	

The mobile calls are either paid at the end of the month which is called post paid or are pre paid. The table 5.8 shows general information regarding prepaid or postpaid subscribers. 61.2% respondents were prepaid users, whereas 38.8% were post paid users.

5.4 Demographic Profile of MMS Respondents

Table: 5.9

Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	186	47.4	47.4	47.4
	Female	206	52.6	52.6	100.0
	Total	392	100.0	100.0	

Table 5.41 shows the gender characteristics of the target respondents towards using MMS service. 52.6% were female respondents exceeding male respondents, which is 47.4%. This explains, 186 were male and 206 were female from the total sample size of 392 respondents.

Table: 5.10

Age

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	14 to 19	126	32.1	32.1	32.1
	20 to 29	263	67.1	67.1	99.2
	30 to 39	3	.8	.8	100.0
	Total	392	100.0	100.0	

The respondents of age 20 to 29 years old were the majority, being 67.1% or 263 of them. 14 to 19 years old consisted of 32.1% or 126 respondents, and 30-39 years old consisted 0.8% or 3 respondents.

Table: 5.11

Ethnicity

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Thai	270	68.9	68.9	68.9
	Non Thai	122	31.1	31.1	100.0
	Total	392	100.0	100.0	

There was a majority of Thai students those responded for the research. Thai students consisted of the total of 68.9% or 270 students, whereas Non Thai students consisted of 31.1% or 122 of the sample.

Table: 5.12

Marital status

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Single	389	99.2	99.2	99.2
	Married	2	.5	.5	99.7
	Widowed	1	.3	.3	100.0
	Total	392	100.0	100.0	

The total sample that was single or unmarried consisted of 99.2% or 389 of them. Almost all the respondents were single. Those who were married consisted of 0.5% or just two of the respondents and one widowed.

Table: 5.13

Employment Status

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Student	385	98.2	98.2	98.2
	Employed	7	1.8	1.8	100.0
	Total	392	100.0	100.0	

The students who were unemployed consists of 385 respondents or 98.2%, whereas the students who were employed either part time or full time consisted of 7 respondents or 1.8%.

Table: 5.14

Highest accomplished educational degree

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No degree	312	79.6	79.6	79.6
	Degree	80	20.4	20.4	100.0
	Total	392	100.0	100.0	

The highest educational degree accomplished by the respondents was no degree, or Undergraduate students of the sample. They consisted of 79.6% or 312 respondents, whereas the students who accomplished an educational degree, or graduate and PhD students consisted of 20.4% or 80 respondents.

Table: 5.15

Income per month

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Below 10,000	385	98.2	98.2	98.2
	10,000 to 17,999	6	1.5	1.5	99.7
	18,000 to 24,999	1	.3	.3	100.0
	Total	392	100.0	100.0	

The respondents whose income was below 10,000 baht or who do not have any income falls under the category that has the majority of respondents. They consist

of 98.2% or 385 respondents. The respondents whose income falls under the range of 10,000 to 17,999 baht were 1.55 or 6 respondents. The respondents whose income falls under the range of 18,000 to 24,999 baht were 0.3% or only one respondent.

Table: 5.16

How do you pay for your mobile calls?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Prepaid	183	46.7	46.7	46.7
	Post paid	209	53.3	53.3	100.0
	Total	392	100.0	100.0	

The total post paid users were 53.3% or 209 respondents, whereas Pre paid users were 46.7% or 183 respondents.

5.5 Test of Hypotheses

This research proposes four hypotheses, which are to be tested in this section of the chapter. Pearson's correlation coefficient was used to test all the hypotheses because the purpose of the research is to study whether the independent variables are correlated to the dependent variable or not.

5.5.1 Hypotheses One

$H1_a$: High levels of generalized impulse buying tendency are associated with high levels of impulse buying tendency in SMS.

$H1_0$: High levels of generalized impulse buying tendency are not associated with high levels of impulse buying tendency in SMS.

Table: 5.17

The relationship between General Impulse Buying Tendency in SMS with Impulse Buying Tendency in SMS by using Bivariate Correlation Coefficient.

		SSIBT (SMS)	GIBT (SMS)
SSIBT (SMS)	Pearson Correlation	1	.391(**)
	Sig. (2-tailed)	.	.000
	N	394	394
GIBT (SMS)	Pearson Correlation	.391(**)	1
	Sig. (2-tailed)	.000	.
	N	394	394

** Correlation is significant at the 0.01 level (2-tailed).

The Pearson's Correlation Coefficient between general impulse buying tendency with service specific impulse buying tendency in SMS (table: 5.17) is 0.391 with 2-tailed significance of 0.000 which is less than 0.01 (0.000<0.01).

The correlation coefficient, r = 0.391. If r >0.1, it signifies there is a positive relation between the two variables. This implies that there is enough evidence to reject null hypothesis and accept alternative hypothesis. Therefore, there is a positive relation between general impulse buying tendency with service specific impulse buying tendency of SMS.

To explain further, the consumers who possess tendency to purchase general things on impulse are probable to send SMS on impulse. The table 5.17 signifies that general impulse buying tendency to service specific impulse buying tendency in SMS have a positive correlation at .391 or 39.1 percent.

Analyzing the data collected from the sample, the respondents who partially agreed that they purchase general goods and services spontaneously accounts for the highest response of 24.9%. Similarly, the respondents who also partially agreed that they send SMS spontaneously accounts for 24.6%. This implies that the consumers who purchase things on impulse also send SMS impulsively.

"Just do it" measures the impulsive behavior towards purchases. The response for general goods and services is neutral (25.9%), whereas the respondents partially agree (23.9%) to send SMS. This implies that they have similar behavior towards purchase of general goods and services and sending SMS.

The respondents strongly disagreed (26.6%) that they buy products and services without thinking but they partially agree (18.8%) to send SMS without thinking. This implicate that even though respondents devote a lot time in thinking to purchase general items, they do not behave similar in case of sending SMS. SMS instantly without much thought.

"I see it, I buy it" also measures impulsivity of respondents towards purchase behavior. For general goods and services, the response is neutral (19%), whereas for sending SMS, respondents partially agree (23.6%) that as they create SMS, they send it impulsively.

For purchase of general goods and services, the respondents strongly disagreed (27.2%) towards the statement, "buy now, think about it later". But they responded neutral (21.1%) in case of sending SMS that," send now, think about it

later". This indicates that respondents think carefully with regard to buying general goods and services, but they neither agree nor disagree with regard to sending SMS.

The respondents partially agree (25.9%) that they sometimes feel like buying goods and services on the spur of the moment, but they responded neutral (28.2%) in sending SMS on the spur of the moment. They neither agree nor disagree that SMS is sometimes sent on the spur of the moment.

The respondents neither agree nor disagree (27.9%) that they buy products and services according to how they feel at that moment, but they partially agree (26.6%) that they send SMS according to how they feel at that moment. Therefore, the data analysis studies that sending SMS depends on the feelings of respondents.

Regarding making careful planning while purchasing, the respondents agree (20.3%) that they carefully plan when they purchase goods and services in general. But they neither agree nor disagree (20.8%) that they carefully plan while they send SMS. Therefore, the data analysis studies that even though there is careful planning in case of purchasing general goods and services; there may or may not be careful planning in case of sending SMS.

The respondents are neutral (37.1%) towards being reckless about what they buy in case of general goods and services and are also neutral (33%) towards being reckless in sending SMS.

Among 394 respondents who were questioned by the researcher, 46.4% of them were occasional impulse buyers, 27.4% of them were hardly ever impulse buyers, 17.3% were frequent impulse buyers, 6.6% were definitely not impulse buyers, and 2.3% were constant impulse buyers.

Considering the analysis of the data and the table 5.1, the research studies that general impulse buying tendency and impulse buying tendency in SMS is positively correlated. Consumers, who possess tendency to purchase general goods and services impulsively, have tendency to send SMS impulsively. Thus, the research accepts alternative hypothesis and rejects the null hypothesis. Therefore,

$H1_a$ High levels of generalized impulse buying tendency are associated with high levels of impulse buying tendency in SMS.

5.5.2 Hypothesis Two

$H2_a$: High levels of service involvement in SMS are associated with higher levels of impulse buying tendency in SMS.

$H2_0$: High levels of service involvement in SMS are not associated with high levels of impulse buying tendency in SMS.

Table: 5.18

The relationship between Involvement in SMS with Impulse Buying Tendency in SMS by using Bivariate Correlation Coefficient

		SSIBT (SMS)	INVOLVE (SMS)
SSIBT (SMS)	Pearson Correlation	1	.297(**)
	Sig. (2-tailed)	.	.000
	N	394	394
INVOLVE (SMS)	Pearson Correlation	.297(**)	1
	Sig. (2-tailed)	.000	.
	N	394	394

** Correlation is significant at the 0.01 level (2-tailed).

The Pearson's Correlation Coefficient between involvement with service specific impulse buying tendency in SMS (table: 5.18) is 0.297 with 2-tailed significance of 0.000 which is less than 0.01 (0.000<0.01).

The correlation coefficient, r = 0.297. If r >0.1, it signifies there is a positive relation between the two variables It implies that there is enough evidence to reject null hypothesis and accept alternative hypothesis. It also implies that there is a positive relation between involvement in SMS with impulse buying tendency of SMS. To further explain, consumers who feel SMS is relevant on the basis of his inherited

needs, wants and interests, are probable to send SMS impulsively. The table 5.18 signifies that involvement to impulse buying tendency in SMS have a positive correlation at .297 or 29.7 percent.

Analyzing the data collected to measure involvement, from the sample, the respondents' response towards sending SMS, is important (25.9%), little interesting (24.4%), partially relevant (31%), partially exciting (24.9%), either means a lot nor means nothing (25.9%), appeal neutral (29.4%), quite fascinating (31.5%), valuable (24.9%), quite involving (30.2%) and needed (26.6%). The data examines positive response towards involvement in SMS by its users.

Considering the analysis of the data and table 5.18, the research studies that involvement in SMS and impulse buying tendency are positively related. Consumers who are involved in sending SMS are also probable to send it impulsively. Therefore, the research concludes that:

$H2_a$: High levels of service involvement in SMS are associated with higher levels of impulse buying tendency in SMS.

5.5.3 Hypothesis Three

H3a: High levels of generalized impulse buying tendency are associated with high levels of impulse buying tendency in MMS.

H30: High levels of generalized impulse buying tendency are not associated with high levels of impulse buying tendency in MMS.

Table: 5.19

The relationship between General Impulse Buying Tendency and Impulse Buying Tendency in MMS by using Bivariate Correlation Coefficient

		SSIBT (MMS)	GIBT (MMS)
SSIBT (MMS)	Pearson Correlation	1	-.140(**)
	Sig. (2-tailed)	.	.005
	N	392	392
GIBT (MMS)	Pearson Correlation	-.140(**)	1
	Sig. (2-tailed)	.005	.
	N	392	392

** Correlation is significant at the 0.01 level (2-tailed).

The Pearson's Correlation Coefficient between General impulse buying tendency in MMS with impulse buying tendency in MMS (table: 5.19) is -0.14 with 2-tailed significance of 0.000 which is less than 0.01 (0.000<0.01).

The correlation coefficient, r = -0.14. If r < 0.1, it signifies no correlation between the two variables. It implies that there is enough evidence to accept null hypotheses and reject alternative hypotheses.

To explain further, the consumers who possess tendency to purchase general things on impulse are not probable to send MMS on impulse. Even though the

respondents purchase general items of impulse, they do not send MMS impulsively or even though the respondents send MMS impulsively, they may not be impulsive towards purchasing general goods and services. The table 5.19 signifies that general impulse buying tendency to impulse buying tendency in MMS have no correlation at -0.14.

Analyzing the data collected from the sample, the respondents who partially agreed that they purchase general goods and services spontaneously accounts for the highest response of 31.6%. Similarly, the respondents who also partially agreed that they send SMS spontaneously accounts for 26.5%. This implies that the consumers who purchase things on impulse also send MMS impulsively.

"Just do it" measure the impulsive behavior towards purchases. According to the table the respondents partially agree (24.5%) that they describe their purchase behavior as "just do it". Similarly, the respondents also partially agree (21.2%) to describe their behavior towards sending SMS as "just do it". This implies that the respondents have similar behavior of buying impulsively towards general items as well as sending MMS.

The respondents partially agree (21.4%) that they often buy products and service without thinking but disagree (27.3%) that they send MMS without thinking. This implies that Even though the respondents do not think much towards purchase of general goods and services, they do think carefully to send MMS.

"I see it, I buy it" also measures impulsivity of respondents towards purchase behavior. The respondents partially disagree (20.2%) to describe their purchase behavior as" I see it, I buy it" contrary to the response for sending MMS, where

respondents partially agree (19.4%) that they send MMS as they create it.

For purchase of general goods and services, the respondents strongly disagreed (24.7%) towards the statement, "buy now, think about it later" and also partially disagreed (20.7%) in case of sending MMS that, "send now, and think about it later". This indicates that respondents think carefully with regard to buying general goods and services and also with regard to sending MMS.

The respondents partially agree (22.7%) that they sometimes feel like buying goods and services on the spur of the moment, and also partially agreed (23.2%) in sending MMS on the spur of the moment. They partially agree that MMS is sometimes sent on the spur of the moment just similar to purchasing general goods and services.

The respondents partially agree (24.5%) that they buy products and services according to how they feel at that moment, and also they agree (21.2%) they send MMS according to how they feel at that moment. Therefore, the data analysis studies that sending MMS depends on the feelings of respondents.

Regarding making careful planning while purchasing, the respondents partially disagree (20.7%) that they carefully plan when they purchase goods and services in general. But they agree (21.4%) careful planning is done while they send MMS. Therefore, the data analysis studies that even though there is no careful planning in case of purchasing general goods and services; there is careful planning in case of sending MMS.

The respondents partially agree (27%) in being reckless about what they buy as general goods and services but neither agree nor disagree (33%) being reckless while sending MMS.

Among 394 respondents who were questioned by the researcher, 52.6% of them were occasional impulse buyers, 23.2% of them were hardly ever an impulse buyers, 14.5% were frequent impulse buyers, 8.9% were definitely not impulse buyers, and 0.8% were constant impulse buyers.

Considering the analysis of the data and the table 5.19, the research studies that general impulse buying tendency and impulse buying tendency in MMS is inversely correlated. Consumers, who possess tendency to purchase general goods and services impulsively, do not have tendency to send SMS impulsively or, MMS users who are impulsively towards sending MMS, may not have impulsive behavior towards purchase of goods and services in general. Thus, the research accepts null hypothesis and rejects the alternative hypothesis. Therefore,

$H3_0$: High levels of generalized impulse buying tendency are not associated with high levels of impulse buying tendency in MMS.

5.5.4 Hypotheses Four

H4a: High levels of service involvement in MMS are associated with higher levels of impulse buying tendency in MMS.

H40: High levels of service involvement in MMS are not associated with higher levels of impulse buying tendency in MMS.

Table: 5.20

The analysis of relationship between Involvement in MMS with Impulse Buying Tendency in MMS by using Bivariate Correlation Coefficient Test

		SSIBT (MMS)	INVOLVE (MMS)
SSIBT (MMS)	Pearson Correlation	1	.178(**)
	Sig. (2-tailed)	.	.000
	N	392	392
INVOLVE (MMS)	Pearson Correlation	.178(**)	1
	Sig. (2-tailed)	.000	.
	N	392	392

** Correlation is significant at the 0.01 level (2-tailed).

The Pearson's Correlation Coefficient between involvement in MMS with impulse buying tendency in MMS (table: 5.20) is 0.178 with 2-tailed significance of 0.000 which is less than 0.01 (0.000<0.01).

The correlation coefficient, r = 0.178. If r >0.1, it signifies there is a positive relation between the two variables It implies that there is enough evidence to reject null hypotheses and accept alternative hypotheses. It also implies that there is a positive relation between involvement in MMS with impulse buying tendency of MMS. To further explain, consumers who feel MMS is relevant on the basis of his inherited needs, wants and interests, are probable to send MMS impulsively. The table

5.18 signifies that involvement to impulse buying tendency in SMS have a positive correlation at .178 or 17.8 percent.

Analyzing the data collected to measure involvement in MMS, from the sample, the respondents' response towards sending MMS, is little important (24%), interesting (42.9%), partially relevant (22.4%), partially exciting (23.5%), means a little (23.2%), quite appealing (25%), quite fascinating (28.3%), worthless (22.4%), quite involving (28.1%) and not much needed (20.7%).

Considering the analysis of the data and table 5.19, the research studies that involvement in MMS and impulse buying tendency are positively related. Consumers who are involved in sending MMS are also probable to send it impulsively. Therefore, the research concludes that:

$H4_a$: High levels of service involvement in MMS are associated with higher levels of impulse buying tendency in MMS.

5.6 Analyzing the difference in Impulse Buying Tendency of SMS and Impulse Buying Tendency of MMS

One of the research objectives is to analyze the difference between impulse buying tendencies of SMS against impulse buying tendency of MMS. The researcher has analyzed the objective through data collection.

The sampling element for both the categories of mobile commerce services are male and female students of Assumption University, Thailand currently studying in graduate or undergraduate level, of age 14-25 years. The demographic profile (gender, age, ethnicity, marital status, employment status, highest accomplished educational degree, income per month and pre-paid of post paid users) of respondents analyzed to show the difference in the users of SMS and MMS as the users of MMS were post paid consumers, but the users of SMS were pre paid consumers.

The results of the hypotheses testing of variables in the study indicate, both services differ in terms of the degree of impulsiveness. SMS is more impulsive than MMS. The consumers having general tendency to buy things on impulse are seen to have tendency to purchase SMS on impulse, whereas impulse buying tendency on general things does not influence impulse purchase of MMS. But both services are somewhat dependent on the level of involvement. The more consumers are involved with SMS and MMS, the tendency for impulse purchase of these services are probable.

However, it is important to note that the respondents of SMS made no careful planning while sending messages but the respondents of MMS make a careful planning of each and every message they send. It may be due to the cost that varies in the two services. MMS is paid on the basis of per minute download of applications but the cost of a SMS upto 160 character is fixed as 3 baht per message.

Another difference lies in the way respondents perceive these services as whether required to them or not, valuable or worthless to them. Both SMS and MMS were considered interesting, important, relevant, exciting, appealing and fascinating but MMS was responded as a service that's not required and worthless to the users, whereas SMS was required and valuable to its users.

Due to these differences, the tendency to send MMS impulsively is low as compared to sending SMS impulsively. Mostly, the messages are impulse rather than planned.

5.7 Analysis and Results

The hypotheses testing for general impulse buying tendency, involvement in SMS and MMS, impulse buying tendency in SMS and MMS are presented in table: 5.17, 5.18, 5.19, and 5.20 respectively. Before testing the hypotheses, the reliability of scales was tested using alpha. The coefficient alpha were all greater than 0.6 (Cronbach Alpha). The majority of consumers were classified as occasional impulse buyers for both categories of SMS and MMS.

The respondents of SMS users, under the age group 14-19 years were 37.3%, in which 14-16 years were not found in the university. The particular age group consists of respondents of age above 16 years. The table 5.2 explains that most of the SMS users are of age 20-29 years. The group 30-49 years has few users, which supports to the findings of Yung (2003), that young people are probable of m-commerce application in comapred to the older group of users.

The respondents of MMS users, under the age group 14-19 were 32.1%, which does not include the age 14-16 years since it was not found in the university. It is still taken into consideration because it is the representative of the teenage group. The particular age group consists of respondents above 16 years. The maximum of users (67.1%) are between 20-29 years, and 0.8% of 30-39 years.

Next, the hypotheses were tested using Pearson's Correlation Coefficient. Hypothesis one was supported for sending SMS. General impulse buying tendency had a significant positive influence ($r = 0.178$, where $r > 0.01$) on impulse buying tendency of SMS. It has already been explained that if consumers are more impulsive towards buying general goods and services, they also become impulsive towards sending SMS. The respondents prove that SMS is a spontaneous service, sent without much thinking, depended on senders' mood at that moment, and sent with not much careful planning.

Next, involvement was hypothesized (hypothesis 2) to have a positive influence on impulse buying tendency of SMS. The involvement in SMS service had a significant positive influence ($r = 0.297$, where $r > 0.01$) on impulse buying

tendency of SMS. It means consumer's perceived relevance of SMS service based on inherited needs, values and interests influences positively in impulsive behavior towards sending SMS. Consumers perceive sending SMS as important also finds it interesting, quite relevant, exciting, involving and thus are needed and valuable to them. The higher they get involved with SMS, the possibility of sending SMS impulsively is higher as well.

The result of hypothesis three proves no correlation between general impulse buying tendency and impulse buying of MMS ($r = -0.14$). It implies impulse buying tendency in MMS does not depend on general impulse buying tendency. Consumers, who are impulsive to send MMS, may or may not be impulsive to buy general goods and services on impulse or those who are impulsive towards buying general things may not behave impulsively to send MMS. MMS is spontaneous service, but it does not depend on consumers' general behavior. According to the respondents, MMS is spontaneous, depends how they feel at that moment. Most of them responded sending MMS carefully so that no message is sent carelessly.

Lastly, the results of the fourth hypothesis prove that there is positive correlation between involvement in MMS and impulse buying of MMS at. $r = 0.178$, where $r > 0.01$. For further explanation, consumers who feel MMS relevant on the basis of his inherited needs, wants and interests, are probable to send MMS impulsively. Consumers perceived sending MMS as important, interesting, relevant, very exciting, quite appealing, quite fascinating, quite involving, but not much needed and worthless. The majority of MMS consumers are post paid customers.

CHAPTER 6

Conclusion and Results

This chapter consists of four major sections. The first section states a brief discussion about the key findings of the study. The second section is a brief conclusion of the research. The third section summarizes hypotheses in a table form, providing a brief description of each. The fourth describes managerial and the final section provides idea and suggestion for future research.

6.1 Key Findings

The key findings of the study are derived, focusing on the objectives proposed in the research. The objectives were to study the effect of general impulse buying tendency in service specific impulse buying tendency (SMS and MMS), to investigate the effect of service involvement in impulse buying tendency of SMS and MMS and lastly to study the difference in impulse buying tendency of SMS with impulse buying tendency of MMS. Previous research conceptualized impulse buying tendency as a product- specific variable and tested a model of its antecedents and its influence on actual impulse buying behavior (Jones, Reynolds, Weun and Beatty, 2003). Its findings empirically assess involvement's role in impulse buying and it was found to have significant influence on consumers' product-specific impulse buying tendencies.

The statistical analyses of the data presented in chapter five derive the study to its key findings. Consumers were found to be impulsive to send SMS and MMS to their friends than their family and work colleagues. They were found to be occasional impulse buyers for both categories of services. SMS were found to be female of age between 20-29 years. They were also found to be unmarried Thai nationals, who were

full time students and did not have income. It was also found that SMS services were impulsively sent by prepaid consumers rather than post paid consumers. The impulse buyers of MMS were also found to be female users of age between 20-29 years, they were unmarried full time students of Thai nationality who did not have income but they were mostly found to be post paid users.

The study's findings supported the hypotheses that tendency to send SMS impulsively results from general impulse buying tendency and involvement in SMS. The result is not surprising because it supports the finding of previous research conducted by Jones, Reynolds, Weun and Beatty (2003). But, the findings show no relation between general impulse buying tendencies with impulse purchase of MMS.

6.2 Conclusion

As a general understanding, impulse buying is a spontaneous unplanned purchase. Rook (1987) posited that impulse buying happens when consumers experience a sudden and often powerful and persistent urge to buy something immediately.

Today, service products are sold on a great spectrum. There is likelihood that services will be bought on impulse. This research is one of the first to study impulse buying behavior in services. It identifies two independent variables which may have an effect on impulse purchase of services, the influence of general impulse buying tendency and service specific involvement on service specific impulse buying tendency towards two mobile commerce services, SMS and MMS. Past researches have conducted their study in general proclivity to purchase products on impulse.

Several scales have been developed to measure consumers' overall impulse buying tendency (Puri, 1996; Rook and Fisher, 1995; Rook and Gardner, 1993).

The research used self-administered questionnaire as its instrument for primary data collection. The total of SMS respondents and MMS respondents were personally interviewed to collect data for further analysis. The reason for choosing self-administered face to face questionnaire was to encourage correct answers. This study is quantitative, presenting data analysis in tabulation form.

The variables are intended to study correlation between the independent and dependent variables. The expected outcome of the study is such that: general impulse buying tendency and involvement in specific service has a positive correlation with impulse buying tendency of the specific services (SMS and MMS).

General impulse buying tendency was measured by using Rook and Fisher's (1995) nine-item scale. This section of questionnaire presented ten questions that aimed at realizing if general purchase of goods and services are spontaneous behavior, depended on consumer's mood, whether careful purchase or reckless purchase, etc.

Involvement was measured by Zaichkowsky's (1994) Revised Personal Involvement Inventory (RPII). This section of questionnaire presented ten questions that concerned with consumers' positive or negative response towards involvement criteria for SMS and MMS.

Impulse buying tendency of SMS and MMS used Rook and Fisher's (1995) nine- item scale, where the questions specifically aimed at spontaneity, consumer's mood, instant behavior of sending SMS and MMS, whether careful purchase or reckless purchase of these services etc.

The test of hypotheses through Pearson's Correlation Coefficient results that general impulse buying tendency and involvement in SMS has positive correlation with impulse buying tendency of SMS. This implies that the consumers who possess tendency to purchase general things on impulse are probable to send SMS on impulse. The impulsive buying behavior of consumers and the level of involvement of consumers to SMS are positively related in sending SMS. Whereas, the hypotheses testing of MMS results that general impulse buying tendency has no relation with regard to impulse purchase of MMS. But, involvement in MMS shows a positive correlation with impulse purchase of MMS. This implies that consumers who possess tendency to purchase general things on impulse are not probable to send MMS on impulse. It also implies that even though respondents send MMS impulsively, their behavior may not be impulsive towards purchase of general goods and services. Whereas, consumers who are highly involved in MMS, as given in the definition, those consumers who feel MMS is relevant on the basis of his inherited needs, wants and interests, are probable to send MMS impulsively.

The objective of the research was to study whether or not general buying tendency and involvement have any relation with regard to impulse buying tendency of the two mobile commerce services SMS and MMS and the difference between

impulsive purchases of the two services. The research thus studies this matter in detail and includes in the chapters.

Summary of Hypotheses Testing

Table: 6.1

Hypotheses	Significance (2-tailed)	Pearson's Correlation Coefficient	Result of Testing
1) High levels of generalized impulse buying tendency are associated with high levels of impulse buying tendency in SMS.	0.000(<0.01)	0.391	Accept $H1_a$, Reject $H1_0$
2) High levels of service involvement in SMS are associated with higher levels of impulse buying tendency in SMS.	0.000(<0.01)	0.297	Accept $H2_a$, Reject $H2_0$
3) High levels of generalized impulse buying tendency are associated with high levels of impulse buying tendency in MMS.	0.000(<0.01)	-0.14	Reject $H3_a$, Accept $H3_0$
4) High levels of service involvement in MMS are associated with higher levels of impulse buying tendency in MMS.	0.000(<0.01)	0.178	Accept $H4_a$, Reject $H4_0$

The table: 6.1 presents a summary of hypotheses derived from chapter five in a summarized table form. Hypothesis one rejects the null and accepts alternative, since correlation coefficient is 0.391, signifying r >0.1. It signifies there is a positive correlation between general impulse buying tendencies with impulse buying of SMS.

The correlation coefficient of hypothesis two, where r = 0.297, signifying

r > 0.1 also implies that there is a positive correlation between involvement in SMS and impulse buying tendency of SMS. Therefore, there is enough evidence to reject null, and accept alternative hypothesis.

The correlation coefficient of hypothesis three, where r = -0.14 implies that there is no relation between general impulse buying tendency with impulse buying tendency of MMS. Therefore, it accepts null hypothesis, rejecting the alternative hypothesis.

The correlation coefficient of hypothesis four, where r = 0.178, implies that there is a positive correlation between involvement in MMS with impulse buying tendency in MMS. Therefore, it accepts alternative hypothesis, rejecting the null hypothesis.

6.4 Managerial Implications and Recommendations

Finally, it is useful to note some of the managerial implications to the findings. The results of this study offer implications for mobile commerce marketers on understanding and encouraging impulse buying in SMS and MMS services.

Impulse purchase of SMS service has resulted being spontaneous service, which is sent without careful planning and without much thought by the respondents. Also, consumers perceive SMS as important, interesting, quite relevant, involving, needed and valuable to them. Thus, impulse purchase of SMS can be influenced by engaging to attract more of highly involved consumers by sponsoring for example: frequency reward program, offering discounts to most often users. In addition, special

promotion can be designed to stimulate impulse purchase of those highly involved SMS consumers. SMS has gone so popular because of the cost. It can also be encouraged by providing a limited number of free messages, along with add-on monthly fees for unlimited messages or a per message fee.

The results of impulse purchase of MMS indicate no relation between consumers' buying tendency of general goods and services with MMS. According to the consumers of MMS, it is a spontaneous service but depends on how a consumers' mood at that moment and it is sent with careful intension. Consumers perceive MMS service as important, interesting, relevant, and very exciting but are not much needed and worthless to them. Inspite of spontaneous nature or service, the majority of users did not require it. It is important to generate importance of MMS service before promoting its purchases.

The results and implications should be viewed as tentative since this is one of the first studies to investigate the service-specific nature of impulse buying tendency. Given these implications, it is hoped that this study will lead to better understanding of impulse buying tendency of service products and help in marketing of service products to the mobile commerce marketers.

6.5 Future Research

Future research should investigate on more section of population. This research limits its population only to the students of Assumption University, Thailand. But further research on the population of Bangkok, would be appropriate in this field of study. This study is limited to only two mobile commerce services, SMS and

MMS. Future studies need to assess the generalizability of these findings to other m-commerce applications, such as: M-Banking, M-Payment etc. It would be beneficial to know if impulse buying occurs only in SMS and MMS or other mobile commerce applications as well.

The research studies on the consumers' tendency to purchase specific services whereas it does not study the actual impulse purchase of the services. The future studies can make use of the consumer's tendency to purchase services impulsively to study about their actual impulse purchase of these services.

This research concentrated on the main effects of the variables examined in the study. The reasoning at this point is to establish a good base model from which important main effects could be assessed. However, there are a number of important interactions, which may be as interesting as the main effects and an area worthy of study. For example, the interaction between impulse buying tendency and the situational variables (Money available, time available). Also, it would be possible to investigate about the consequences of impulse buying of service products and compare with physical products, since past researches have resulted impulse buying of physical products being irrelevant, primitive and foolish (Rook and Fisher, 1995).

There are few unanswered questions in this area such as, "Are impulse buyers likely to purchase service products regardless of how they feel at the moment or without being reckless while purchasing?". Impulse buying behavior has always been associated with being moody (Rook and Gardner, 1993). Thus, future research on

these matters would be beneficial in the study of impulse buying behavior of both physical products and service products.

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APPENDIX- A

QUESTIONNAIRE- SMS

This questionnaire is a part of a research conducted by Master degree student of Assumption University, Graduate School of Business with The University of Auckland Business School of New Zealand.

The purpose of this questionnaire is to conduct research on buying behavior when using mobile phones.

The researcher seeks your cooperation by providing responses to the questions included in the questionnaire.

The questionnaire will take 5 minutes to complete. It is very important to answer all questions honestly and accurately as possible. Your responses will be kept confidential. Please note that there is no right or wrong answers.

PART 1

Section One

Please indicate the degree to which the following statements describe your behavior when buying products and services in general. Please rate on a scale of 1 to 7 where, 1 means 'strongly disagree' and 7 means 'strongly agree'. You can provide any number from 1 to 7 that best describes the way you feel about each statement.

General Impulse Buying Tendency	**Strongly Disagree**						**Strongly Agree**
1. I often buy services for products and services spontaneously.	1	2	3	4	5	6	7
2. "Just do it" describes the way I buy products and services	1	2	3	4	5	6	7
3. I often buy products and services without thinking.	1	2	3	4	5	6	7
4. "I see it, I buy it" describes me.	1	2	3	4	5	6	7
5. "Buy now, think about it later". Describes me.	1	2	3	4	5	6	7
6. Sometimes I feel like buying products and services on the spur of the moment.	1	2	3	4	5	6	7
7. I buy products and services according to how I feel at the moment.	1	2	3	4	5	6	7
8. I carefully plan most of my purchases.	1	2	3	4	5	6	7
9. Sometimes I am a bit reckless about what I buy.	1	2	3	4	5	6	7

Please place a checkmark (√) in one of the category that best describes you:

10. My friends would describe me as:

a) --------- Definitely not an impulse buyer.
b) --------- Hardly ever an impulse buyer.
c) ---------- An occasional impulse buyer.
d) ---------- A frequent impulse buyer.
e) ---------- A constant impulse buyer.

Section Two

Please rate on a scale of 1 to7, where 1 indicates the negative response to sending SMS and 7 indicates positive response to sending SMS. Please checkmark on one category that best describes your behavior.

To me, sending SMS (Text Messaging) is:

Involvement

11. Unimportant	1	2	3	4	5	6	7	Important
12. Boring	1	2	3	4	5	6	7	Interesting
13. Irrelevant	1	2	3	4	5	6	7	Relevant
14. Unexciting	1	2	3	4	5	6	7	Exciting
15. Means nothing	1	2	3	4	5	6	7	Means a lot
16. Unappealing	1	2	3	4	5	6	7	Appealing
17. Dull	1	2	3	4	5	6	7	Fascinating
18. Worthless	1	2	3	4	5	6	7	Valuable
19. Uninvolving	1	2	3	4	5	6	7	Involving
20. Not needed	1	2	3	4	5	6	7	Needed

Section Three

Please indicate the degree to which the following statements describe your behavior when buying SMS service in your mobile phone. Please rate on a scale of 1-7 where 1 indicate 'strongly disagree' and 7 indicates 'strongly agree'. Please provide any number from 1-7 that best describes the way you feel about each statement.

Service specific Impulse Buying Tendency	**Strongly Disagree**						**Strongly Agree**
21. I often send SMS to my friends spontaneously.	1	2	3	4	5	6	7
22. I often send SMS to my family members spontaneously.	1	2	3	4	5	6	7
23. I often send SMS to my work colleagues.	1	2	3	4	5	6	7
24. I often send SMS spontaneously.	1	2	3	4	5	6	7
25. "Just do it" describes the way I send SMS.	1	2	3	4	5	6	7
26. I often send SMS without thinking.	1	2	3	4	5	6	7
27. "I create an SMS, I send it" describes me.	1	2	3	4	5	6	7
28. "Send and SMS now, think about it later". Describes me.	1	2	3	4	5	6	7
29. Sometimes I feel like sending an SMS at the spur of the moment.	1	2	3	4	5	6	7
30. I send SMS according to how I feel at the moment.	1	2	3	4	5	6	7
31. I carefully plan most of my SMS messages.	1	2	3	4	5	6	7
32. Sometimes I am a bit reckless about sending SMS.	1	2	3	4	5	6	7

Section Four

The following items are asked for background information only.

33. Please note your Gender

○ Male ○ Female

34. What is your age?

○ 14-19 ○ 20-29
○ 30-39 ○ 40-49
○ 50-59 ○ 60+

35. Which of the following best describes your ethnicity?

○ Thai ○ Non Thai

Please specify .....

36. What is your marital status?

○ Single ○ Married
○ Divorced / Separated ○ Widowed

37. What is your current employment status?

○ Student ○ Employed

If employed,
○ Full time ○ Part time

38. What is your highest accomplished educational degree?

○ No Degree ○ Degree

Please Specify .....

39. Which range best describes your income per month (Baht)?

○ below 10,000 Baht ○ 10,000 to 17,999 ○ 18,000 to 24,999
○ 25,000 to 34,999 ○ 35,000 to 44,999 ○ 55,000 to 65,999
○ 65,000 to 74,999 ○ Above 75,000

40. How do you pay for your mobile calls?

○ Prepaid ○ Post Paid

Mobile No _____
Date _____
Time _____

The University of Auckland Business School and Assumption University of Thailand would like to thank you for completing the questionnaire.

APPENDIX- B

QUESTIONNAIRE- MMS

PART 2

Section One

Please indicate the degree to which the following statements describe your behavior when buying products and services in general. Please rate on a scale of 1 to 7 where, 1 means 'strongly disagree' and 7 means 'strongly agree'. You can provide any number from 1 to 7 that best describes the way you feel about each statement.

General Impulse Buying Tendency	**Strongly Disagree**						**Strongly Agree**
24. I often buy services for products and services spontaneously.	1	2	3	4	5	6	7
25. "Just do it" describes the way I buy products and services.	1	2	3	4	5	6	7
26. I often buy products and services without thinking.	1	2	3	4	5	6	7
27. "I see it, I buy it" describes me.	1	2	3	4	5	6	7
28. "Buy now, think about it later". Describes me.	1	2	3	4	5	6	7
29. Sometimes I feel like buying products and services on the spur of the moment.	1	2	3	4	5	6	7
30. I buy products and services according to how I feel at the moment.	1	2	3	4	5	6	7
31. I carefully plan most of purchases.	1	2	3	4	5	6	7
32. Sometimes I am a bit reckless about what I buy.	1	2	3	4	5	6	7

Please place a checkmark (√) in one of the category that best describes you:

33. My friends would describe me as:

a) --------- Definitely not an impulse buyer.
b) --------- Hardly ever an impulse buyer.
c) ---------- An occasional impulse buyer.
d) ---------- A frequent impulse buyer.
e) ---------- A constant impulse buyer.

Section Two

Please rate on a scale of 1 to7, where 1 indicates the negative response to sending MMS and 7 indicates positive response to sending MMS. Please checkmark on one category that best describes your behavior.

To me, sending MMS (Multimedia Picture Messaging) is:

Involvement

34. Unimportant	1	2	3	4	5	6	7	Important
35. Boring	1	2	3	4	5	6	7	Interesting
36. Irrelevant	1	2	3	4	5	6	7	Relevant
37. Unexciting	1	2	3	4	5	6	7	Exciting
38. Means nothing	1	2	3	4	5	6	7	Means a lot
39. Unappealing	1	2	3	4	5	6	7	Appealing
40. Dull	1	2	3	4	5	6	7	Fascinating
41. Worthless	1	2	3	4	5	6	7	Valuable
42. Uninvolving	1	2	3	4	5	6	7	Involving
43. Not needed	1	2	3	4	5	6	7	Needed

Section Three

Please indicate the degree to which the following statements describe your behavior when buying MMS service in your mobile phone. Please rate on a scale of 1-7 where 1 indicate 'strongly disagree' and 7 indicates 'strongly agree'. Please provide any number from 1-7 that best describes the way you feel about each statement.

Service specific Impulse Buying Tendency	**Strongly Disagree**						**Strongly Agree**
21. I often send MMS to my friends spontaneously.	1	2	3	4	5	6	7
22. I often send MMS to my family members spontaneously.	1	2	3	4	5	6	7
23. I often send MMS to my work colleagues.	1	2	3	4	5	6	7
24. I often send MMS spontaneously.	1	2	3	4	5	6	7
36. "Just do it" describes the way I send MMS.	1	2	3	4	5	6	7
37. I often send MMS without thinking.	1	2	3	4	5	6	7
38. "I create an MMS, I send it" describes me.	1	2	3	4	5	6	7
39. "Send and MMS now, think about it later". Describes me.	1	2	3	4	5	6	7
40. Sometimes I feel like sending an MMS at the spur of the moment.	1	2	3	4	5	6	7
41. I send MMS according to how I feel at the moment.	1	2	3	4	5	6	7
42. I carefully plan most of my MMS messages.	1	2	3	4	5	6	7
43. Sometimes I am a bit reckless about sending MMS.	1	2	3	4	5	6	7

Section Four

The following items are asked for background information only.

44. Please note your Gender

○ Male ○ Female

45. What is your age?

○ 14-19 ○ 20-29
○ 30-39 ○ 40-49
○ 50-59 ○ 60+

46. Which of the following best describes your ethnicity?

○ Thai ○ Non Thai

Please specify .....

36. What is your marital status?

○ Single ○ Married
○ Divorced / Separated ○ Widowed

37. What is your current employment status?

○ Student ○ Employed

If employed,
○ Full time ○ Part time

38. What is your highest accomplished educational degree?

○ No Degree ○ Degree

Please Specify .....

39. Which range best describes your income per month (Baht)?

○ Below 10,000 Bht ○ 10,000 to 17,999 ○ 18,000 to 24,999
○ 25,000 to 34,999 ○ 35,000 to 44,999 ○ 55,000 to 65,999
○ 65,000 to 74,999 ○ Above 75,000

40. How do you pay for your mobile calls?

○ Prepaid ○ Post Paid

Mobile No _____
Date _____
Time _____

The University of Auckland Business School and Assumption University of Thailand would like to thank you for completing the questionnaire.

APPENDIX- C
RELIABILITY

Reliability of General Impulse Buying Tendency (SMS)

****** Method 1 (space saver) will be used for this analysis ******

RELIABILITY ANALYSIS - SCALE (ALPHA)

Reliability Coefficients

N of Cases = 394.0 N of Items = 10

Alpha = .6638

Reliability of Involvement in SMS

****** Method 1 (space saver) will be used for this analysis ******

RELIABILITY ANALYSIS - SCALE (ALPHA)

Reliability Coefficients

N of Cases = 394.0 N of Items = 10

Alpha = .9176

Reliability of Impulse Buying Tendency of SMS

****** Method 1 (space saver) will be used for this analysis ******

RELIABILITY ANALYSIS - SCALE (ALPHA)

Reliability Coefficients

N of Cases = 394.0 N of Items = 12

Alpha = .7330

Reliability of General Impulse Buying Tendency (MMS)

****** Method 1 (space saver) will be used for this analysis ******

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R E L I A B I L I T Y A N A L Y S I S - S C A L E (A L P H A)

Reliability Coefficients

N of Cases = 392.0 N of Items = 10

Alpha = .6915

Reliability of Involvement in MMS

****** Method 1 (space saver) will be used for this analysis ******

_

R E L I A B I L I T Y A N A L Y S I S - S C A L E (A L P H A)

Reliability Coefficients

N of Cases = 392.0 N of Items = 10

Alpha = .8273

Reliability of Impulse Buying Tendency of MMS

****** Method 1 (space saver) will be used for this analysis ******

_

R E L I A B I L I T Y A N A L Y S I S - S C A L E (A L P H A)

Reliability Coefficients

N of Cases = 392.0 N of Items = 12

Alpha = .7532

APPENDIX- D
FREQUENCY TABLES OF SMS

Frequencies

Statistics

I often buy products and services spontaneously.

N	Valid	394
	Missing	0

I often buy products and services spontaneously.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	17	4.3	4.3	4.3
	disagree	30	7.6	7.6	11.9
	partially disagree	84	21.3	21.3	33.2
	nuetral	92	23.4	23.4	56.6
	partially agree	98	24.9	24.9	81.5
	agree	53	13.5	13.5	94.9
	strongly agree	20	5.1	5.1	100.0
	Total	394	100.0	100.0	

Frequencies

Statistics

"Just do it" describes the way I buy products and services.

N	Valid	394
	Missing	0

"Just do it" describes the way I buy products and services.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	21	5.3	5.3	5.3
	disagree	44	11.2	11.2	16.5
	partially disagree	77	19.5	19.5	36.0
	nuetral	102	25.9	25.9	61.9
	partially agree	83	21.1	21.1	83.0
	agree	50	12.7	12.7	95.7
	strongly agree	17	4.3	4.3	100.0
	Total	394	100.0	100.0	

Frequencies

Statistics

i often buy products and services without thinking.

N	Valid	394
	Missing	0

i often buy products and services without thinking.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	105	26.6	26.6	26.6
	disagree	66	16.8	16.8	43.4
	partially disagree	76	19.3	19.3	62.7
	nuertral	59	15.0	15.0	77.7
	partially agree	57	14.5	14.5	92.1
	agree	22	5.6	5.6	97.7
	strongly agree	9	2.3	2.3	100.0
	Total	394	100.0	100.0	

Frequencies

Statistics

"I see it, i buy it" descsribes me.

N	Valid	394
	Missing	0

"I see it, i buy it" descsribes me.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	63	16.0	16.0	16.0
	disagree	64	16.2	16.2	32.2
	partially disagree	71	18.0	18.0	50.3
	Nuetral	75	19.0	19.0	69.3
	partially agree	68	17.3	17.3	86.5
	agree	41	10.4	10.4	97.0
	strongly agree	12	3.0	3.0	100.0
	Total	394	100.0	100.0	

Frequencies

Statistics

"Buy now, think about it later" describes me.

N	Valid	394
	Missing	0

"Buy now, think about it later" describes me.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	107	27.2	27.2	27.2
	disagree	96	24.4	24.4	51.5
	partially disagree	60	15.2	15.2	66.8
	nuetral	46	11.7	11.7	78.4
	partially agree	54	13.7	13.7	92.1
	agree	30	7.6	7.6	99.7
	strongly agree	1	.3	.3	100.0
	Total	394	100.0	100.0	

Frequencies

Statistics

Sometimes i feel like buying at the spur of the moment.

N	Valid	394
	Missing	0

Sometimes i feel like buying at the spur of the moment.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	10	2.5	2.5	2.5
	disagree	39	9.9	9.9	12.4
	partially disagree	80	20.3	20.3	32.7
	nuetral	96	24.4	24.4	57.1
	partially agree	102	25.9	25.9	83.0
	agree	56	14.2	14.2	97.2
	strongly agree	11	2.8	2.8	100.0
	Total	394	100.0	100.0	

Frequencies

Statistics

I buy products and services according to how i feel at the moment.

N	Valid	394
	Missing	0

I buy products and services according to how i feel at the moment.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	13	3.3	3.3	3.3
	disagree	21	5.3	5.3	8.6
	partially disagree	69	17.5	17.5	26.1
	nuetral	110	27.9	27.9	54.1
	partially agree	88	22.3	22.3	76.4
	agree	66	16.8	16.8	93.1
	strongly agree	27	6.9	6.9	100.0
	Total	394	100.0	100.0	

Frequencies

Statistics

I carefully plan most of my purchases.

N	Valid	394
	Missing	0

I carefully plan most of my purchases.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	7	1.8	1.8	1.8
	disagree	41	10.4	10.4	12.2
	partially disagree	78	19.8	19.8	32.0
	nuetral	79	20.1	20.1	52.0
	partially agree	66	16.8	16.8	68.8
	agree	80	20.3	20.3	89.1
	strongly agree	43	10.9	10.9	100.0
	Total	394	100.0	100.0	

Frequencies

Statistics

Sometimes i am bit reckless about what i buy.

N	Valid	394
	Missing	0

Sometimes i am bit reckless about what i buy.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	10	2.5	2.5	2.5
	disagree	25	6.3	6.3	8.9
	partially disagree	56	14.2	14.2	23.1
	nuetral	146	37.1	37.1	60.2
	partially agree	100	25.4	25.4	85.5
	agree	39	9.9	9.9	95.4
	strongly agree	18	4.6	4.6	100.0
	Total	394	100.0	100.0	

Frequencies

Statistics

My friends would describe me as:

N	Valid	394
	Missing	0

My friends would describe me as:

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	definitely not an impulse buyer	26	6.6	6.6	6.6
	hardly ever an impulse buyer.	108	27.4	27.4	34.0
	an occasional impulse buyer.	183	46.4	46.4	80.5
	a frequent impulse buyer.	68	17.3	17.3	97.7
	a constant impulse buyer.	9	2.3	2.3	100.0
	Total	394	100.0	100.0	

Frequencies

Statistics

Important or Unimportant

N	Valid	394
	Missing	0

Important or Unimportant

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	very Unimportant	4	1.0	1.0	1.0
	unimportant	20	5.1	5.1	6.1
	not so important	32	8.1	8.1	14.2
	nuetral	77	19.5	19.5	33.8
	little important	93	23.6	23.6	57.4
	important	102	25.9	25.9	83.2
	very important	66	16.8	16.8	100.0
	Total	394	100.0	100.0	

Frequencies

Statistics

Interesting or Boring

N	Valid	394
	Missing	0

Interesting or Boring

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	totally boring	14	3.6	3.6	3.6
	boring	22	5.6	5.6	9.1
	partially boring	57	14.5	14.5	23.6
	Nuetral	71	18.0	18.0	41.6
	litle interesting	96	24.4	24.4	66.0
	interesting	88	22.3	22.3	88.3
	very interesting	46	11.7	11.7	100.0
	Total	394	100.0	100.0	

Frequencies

Statistics

Relevent or Irrelevent

N	Valid	394
	Missing	0

Relevent or Irrelevent

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	totally irrelevent	5	1.3	1.3	1.3
	irrelevant	23	5.8	5.8	7.1
	partially irrelevant	43	10.9	10.9	18.0
	nuetral	96	24.4	24.4	42.4
	partially relevant	122	31.0	31.0	73.4
	relevant	79	20.1	20.1	93.4
	very relevant	26	6.6	6.6	100.0
	Total	394	100.0	100.0	

Frequencies

Statistics

Exciting or Unexiciting

N	Valid	394
	Missing	0

Exciting or Unexiciting

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	totally unexciting	15	3.8	3.8	3.8
	unexciting	32	8.1	8.1	11.9
	partially unexiciting	63	16.0	16.0	27.9
	nuetral	95	24.1	24.1	52.0
	partially exciting	98	24.9	24.9	76.9
	exciting	66	16.8	16.8	93.7
	very exciting	25	6.3	6.3	100.0
	Total	394	100.0	100.0	

Frequencies

Statistics

Means a Lot or Means Nothing

N	Valid	394
	Missing	0

Means a Lot or Means Nothing

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	means totally nothing	13	3.3	3.3	3.3
	means nothing	25	6.3	6.3	9.6
	means not much	40	10.2	10.2	19.8
	nuetral	102	25.9	25.9	45.7
	means a little	94	23.9	23.9	69.5
	means more than little	82	20.8	20.8	90.4
	means a lot	38	9.6	9.6	100.0
	Total	394	100.0	100.0	

Frequencies

Statistics

Appealing or Unappealing

N	Valid	394
	Missing	0

Appealing or Unappealing

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	not at all appealing	7	1.8	1.8	1.8
	unappealing	27	6.9	6.9	8.6
	quite unappealing	60	15.2	15.2	23.9
	nuetral	116	29.4	29.4	53.3
	quite appealing	98	24.9	24.9	78.2
	appealing	66	16.8	16.8	94.9
	very much appealing	20	5.1	5.1	100.0
	Total	394	100.0	100.0	

Frequencies

Statistics

Fasinating or Dull

N	Valid	394
	Missing	0

Fasinating or Dull

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	very dull	11	2.8	2.8	2.8
	dull	24	6.1	6.1	8.9
	quite dull	61	15.5	15.5	24.4
	nuetral	108	27.4	27.4	51.8
	quite fasinating	124	31.5	31.5	83.2
	fasinating	50	12.7	12.7	95.9
	too fasinating	16	4.1	4.1	100.0
	Total	394	100.0	100.0	

Frequencies

Statistics

Valuable or Worthless

N	Valid	394
	Missing	0

Valuable or Worthless

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	totaly worthless	11	2.8	2.8	2.8
	worthless	23	5.8	5.8	8.6
	quite worthless	54	13.7	13.7	22.3
	nuetral	75	19.0	19.0	41.4
	quite valuable	98	24.9	24.9	66.2
	valuable	98	24.9	24.9	91.1
	very valuable	35	8.9	8.9	100.0
	Total	394	100.0	100.0	

Frequencies

Statistics

Involving or Uninvolving

N	Valid	394
	Missing	0

Involving or Uninvolving

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	not at all involving	8	2.0	2.0	2.0
	uninvolving	17	4.3	4.3	6.3
	not much involving	42	10.7	10.7	17.0
	nuetral	87	22.1	22.1	39.1
	quite involving	119	30.2	30.2	69.3
	involving	88	22.3	22.3	91.6
	very involving	33	8.4	8.4	100.0
	Total	394	100.0	100.0	

Frequencies

Statistics

Needed or Not Needed

N	Valid	394
	Missing	0

Needed or Not Needed

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	not al all needed	13	3.3	3.3	3.3
	not needed	17	4.3	4.3	7.6
	not much needed	45	11.4	11.4	19.0
	nuetral	50	12.7	12.7	31.7
	quite needed	81	20.6	20.6	52.3
	needed	105	26.6	26.6	78.9
	very much needed	83	21.1	21.1	100.0
	Total	394	100.0	100.0	

Frequencies

Statistics

I often send SMS to my friends spontaneously.

N	Valid	394
	Missing	0

I often send SMS to my friends spontaneously.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	15	3.8	3.8	3.8
	disagree	26	6.6	6.6	10.4
	partially disagree	54	13.7	13.7	24.1
	Nuetral	70	17.8	17.8	41.9
	partially agree	82	20.8	20.8	62.7
	agree	99	25.1	25.1	87.8
	strongly agree	48	12.2	12.2	100.0
	Total	394	100.0	100.0	

Frequencies

Statistics

I often send SMS to my family memebers spontaneously.

N	Valid	394
	Missing	0

I often send SMS to my family memebers spontaneously.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	66	16.8	16.8	16.8
	disagree	75	19.0	19.0	35.8
	partially disagree	80	20.3	20.3	56.1
	nuetral	69	17.5	17.5	73.6
	partially agree	66	16.8	16.8	90.4
	agree	31	7.9	7.9	98.2
	strongly agree	7	1.8	1.8	100.0
	Total	394	100.0	100.0	

Frequencies

Statistics

I often send SMS to my work colleages spontaneously.

N	Valid	394
	Missing	0

I often send SMS to my work colleages spontaneously.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	109	27.7	27.7	27.7
	disagree	55	14.0	14.0	41.6
	partially disagree	74	18.8	18.8	60.4
	nuetral	68	17.3	17.3	77.7
	partially agree	59	15.0	15.0	92.6
	agree	16	4.1	4.1	96.7
	strongly agree	13	3.3	3.3	100.0
	Total	394	100.0	100.0	

Frequencies

Statistics

I often send SMS spontaneously.

N	Valid	394
	Missing	0

I often send SMS spontaneously.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	30	7.6	7.6	7.6
	disagree	34	8.6	8.6	16.2
	partially disagree	50	12.7	12.7	28.9
	nuetral	89	22.6	22.6	51.5
	partially agree	97	24.6	24.6	76.1
	agree	63	16.0	16.0	92.1
	strongly agree	31	7.9	7.9	100.0
	Total	394	100.0	100.0	

Frequencies

Statistics

"just do it" describes the way i send SMS.

N	Valid	394
	Missing	0

"just do it" describes the way i send SMS.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	21	5.3	5.3	5.3
	disagree	42	10.7	10.7	16.0
	partially disagree	74	18.8	18.8	34.8
	nuetral	84	21.3	21.3	56.1
	partially agree	94	23.9	23.9	79.9
	agree	60	15.2	15.2	95.2
	strongly agree	19	4.8	4.8	100.0
	Total	394	100.0	100.0	

Frequencies

Statistics

I often send SMS without thinking.

N	Valid	394
	Missing	0

I often send SMS without thinking.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	58	14.7	14.7	14.7
	disagree	57	14.5	14.5	29.2
	partially disagree	65	16.5	16.5	45.7
	nuetral	74	18.8	18.8	64.5
	partially agree	74	18.8	18.8	83.2
	agree	45	11.4	11.4	94.7
	strongly agree	21	5.3	5.3	100.0
	Total	394	100.0	100.0	

Frequencies

Statistics

"I create an SMS, I send it" describes me.

N	Valid	394
	Missing	0

"I create an SMS, I send it" describes me.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	29	7.4	7.4	7.4
	disagree	39	9.9	9.9	17.3
	partially disagree	47	11.9	11.9	29.2
	nuetral	74	18.8	18.8	48.0
	partially agree	93	23.6	23.6	71.6
	agree	70	17.8	17.8	89.3
	strongly agree	42	10.7	10.7	100.0
	Total	394	100.0	100.0	

Frequencies

Statistics

"Send now, Think about it later" describes me.

N	Valid	394
	Missing	0

"Send now, Think about it later" describes me.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	63	16.0	16.0	16.0
	disagree	76	19.3	19.3	35.3
	partially disagree	73	18.5	18.5	53.8
	nuetral	83	21.1	21.1	74.9
	partially agree	64	16.2	16.2	91.1
	agree	21	5.3	5.3	96.4
	strongly agree	14	3.6	3.6	100.0
	Total	394	100.0	100.0	

Frequencies

Statistics

Sometimes i feel like sending SMS at the spur of the moment.

N	Valid	394
	Missing	0

Sometimes i feel like sending SMS at the spur of the moment.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	11	2.8	2.8	2.8
	disagree	36	9.1	9.1	11.9
	partially disagree	66	16.8	16.8	28.7
	nuetral	111	28.2	28.2	56.9
	partially agree	109	27.7	27.7	84.5
	agree	46	11.7	11.7	96.2
	strongly agree	15	3.8	3.8	100.0
	Total	394	100.0	100.0	

Frequencies

Statistics

I send SMS according to how i feel at the moment.

N	Valid	394
	Missing	0

I send SMS according to how i feel at the moment.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	11	2.8	2.8	2.8
	disagree	29	7.4	7.4	10.2
	partially disagree	48	12.2	12.2	22.3
	nuetral	77	19.5	19.5	41.9
	partially agree	105	26.6	26.6	68.5
	agree	79	20.1	20.1	88.6
	strongly agree	45	11.4	11.4	100.0
	Total	394	100.0	100.0	

Frequencies

Statistics

I carefully plan most of my SMS messages.

N	Valid	394
	Missing	0

I carefully plan most of my SMS messages.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	29	7.4	7.4	7.4
	disagree	66	16.8	16.8	24.1
	partially disagree	66	16.8	16.8	40.9
	nuetral	82	20.8	20.8	61.7
	partially agree	63	16.0	16.0	77.7
	agree	60	15.2	15.2	92.9
	strongly agree	28	7.1	7.1	100.0
	Total	394	100.0	100.0	

Frequencies

Statistics

Sometimes i am reckless about sending SMS.

N	Valid	394
	Missing	0

Sometimes i am reckless about sending SMS.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	26	6.6	6.6	6.6
	disagree	52	13.2	13.2	19.8
	partially disagree	63	16.0	16.0	35.8
	nuetral	130	33.0	33.0	68.8
	partially agree	82	20.8	20.8	89.6
	agree	33	8.4	8.4	98.0
	strongly agree	8	2.0	2.0	100.0
	Total	394	100.0	100.0	

APPENDIX- E
FREQUENCY TABLES OF MMS

Frequencies

Statistics

I often buy products and services spontenously.

N	Valid	392
	Missing	0

I often buy products and services spontenously.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	6	1.5	1.5	1.5
	disagree	15	3.8	3.8	5.4
	partially disagree	40	10.2	10.2	15.6
	nuetral	87	22.2	22.2	37.8
	partially agree	124	31.6	31.6	69.4
	agree	83	21.2	21.2	90.6
	strongly agree	37	9.4	9.4	100.0
	Total	392	100.0	100.0	

Frequencies

Statistics

"just do it" describes teh way i buy products and services.

N	Valid	392
	Missing	0

"just do it" describes teh way i buy products and services.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	31	7.9	7.9	7.9
	disagree	86	21.9	21.9	29.8
	partially disagree	56	14.3	14.3	44.1
	nuetral	64	16.3	16.3	60.5
	partially agree	96	24.5	24.5	84.9
	agree	47	12.0	12.0	96.9
	strongly agree	12	3.1	3.1	100.0
	Total	392	100.0	100.0	

Frequencies

Statistics

I often buy products and services without thinking.

N	Valid	392
	Missing	0

I often buy products and services without thinking.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	62	15.8	15.8	15.8
	disagree	71	18.1	18.1	33.9
	partially disagree	56	14.3	14.3	48.2
	nuetral	49	12.5	12.5	60.7
	partially agree	84	21.4	21.4	82.1
	agree	47	12.0	12.0	94.1
	strongly agree	23	5.9	5.9	100.0
	Total	392	100.0	100.0	

Frequencies

Statistics

"I see it, I buy it" describes me.

N	Valid	392
	Missing	0

"I see it, I buy it" describes me.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	60	15.3	15.3	15.3
	disagree	52	13.3	13.3	28.6
	partially disagree	79	20.2	20.2	48.7
	nuetral	60	15.3	15.3	64.0
	partially agree	73	18.6	18.6	82.7
	agree	45	11.5	11.5	94.1
	strongly agree	23	5.9	5.9	100.0
	Total	392	100.0	100.0	

Frequencies

Statistics

"Buy now,think about it later" describes me.

N	Valid	392
	Missing	0

"Buy now,think about it later" describes me.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	97	24.7	24.7	24.7
	disagree	49	12.5	12.5	37.2
	partially disagree	49	12.5	12.5	49.7
	nuetral	59	15.1	15.1	64.8
	partially agree	83	21.2	21.2	86.0
	agree	48	12.2	12.2	98.2
	strongly agree	7	1.8	1.8	100.0
	Total	392	100.0	100.0	

Frequencies

Statistics

Sometimes i feel like buying products and services on the spur of the moment.

N	Valid	392
	Missing	0

Sometimes i feel like buying products and services on the spur of the moment.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	20	5.1	5.1	5.1
	disagree	59	15.1	15.1	20.2
	partially disagree	49	12.5	12.5	32.7
	nuetral	86	21.9	21.9	54.6
	partially agree	89	22.7	22.7	77.3
	agree	56	14.3	14.3	91.6
	strongly agree	33	8.4	8.4	100.0
	Total	392	100.0	100.0	

Frequencies

Statistics

I buy products and services according to how i feel at the moment.

N	Valid	392
	Missing	0

I buy products and services according to how i feel at the moment.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	36	9.2	9.2	9.2
	disagree	38	9.7	9.7	18.9
	partially disagree	52	13.3	13.3	32.1
	nuetral	69	17.6	17.6	49.7
	partially agree	96	24.5	24.5	74.2
	agree	68	17.3	17.3	91.6
	strongly agree	33	8.4	8.4	100.0
	Total	392	100.0	100.0	

Frequencies

Statistics

I carefully plan most of my purchases.

N	Valid	392
	Missing	0

I carefully plan most of my purchases.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	23	5.9	5.9	5.9
	disagree	64	16.3	16.3	22.2
	partially disagree	81	20.7	20.7	42.9
	nuetral	76	19.4	19.4	62.2
	partially agree	74	18.9	18.9	81.1
	agree	57	14.5	14.5	95.7
	strongly agree	17	4.3	4.3	100.0
	Total	392	100.0	100.0	

Frequencies

Statistics

Sometimes I am a bit reckless about what i buy.

N	Valid	392
	Missing	0

Sometimes I am a bit reckless about what i buy.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	33	8.4	8.4	8.4
	disagree	48	12.2	12.2	20.7
	partially disagree	43	11.0	11.0	31.6
	nuetral	91	23.2	23.2	54.8
	partially agree	106	27.0	27.0	81.9
	agree	53	13.5	13.5	95.4
	strongly agree	18	4.6	4.6	100.0
	Total	392	100.0	100.0	

Frequencies

Statistics

My friends would describe me as:

N	Valid	392
	Missing	0

My friends would describe me as:

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	definitely not an impulse buyer.	35	8.9	8.9	8.9
	hardly ever an impulse buyer	91	23.2	23.2	32.1
	an occasional impulse buyer	206	52.6	52.6	84.7
	a frequent impulse buyer.	57	14.5	14.5	99.2
	a constant impulse buyer.	3	.8	.8	100.0
	Total	392	100.0	100.0	

Frequencies

Statistics

Important / Unimportant

N	Valid	392
	Missing	0

Important / Unimportant

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	totally unimportant	54	13.8	13.8	13.8
	unimportant	45	11.5	11.5	25.3
	not so important	60	15.3	15.3	40.6
	nuetral	61	15.6	15.6	56.1
	little important	94	24.0	24.0	80.1
	important	62	15.8	15.8	95.9
	very important	16	4.1	4.1	100.0
	Total	392	100.0	100.0	

Frequencies

Statistics

Interseting / Boring

N	Valid	392
	Missing	0

Interseting / Boring

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	totally boring	26	6.6	6.6	6.6
	boring	22	5.6	5.6	12.2
	partially boring	40	10.2	10.2	22.4
	nuetral	43	11.0	11.0	33.4
	little interesting	59	15.1	15.1	48.5
	interesting	168	42.9	42.9	91.3
	very important	34	8.7	8.7	100.0
	Total	392	100.0	100.0	

Frequencies

Statistics

Relevant / Irrelevant

N	Valid	392
	Missing	0

Relevant / Irrelevant

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	totallly irrelevant	67	17.1	17.1	17.1
	irrelevant	27	6.9	6.9	24.0
	partially irrelevant	57	14.5	14.5	38.5
	nuetra;	85	21.7	21.7	60.2
	partially relevant	88	22.4	22.4	82.7
	relevant	58	14.8	14.8	97.4
	very relevant	10	2.6	2.6	100.0
	Total	392	100.0	100.0	

Frequencies

Statistics

Exciting / Unexciting

N	Valid	392
	Missing	0

Exciting / Unexciting

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	totally unexciting	28	7.1	7.1	7.1
	unexciting	47	12.0	12.0	19.1
	partially unexciting	39	9.9	9.9	29.1
	nuetral	63	16.1	16.1	45.2
	partially exiciting	92	23.5	23.5	68.6
	exciting	75	19.1	19.1	87.8
	very exciting	48	12.2	12.2	100.0
	Total	392	100.0	100.0	

Frequencies

Statistics

Means a lot / Means nothing

N	Valid	392
	Missing	0

Means a lot / Means nothing

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	means totally nothing	53	13.5	13.5	13.5
	means nothing	33	8.4	8.4	21.9
	means not much	43	11.0	11.0	32.9
	nuetral	80	20.4	20.4	53.3
	means a little	91	23.2	23.2	76.5
	means more than little	58	14.8	14.8	91.3
	means a lot	34	8.7	8.7	100.0
	Total	392	100.0	100.0	

Frequencies

Statistics

Appealing / Unappealing

N	Valid	392
	Missing	0

Appealing / Unappealing

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	not at all appealing	21	5.4	5.4	5.4
	unappealing	38	9.7	9.7	15.1
	quite appealing	50	12.8	12.8	27.8
	nuetral	67	17.1	17.1	44.9
	quite appealing	98	25.0	25.0	69.9
	appealing	86	21.9	21.9	91.8
	very much appealing	32	8.2	8.2	100.0
	Total	392	100.0	100.0	

Frequencies

Statistics

Fascinating / Dull

N	Valid	392
	Missing	0

Fascinating / Dull

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	very dull	30	7.7	7.7	7.7
	dull	26	6.6	6.6	14.3
	quite dull	30	7.7	7.7	21.9
	nuetral	69	17.6	17.6	39.5
	quite fasinating	111	28.3	28.3	67.9
	fasinating	81	20.7	20.7	88.5
	very fasinating	45	11.5	11.5	100.0
	Total	392	100.0	100.0	

Frequencies

Statistics

Valuable / Worthless

N	Valid	392
	Missing	0

Valuable / Worthless

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	totally worthless	29	7.4	7.4	7.4
	worthless	88	22.4	22.4	29.8
	quite worthless	55	14.0	14.0	43.9
	nuetral	73	18.6	18.6	62.5
	quite valuable	82	20.9	20.9	83.4
	valuable	48	12.2	12.2	95.7
	very valuable	17	4.3	4.3	100.0
	Total	392	100.0	100.0	

Frequencies

Statistics

Involving / Uninvolving

N	Valid	392
	Missing	0

Involving / Uninvolving

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	not at all involving	53	13.5	13.5	13.5
	uninvolving	32	8.2	8.2	21.7
	not much involving	33	8.4	8.4	30.1
	nuetral	53	13.5	13.5	43.6
	quite involving	110	28.1	28.1	71.7
	involving	78	19.9	19.9	91.6
	very involving	33	8.4	8.4	100.0
	Total	392	100.0	100.0	

Frequencies

Statistics

Needed / Not Needed

N	Valid	392
	Missing	0

Needed / Not Needed

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	not at all nedded	70	17.9	17.9	17.9
	not needed	45	11.5	11.5	29.3
	not much needed	81	20.7	20.7	50.0
	nuetral	43	11.0	11.0	61.0
	quite needed	75	19.1	19.1	80.1
	needed	44	11.2	11.2	91.3
	very much needed	34	8.7	8.7	100.0
	Total	392	100.0	100.0	

Frequencies

Statistics

I often send MMS to my friends spontaneously.

N	Valid	392
	Missing	0

I often send MMS to my friends spontaneously.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	79	20.2	20.2	20.2
	disagree	33	8.4	8.4	28.6
	partially disagree	58	14.8	14.8	43.4
	nuetral	59	15.1	15.1	58.4
	partially agree	97	24.7	24.7	83.2
	agree	51	13.0	13.0	96.2
	strongly agree	15	3.8	3.8	100.0
	Total	392	100.0	100.0	

Frequencies

Statistics

I often send MMs to my family members spontaneously.

N	Valid	392
	Missing	0

I often send MMs to my family members spontaneously.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	67	17.1	17.1	17.1
	disagree	103	26.3	26.3	43.4
	partially disagree	62	15.8	15.8	59.2
	nuetral	55	14.0	14.0	73.2
	partially agree	52	13.3	13.3	86.5
	agree	28	7.1	7.1	93.6
	strongly agree	25	6.4	6.4	100.0
	Total	392	100.0	100.0	

Frequencies

Statistics

I often send MMs tomy work colleagues spontaneously.

N	Valid	392
	Missing	0

I often send MMs tomy work colleagues spontaneously.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	311	79.3	79.3	79.3
	disagree	42	10.7	10.7	90.1
	partially disagree	20	5.1	5.1	95.2
	nuetral	12	3.1	3.1	98.2
	partially agree	5	1.3	1.3	99.5
	agree	1	.3	.3	99.7
	strongly agree	1	.3	.3	100.0
	Total	392	100.0	100.0	

Frequencies

Statistics

I often send MMS to spontaneously.

N	Valid	392
	Missing	0

I often send MMS to spontaneously.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	34	8.7	8.7	8.7
	disagree	52	13.3	13.3	21.9
	partially disagree	76	19.4	19.4	41.3
	nuetral	74	18.9	18.9	60.2
	partially agree	104	26.5	26.5	86.7
	agree	38	9.7	9.7	96.4
	strongly agree	14	3.6	3.6	100.0
	Total	392	100.0	100.0	

Frequencies

Statistics

"just do it" describes me.

N	Valid	392
	Missing	0

"just do it" describes me.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	46	11.7	11.7	11.7
	disagree	60	15.3	15.3	27.0
	partially disagree	64	16.3	16.3	43.4
	nuetral	78	19.9	19.9	63.3
	partially agree	83	21.2	21.2	84.4
	agree	42	10.7	10.7	95.2
	strongly agree	19	4.8	4.8	100.0
	Total	392	100.0	100.0	

Frequencies

Statistics

I often send MMS without thinking.

N	Valid	392
	Missing	0

I often send MMS without thinking.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	56	14.3	14.3	14.3
	disagree	107	27.3	27.3	41.6
	partially disagree	75	19.1	19.1	60.7
	nuetral	67	17.1	17.1	77.8
	partially agree	51	13.0	13.0	90.8
	6.00	26	6.6	6.6	97.4
	strongly agree	10	2.6	2.6	100.0
	Total	392	100.0	100.0	

Frequencies

Statistics

"I create an MMS, I send it" describes me.

N	Valid	392
	Missing	0

"I create an MMS, I send it" describes me.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	66	16.8	16.8	16.8
	disagree	67	17.1	17.1	33.9
	partially disagree	58	14.8	14.8	48.7
	nuetral	55	14.0	14.0	62.8
	partialy agree	76	19.4	19.4	82.1
	agree	50	12.8	12.8	94.9
	strongly agree	20	5.1	5.1	100.0
	Total	392	100.0	100.0	

Frequencies

Statistics

"Send and MMS now, think about it later" describes me.

N	Valid	392
	Missing	0

"Send and MMS now, think about it later" describes me.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	77	19.6	19.6	19.6
	disagree	80	20.4	20.4	40.1
	partially disagree	81	20.7	20.7	60.7
	nuetral	38	9.7	9.7	70.4
	partially agree	59	15.1	15.1	85.5
	agree	31	7.9	7.9	93.4
	strongly agree	26	6.6	6.6	100.0
	Total	392	100.0	100.0	

Frequencies

Statistics

Sometimes I feel like sending MMS on the spur of the moment.

N	Valid	392
	Missing	0

Sometimes I feel like sending MMS on the spur of the moment.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	69	17.6	17.6	17.6
	disagree	38	9.7	9.7	27.3
	partiallly diisagree	65	16.6	16.6	43.9
	nuetral	66	16.8	16.8	60.7
	partial;y agree	91	23.2	23.2	83.9
	agree	51	13.0	13.0	96.9
	strongly agree	12	3.1	3.1	100.0
	Total	392	100.0	100.0	

Frequencies

Statistics

i send MMS according to how i feel at the moment.

N	Valid	392
	Missing	0

i send MMS according to how i feel at the moment.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	36	9.2	9.2	9.2
	disagree	54	13.8	13.8	23.0
	partially disagree	46	11.7	11.7	34.7
	nuetral	60	15.3	15.3	50.0
	partially agree	76	19.4	19.4	69.4
	agree	83	21.2	21.2	90.6
	strongly agree	37	9.4	9.4	100.0
	Total	392	100.0	100.0	

Frequencies

Statistics

I carefully plan most of my messages.

N	Valid	392
	Missing	0

I carefully plan most of my messages.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	49	12.5	12.5	12.5
	disagree	46	11.7	11.7	24.2
	partially disagree	43	11.0	11.0	35.2
	nuetral	56	14.3	14.3	49.5
	partially agree	72	18.4	18.4	67.9
	agree	84	21.4	21.4	89.3
	strongly agree	42	10.7	10.7	100.0
	Total	392	100.0	100.0	

Frequencies

Statistics

Sometimes i am a bit reckless about sending MMS.

N	Valid	392
	Missing	0

Sometimes i am a bit reckless about sending MMS.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	27	6.9	6.9	6.9
	disagree	71	18.1	18.1	25.0
	partially disagree	72	18.4	18.4	43.4
	nuetral	88	22.4	22.4	65.8
	partially agree	91	23.2	23.2	89.0
	agree	33	8.4	8.4	97.4
	strongly agree	10	2.6	2.6	100.0
	Total	392	100.0	100.0	